

UNIVERSITY OF HORTICULTURAL SCIENCES  
BAGALKOT – 587104, KARNATAKA

# ANNUAL REPORT



2016-17





**Inauguration of  
College Building at  
COH, Bengaluru**

**Field Visit by Hon'ble  
Minister for  
Horticulture, GOK,  
Shri S.S. Mallikarjun**



**Inauguration of  
Horticulture Mela 2016  
by Bagalkot , ZP  
President Smt. Veena  
Kashayapanavar**





**UNIVERSITY OF HORTICULTURAL SCIENCES, BAGALKOT**



# UNIVERSITY OF HORTICULTURAL SCIENCES, BAGALKOT

## **Eighth Annual Report**

**(1<sup>st</sup> April, 2016 to 31<sup>st</sup> March, 2017)**

### **EDITORIAL COMMITTEE**

<b>Chairman</b>	- Dr. H.B. Lingaiah, Director of Education
<b>Co-Chairman</b>	- Dr. Y.K. Kotikal, Director of Extension
<b>Members</b>	- Dr. V. Nachegowda, Director of Research - Dr. N. Basavaraj, Dean PGS - Dr. M.S. Kulkarni, Dean Student Welfare - Dr. K.N. Kattimani, Administrative Officer - Dr. M.G. Kerutagi, University Librarian - Sri. Murali, Comptroller - Sri Vijaykumar Jotennavar, Estate Officer - Dr. Ashok Alur, Special Officer, PPMC - Dr. Sachin Nandimath, Asst. Prof.
<b>Member Convener</b>	- Dr. K.M. Indresh, Registrar

**Published By** : Dr. D.L. Maheswar, Vice-Chancellor, UHS, Bagalkot

**Edited by** : Dr. Ashok S Alur, Special Officer, PPMC

**Compiled By** : Basavarajappa H. R, Asst. Prof., PPMC

**Technical Assistance** : Smt. Sunita M Patil, Technical Assistant, PPMC

**DTP Assistance** : Mr. Basavaraj G Khyadi, ACCO, PPMC

: Mr. Vidyadhar V Badiger, Steno, RO, Bengaluru

## **DR. D.L. MAHESWAR**

Vice Chancellor  
University of Horticultural Sciences  
Udyanagiri, Navanagar  
Bagalkot-587104



# PROLOGUE.....

---

The University of Horticultural Sciences has achieved new pinnacle in academic excellence, research and transfer of technology through innovative outreach activities. The university and its constituent colleges have been accredited by National Agriculture Education Accreditation Board (NAEAB), ICAR, New Delhi till March 10, 2019. The University is bestowed with National Excellence award from ICAR for securing first position in JRFs under Horticulture and Forestry sector in 22<sup>nd</sup> AIEEA-PG 2016. Karnataka State Higher Education Council (KSHEC) has conferred the University with Three Star rating. The University has been ranked number 13 amongst the Farm Universities of the nation for the year 2016-17. I express my heartfelt gratitude to the faculty and students for their great endeavor in providing the new growth trajectory to the University in short span of eight years of its establishment and bringing laurels to the University.

Institutional and human resource capacity enhancement through state of the art infrastructure development and training to the faculty at national and international level has been incessant concern of the University administration. The University has extended its humane touch through the faculty and students in several informal and formal consultations and campaigns with the farming community by its remarkable participation. A reflection from the farming community was evidently expressed for the innovative outreach efforts from the faculty of the university. Efforts have been made to network with the development departments of the state government through training and capacity building of their technical staff. The University has developed collaborations with government, non-government institutions of national and international importance to promote collaborative research for development.

Outstanding co-curricular performances of students including study exchange programs have brought laurels to the university. Striving efforts of the scientists through their research projects have been immensely intensifying in the recent past to foresee a more tangible and practical outputs. I strongly believe that the changed wave with an intense quality tread in the system would pave a way for a more impressive advancement to fulfill the vision, mission and mandate of the University.

Coping to the dire needs and necessities of the institution, quite a few national important thematic programmes like Soil Health Mission, Mera Gaon Mera Gaurav, Adarsh Gram, Swachh Bharat Abhiyan and Krishi Bhagya *etc.*, have been greatly facilitated. Farmer centric need based training and capacity building activities are being emphatically supported along with advanced technical exposure to the technical staff of the state department. New initiatives of the University *viz.*, Green Graduation, Prativar Parihaara, Udyana Sahaya Vani- Toll free helpline number to farmers, Farmers to farmers training and Udyana Mitra are the exceptional steps in taking the University closer to the nature and the farming community in solving their location specific problems. Determined enthusiasm and commitment of the faculty and students in the institutional system is significantly reflected in the development of the university.

I express my appreciation to the members of the Annual Report drafting committee for organising the contents in an appreciable manner. We have miles to go and I am confident that our University will stand tall among the distinct centres of learning.



**(D.L. MAHESWAR)**

Vice Chancellor  
UHS, Bagalkot

# CONTENTS

Particulars		Page No.
	<b>Highlights of 2016-17</b>	01
<b>1</b>	<b>Introduction</b>	04
<b>2</b>	<b>Management and Administration</b>	06
	2.1 Authorities of the University	06
	2.2 Authorities of the University and Meetings	06
	1. Board of Management	06
	2. Officers of the University	06
	3. Academic Council	07
	4. Research Council	07
	5. Extension Education Council	07
	6. Sports and Cultural Council	07
	7. Board of Studies (Graduate Program)	07
	8. Board of Studies (Post Graduate Program)	08
	9. Finance Committee	08
	2.3 Faculty Position	08
<b>3</b>	<b>Teaching</b>	09
	3.1 Student Enrolment and Out-turn	10
	3.2 Academic Excellence	10
	3.3 Scholarships	11
	3.4 Laptop Distribution	12
	3.5 Student Ready	12
	3.6 Placement Cell	14
	3.7 Alumni Association	15
	3.8 Post Graduate Research	15
	3.9 Interactive PG Poster Seminar	34
	3.10 Cocurricular Activities	34
	3.11 Sports and Games	35
	3.12 Cultural Activities	36
	3.13 Literary Competition	37
	3.14 Youth Red Cross	37
	3.15 Health Camp	38
	3.16 Swachh Bharat Abhiyan	38
	3.17 Student Amenities	38
	3.18 Knowledge and Information Centre	38
<b>4</b>	<b>Research</b>	40
	4.1 Thrust areas of Research	40
	4.2 Seasonal Conditions and Crop Performance	40
	4.3 Significant Research Accomplishments	41
	4.4 Technologies Developed and Approved for inclusion in the POP	42
	4.5 Farm Trials / Multi Location Trial	45
	4.6 Projects	47
	4.7 Annual Technical Meetings	53

	4.8	Important Activities of the Directorate of Research	53
<b>5</b>	<b>Extension</b>		58
	5.1	Objectives	58
	5.2	Important Extension Activities	58
	5.3	Horticultural Extension Education Units (HEEUs)	60
	5.4	Summer and Winter Schools	62
	5.5	Skill Development Training in Horticulture	62
	5.6	Agri. Clinic and Agri. Business Centre (ACABC)	63
	5.7	Induction Training	63
	5.8	Regular Publications of University	63
	5.9	Krishi Vigayana Kendra (KVK), Kolar	63
<b>6</b>	<b>Research Publications</b>		69
	6.1	Research Papers published in Scientific National / International Journals	69
	6.2	Papers presented and published in Seminar / Symposia / Workshops	80
	6.3	Research Note / Communication in Journal / Abstract in Symposium / Seminar / Workshop / Training Manual / Proceedings of Workshop	86
	6.4	Books / Booklets / Chapters in Standard Books	86
	6.5	Popular Articles	87
	6.6	Folders	88
<b>7</b>	<b>Finance and Budget</b>		90
<b>8</b>	<b>Physical Infrastructure (Civil Works)</b>		91
<b>9</b>	<b>Human Resource Development</b>		93
	9.1	Overseas Visits	93
	9.2	Out of State	94
	9.3	Within the State	101
	9.4	Deputation of Teachers for Higher Studies	106
	9.5	Faculty Development Programme	107
	9.6	Faculty Sports	107
<b>10</b>	<b>Awards and Honours</b>		108
	10.1	Certificate of Accreditation by NAEAB	108
	10.2	National Excellence Award	108
	10.3	KSHEC Rating	108
	10.4	Rating of University among SAUs by ICAR	108
	10.5	International / National Awards; Best Scientist / Paper presentation Awards; other honour and recognitions	109
<b>11</b>	<b>Project Planning and Monitoring Cell (PPMC)</b>		110
	11.1	Development of project proposals for funding	110
	11.2	Collaborations of the UHS-B	110
	11.3	UHS-B Membership for National Knowledge Network (NKN)	111
	11.4	All India Survey on Higher Education (AISHE) Membership.	111
<b>12</b>	<b>Implementation of Right to Information Act, 2005 and Statutory Cells</b>		112
	12.1	Statutory Cells	113
<b>13</b>	<b>Other Significant Events</b>		116
	13.1	Convocation	116

	13.2 URC Team at UHS-B	117
	13.3 ICAR Accreditation Team at UHS-B	117
	13.4 Institutional Capacity Building	117
	13.5 Foundation Day	117
<b>14</b>	<b>New Initiatives</b>	<b>118</b>
	14.1 Green Graduation – A Novel Concept	118
	14.2 Udyana Sahaya Vani – Toll free Helpline to Farmers	118
	14.3 Prativara Parihara	118
	14.4 Technology transfer from Awardee Farmers to Farmers	119
	14.5 Udyan Mitra (Horti App) – Farmers Friend in Need	119
<b>15</b>	<b>Annexures</b>	<b>120</b>
	I Hon'ble Members, Board of Management	120
	II Officers of the University	121
	III Members of the Academic Council	122
	IV Members of the Research Council	123
	V Members of the Extension Education council	124
	VI Members of the Sports and Cultural Council	126
	VII Members of the board of Studies (Graduate Program)	127
	VIII Members of the Board of Studies (Post Graduate Program)	128
	IX Members of the Finance Committee	130
	X Meetings of the Authorities of the University	131
	XI Existing Staff Position of the University	132
	XII Regional Horticultural Research and Extension Centres (RHREC) & Horticulture Research and Extension Stations (HRES)	134
	XIII All India Co-ordinated Research Projects (AICRP) Centres	135
	XIV Distinguished Visitors	136
	XV Training programmes organized	140
	XVI Scientists as Resource Person	148
	XVII Diagnostic Field Visits by the Scientists	149
	XVIII Demonstrations and Trials	165
	XIX Field Days Organized	169
	XX Workshops Organized	170
	XXI Participation in Exhibition	171
	XXII Radio Talks and T.V. Programmes	173
	XXIII Institutional Advisory SMS Services	174
	XXIV Chemical Testing Trials	190
	XXV Seeds and Planting Materials	192
	XXVI Section 4(1) (B) (xvi) of the RTI Act, 2005 officers name and designation	193
	XXVII Important Visits of Hon'ble Vice-Chancellor	196
<b>16</b>	<b>Abbreviations</b>	<b>200</b>

## HIGHLIGHTS OF 2016-17

### Teaching

- During the academic year 2016-17, 742 students were admitted for different courses. Of these, 506 students were admitted to B.Sc. (Hort.) and B.Tech (Food Technology) courses, whereas 148 and 38 students were admitted to Master and Doctoral degrees respectively. The number of students admitted to Diploma were 50.
- The total students on roll were 2294 comprising of 1201 boys and 1093 girls. Out of 742 students admitted during 2016-17, 380 were boys and 362 were girls.
- Five hundred and six (506) students comprising of 253 boys and 253 girls in B.Sc. Horticulture and B.Tech (Food Technology) were admitted as new entrants.
- The College of Horticulture Engineering & Food Technology (CHEFT) has been functional from the academic year 2016-17 at Haveri.
- During the 22<sup>nd</sup> All India Entrance Examination for Agriculture (AIEEA-PG 2016) conducted by ICAR, 169 students of constituent colleges of UHS, Bagalkot qualified in JRF examination and 10 students secured JRF rankings and 16 students were awarded SRF rankings.
- The team 40 students from UHS, Bagalkot participated in the 17<sup>th</sup> All India Inter Agri. University Youth Festival held at Sports and Games Meet organized at Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana from 25<sup>th</sup> to 29<sup>th</sup> March, 2017. Our students Sumanth B.T. from COH, Sirsi, Santosh Hadagali & Nitinakumar from COH, Bagalkot and Shivaprakash from COH Kolar have won second position in 4x400 m Relay and Sumant B.T. from COH, Sirsi has won Third position in 200 m Athletics.
- NSS has been introduced in our university as compulsory course for II year B.Sc. (Hort.) students and I year Diploma students. It includes day-to-day activities, special camps and evaluation of volunteers. The selected volunteers also participated in the National Integration Camps, Republic Day parade and NSS youth festivals.
- Our NSS volunteers Praveen Mathpati from COH, Bagalkot, Vishwasgowda from KRCCH, Arabhavi and Shilpa H.S. from COH, Bengaluru participated in State Republic Day Parade Camp 2016.
- Ms. Manasa N.S. from COH, Bidar and Tejkumar B K from COH, Bagalkot Ms Neetu T.M. from COH, Munirabad have won State level Best NSS Volunteer Award, Department of Youth Empowerment & Sports, GOK from Hon'ble Chief Minister of Karnataka.
- National Integration camp was organized at the KRCCH, Arabhavi from 20-03-2017 to 26-03-2017. Around 150 volunteers from different states participated in this NI Camp.
- There are eight Youth Red Cross units functioning in each of the colleges in the University and the blood donation camps were organised.
- Kumari Deepa S, B.Sc. (Hort.) student of COH, Bengaluru participated in the State level debate competition held at Kuvempu University, Shivamogga on 03-02-2017, won First prize, and brought laurels to the University.
- Clean India Campaign "Swachh Bharat Abhiyan" initiated by Hon'ble Prime Minister of India was observed in all the constituent college and campus-cleaning activities were conducted.
- UHS, Bagalkot organized 03 Board of Studies (UG), 03 Board of Studies (PG), 03 Academic Council, one each of Research Council, Extension Education Council and Sports & Cultural Council, 02 Finance Council and 04 Board of Management meetings during 2016-17.
- The students' counselling and placement cell in all the colleges are acting as liaison between the

university colleges and organizations / institutes, which are in need of graduates. During the year, 145 students were placed in different public and private organizations and 200 students have opted for higher studies.

- UHS, Bagalkot has successfully organized Career Mela to the graduates of the university at the Bengaluru on 5<sup>th</sup> November, 2016 and second Career Mela was organised at UHS, Bagalkot on 25<sup>th</sup> Jan, 2017.

### Research

- The Research activities of the University mainly focused on crop improvement, crop production and crop protection aspects for adoption by the farming community for overall increase in horticultural production and productivity, besides solving location specific problems.
- University has approved and recommended for release of one new crop variety of Aster: AAC-1 and 2 crop varieties for adoption a) Anthurium Saffron and b) Coriander Hisar-Sugandha. A total of 26 Technologies were accepted for package of practice comprising 08 in Crop Improvement, 07 in Crop Production, 05 in Crop Protection, 03 in Postharvest Technology and 03 Social and Allied Sciences.
- There are 42 ongoing external funded projects worth of Rs. 1884.84 lakhs operating at UHS, Bagalkot, which include 05 newly received projects during the year 2016-17.
- There are 464 ongoing UHS funded in-house projects operating at UHS, Bagalkot.
- Sixty-seven Farm Trials (33 ongoing and 23 new) for technologies developed by UHS, Bagalkot, 11 for technologies developed by IIHR and 05 for Multi Location trials were accepted.
- During the year 2016-17, 42 chemical testing trials worth of Rs.61.28 lakhs sponsored by different institutions were tested.
- Annual Technical Committee Meetings of 10 disciplines were conducted at different research stations and colleges of the University during

February and March, 2017 and discussed about ongoing and new experiments.

- Regional Horticultural Research and Extension Advisory and Project formulation (RHREA&PF) Workshop of Northern Region of Karnataka was conducted on 24<sup>th</sup> and 26<sup>th</sup> April, 2017 and Southern Region of Karnataka was conducted on 2<sup>nd</sup> to 4<sup>th</sup> May, 2017
- The Cropping Plan Meeting of Southern Region was conducted on 05-05-2016 and Northern Region was held on 11-05-2016.
- A Total of 4.06 lakhs rooted cuttings, grafts, layers, banana tissue culture plants, seedlings of various crops were multiplied and distributed to the farmers.
- During the year 2016-17, about 5,505 kg of seeds of horticulture crops were produced and distributed to the farmers.
- The University of Horticultural Sciences, Bagalkot organized “Sasya Santhe” programme at the MHREC, UHS, Bagalkot on 11<sup>th</sup> June, 2016.

### Extension

- The Directorate of Extension, UHS, Bagalkot has been proactive in reaching the unreached farmers by organizing exclusive need based frontline extension activities for effective dissemination of recently released technologies. At present the university has one KVK and 12 HEEUs under the university jurisdiction.
- The fifth Totagarike Mela was organized from 17-19 December 2016 at Main Campus, with a main theme of “**Horticulture for Inclusive Income Growth**”. Smt. Veena V. Kashappanavar, President, ZP, Bagalkot inaugurated the Mela in the presence of Hon’ble Board Members of the University, Dr. D. L. Maheswar, Hon’ble Vice-Chancellor and other distinguished guests.
- The Totagarike Mela showcased technological development in horticulture in particular and in agriculture in general 450 stalls by SAUs, ICAR Institutions, Private firms and SHGs.
- More than two lakh farmers, farm women, students, school children, youths, public, staff of

all line departments from all the districts of Karnataka and neighbouring States Maharashtra and Andhra Pradesh witnessed the mega event.

- On this occasion the 22 Best Horticulture Farmers/Farm women from districts coming under the jurisdiction of the university were felicitated and a book containing their achievements entitled "Phala Shrestaru-2016" was also released.
- This has been another excellent year for educating the end users through various on field and off field training organized by the HEEUs, KVK, Research stations and constituent colleges of the University. During the year 2016-17, 225 training programmes were organized for the benefit of end user with the financial support of public organizations like ICAR, State Dept. of Horticulture, KCDC, NRC-Banana etc.
- The scientists of the University participated as resource persons in 422 training programmes organized by University and other line departments of Horticulture and Agriculture.
- The scientists of the University made visits to farmers' field to diagnose the problems and gave suitable suggestions /solutions to the needy farmers. During the reporting period, the University scientists made 201 such visits to the farmers' field.
- To validate and popularize the production technologies of the University, the scientists conducted 77 different demonstrations and farm trials in the farmers' fields.
- Totally 23 field days were organized during the year on different crops in different villages.
- The University scientists have given 63 radio talks and 34 TV interviews for disseminating the technologies with respect to crop production, protection, value addition, IFS etc.
- During the year 2016-17, the University organized 10 exposure visits to the various institutions for the benefit of 405 farmers.
- Institutional Advisory SMS Services, the Directorate of Extension has sent a total 91

messages to 7,34,002 registered farmers on various aspects during 2016-17 across the state.

- The UHS, Bagalkot celebrated important Days' viz., World Environmental Day, World Soil Day, World Food Day and Farmers Day to create awareness and inform the significance of these Days' to students and farmers.
- The KVK, Kolar organised 65 training programmes, 51 Visits of Scientists as resource person, 14 front line demonstrations and 05 on-farm testing trials, 7 field days, 6 workshops, 03 participations in Krishi Mela exhibition and 09 days of importance.
- The Directorate of Extension has brought out the following 58 Kannada publications in the form of folder/leaflets/Bulletins during 2016-17 to provide technological information for farmers spread across the state.
- The Faculty members and the research scholars has published 08 papers of more than 7.0 NAAS rating, 72 papers of 5.0 to 7.0 NAAS rating and 121 papers of less than 5.0 NAAS Rating and presented 98 papers in referred journals, souvenir of various international/national symposiums, conferences etc. and 26 popular articles both in English and Kannada.

### **Finance and Budget**

- During the year 2016-17, the total allocated budget of the University was Rs. 9962.58 lakh.

### **Physical Infrastructure**

- During the period under report 23 civil works were sanctioned by the University, 09 works were completed by the Estate branch and 08 works were under progress.

## 1. INTRODUCTION

Karnataka is one of the predominant horticulture state in India and has been the forerunner in horticultural development. With its unique capacity of producing high quality horticulture crops such as plantation crops (stands first in area and production in India); flowers (stands second in area and production in India); fruits (stands fourth in area and sixth in production in India); vegetables (stands eighth in area and production in India) and spices (stands fourth in area and 7<sup>th</sup> in production in India). Horticulture sector is contributing more than 40 per cent to agriculture GDP in Karnataka. As people are becoming more health and nutritional conscious, demand for horticulture produce is steadily increasing. Realising the importance of horticulture the State Government of Karnataka established the University of Horticultural Sciences at Bagalkot on 22-11-2008. The establishment of Horticulture University is aimed at supporting the sustainable production and commercialisation of horticulture in the State.

The growth of the university in a span of eight years has been phenomenal. Presently, University is having 9 constituent colleges, 11 HRES, 10 AICRP Centres, 10 Centres of Excellence, one KVK and 12 HEEUs covering 23 districts of Karnataka. The degree programs offered in the university include B.Sc (Hons) Hort., B.Tech (Food Technology). The post graduate programs are M.Sc. (Hort.) with specialization in 9 disciplines Fruit Science, Vegetable Science, Floriculture&Landscape Architecture (FLA), Plantation Spices Medicinal and Aromatic crops

(PSMA), Post-harvest Technology (PHT), Entomology, Plant Pathology, Soil Science & Agricultural Chemistry (SS & AC) and Biotechnology and Crop Improvement (BCI). The Doctoral degree programs are offered in 8 disciplines viz. Fruit Science Vegetable Science, PSMA, FLA, PHT, Entomology, Plant Pathology and BCI. A two years Diploma in horticulture is offered at 4 campuses and one-year PG diploma in Viticulture & Oenology and PHT of horticulture crops are also offered at Bagalkot and Bengaluru campuses respectively.

### 1.1 The Vision

- To attain excellence in academics by imparting quality education to develop professional human resource with entrepreneurial skills, addressing the thrust areas of research to develop advanced technologies and to promote farmer centric technology transfer for holistic growth of horticulture sector.

### 1.2 The Mission

- Adoption of advanced system of quality education and professional teaching with collaborative and participatory research with incubating technology transfer system for inclusive growth of various stakeholders in horticulture sector.

### 1.3 Mandate

The University of Horticultural Sciences, Bagalkot has the following mandates:

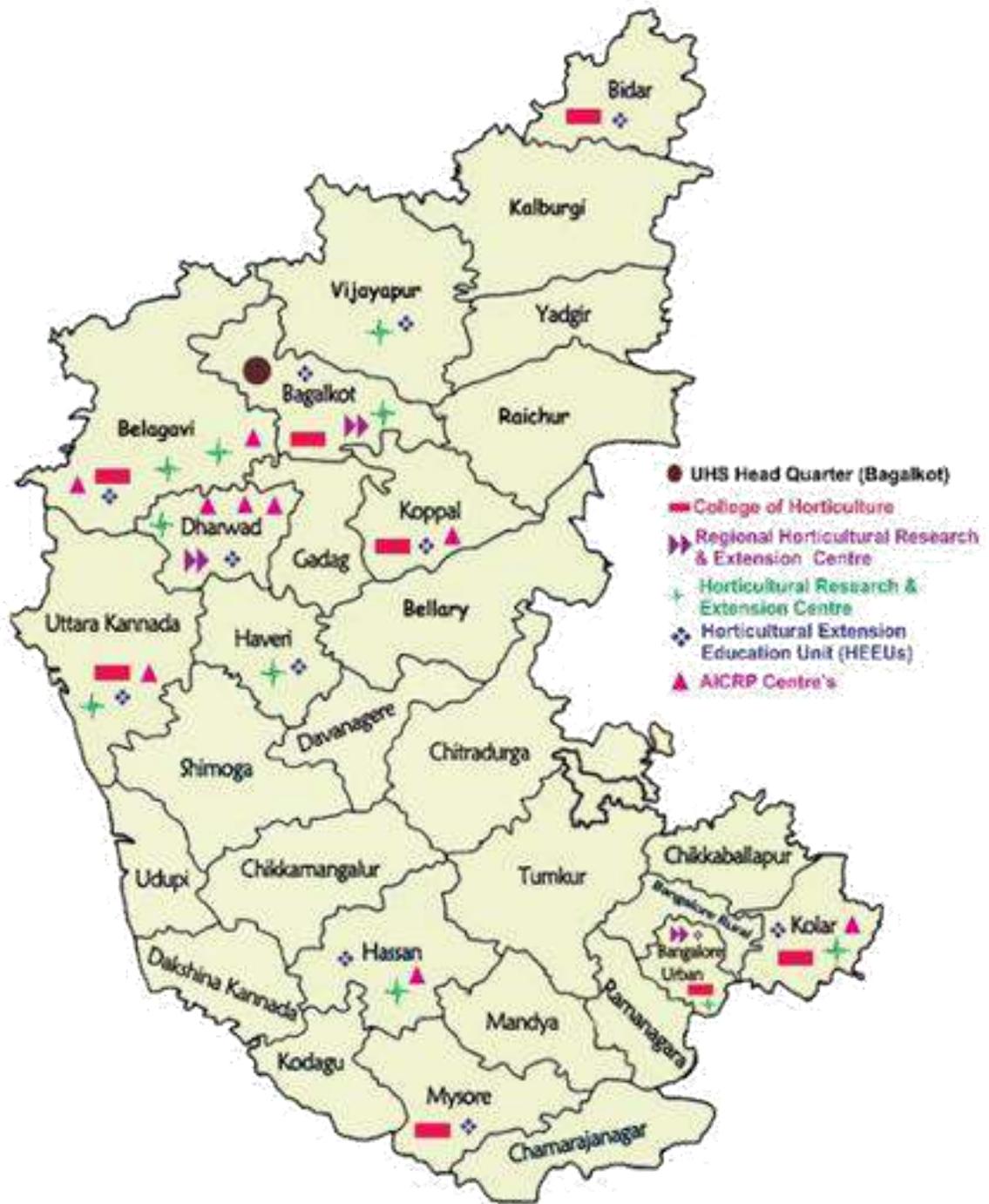
- Imparting quality education in all branches of horticulture and allied disciplines.

- Conducting applied strategic and basic research in all branches of horticulture and allied disciplines.
- Conducting and facilitating transfer of technologies to the benefit of farming community through effective extension education mechanisms and technology enabled outreach programs.
- Undertake such other activities as the state government may specify by notification in the official gazette from time to time.

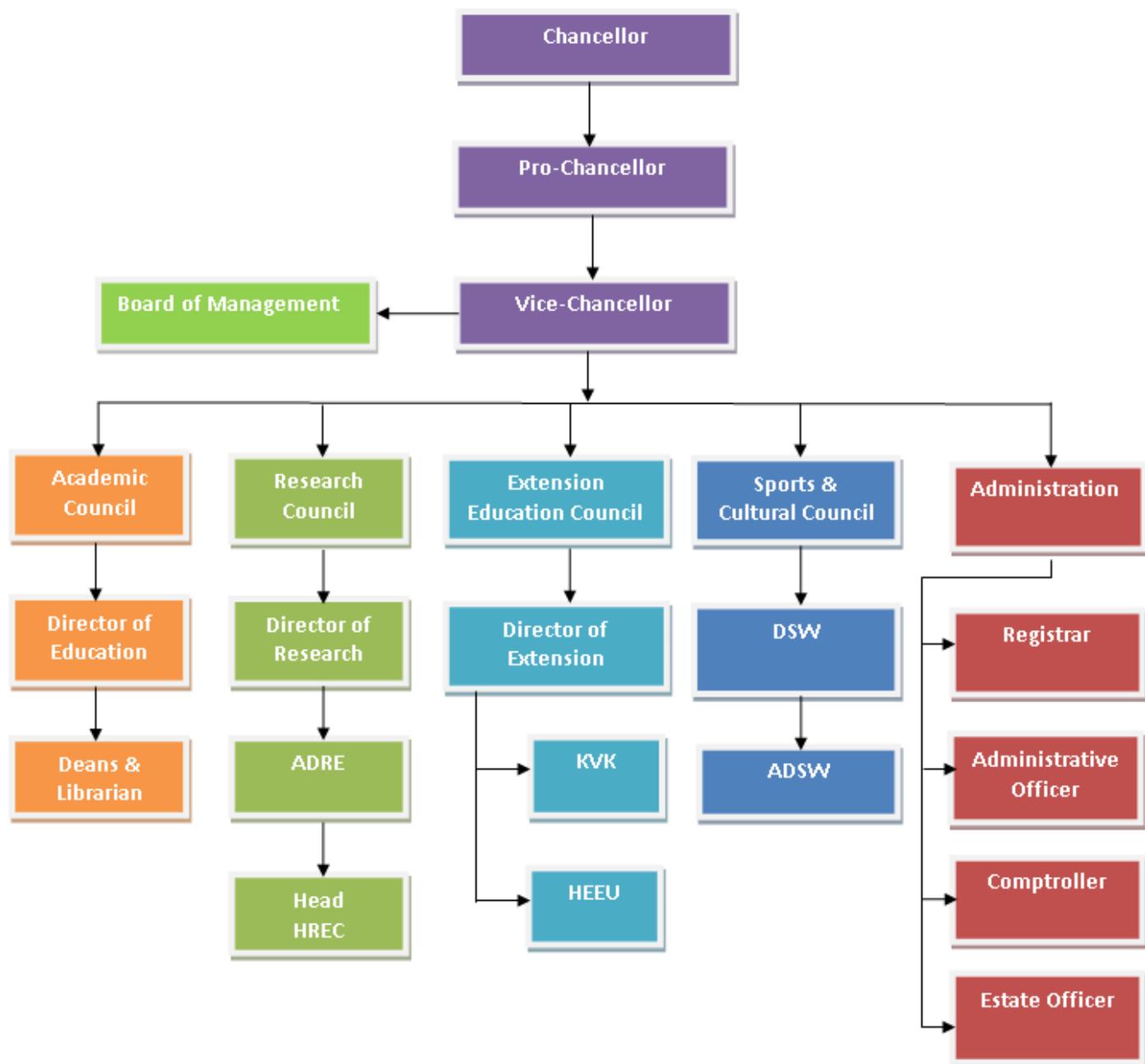
The University is governed by the Board of Management comprising of 17 members with Vice-Chancellor as its Chairperson. The Vice-Chancellor is supported by the officers in the university viz., Director of Education, Registrar, Director of Research, Director of Extension, Dean of

PG Studies, Dean of Students Welfare, University Librarian, Deans of Constituent Colleges, Administrative Officer, Comptroller and Estate Officer in handling teaching, research, extension, administration and finance matters. The academic matters are looked after and guided by the Academic Council under the Chairmanship of the Vice-Chancellor. The Research and Extension programs are formulated and guided by the Research and Extension Education Councils under the Chairmanship of the Vice-Chancellor.

The eighth Annual Report of University of Horticultural Sciences, Bagalkot showcases activities and significant achievements of the University in the fields of Teaching, Research and Extension during the period from **1<sup>st</sup> April 2016 to 31<sup>st</sup> March 2017**.



**University Jurisdiction in Karnataka**



## Organogram of the UHS-Bagalkot

## 2. MANAGEMENT AND ADMINISTRATION

The management and administration of the university is guided by His Excellency, the Governor of Karnataka, Shri Vajubhai R. Vala, the Chancellor of the university. The Minister for Horticulture, Government of Karnataka, Sri. S.S. Mallikarjun, is the Pro-Chancellor of the University. Dr. D.L Maheswar, is the Vice-Chancellor of the University who spearheads and steers the day to day functioning of the university and acts as Chief Executive in guiding the university to the pinnacle of excellence in teaching, research and transfer of technology through innovative outreach programs. The administration of the university is undertaken through the following boards and councils.

### 2.1 Authorities of the University

1. Board of Management
2. Officers of the University
3. Academic Council
4. Research Council
5. Extension Education Council
6. Sports and Cultural Council
7. Board of Studies (Graduate Program)
8. Board of Studies (Post Graduate Program)
9. Finance Committee

### 2.2 Authorities of the University and Meetings

**1. Board of Management:** The Board of Management (BOM) of university is the apex body that makes policy decisions and responsible for the overall administration of the university. The Vice-Chancellor is the Chairman of the BOM. The BOM of university comprises of Principal Secretary to the Government-Horticulture Department, Principal Secretary to the Government – Finance Department, two representatives of State Legislative Assembly, one representative of the Legislative Council, one Eminent Educationist, three Progressive Horticulture Farmers, one Agro-Industrialist and one Outstanding Woman Social Worker. Besides these, one representative from Indian Council of Agricultural Research(ICAR), Director of Education, one Dean of any of the constituent college of the university and the Registrar, as its Member Secretary. The details of

the members of BOM is given in Annexure-I. During the reporting period, four meetings of the BOM were held (Annexure-X). Important resolutions include, 1) Reimbursement of fifty per cent (50%) of institutional economic fee collected by university for the development of respective college from foreign national students for the development of Host College (2) Proposal for setting up an External Examination Cell/Section at UHS, Bagalkot (3) Implementation of Governor's office guidelines for conducting University BOM Meetings (4) Affiliation of private colleges to organise diploma and degree programmes under UHS, Bagalkot and (5) Extension of pay protection for permanent employees who have appointed on experienced based post at UHS, Bagalkot from different government institutes / ICAR / Coffee / Silk / Rubber boards.

**2. Officers of the University:** The Vice-Chancellor is the Academic Head and Chief Executive of the university who spearheads the overall administration of the university. The Director of Education is responsible for coordination of teaching, research and extension programs. The Director of Research leads the research division of the university and provides guidance and suggestions for research programs and projects. The Director of Extension leads the transfer of technology and innovative outreach activities and monitors the overall extension activities in the university. The Dean (PGS) is responsible for the administration and management of Post Graduate studies and monitoring of Diploma program. The Dean Student Welfare guides and monitors the students' activities of the university. Deans of all constituent colleges are responsible for implementing teaching, research and extension programs and all planned activities in the respective colleges. The Registrar is responsible for due custody of records and acts as the common seal of the University. The Administrative Officer looks into the human resource development and general administration of the university. The University Librarian takes care of the university library,

innovative information sharing and guides the development of libraries in the constituent colleges. The Comptroller is responsible for the overall financial management, while the Estate Officer looks after the civil works and other development activities of the university. The list of University officers for the period under report is given in Annexure - II.

**3. Academic Council:** The academic council is vested with the powers to make regulations for academic programs and have general control on teaching, research and extension education in the University. The Vice-Chancellor is the Chairperson of the Council and Director of Education is the Member Secretary. Three meetings of the council were held during the period and important decisions like, (1) Approval for 4 new MOU's (2) Implementation of recommendations of Vth Dean's Committee syllabus for graduate programs and (3) Adoption of Student READY programme *etc.*, were made. The details of the members of the Academic Council are given in Annexure – III.

**4. Research Council:** The research council is vested with the powers to consider, review and recommend and guide various research programs and projects of the university. The Research Council is headed by Vice-Chancellor and Director of Research acts as the Member Secretary. The 7<sup>th</sup> Research Council was held on 18-07-2016 and important decisions like (1) Institution of Best Performing Research Station Award to encourage high quality research programs and outputs (2) Linking of the university and externally funded to PG research programs and (3) Establishment of Centre of Excellence for Jackfruit at Kolar were taken. The details of the members of the Research Council are given in Annexure – IV.

**5. Extension Education Council:** The Extension Education Council is vested with the powers to consider and make recommendations regarding transfer of technology for the improvement of horticulture and allied disciplines and for the development of rural farming communities and other stakeholders in Horticulture sector. The Extension Education Council is headed by the Vice-Chancellor and the Director of Extension is the Member Secretary. The details of the members of the

Extension Education Council are given in the Annexure–V. During 2016-17, the 7<sup>th</sup> Extension Education Council meeting held on 17-07-2016 and important resolutions include (1) Accorded approval for the publications brought out from Publication Centre of Directorate of Extension, during the period from April-2015 to March – 2016. (2) The Council appreciated the construction of Raita Vikas Bhavana in the main campus. The proposal for constructing farmer's hostels in 11 HEEUs was approved for submitting the same for financial support (3) The Horticulture Extension Education Units (HEEU) at Bagalkot and Yadgiri are provided with full-fledged staff consisting of 3 Subject Matter Specialist (SMS) and one Assistant Cum Computer Operator (ACCO). These two HEEU are under administrative control of Directorate of Extension, whereas the other 10 HEEUs, and their staff are under the administrative control of respective Deans of the colleges where these HEEU are located (4) To organize the Horti Fair during 2016 from 17<sup>th</sup> – 19<sup>th</sup> December successfully with theme on "Horticulture for prosperity" and (5) The action plans of HEEUs, KVK, Kolar for the year 2016-17 were approved with a suggestion to meet large number of unreached farmers.

**6. Sports and Cultural Council:** The Sports and Cultural Council is vested with the powers to consider and make recommendations pertaining to all aspects of the sports and cultural programs of the university. The Vice-Chancellor is the Chairperson of the Council and the Dean Students Welfare is the Member Secretary. The Sports and Cultural Council meeting was held on 18-07-2016 and the important resolutions of the council include, 1) Formation of Alumni Association, 2) The dates and the venue for conducting youth festival, Inter-collegiate games and sports finalized, 3) Fund mobilization for organizing sports activities from ICAR and Govt. of Karnataka were discussed and 4) Strengthening of staff for DSW office was discussed and approved. The details of the members of the committee are given in the Annexure-VI.

**7. Board of Studies (Graduate Program):** The Board of Studies (Graduate Program) is vested with the powers to review and recommend curricula to the

Academic Council and all other related issues of the graduate programs of the university. During the current academic year, three meetings of the Board of Studies (Graduate Program) were held and the important resolutions include, 1) Awarding Gold Medal for best outgoing student of B.Sc. (Hort) degree program in all the colleges based on score card and 2) Change of nomenclature of the degree program B.Tech (Food Technology) instead of existing name, etc. The members of the BOS (Graduate Program) are given in the Annexure–VI.

**8. Board of Studies (Post Graduate Program):** The Board of Studies (PG Program) is vested with the powers to review and recommend all the curricula related issues of PG programs of the University. Three meetings were held during the period and important decisions include, (1) Recommendation to start Master’s Degree Programs in Biotechnology as well as in Genetics and Plant Breeding instead of Biotechnology and Crop Improvement from the academic year-2017-18 and (2) Authorized the Registrar to sign the MOU with IIOPR, Pedavegi after getting approval from the Academic Council. (3) To

initiate action on signing of MOU with CFTRI and DFRL, Mysuru. The details of the members of the Board of Studies (Post Graduate Program) are given in the Annexure –VIII.

**9. Finance Committee:** The Finance Committee is vested with the powers to scrutiny the annual financial estimates of the university, review of annual audit, examine all financial proposals and recommend the Board of Management. Two meetings of the Finance Committee were held during the period in the month of April 2016 and January 2017. The decisions of implementing the foundation fund and submission of audit compliance report to the government for the year 2012-13, 2013-14 and 2014-15 were taken. The details of the members of the Finance Committee are provided in Annexure-IX.

### 2.3 Faculty Position

The cadre wise strength of teaching and supporting staff of the university is given in the following Table and details of faculty working in various constituent colleges, HRESs, HEEUs, KVK and administration are given in Annexure – XI.

Faculty	Sanctioned	Filled	Vacant
Officers	9	7	2
Dean	8	8	0
Professor	39	18	21
Associate Professor	84	29	55
Assistant Professor	280	253	27
Technical /Research Assistant / Farm Manager / Prog. Asst.	19	16	3
<b>Total</b>	<b>439</b>	<b>331</b>	<b>108</b>
<b>Non-Teaching</b>	<b>937</b>	<b>454</b>	<b>483</b>
<b>Grand Total</b>	<b>1376</b>	<b>785</b>	<b>591</b>

### 3. TEACHING

Presently, University has 9 constituent colleges and 11 research stations. The College of Horticulture Engineering & Food Technology (CHEFT) has been functional from the academic year 2016-17 at main campus initially and later to be shifted to Devihosur in Haveri district. Over the years, efforts have been made to diversify horticultural education by introducing specialized Post Graduate program in various disciplines of horticultural sciences. Currently, the University offers bachelors degree programs in two faculties viz., B.Sc. (Hons) in Horticulture and B.Tech in Food technology, Post Graduate program in nine disciplines viz., Fruit

Science, Vegetable Science, Floriculture & Landscape Architecture (FLA), Plantation, Spices, Medicinal and Aromatic Crops (PSMA), Post-harvest Technology (PHT), Entomology, Plant Pathology, Soil Science & Agricultural Chemistry (SS & AC), Biotechnology and Crop Improvement (BCI) and Doctoral Degree Program in eight disciplines viz; Fruit Science, Vegetable Science, FLA, PSMA, PHT, Entomology, Plant Pathology and BCI. The university also offers a two-years Diploma in Horticulture and PG diploma in two specialized subjects (Viticulture & Oenology and PHT of Horticultural crops).

#### Constituent Colleges

College		Year of Establishment	Dean	Period	Programs
1	KRCCH Arabhavi	1994-95	Dr. M. S. Kulkarni	01-06-2013 to 13-04-2017	B.Sc. (Hons.) Hort. M.Sc. (Hort.) and Ph.D.
2	COH, Bidar	2007-08	Dr. M. S. Lokesh	13-02-2014 to 26-06-2016	B.Sc. (Hons.) Hort.
			Dr. Ravindra Mulge	27-06-2016 to Till date	
3	COH, Bagalkot	2008-09	Dr. C. P. Mansur	25-05-2013 to 23-05-2016	B.Sc. (Hons.) Hort. M.Sc (Hort.), Ph.D. and Diploma
			Dr. Y. K. Kotikal	24-05-2016 to 22-06-2016	
			Dr. H.B Patil	23-06-2016 to Till date	
4	COH, Kolar	2009-10	Dr. V. Nachegowda	25-05-2009 to 20-06-2016	B.Sc. (Hons.) Hort. M.Sc (Hort.)
			Dr. K.N Sreenivas	20-06-2016 to 31-07-2017	
5	COH, Mysore	2010-11	Dr. K. M. Indiresh	03-07-2013 to 05-07-2017	B.Sc. (Hons.) Hort.
6	COH, Munirabad (Dist. Koppal)	2010-11	Dr. K. N. Kattimani	23-11-2011 to 27-06-2016	B.Sc. (Hons.) Hort.
			Dr. P. M. Gangadharappa	27-06-2016 to Till date	
7	COH, Sirsi (Dist. Uttar Kannada)	2010-11	Dr. N. Basavaraj	01-06-2013 to 27-06-2016	B.Sc. (Hons.) Hort. M.Sc (Hort.)
			Dr. S.I Athani	27-06-2016 to Till date	
8	COH, Bengaluru	2010-11	Dr. H. B. Lingaiah	25-05-2013 to 16-06-2016	B.Sc. (Hons.) Hort. M.Sc (Hort.) and Ph.D.
			Dr. K. Umesh	17-06-2016 to Till date	
9	CHEFT, Haveri	2016-17	Dr. T.B Allolli*	02-04-2016 to Till date	B.Tech. (Food Technology)

\*Nodal Officer

### 3.1 Student Enrolment and Out-turn

In the academic year 2016-17, a total of 742 students have been enrolled in the University. Out of which, 506 were enrolled in Graduate programs, 148 in Post Graduate programs, 38 in Ph.D and 50 in Diploma program. A total of 2294 students

comprising 1201 boys and 1093 girls are studying in various academic programs. It is delighting to note that 47.64 per cent of the total enrolment is girls indicating an increase of 0.74 per cent over the previous year (2015-16).

Degree	Course	Intake			On-roll			Out-turn		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
<b>Graduate</b>	B.Sc.(Hons) Hort & Food Tech	253	253	<b>506</b>	935	869	<b>1804</b>	215	186	<b>401</b>
<b>PG</b>	Fruit Science	11	12	<b>23</b>	22	26	<b>48</b>	7	4	<b>11</b>
	Vegetable Science	10	11	<b>21</b>	23	23	<b>46</b>	4	5	<b>9</b>
	FLA	8	6	<b>14</b>	13	14	<b>27</b>	3	2	<b>5</b>
	PSMA Crops	7	8	<b>15</b>	15	16	<b>31</b>	5	0	<b>5</b>
	PHT	5	14	<b>19</b>	9	28	<b>37</b>	4	1	<b>5</b>
	BCI	7	10	<b>17</b>	14	16	<b>30</b>	5	2	<b>7</b>
	Plant Pathology	9	6	<b>15</b>	17	12	<b>29</b>	3	1	<b>4</b>
	Entomology	7	7	<b>14</b>	13	16	<b>29</b>	3	4	<b>7</b>
SS&AC	6	4	<b>10</b>	11	6	<b>17</b>	1	0	<b>1</b>	
<b>Doctoral</b>	Horticulture	-	-	-	43	18	<b>61</b>	7	1	<b>8</b>
	Fruit Science	3	4	<b>7</b>	-	-	-	-	-	-
	Vegetable Science	2	2	<b>4</b>	-	-	-	-	-	-
	FLA	4	3	<b>7</b>	-	-	-	-	-	-
	PSMA	6	2	<b>8</b>	-	-	-	-	-	-
	PHT	2	2	<b>4</b>	-	-	-	-	-	-
	Plant Pathology	2	0	<b>2</b>	6	3	<b>9</b>	-	-	-
	Entomology	0	1	<b>1</b>	4	4	<b>8</b>	-	-	-
BCI	2	3	<b>5</b>	8	10	<b>18</b>	-	-	-	
<b>Diploma</b>	Horticulture	36	14	<b>50</b>	68	32	<b>100</b>	21	25	<b>46</b>
<b>Total</b>		<b>380</b>	<b>362</b>	<b>742</b>	<b>1201</b>	<b>1093</b>	<b>2294</b>	<b>278</b>	<b>231</b>	<b>509</b>

### 3.2 Academic Excellence

The university has bagged first position in the ICAR JRF award- under Horticulture and Forestry for securing highest number of JRF awards, in the 22<sup>nd</sup> AIEEA-PG 2016 conducted by ICAR. During the

year 2016-17, 10 students secured JRF and 16 students were awarded SRF. A total of 169 students of the university have qualified in JRF examination to get admissions for higher studies in other universities.

#### Students securing fellowships in constituent colleges of UHS-B

College		Number of Students awarded	
		JRF	SRF
1	KRCCH, Arabhavi	4	8
2	COH, Bagalkot	-	3
3	COH, Bangalore	-	5
4	COH, Bidar	1	-
5	COH, Kolar	3	-
8	COH, Sirsi	2	-
<b>Total</b>		<b>10</b>	<b>16</b>

### 3.3 Scholarships

The UHS-B students were provided with different scholarships and fellowships by the university as well from different donors.

#### Scholarships Awarded

Scholarship		Graduate	Post Graduate
<b>University</b>			
1	<b>Merit</b>	Rs.500 per month	PG- Rs.1000 per month Ph.D- Rs.1,500 per month
2	<b>General</b>	Rs.250/per month	-
3	<b>Student Aid Fund</b>	Rs. 2,000 per year	Rs.3000 per year
4	<b>SC/ST Fellowship</b>		PG-Rs.800 per month Ph.D- Rs.1,000 per month
<b>ICAR</b>			
1	<b>NTS</b>	Rs. 2,000per month	Rs. 3,000 per month
2	<b>JRF &amp; SRF</b>		PG-Rs. 8,640per month & Rs. 6,000 contingency/year Ph.D- Rs.12,000 per month & Rs.10,000 contingency/year
3	<b>Inspire Fellowship</b>		2,16,000 per year + HRA & 20000 contingency per year
<b>Donors Fellowships (Rs.900 per month)</b>			
<b>B.Sc.(Hort.)</b>			
1	Smt. Renuka W/o Shivaramagouda, M.P. (Koppal)		
2	In memory of Late Dr. Shashishekhar Rajshekar Kanti		
3	BSR Infratech India Ltd. (for one Boy and one Girl)		
<b>M.Sc.(Hort.)</b>			
4	In Memory of Late Shri M.R. Anandaramiah		
5	In Memory of Late Shri Veerappa Channabasappa Hongal		
6	Late Shri Mohan Ramanna Sonnad		
7	Late Shri.Bapanna Veerabhadrappe Hosamani		
8	BSR Infratech India Ltd. (for one Boy and one Girl)		
9	Totagar's Sahakar Sangh (TSS) fellowship		
<b>Ph.D.(Hort.)</b>			
10	In Memory of "Late. Sri Yamanappa Huligeppa Meti		
11	Late Dr. B.B. Hendi		
12	BSR Infratech India Ltd.		
13	Totagar's Sahakar Sangh(TSS) fellowship		
14	PNASF- Smt. Devaki Devi Ahuja Fellowship		

**Number of Scholarships awarded to students in constituent colleges**

Colleges	GOK*	UHS Merit	UHS General	Student Aid Fund	Others**	Total
KRCCH, Arabhavi	86	33	13	16	18	<b>166</b>
COH, Bagalkot	0	39	14	6	1	<b>60</b>
COH, Bangalore	0	32	7	4	11	<b>54</b>
COH, Bidar	131	11	10	7	39	<b>198</b>
COH, Kolar	132	16	12	12	4	<b>176</b>
COH, Munirabad	119	12	12	12	1	<b>156</b>
COH, Mysore	117	11	12	11	10	<b>161</b>
COH, Sirsi	115	15	10	12	33	<b>185</b>
<b>Total</b>	<b>700</b>	<b>169</b>	<b>90</b>	<b>80</b>	<b>117</b>	<b>1156</b>

\*GoK includes SWD, Muslim minority, other minority, BCM

\*\*Others include ICAR, UGC, SAFF, USWDP, Indo-Afghan, GOI and Donors

**3.4 Laptop Distribution**

Laptops were distributed to SC/ST students under STSP/TSP scheme on 15-06-2016 at UHS-B. The Vice Chancellor complemented the students and said that laptops should be utilized for exploring scientific information to gain knowledge across the globe. The

Registrar and the Director of Extension advised the students to utilize the laptops for acquiring knowledge. The Head of SC/ST Cell explained the activities being carried out for the welfare of SC/ST students and staff at UHS-B.

**3.5 Student READY**

**3.5.1 Rural Horticultural Work Experience Program (RHWEPP)**

The Graduate program of university in the last semester includes 24 weeks RHWEPP that comprises of orientation, village stay, all-India study tour, industrial placement program and report writing. In this program the students were placed in

rural areas, each student was linked to one host farmer for practical learning with regard to crop production, plant protection and rural economics to observe the dynamics of rural society. These students were further assigned to the Raitha Samparka Kendra (RSKs) to acquaint themselves regarding on-going programs of the Department of agriculture and horticulture of the state government.

**Students involved under RHWEPP**

Colleges	Raitha Samparka Kendra (RSK)	No. of Students allotted
1 Arabhavi	Gokak	54
	Koujalagi	
	Arabhavi	
2 Bagalkot	Anagavadi	59
3 Bidar	Janawad/ Mannalli	60
4 Kolar	Huttur	60
5 Koppal	Kamalapur	60
	Kampli	
6 Mysore	T. Narasipur	55
	Bannuru	
	Sosale	
	Muguru	
7 Sirsi	Pala Kasaab	51
<b>Total</b>		<b>399</b>

### 3.5.2 Experiential Learning Program (ELP) in Horticulture

The final year of Graduate program students were provided with an opportunity to get hands-on training in one of the approved modules, which is basically a business model on *Learn and Earn* concept. A batch of students were assigned to the experiential learning units in the concerned constituent college. The modules included: 1) Commercial horticulture 2) Processing of fruits and

vegetables for value addition and 3) Protected cultivation of high value vegetable crops. A total of 399 students of Graduate program have successfully completed and benefited from different ELP modules. The details of ELP conducted at various constituent colleges along with the average profit earned by the students is presented in the following table.

**Details of the Experiential Learning Modules carried out in constituent colleges of University**

Constituent Colleges	EL Modules	No. of Students	Product developed	Net profit (Rs. Lakh)	Income distributed to students (Rs. Lakh) 75%	Share income distributed /student (Rs)
Bagalkot	Commercial Horticulture	29	Production of root stocks, seedlings, cuttings, etc., of ornamental crops, fruits and vegetables crops	0.91	0.68	2372
	Processing of Fruits &Vegetables for value addition	30	Production of Beverages Minimally processed products Bakery products	2.26	1.70	1797
Arabhavi	Protected cultivation of high value horticulture crops and Commercial Horticulture	54	Production of commercial vegetables, production under protected cultivation and fruit crop nursery management	2.69	2.02	3736
Bidar	Commercial Horticulture	60	Tomato, capsicum and quality planting material of flowers & fruits.	4.14	3.10	5175
Kolar	Commercial Horticulture	61	Musk melon, Cucumber, Beans, Tomato, Capsicum, Marigold, Jack and Mango rootstocks	0.30	0.23	380
Munirabad	Commercial Horticulture and Value addition	59	Production of seedlings/cuttings etc., of fruit crops, vegetable crops, ornamental crops	0.56	.042	711

Mysuru	Commercial Horticulture, Value addition, production of bio agents and Mushroom cultivation.	55	Production of seedlings/ cuttings etc., of fruit crops, vegetable crops, ornamental crops etc. Production of Beverages Minimally processed products, Bakery products, Production of bio agents and Mushroom Production	6.80	5.10	9353
Sirsi	Commercial Horticulture	51	Black pepper, Jack, jamun plants & ginger	0.39	1.55	3069
	Processing of Fruits & vegetable for value addition		Fruit squashes, RTS beverages, mixed jam & Minimally processed products	0.63		
	Production of Bio-fertilizers & Bio-agents		Trichoderma, Pseudomonas, Metarrhizium	1.05		

### 3.6 Placement Cell

To guide and help the graduated students in finding a right career, the placement cell is working at both constituent colleges and at the University level. Most of our students have been absorbed in one or

other job, in government, non-government, semi-government and private sector organizations. Some of the meritorious students have entered the ICAR system as scientists.

#### Details of Placement and Higher studies

Degree Program	Govt. Jobs	Private Jobs	Higher studies	Job abroad	Self-Entrepreneurship	Total Students Absorbed	Total Students Studied	Percentage
Graduate	27	43	193	01	19	283	397	22.67
Post Graduate	26	03	07	-	-	36	37	97.29
Ph.D	03	-	-	-	-	03	03	100.00
<b>Total</b>	<b>56</b>	<b>46</b>	<b>200</b>	<b>01</b>	<b>19</b>	<b>322</b>	<b>437</b>	<b>73.68</b>

#### 3.6.1 Career Pathfinder Chapter-I

University of Horticultural Sciences, Bagalkot has successfully organized Career Mela to the graduates of the university at Lalbagh, Bengaluru on 5<sup>th</sup> November, 2016. The chief guest Padmashree Dr. Manamohan Attavar inaugurated the Mela and the Hon'ble Vice-Chancellor Dr. D.L. Maheswar presided over the career mela.

Eight corporate companies from various parts of the country participated to recruit the graduates and around 300 graduates participated in

the placement. Around 111 graduates found suitable job opportunities and were placed in different corporate companies.

#### 3.6.2 Career Pathfinder Chapter-II

In continuation of the successful conduct of horticultural Career Pathfinder Chapter-I, the second career fair was organized at the UHS-B main campus on 25<sup>th</sup> Jan, 2017. The career fair was organized on the next day of the convocation ceremony of the university so that the graduates can take the maximum advantage of this career fair. Three

reputed corporate companies and 95 graduates participated in this career pathfinder. Around 32 graduates were placed in different corporate companies.

### 3.7 Alumni Association

Recently Alumni Association of UHS, Bagalkot (AAUHSB) was formed and procedure of registration as per Cooperative society's act is under progress. The office bearers are identified and have been assigned with responsibilities for effective functioning of AAUHSB. Further, byelaws of the association are being formulated. After, the completion of registration, Alumni association activities will be regularly conducted for keeping in touch with graduates of UHS, Bagalkot. Moreover, it

is done in view to have better rapport with their junior friends as well as to be in touch with UHS, Bagalkot authorities, to help them in addressing the real need of horticultural graduates and in arranging programmes of horticulture development in the state.

### 3.8 Post Graduate Research

The PG Program is being offered in nine specializations and Doctoral degree in eight disciplines at five campuses of the University viz., COH Bagalkot, KRCCH Arabhavi, COH Bangalore, COH Sirsi and COH Kolar. The residential requirement for Master's and Doctoral degree programs are 2 years and 3 years respectively.

#### Discipline wise PG Research Theses Submitted to the University

M.Sc. (Hort)		
Discipline		Number
1.	Fruit Science	23
2.	Vegetable Science	10
3.	Floriculture & Landscape Architecture	13
4.	Plantation, Spices, Medicinal and Aromatic Crops	17
5.	Post Harvest Technology	17
6.	Crop Improvement & Biotechnology	11
7.	Plant Pathology	5
8.	Horticultural Entomology	6
9.	Soil Science and Agricultural Chemistry	5
Ph.D		
10.	Horticulture	12
<b>Total</b>		<b>119</b>

#### 3.8.1 Highlights of PG Research

##### I. M.Sc. (Hort.)

##### Fruit science

- Studies on canopy management of wine grapes (*Vitis vinifera* L.) under northern dry zone of Karnataka revealed that, Medika was found to be superior over other with respect to bunch breadth, bunch weight and berry characters, which attributed for higher yield (13.97 kg/vine and 29.84 t/ha). Cane regulation treatment significantly influenced the growth, yield and quality parameters. Twenty five canes per vine

were found to be superior over the other treatments. Besides, superior grape quality grape wines were recorded in 25 canes per berry viz., TSS (22.12<sup>0</sup> Brix), juice content of berry (43.22 ml/50g), total sugar (19.39 %) and reducing sugar (17.50 %).

- Studies on tissue culture propagation in pomegranate (*Punica granatum* L.) cv. 'Bhagwa' through indirect organogenesis indicated that the nodal segment was found superior for induction of callus followed by leaf segment and shoot tip. Among the different concentrations of growth

regulators, MS B+BAP 5 mg/l + NAA 0.40 mg/l induced very good callus. Better proliferation of calli was observed when callus was sub-cultured on MS basal medium consisting of BAP 1.0 mg/l + NAA 1.0 mg/l. Early shoot initiation, more number of shoots per explant and maximum shoot length was noticed when proliferated calli were cultured on MS basal medium containing BAP 2.0 mg/l + NAA 0.1 mg/l + GA<sub>3</sub> 0.50 mg/l while, the maximum number of leaves per shoot was noticed in MS basal medium supplemented with BAP 1.0 mg/l + kinetin 1.0 mg/l + Adenine sulphate 40 mg/l. Early *in vitro* root initiation, the highest per cent rooting and maximum number of roots per plantlet was recorded when microshoots were cultured on full strength MS medium supplemented with IBA 3.0 mg/l.

- ‘Studies on the effect of cane regulation on fruit yield, quality, pest and disease incidence in grapes cv. Red Globe’, the maximum morphological and quality parameters were observed in vines regulated with 25 canes, which was on par with 29 canes per vine. However, the maximum pruning weight number of panicles per vine, bunches per vine, fruit yield (36.31 kg/vine, 80.68 t/ha), and juice content were noticed in vines without cane regulation treatment. Whereas, disease severity and pest incidence was not significantly influenced by cane regulation treatments under Northern Dry Zone of Karnataka.
- Morpho-physiological and molecular characterization of pomegranate genotypes (*Punica granatum* L.) study revealed that, among the indigenous genotypes the maximum fruit weight was recorded in KP×R, whereas maximum TSS (18.16 °Brix) and maximum leaf blade lengths were recorded in Bhagwa. Among the 15 indigenous pomegranate genotypes, maximum photosynthetic rate (8.32  $\mu\text{mol m}^{-2} \text{s}^{-1}$ ) and instantaneous water use efficiency ( $P_N/E$ ) were recorded in Jalore Seedless and Ganesh respectively.
- Studies on genetic diversity in selected genotypes of Jamun (*Syzygium cuminii* Skeels.) in Eastern dry zone of Karnataka, the highest fruit yield was recorded in the genotype HJ-1 (205 kg/plant) followed by HJ-3. The cluster analysis clearly grouped genotypes according to their geographical regions. Genetic similarity values ranged from 0.25 to 0.72 in different Jamun genotypes. Over all, the genotypes HJ-1, HJ-6, HJ-9, HJ-10, HJ-14 and HJ-17 were found to be promising with respect to yield and quality parameters. These genotypes could be further prospected in crop improvement programme.
- Standardization of budding techniques in Jack fruit (*Artocarpus heterophyllus* Lam) revealed that the maximum success of budding and sprouting was found during June to September months and minimum success was observed in October and November months under Bengaluru condition. Two months old rootstocks significantly recorded maximum budding success, sprouting success, sprout length, number of leaves and diameter of bud sprout followed by four months rootstocks and six months old rootstocks.
- Studies on flowering, seed viability and softwood grafting in Jamun (*Syzygium cuminii* Skeels) recorded, the seeds sown at zero days of extraction were found to increase the germination percentage and other germination characteristics. Seeds treated with *Trichoderma harzianum* + Poly bag in refrigerated conditions increased the germination and found to be better over the other treatments. Germination index was highest in *Trichoderma harzianum* + Poly bag and seeds of Poly bag, compared to other treatments. The influence of age of rootstocks on the graft success and graft survivability was observed for graft girth and number of sprouts. At 30 and 60 Days After Grafting (DAG), significant higher number of leaves per graft was recorded.
- Effect of time and pruning intensity and foliar spray of zinc sulphate on growth and yield of guava (*Psidium guajava* L.) var. Sardar under high density planting was studied. Among the time of pruning maximum plant height was recorded in pruning during August 3<sup>rd</sup> week- December 3<sup>rd</sup> week at 90 DAP (Days after pruning), level of pruning higher values for plant height in Pruning

of 10 cm length of shoot growth at 60 DAP. In the second experiment on different spacing, maximum plant height in 6 x 6 m, stem girth in 6 x 3 m and secondary branches/plant in 2 x 1 m spaced plants. Plants with light pruning of 10 cm length of shoot in August 3<sup>rd</sup> week-December 3<sup>rd</sup> week recorded good vegetative and yield parameters. Maximum yield (t/ha) was obtained in plants under 2 x 1 m spacing with 0.3% foliar spray of Zinc sulphate.

- Studies on response of Guava (*Psidium guajava* L) var. Sardar to Zinc and Boron under High Density Planting (HDP) system showed, highest values for plant height, plant spread (E-W) in ZnSO<sub>4</sub> and borax each of at 0.5% treatment. Significantly highest yield (19.70 t/ha) and highest benefit cost ratio (3.25) was recorded in 3 m x 3 m spacing with RDF and foliar spray of ZnSO<sub>4</sub> and borax @ 0.5% nutrition.
- Studies on the influence of different types of mulches on growth, yield and quality of grapes (*Vitis vinifera* L.) cv. Kishmish Rozavis White. Among the different types of mulches, vines mulched with black polythene recorded highest internodal length, girth, fruiting shoot at 30, 60, 90 and 120 days after fruit pruning with minimum number of days taken for bud break. Higher percentage of soil moisture was recorded in vines mulched with black polythene at both depths 0-15 cm (18.76 %) and 15-30 cm (19.54 %). Whereas the highest benefit cost ratio was obtained in vines mulched with sugarcane trash (3.48) followed by black polythene mulch (3.06).
- Studies on induced mutations in Banana cv. Nanjanagudu Rasabale (*Musa* spp., AAB Group) indicated that the maximum plantlet lethality was observed with EMS (42.50 %) as compared to NaN<sub>3</sub> (41.66 %). EMS at 0.60 % concentration recorded albino and viridis one each type of mutant. PCR based RAPD markers proved effective for detection of variation among the resistant and susceptible mutants.
- Survey for identification of superior Kagzilime (*Citrus aurantifolia*. Swingle.) clones in Bagalkot district of Karnataka was under taken to evaluate the seedling progenies of acid lime. The fruit shape varied from round to oval. The maximum fruit shape index (1.14) was recorded in the Shiraguppi. The maximum fruit size (16.91 sq.cm) was recorded in the Devanal. The minimum number of seeds per fruit (7.86) was recorded in the Budihal, whereas the maximum number of segments (11.43) was recorded in the Chicksanshi. Based on the above parameters, the best orchards of Kaladagi, Sokanadagi, Anagawadi and Shiraguppi, seeds can be collected and evaluated for further study.
- Studies on the influence of de-navelling and bunch stalk feeding on bunch parameters and quality of banana cv. Grand Naine results revealed that the banana bunches fed with dipping the cut end in the cow dung slurry + 100ml of water+ 15g of ammonium sulphate and 10g of SOP improved the yield and quality parameters of banana cv. Grand Naine in Northern Dry Zone of Karnataka.
- Study on effect of post shooting spray of nitrogen and potassium on yield and quality of Banana cv. Grand Naine revealed that, application through post shooting spray of 2 per cent sulphate of potash and 1 per cent urea during shooting, after shooting and one month after second spray significantly influenced the yield and quality of banana cv. Grand Naine with the highest profit under Northern dry zone of Karnataka.
- Studies on micro-propagation of pomegranate (*Punica granatum* L.) cv. 'Bhagwa' through axillary bud proliferation indicated that, MS B + BAP 2.00 mg/l + AgNO<sub>3</sub> 1.00 mg/l was recorded as the best concentration for shoot growth parameters like, highest shoot initiation, least number of days for shoot initiation, highest mean number of shoots per explants, longest length of shoot and more number of leaves per shoot. Half strength of MS B supplemented with IBA (1 mg/l) was found to be superior for root growth parameters.
- Studies on the influence of different type of mulches on growth, yield and quality of pomegranate (*Punica granatum* L.) cv. Bhagwa revealed that, black polythene mulch found to be superior over others with respect to growth and

yield parameters followed by silver polythene mulch. Black polythene mulch recorded the maximum soil temperature (25.37 °C) and the maximum soil moisture of 17.99 % and 19.95 % at 0-15 and 15-30 cm depths respectively with no weeds.

- Field study to understand the effect of diatomaceous earth as a source of silicon on growth, yield and quality of Banana cv. Grand Naine. Among the different treatments, RDF+750 kg/ha DE has recorded maximum growth, yield and quality parameters of banana as well as minimum white fly incidence and Sigatoka leaf spot index were recorded.
- The study on grafting and budding success under *in-situ* and *ex-situ* conditions using six varieties of Ber as scion material and *Ziziphus mauritiana* var. *rotundifolia* as a rootstock showed that, in *In-situ* condition the softwood wedge grafting showed highest graft success and graft survival. In *Ex-situ*, soft wood wedge grafting of Sannaur-2 and chip budding of Meharun showed minimum graft success and graft survival respectively.
- A study on effect of micronutrients on growth, yield and quality of sapota cv. Kalipatti under HDP system was carried out. The results obtained from this study *i.e.*, RDF + 0.5% ZnSO<sub>4</sub> + 0.5% FeSO<sub>4</sub> + 0.3% B could be recommended to increase the yield and quality of sapota under HDP system.
- Study on the effect of soil application of diatomaceous earth as a source of silicon on growth, yield and quality of Banana ratoon crop II cv. Grand Naine revealed with respect to total crop duration, RDF + 500 kg/ha of DE recorded the early (273.22 days) crop duration and the highest yield parameters in RDF + 750 kg/ha DE.
- An investigation was carried out for Identification of elite clones of Kari Ishada mango cultivar in major growing parts of Uttara Kannada district and its grafting studies. Among the 31 Kari Ishada clones selected, the fruit yield was highest in 'KIS-3' (624 kg/tree). The stone weight was lowest in 'KIS-11'. Among the selections, the maximum graft success (75.00 %) and graft survival (69.15 %) was found in 'KIS-15'. The interactions between

the grafting methods and Kari Ishada selections showed the highest graft survival in stone grafting of 'KIS-15' (76.39 %).

- An investigation was carried out with respect to "Morphological, physiological and yield characterization of Karonda (*Carissa carandas* L.) genotypes". Highest yield (0.91 t/ha) and yield attributing characters were recorded in KAR-1. The study on organoleptic evaluation for fruits revealed highest overall acceptability in KAR-1 (2.67). The characterization of genotypes revealed that, the KAR-1 and KAR-7 were found the superior among seven genotypes with respect to morphological, physiological, yield and quality parameters.
- The 'Mutagenic studies in Mango (*Mangifera indica* L.)' was carried out and it was concluded that, EMS can be used as a mutagen to create variability in mango and also the efficacy of the mutagen can be enhanced by using GA<sub>3</sub>.

#### Vegetable science

Studies on performance of chilli (*Capsicum annum* L.) hybrids under Northern Dry Zone of Karnataka, F<sub>1</sub> hybrid DC-1512 performed better for growth characters such as plant height, number of primary branches and number of secondary branches, while the check F<sub>1</sub> hybrid ArkaKyati performed well for yield attributes such as average fruit weight and total green fruit yield (39.19 t/ha) and it was also resistant to murda complex and moderately resistant to powdery mildew disease. Finally, it could be inferred that, among the F<sub>1</sub> hybrids, ArkaKyati (check), DC-1512 and ArkaMeghana were high yielding hybrids these hybrids (DC-1512 and ArkaMeghana) can be tested across the locations to know their stability before recommending for commercial cultivation.

- An investigation on Variability and genetic diversity studies in French bean (*Phaseolus vulgaris* L.), analysis of variance revealed highly significant difference among the genotypes for all the 27 characters studied. The results indicated the presence of additive gene effects. The high yielding genotypes IIHR-62, Arka Arjun, IIHR-53, IIHR-232 and Arka Anoop are high yielders having

desirable quality characters.

- Experiment on Effect of soil test based INM practices on the performance of Chilli (*Capsicum annum* L.) showed that, organic amendments *i.e.* panchagavya spray @ 3% + *Verticillium luccani* at 30 and 60 DAT recorded significantly higher growth, earliness to flower, yield and quality parameters. Gross returns, net returns and B: C ratios were found significantly higher due to adoption of INM practice (213607 Rs, 155925 Rs. and 2:7) than others nutrient management practices. Among organic amendments, use of panchagavya spray @ 3% + *Verticillium luccani* at 30 and 60 DAT proved to be most productive as well as more economical; the usage of which results in higher gross returns (218600 Rs.), net returns (157600) and B:C ratio (2.6).
- Studies conducted to enhance water use-efficiency through need based irrigation using water impact calculator compared to calendar based irrigation scheduling in Chilli (*Capsicum annum* L.) in the farmer's participatory field experiments representing red and black soil each. Furrow irrigation method was followed in both farmers field. Similar experiment was also conducted at RHREC, Dharwad (Kumbapur) using drip irrigation method. Important crop growth parameters *viz*; earliness parameters and yield parameters did not shows significant difference between two blocks at each experimental sites, except per cent fruit set, water use efficiency (WUE). Per cent fruit set show higher (56 and 51 %) in water impact calculator (WIC) based irrigation schedules compared to farmer's practice (47 and 44 %) at Neeralkatti and Kotur experimental sites respectively.
- Investigations on Identification of allelic variations in structural genes coding for carotenoids biosynthesis in carrot are observed like deletions. PSY1 allelic variations observed at 7 genomic regions, whereas in PSY2 gene; deletions were observed at three gene genomic regions *i.e.* 137- 139, 504-509, 677, 688 nucleotide regions. Phytoene desaturase enzyme (PDS) deletions was observed from 308-325 gene genomic area in both red and orange carrot, similarly in  $\zeta$ -Carotene desaturase 2 (ZDS2) more numbers of SNP and deletions are observed in black and red carrots compared to orange carrot at 710, 714, 756 -759. In carotenoid isomerase enzyme (CRTISO) few variations observed in all three colour carrots, in Lycopene  $\beta$ -cyclase (LCYB) a long stretch of deletions from 365-424 observed in black as compared to red and orange carrot. In case of Lycopene  $\epsilon$ -cyclase (LCYE) more no. of structural variations are observed in all carrot colour lines. In 9-cis-Epoxy carotenoid dioxygenase1 (NCED1), more variations observed in black and orange compared to red carrot.
- Studies on effect of different sources of sulphur on growth, yield and quality of onion (*Allium cepa* L.) under drip irrigation revealed that, application of NPK @ 125:75:125 kg ha<sup>-1</sup> + sulphur @ 45 kg ha<sup>-1</sup> through gypsum under drip irrigated condition recorded the highest total bulb yield (48.41 t ha<sup>-1</sup>), marketable bulb yield (46.10 t ha<sup>-1</sup>), quality attributes, enhanced keeping quality, uptake of major nutrients by the plant and also maximum available sulphur after crop harvest, which was superior over other sources of sulphur investigated.
- Identification of transgressive segregants in F<sub>2</sub> segregating progenies of two selected crosses *viz.*, IIHR-2201 X C-13-1-2-1 and D-12-1-6-1 X D-6-1-6-1of potential tomato hybrids resistant to tomato leaf curl virus (ToLCV) showed wide range of variability with high heritability and genetic advance as per cent of mean for most of the characters. The inheritance ratio 3: 1 (resistant : susceptible) indicated the involvement of single dominant gene in governing the resistance to tomato leaf curl disease. Seventeen superior plants *i. e.*, plant number 18, 29, 33, 35, 43, 64, 81, 88, 89, 133, 134, 144, 158, 224, 248, 253 and 261 from the cross IIHR-2201 X C-13-1-2-1 were identified as superior for ToLCV resistance as well as for good yield attributing characters.

- Studies on development of prebreeding lines with respect to bacterial wilt (*Ralstonia solanacearum* Smith) disease resistance in brinjal (*Solanum melongena* L.) revealed that, segregating population of showed wide range of variability with high heritability and genetic advance as per cent of mean for most of the characters. The line number 46, 164 and 170 derived from the cross Green Long × IIHR-3 and line number 30 and 249 derived from the cross Raidurga Green Round × West Coast Green Round were highly resistant to bacterial wilt disease. Ten superior plants *i.e.*, plant number 46/3, 46/6, 164/1, 164/7, 164/10, 164/11, 164/14, 170/9, 170/11 and 170/19 from the cross Green Long × IIHR-3 and seven superior plants *i.e.*, plant number 30/1, 30/2, 30/12, 30/14, 249/2, 249/10 and 249/12 from the cross Raidurga Green Round × West Coast Green Round were selected based on the earliness, high yielding ability and resistance to bacterial wilt disease.
- The experiment on collection and evaluation of onion landraces (*Allium cepa* L.) of Karnataka for economical traits, *Rabi* season was found better compared to *Kharif* season. In regard to disease and insect pests' resistance, Thumbaraguddi Local and Rampur Local were revealed resistant to purple blotch disease. However, bulb traits indicated that three types of bulb shape, four types of bulb skin colour, two types of flesh colour and two types in location of bulbing were noticed in landraces evaluated in Eastern Dry Zone of Karnataka.
- Evaluation of cherry tomato (*solanum lycopersicum* var. *Cerasiforme*) genotypes for yield and quality traits under Bagalkot (Northern dry zone) conditions were carried out. The results revealed that, among the thirty genotypes BCT-8 was found better for growth as well as yield parameters. Pest and disease reaction of most of the genotypes showed resistance against fruit borer infestation and Tomato leaf curl virus, indication their prominent role in further breeding programmes for crop improvement.

Analysis of variance revealed that, high phenotypic and genotypic coefficient of variation with high heritability and genetic advance for number of fruits per cluster, average fruit weight, pericarp thickness and fruit firmness indicating existence of broad genetic base and additive gene actions.

#### Floriculture and Landscape Architecture

- An experiment was conducted for evaluation of rose (*rosa* spp.) varieties for loose flower production. Thirteen rose varieties were used for the varietal evaluation study. Among those varieties, higher growth parameters were found in Palm-de-Mour. The variety Charisma resulted in minimum infestation of black spot disease and variety Five plus has shown the minimum infestation of thrips. Among the rooting hormones, highest percentage was observed in inoculation with VAM fungus *Sclerocystis dussi*.
- An investigation on Genetic analysis for quantitative and qualitative traits in  $F_2$  segregating population of China aster [*Callistephus chinensis* (L.) Nees.] was carried out, the results revealed that the  $F_2$  population of AAC-1 × Arka Poornima had performed better for yield traits compared to Arka Kamini × P G Purple. The two  $F_2$  populations of China aster *viz.*, AAC-1 × Arka Poornima and Arka Kamini × P G Purple were found that, the estimation of GCV and PCV values were relatively higher with high heritability and high GAM.
- Studies on screening of genotypes and  $F_2$  segregating population of China aster (*Callistephus chinensis* [L.] Nees.) for alternaria leaf spot. Among the screened sixteen genotypes, cv. AAC-1 recorded resistant disease reaction under the both natural disease pressure and artificial inoculated conditions. Among the genotypes studied, PG Pink and AAC-1 have emerged as promising genotypes.
- Effect of pinching and plant growth regulators on growth, flowering, yield and quality of African marigold (*Tagetes erecta* L.) cv. Calcutta Orange showed that the benefit cost ratio was found to be maximum in  $GA_3$  followed by NAA and CCC.

Pinching had procured highest benefit cost ratio compared to unpinched plants. It could be concluded that, pinching of apical bud and foliar spray of GA<sub>3</sub> at 200 ppm independently recorded higher yield with better quality flowers and maximum cost benefit ratio in African marigold cv. Calcutta Orange.

- An investigation was carried out for standardization of spacing and fertilizer in Bachelor's button (*Gomphrena globosa* L.) cv. AGS-5 and the results found that all the growth parameters, yield and quality traits were influenced by spacing and fertilizer. It can be finally concluded that, combination of closer spacing (45 x 30 cm) and higher dosage of 250:75:150 NPK kg/ha was beneficial to get maximum flower and seed yield per ha.
- Study was conducted to know the effect of growth regulators on growth, flowering and yield of Crossandra (*Crossandra undulaefolia* Salisb) genotype ACC-1. Among the growth regulators, plants sprayed with the Gibberellic acid (200 ppm) resulted in significantly maximum growth parameters as well as better quality and yield parameters.
- Studies on 'Evaluation of different genotypes of tuberose (*Polianthes tuberosa* L.)' Among the eight genotypes, minimum days taken for sprouting of bulbs, maximum plant height, early to harvest, spike yield per hectare, flower yield per hectare, vase life and shelf life were recorded in genotype Prajwal. Duration of flowering, bulb diameter, bulb yield per hectare (2.13 t/ha) and overall acceptability was recorded maximum in genotype Suvasini. Whereas, genotype Shringar produced maximum number florets per spike (47.27).
- A research study was conducted on standardization of nutrient requirement for growth, yield and quality of bird of paradise (*Strelitzia reginae* L.) in Eastern dry zone of Karnataka. Results of the investigation revealed that, application of 62.5:25:62.5 g NPK/plant/year along with foliar application of ZnSO<sub>4</sub> (0.5%) and Boron (0.25%) increased the plant growth as well as yield parameters and found better over other treatments.
- Studies on effect of mulching, nutrition, and year round production of quality planting material in Chrysanthemum (*Dendranthema grandiflora* Tzvelev.) was carried out and the results showed, higher cost benefit ratio (1:3.52) for 150 per cent RDF with mulching. Among six varieties, Arka Kirti recorded the higher number of cuttings and rooted cuttings. However, var. Arka Chandrika recorded the highest rooting percentage and root length. The longest rooted cutting and root spread was recorded in cv. Marigold during experimental period.
- The research study on Evaluation of Gerbera (*Gerbera jamesonii* L.) varieties for pot culture under naturally ventilated polyhouse showed that the varieties viz., Marinilla, Natasha, Shimmer has emerged as promising varieties with respect to growth, flowering, flower yield and quality and higher B:C (3:13) ratio and can be recommended for commercial cultivation.
- Studies on evaluation of different genotypes of Crossandra (*Crossandra undulaefolia* Salisb) under GLBC condition indicated that, highest leaf area in ACC-3, number of primary shoots, secondary shoots, leaves per shoot and plant spread in Arka Kanaka. Genotype Arka Kanaka was early to harvest with maximum duration of flowering, number of flowers per inflorescence, spikes per plant, 100 flowers weight, flower yield per plant, flower yield per plot (397.40 g) and flower yield per hectare (2207.26 kg). Application of boric acid at 0.5 per cent, aluminium sulphate at 0.1 per cent and silver nitrate at 0.002 per cent were best in increasing the shelf life with minimum physiological loss in weight of crossandra flowers (44.43 %, 45.00 % and 55.23 %, respectively) as compared to control and 300 gauge polyethylene bag recorded increased shelf life and minimum physiological loss in weight.
- Effect of fertigation levels and seasonal variations on growth, yield and quality of anthurium (*Anthurium andreaeanum* L.) under shade house condition showed that, application of

250:125:312.5 Kg NPK per hectare at 15 days interval through fertigation resulted in increased plant height, number of leaves per plant, number of suckers, number of flowers per plant per year, vase life and also B:C ratio (2.26) with winter season was found to be ideal with respect to high yield and quality of flower production.

- Response of marigold (*Tagetes erecta* L.) Var. Calcutta orange to type of planting material and nutrition revealed that, significant increase in vegetative parameters such as plant height, number of primary branches and plant spread were recorded in seedlings + INM treatment. Flower yield (521.28 g/plant), (12.96t/ha) were higher with plants which propagated through seed that receives INM treatment. Highest net return (2,77,661) and highest benefit cost ratio (3.49) was observed in seedlings + INM.

#### Plantation, Spices, Medicinal and Aromatic Crops

- Field trial on varietal response to grafting in Black pepper (*Piper nigrum* L.) with areca nut as standard indicated that, varieties Panniyur-1 and Panniyur-3 showed maximum plant height, leaf length and leaf breadth. The observations in coastal zone showed no significant difference in growth parameters among the varieties. However, Panniyur-1/1 showed maximum plant height, inter-nodal length, leaf length, leaf breadth and leaf area. There were no symptoms of foliar infection of *Phytophthora* foot rot or graft incompatibility like bottle neck or inverted bottle neck in any of the varieties tested.
- Studies under intercropping of flower crops in coconut with *in-situ* moisture conservation materials in littoral sandy soils of west coast, the flower crops like C<sub>1</sub>-Marigold, C<sub>2</sub>-Gladiolus, C<sub>3</sub>-China aster and C<sub>4</sub>-Gomphrena were grown with moisture conservation materials. Vegetative, physiological and bio-chemical parameters of flower crops grown in *Kharif* season recorded significantly higher growth in Shredded coconut leaf and control treatment with the maximum flower yield (6.70 tons/ha of marigold and 78,026.95 spikes/ha of gladiolus). The higher soil moisture retention capacity of shredded coconut leaf and coconut husk throughout the growth period of *Kharif* and *Rabi* crops resulted in higher growth and yield attributes.
- An evaluation of coriander (*coriandrum sativum* l.) genotypes for growth, yield and quality under hill zone (zone-9) of Karnataka, among the 15 different genotypes, the highest plant height was recorded in DCC-36 (45.67 cm), while maximum number of leaves per plant was recorded in DCC-28 (15.33) at 60 DAS. The genotypes DCC-34 and DCC-26 recorded the highest number of primary (7.33) and secondary (12.17) branches, respectively. The maximum plant spread in E-W direction was observed in genotype DCC-34 (16.77 cm) and that in N-S direction was recorded in genotype DCC-36 (17.10 cm). The biomass production per plant and per plot at harvest was maximum in DCC-35 (7.21 g) and DCC-39 (506.20 g) respectively. Genotype DCC-28 recorded the highest number of umbels per plant, umbellets per umbel and seeds per umbellet and test weight of seeds.
- Field experiment conducted to enhance the vegetative phase by suppressing flowering in stevia (*Stevia rebaudiana* Bertoni) by nitrogen and GA<sub>3</sub> indicated that, application of the treatment combination of 120 kg N/ha + GA<sub>3</sub>-500 ppm recorded, the maximum plant height (58.44 cm), internodal length (3.85 cm) and plant spread (33.90 cm<sup>2</sup>). The highest stevioside content (2.21%), fresh leaf yield (4.25 t/ha) and dry leaf yield (1.99 t/ha) were noticed in the treatment 120 kg N/ha + Manual deflowering and also recorded the highest net return of Rs. 2,43,338 per hectare with a benefit: cost ratio of 1.57.
- Investigations on effect of inorganic fertilizer and spacing on growth, yield and quality of Sacred basil (*Ocimum sanctum* Linn) it was concluded that, application of 150:85:70 Kg NPK per ha with spacing of 45 x 30 cm is best for obtaining the maximum fresh (21.42 t/ha) and dry herbage (9.93 t/ha), oil yield (74 kg/ha) and benefit cost ratio (3.83) under Northern Dry Zone of Karnataka.

- Performance of fenugreek (*Trigonella foenum-graecum* L.) genotypes for growth and yield under Northern Dry Zone of Karnataka showed, genotype the DFC-17 was found superior with respect to growth parameters, yield characters of yield (8.31q/ha), the phenotypic coefficient of variance (PCV), genotypic coefficient of variance (GCV) were maximum for the number of pods per plant and plant spread at 90 DAS per plant.
- An investigation was carried out to study the effect of row spacing and nitrogen levels on growth, yield and quality of Japanese mint (*Mentha arvensis* L.), and the results revealed that, there was no significant interaction effect on growth, physiological and yield parameters. Highest net returns and B:C ratio were observed in plants spaced at 30 cm row spacing and supplied with 150 kg nitrogen per hectare.
- Integrated nutrient management studies in Kalmegh (*Andrographis paniculata* Nees.) was conducted and results indicated that at harvest (120 DAP), the treatment of 100:75:50 kg NPK ha<sup>-1</sup> + *Azotobacter* (1 q) enriched in FYM (5 t ha<sup>-1</sup>) + vermicompost 1 t/ha<sup>-1</sup> recorded significantly maximum growth and yield parameters as well as the same treatment shown significantly maximum available nitrogen (221.450 kg ha<sup>-1</sup>) and phosphorous (27.987 kg ha<sup>-1</sup>) in soil, nitrogen content in leaves (3.530%). The highest net returns of Rs 1,48,418 and benefit cost ratio (3.45).
- Field trials on the evaluation of ginger (*Zingiber officinale* Rosc.) genotypes for growth, yield and quality under Northern Dry Zone of Karnataka was carried out. Among the evaluated genotypes, Humnabad Local genotype performed best with respect to growth, yield and quality and it could be successfully grown in northern dry zone of Karnataka.
- Field trial on the evaluation and association studies for rhizome yield and yield attributes in turmeric (*Curcuma longa* L.) genotypes under hill zone (zone-9) of Karnataka the results revealed that, among the tested genotypes Suroma, Phule Swaroop, Prathibha and Cuddapah recorded the better growth parameters and the var. Suroma registered the highest yield per plant (535.00 g). Similarly, weight of primary rhizome exerted the highest positive direct effect on rhizome yield per plant.
- Field trial on morphological characterization and evaluation of local Black pepper (*Piper nigrum* L.) genotypes for yield and quality attributes under areca nut based cropping system was carried out. The spikes were twisting type in genotypes SV-2, 11 and 21, cylindrical type of spike shape was seen in the SV-13 and SV-14 and the remaining genotypes had filiform type of spike shape. The berry setting was loose in the genotypes SV-2, 3, 5 and SV-8, while, compact setting was seen in SV-4, 13, 15, 16 and SV-18. The maximum spike length was recorded in var. Panniyur-1 (20.60 cm). In terms of yield attributes, the var. Panniyur-1 registered the significantly better and in case of quality characters, the genotype SV-15 recorded significantly superior over others.
- Experiment entitled on 'Effect of different propagating media and PGPRs on seed germination and rooting of stem cuttings in Sarpagandha (*Rauvolfia tetraphylla*)' was conducted. According to the results of this investigation, the plants raised in media having Red soil + sand + vermicompost + Rhizobium + PSB + *Pseudomonas fluorescens* and least was found in Red soil + sand + FYM and showed significantly higher germination per cent and vigor, root length and total biomass. The media containing red soil + sand + vermicompost + VAM + PSB + *Pseudomonas fluorescens* was found to be good for vegetative propagation though not much benefit was realized.
- A field experiment to study the nutrient management in fenugreek (*Trigonella foenum-graecum* L.) through farm yard manure and Rhizobium' was conducted. The results of the present investigation showed that the pre-sowing seed treatment with Rhizobium along with soil application of 52.5 kg nitrogen per hectare through farm yard manure is found to

be optimum for fenugreek to realize more profit by keeping in view of soil health, eco-friendly cultivation and food safety.

- The field experiment was conducted on 'Influence of nutrient levels on growth, yield and quality of Kalmegh (*Andrographis paniculata* Nees.) under ratooning. Results revealed that 75 per cent nitrogen and 100 per cent potassium recorded maximum plant height, number of primary branches, plant spread, dry herb yield, andrographolide content and yield in first ratoon crop. The highest B: C ratio of 1.99 and 2.38, net return of Rs 82,783 and 98,983 were recorded with combination of 25 tones of FYM ha<sup>-1</sup> + 75 per cent N + 100 per cent K in first and second ratoon crops, respectively.
- Field experiment to understand the "effect of fertigation and mulching on growth, yield, quality and fertilizer use efficiency in hybrid Chilli (*Capsicum annum* L.)" was conducted. From this investigation it was concluded that, water soluble fertilizers as well as normal fertilizers fertigation 100 per cent RDF with mulch is ideal for the maximum growth, yield, quality and fertilizer use efficiency of the crop. But if economics is considered, use of normal fertilizers fertigation with mulching recorded the highest cost benefit ratio (2.30) compared to other treatments.
- Studies on the influence of foliar application of nitrogen and Rhizobium seed treatment on growth and yield of Fenugreek (*Trigonella foenum-graecum* L.). The results of the investigation clearly demonstrated that, the cultivation of fenugreek could be taken up by supplying 25 per cent N as basal dose and applying 25 per cent N as foliar spray twice at 50 and 70 DAS along with the pre-sowing seed treatment with Rhizobium as this practice resulted in maximum net profit with a B: C ratio of 2.67.
- Studies on Genetic variability associated with Pungency in *Capsicum species* the analysis of variance showed significant differences among

the genotypes for all the characters studied. The high GCV and PCV were observed for fruit length & width, placenta length & width, TSS, fruit to seed ratio, seed number and total capsaicinoids. Heritability was high in these characters except for TSS. While seed number and total capsaicinoids showed high heritability and genetic advance. The mean performance of backcrosses populations was also found superior for the parameters like fruit length & width, pericarp thickness and fruit to seed ratio as compared to the variety IHR4501.

### Post-harvest Technology

- The studies on preservation in syrup and osmotic dehydration of pomegranate arils' revealed that, the shortest drying time, minimum moisture content, maximum TSS (64.29° B) and solute gain were recorded in arils treated with the pre-treatment of Freezing+osmotic treatment. Among different drying methods, shortest drying time, minimum moisture content, maximum TSS (53.97° B), minimum non-enzymatic browning (0.21) and better colour of arils were noticed in Tray drying treatment. The maximum antioxidant activity was recorded in packing material of aluminium laminated pouch.
- Investigation on physico-chemical composition and improvement of shelf life in Kagzi lime (*Citrus aurantifolia* Swingle) and it was revealed that, the quality kagzi lime fruits obtained in mrigbahar harvested at yellowish green (75 % yellowing) and bright yellow (100% yellowing) stage were suitable for fresh consumption or for immediate use whereas, fruits harvested at matured green stage were suitable for long term storage. Further, among the different post harvest treatments wax emulsion @ 6 per cent and calcium chloride @ 2 per cent extend the shelf life of kagzi lime fruits up to 21 days (each) in amebahar whereas, 25 and 21 days, respectively in mrigbahar.
- Studies on extraction of wood apple (*Feronia limonia* Swingle) pulp for value addition revealed

that, soaking wood apple pulp in hot water (60°C) at the ratio of 1:2 + combination of pectinase (0.125%) and cellulase (0.125%) enzymes for 2 hr recorded maximum pulp recovery, pulp per 100 ml of extract, TSS, acidity, ascorbic acid and total sugars. Wood apple squash prepared from recipe consisting of 27.5 per cent pulp + 50°B + 0.1 per cent citric acid scored higher values for overall acceptability. Both squash and nectar were microbiologically safe up to 3 months of storage under ambient conditions.

- Study on 'Post-harvest processing and shelf life of drumstick pods' indicated that, drumstick pod (rib filling stage) minimally processed into pod cut piece size of 2 inches treated with garlic extract (5%) and packed in LDPE bags (0.5 % vent) for 30 days and stored under refrigerated condition (4° C) was found best with respect to physico-chemical, sensory and microbial qualities.
- The study on 'Microencapsulation of Cherry tomato (*Solanum lycopersicum* var. *cerasiforme*) juice powder by spray drying' revealed that, in spray dried cherry tomato powder, parameters viz., moisture content, water activity, solubility, redness value ( $a^*$ ), chroma (C), pH, titratable acidity, reducing, non reducing and total sugars increased during storage. While, properties like wettability, particle density, lightness value ( $L^*$ ), yellowness value ( $b^*$ ), hue angle ( $h^\circ$ ), TSS, ascorbic acid, lycopene content and antioxidant activity were decreased during storage. The powder recovery varied in a range between 3.00 (140°C+10 ml/min+10% MD) to 13.53% (160°C+6 ml/min+20% MD).
- Investigations on 'Microencapsulation of Jamun (*Syzygium cumini* Skeels) juice powder by spray drying' it was concluded that, treatment (170°C inlet temperature, 5ml/min feed flow rate and 30% maltodextrin) was found to be best in producing the stable Jamun juice powder with better physical and chemical parameters.
- Studies on standardization of protocol for preparation and storage of sapota *burfi* observations at 15 days interval indicated that, Sapota pulp 450 g + Cashew nut 50 g and Sapota pulp 400 g + Desiccated coconut powder 75 g recipes packed in polypropylene box sealed in aluminum foil pouch followed by aluminum foil pouch in paper board carton performed better with minimum changes in sensory and nutritional qualities in comparison to paper board carton with butter paper.
- Investigation on Hepatoprotective activity against ethanol induced oxidative stress and *in-vitro* antioxidant activities of functional grape wines. Among the different solvents tested for extraction, 50 per cent ethanol at 10 per cent concentration of ginger or black pepper yielded higher phytochemicals. Also the results showed that, wines fortified with 30 per cent concentration of ginger or pepper extract performed significantly better compared to non-fortified wines in hepatoprotection against the ethanol induced toxicity in *Sprague dawley* (SD) rats.
- Studies on development of drumstick leaves green tea powder showed that, drumstick leaf powder + 6 % lemongrass powder resulted in maximum found overall acceptability score. The blended drumstick leaves tea powder packed in aluminium pouch recorded significantly maximum mean score for colour, flavour, texture and overall acceptability. In conclusion, drumstick leaves dried under cabinet tray drier (60° C), powdered and blended with lemongrass powder (6%) and packed in aluminium pouch could be stored under ambient condition for 6 months with better sensorial qualities.
- Studies on effect of seedling dip and pre-harvest spray of chemicals on storage behaviour of onion var. Arka kalyan indicated that, azoxystrobin 0.1% at 60+90 DAT and SA 2mm seedling dip + pre-harvest spray at 60+90 DAT were found effective in maintaining quality and shelf life of onions. Pre-harvest spray of ethephon was found to be ineffective in extending the shelf life of onions, as it increased the physiological loss in weight, respiration, sprouting and rotting thus decreasing marketable bulbs.
- The study on the effect of different stages of

ripened fruits with pectinase enzyme and the effect of blending of kokum on quality of sapota (*Manilkara achras* (Mill.) Fosberg) wine was carried out. With respect to blended wine, the treatment Sapota juice 70: Kokum juice 30 registered to produce better biochemical composition with respect to TSS, pH, sugars. However, the treatment combination of 90 : 10 (sapota juice : kokum juice) was resulted better colour values and organoleptic traits as rated superior quality wine by the sensory panelists after six months of ageing in cold condition.

- The study on the standardization of yeast strains, yeast levels and fermentation conditions for production of tomato (*Solanum lycopersicum* L.) wine was carried out. The results revealed that, among the three yeast strains, *Saccharomyces ellipsoideus* strain was found best with respect to all bio-chemical and sensory qualities. The wine prepared from the treatment *Saccharomyces ellipsoideus* + 14 days anaerobic fermentation was noticed to produce better biochemical composition viz. TSS, pH, acidity, sugars, alcohol, wine recovery and rated as premium quality wine by the sensory panelists at six months of aging.
- Studies on custard apple pulp preservation and preparation of powder by spray drying was conducted. In spray dried custard apple juice powder, significantly maximum TSS, reducing, total sugars,  $a^*$  value, non enzymatic browning, moisture content, water activity, solubility and hygroscopicity were found to be increased during storage. The treatment of Inlet temperature of 180°C with 15% maltodextrin was found to be better with respect to all the sensory parameters and physico-chemical parameters.
- An investigation on development of value added products from Jamun blended with avocado and swallow root (*nannari*). Among the blended RTS treatments, highest pH 4.50 was observed in J<sub>1</sub>S<sub>1</sub>R<sub>1</sub> [(10 ml juice), (65 % Jamun, 30 % avocado, 5 % *nannari*) and sugar]. While, maximum TSS (17.60 °B), ascorbic acid (24.72 mg 100g<sup>-1</sup>), higher retention in anthocyanin content, total antioxidants and total sugars was found in [(16 ml

juice), (80 % Jamun, 15 % avocado, 5 % *nannari*) and honey]. The best organoleptic score was given to J<sub>3</sub>S<sub>1</sub>R<sub>2</sub> [(50 ml juice), (80 % Jamun, 15 % avocado, 5 % *nannari*) and sugar] combination.

- An experiment was conducted to understand the effect of chlorine dioxide, polyhexamethylene guanidine and 1-methylcyclopropene on shelf life of Banana (*musa paradisiaca* l.) fruit. According the results of the investigation, banana fruits treated with 1-MCP at 20 ppm and PHMG at 2.0 per cent showed higher firmness, total soluble solids, ascorbic acid and pectin content and retained maximum chlorophyll content, reduced fruit respiration rate, lower PLW and low decay loss at the end of the experiment in both ambient and cold storage conditions.
- The investigation on the minimal processing of jackfruit (*Artocarpus heterophyllus* L.) , and the results showed that the fresh jackfruit bulbs pretreated with 1 per cent of CaCl<sub>2</sub> with ascorbic acid 0.25 per cent showed better results in maintaining quality with extended shelf life. Minimally processed jackfruit bulbs pretreated with CaCl<sub>2</sub> 1 per cent along with ascorbic acid 0.25 per cent and packing in vacuum packaging found to be the best with extended shelf life with better marketability up to 33 days under refrigerated storage.
- An experiment on development of protocol for spiced dehydrated Aonla (*phyllanthus emblica* L.) segments was conducted. The results indicated that, use of ginger extract 10 ml/l + Black pepper 1 % + Cumin 5 % + Salt 2 % is superior, because of improvement in its microstructure by freezing which enhanced its texture and also the use of spice, which gave a mild flavour of these spices along with aonla flavour.

### Biotechnology and Crop Improvement

- Studies on morphological, biochemical and molecular characterization of carrot (*Daucus carota* L.) genotypes under tropical region indicated that, superior carrot genotypes such as UHSBC-32, UHSBC-44, UHSBC-52, UHSBC-66, UHSBC-17 and UHSBC-22 were performed well in the tropical region. They were superior for root

yield, harvest index, root width and biochemical traits. The identified superior genotypes from the present study would be useful for future carrot breeding program.

- The studies on morphological and molecular characterization of turmeric genotypes [*Curcuma longa* L.] showed that, RAPD and ISSR profiles for 13 genotypes of turmeric were generated with 45 random decamer primers and 13 ISSR primers. There was a lot of variation in the percentage of polymorphic bands produced by the primers shows that both RAPD and ISSR markers can be useful tool for the assessment of genetic variability. Of the thirteen genotypes screened under the artificial disease pressure condition, Salem Mutant-1 and Salem Mutant-2 exhibited moderately resistant reaction against *C. capsici* and resistant reaction against *Pythium aphanidermatum*.
- Physiological and genetical investigation for drought tolerance in tomato (*Solanum lycopersicum* L.) genotypes indicated that, biomass production was significantly higher in the genotypes EC 638519, EC610661 and Kashi Anupam at all growth stages as compared to local check Arka Meghali and susceptible genotypes. SSR profile analysis of 13 tomato genotypes by using six primers, only three primers had shown polymorphism. Based on morphological, biophysical, biochemical, yield and quality parameters it can be inferred that, genotypes EC 608362, EC 610652, EC 634394, EC 638519, EC 610661, EC 631962, Kashi Anupam and Pusa-120 performed better under drought conditions and could be used for further breeding programme.
- Genetic analysis for quantitative and qualitative traits in F<sub>2</sub> and F<sub>3</sub> population of cherry tomato (*Solanum lycopersicum* var. *Cerasiforme*) indicated, thirty six F<sub>2</sub> and F<sub>3</sub> populations of cherry tomato were evaluated in the research of genetic analysis for quantitative and qualitative traits in f<sub>2</sub> and f<sub>3</sub> population of cherry tomato (*Solanum lycopersicum* var. *cerasiforme*) . Very high genotypic coefficient of variation (GCV) and phenotypic coefficient variation (PCV) were observed for yield parameters. Dendrogram revealed two major clusters. The genotypes KCT1, KCT11, KCT16 and KCT20 were distantly related with each other in cluster. The genotypes KCT1, KCT11, KCT16 and KCT20 were distantly related, which can be used for further improvement of cherry tomato.
- Studies on morphological and molecular characterization of bird of paradise (*Strelitzia reginae* L.) genotypes showed, ten Bird of paradise genotypes were grouped into two major clusters using a Jaccard's similarity coefficient of 0.20. The study also shows, FRAPD Markers can be useful tool for the assessment of genetic variability among Bird of paradise genotypes.
- Studies on developmental stages of microsporogenesis to induce male sterility using male gametocides in okra (*Abelmoschus esculentus* L.) reveals that the formation of microspore from PMC is between 3 mm to 5 mm bud size. Maximum genetic purity was obtained in 45 mm bud size stage treated with MH at the rate of 450 ppm concentration. Hence among the gametocides (MH, Ethrel and 2, 4- D) used, MH at a concentration of 450 ppm sprayed at 45 mm bud size (before flowering) found to be more effective for inducing male sterility in Okra.
- Evaluation and characterization of *in-vitro* mutants/somaclones of Banana cv. Rajapuri (AAB) results revealed that the highest growth and yield parameters and the lowest sigatoka leaf spot index were recorded in Somaclone Arabhavi 2. The genetic variations studied through Random Amplified Polymorphic DNA analysis also recorded, density polymorphism between plants of Somaclone Arabhavi 2 (suckers) and (Tissue culture plants). Hence, concluding that, Somaclone Arabhavi 2 is genetically different from suckers and tissue culture plants.
- Studies on population genetic structure and comparative molecular diversity of brinjal (*Solanum melongena* L.) landrace populations prevailing in different geographic region of Karnataka revealed that the variation for fruit

traits and growth habit were conspicuous in majority of landrace populations. The population genetic structure analysis using 20 SSR markers revealed existence of variation among the population. The proportion of Analysis of Molecular Variance (AMOVA) among and within population was found to be 33 per cent and 67 per cent respectively. The maximum net nucleotide distance was observed between in  $S_2$  (0.000) and  $S_3$  (0.0045) groups indicating higher genetic diversity among those populations.

- Investigation on genetic variability and isolation, characterization of resistant gene analogs in tomato leaf curl New Delhi virus (ToLCNDV) resistant advanced inbred lines of ridge gourd (*Luffa acutangula* (L.) Roxb) showed high heritability coupled with high genetic advance over per cent of mean was observed for the characters fruit length, ovary length, peduncle length, number of fruits per vine, fruit weight, yield per vine, fruit yield per hectare indicating that these characters were governed by additive gene action and offers good scope for improvement by simple selection through these characters. Identification of conserved domains among the LaRGAs revealed that the five conserved motifs were conserved within the TIR - NBS - LRR viz., Kinase - 2, RNBS - A, RNBS - B, P - Loop and Hyper GLPL. Phylogenetic analysis of LaRGAs concluded that the RGAs isolated in this study belong to the TIR-NBS- LRR class of gene family.
- Studies on regeneration studies *in vitro* in selected orchid wild species revealed that, initiation of protocorms like bodies (PLBs) was found best on half strength semi solid MS media. PLBs were remarkably best in *Cymbidium bicolor* with 91.9 per cent and it was 29.03 per cent in *R. retusa* and 22.85 per cent in *Aerides maculosa* (¼ MS semi solid) as on 90 days after culture. The leaf explants did not respond for any treatment. PLBs of *C. bicolor* were cultured on ½ MS media with varying levels of NAA (0.25 to 1.5 mg l<sup>-1</sup>) for the production of plantlets and

enhanced rate of growth and proliferation was found for 1.5 mg/l of NAA. PLBs did not respond for various levels of Abscisic acid and Glyphosate.

- Studies on 'Genetic diversity using morphological characters and health beneficial components in Muskmelon (*Cucumis melo* L.)'. The analysis of variance revealed wide range of variability among the genotypes for all the 25 yield and quality traits. Among the 24 melon genotypes, genotype IC321361 found to be best for traits ovary length, fruit length, fruit yield per vine and antioxidant content, while the genotypes IC321375 and IC321338 showed good flesh thickness than the other genotypes. The wide variability observed in this study could be utilized further for selecting the parents for developing hybrids and melon crop improvement.

#### Plant Pathology

- Evaluation of inducers against *Xanthomonas axonopodis* pv. *punicae* and associated defence responses in pomegranate revealed, maximum inhibition by *Bacillus subtilis* with mean diameter inhibition zone of 89.66 mm followed by *Pseudomonas putida* 69.33 mm. Under field conditions, laminarin and *Bacillus subtilis* soil drenching followed by the foliar spray of copper hydroxide + eugenol alternated by *P. putida* + trehalose in 15 days interval was found most effective for disease reduction of 60.24 and 57.18 per cent in leaves and fruits and respectively. Gene expression was found that *B. subtilis*, *P. putida* and eugenol could upregulate these defense genes significantly.
- Molecular characterization of *Ceratocystis fimbriata* and its associated defence functions in Pomegranate during pathogenesis, large number of different defense related enzymes including PAL, PPO, CAT, SOD and other PR-proteins;  $\beta$ -1-3 glucanase, Chitinase, Peroxidase content were found upregulated within 45-60 days after inoculation. In *in vitro* studies *Trichoderma harzianum* (UHSTh43), *Pseudomonas putida* (UHSPs 2) and *Bacillus*

*subtilis* (UHSBs-3b) recorded inhibition and among the chemical molecules Carbendazim 80% WP and Tebuconazole 50% + Trifloxystrobin 25% WG recorded the inhibitions the against *C. fimbriata*.

- Etiology and management of fruit rot of brinjal (*Solanum melongena* L.) caused by *Alternaria alternata*, *Colletotrichum melongenae* and *Phomopsis vexans* investigation indicated, the *In-vitro* fungicides study, tebuconazole @ 0.1%, carbendazim @ 0.1% and propiconazole @ 0.1% were found most effective in inhibiting the mycelial growth of all three pathogens respectively. Among the bio-control agent tested *in vitro*, *T. harzianum*-p and *T. harzianum*-21 were found effective. Field trial on efficacy of fungicides and bio-agents indicated that spraying of Chlorothalonil @ 0.1% before fruiting is effective as it recorded least per cent fruit rot (4.90), maximum net profit (Rs .3,20,463 /ha) and highest B:C (9.02) than all other treatments.
- ‘Studies on citrus canker caused by *Xanthomonas citri* subsp *citri* on Kagzi Lime (*Citrus aurantifolia* Swingle)’, 2-Bromo-2 nitropropane-1, 3-diol showed highest inhibition at 300, 400 and 500 ppm, copper hydroxide recorded highest inhibition at 1500, 2000 and 2500 ppm respectively. Among botanicals, *Prosopis juliflora* (10.83 and 15.21mm) and *Garcinia indica* (9.50 and 14.00 mm) was found to be the most effective botanicals with maximum average inhibition.
- Studies on rhizome rot complex of turmeric (*Curcuma longa* l.), highest mean per cent disease incidence was observed in Belagavi district (44.27 %) followed by Bagalkot (38.40 %). Among twelve different treatments, significant reduction in the disease incidence (6.71 %) was recorded in the seed treatment with Metalaxyl-MZ (0.3 %) and soil application of *Trichoderma harzianum* (10 g/Kg of soil).

### Entomology

- The study of impact of Bio-ecology of South-American tomato leaf miner, *Tuta absoluta* (Meyrick) (Lepidoptera: Gelechiidae) revealed

that, infestation varied with respect to seasonal pattern and incidence was positively influenced by maximum temperature and negatively influenced by relative humidity, wind speed and rainfall. Lowest infestation were recorded on crops with less than 30 days old. Polythene mulch (black with silver colour) has reduced the damage by *T. absoluta*. Brinjal, capsicum and *Solanumviarum* were recorded as new collateral host records in India. Adult moths were active during dawn and dusk and mated four to six times in their life time. Female preferred apical portion of plant for oviposition with a mean fecundity of 153-163 eggs. Total life cycle of *T. absoluta* recorded was 32.4 days on tomato under ambient laboratory conditions.

- The investigation on seasonal incidence, loss estimation and management of pomegranate thrips indicated, spraying of imidacloprid 17.8 SL @ 0.3 ml or cyazypyr 10 OD @ 1.5 ml may be recommended for the effective management of thrips on pomegranate.
- Evaluation studies on bio-rationals against major sucking pests on selected fruit and vegetable crops. Two sprays of spinosad 45 SC @ 0.2 ml/l, dimethoate 30 EC @ 1.6 ml/l and azadirachtin 10,000 ppm @ 1.0 ml/l were effective. Also, against the mites organic salt 30 WS @ 5 ml/l was found highly effective and highest B: C ratio was obtained from dimethoate treated plot followed by spinosad.
- Studies on insect pests of oriental pickling melon, [*Cucumis melo* (L.) var. *conomon*], maximum and minimum temperature had positive correlation with population of leaf miner, thrips and fruit fly but had negative correlation with number of beetles. The relative humidity and rainfall showed negative correlation with leaf miner and thrips and positive correlation with beetles. Among the treatment with deltamethrin, panchagavya, emamectin benzoate, indoxacarb, Neem seed kernel extract (NSKE), spinosad and azadirachtin recorded significantly higher yields per hectare. However, B: C ratio was highest from

the plots treated with deltamethrin, NSKE and emamectin benzoate proving better returns.

- The investigation on collection, isolation, standardization of protocol with selective media for isolation of *Lecanicillium lecanii* and bioassay guided screening of selected isolates against *Myzus persicae* was conducted, the results yielded two media i.e., D0C2-PDA and SMA which supported 100 per cent growth of the *L. lecanii* compared to other media tested for isolation of *L. lecanii*. The bioassay showed that the R7BGBD was the most virulent isolate with cent per cent mortality of *M. persicae* at eight days after treatment compared to the isolates R4HAT and R8GAR. The lowest LC<sub>50</sub> values of  $0.54 \times 10^9$  and  $0.15 \times 10^9$  conidia per 1000 ml were recorded for the isolate R7BGBD at six and eight days after treatment, respectively.
- Studies on seasonal incidence of pests on *Jasminum* spp. Emphasizing on bud borer complex and their management on *Jasminum multiflorum* (BURM. f.) Andrews indicated that, peak incidence of bud worm was noticed during February with negative significant correlation with morning and evening relative humidity. Among six insecticides and two botanicals evaluated against bud borers of *J. multiflorum*, chlorantriliprole 18.5 SC @ 0.2 ml/l, profenophos 50 EC @ 2 ml/l, quinolphos 25 EC @ 2 ml/l, spinosad 45 SC @ 0.2 ml/l and NSKE (5%) recorded lower larval population with higher yield and cost benefit ratio.

#### Soil science and Agricultural chemistry

- Studies on Effect of bio-inoculants and organics supplementation on nutrient content and productivity of pomegranate, application of organics and bio-inoculants recorded relatively higher organic carbon and available phosphorus. The variations in the availability of other nutrients were insignificant. However, the soil nutrient status decreased with advancement of crop growth. Highest fruit yield of 27.26 kg plant<sup>-1</sup> and 20.17 t ha<sup>-1</sup> was obtained in farmers' practice that was on par with 50% RD N & P +

Organics + Bio-inoculants (26.43 kg plant<sup>-1</sup> and 19.56 t ha<sup>-1</sup>).

- Effect of different levels of phosphorus and potassium on soil properties and performance of onion study indicated, total nitrogen, phosphorus and potassium uptake was found significantly higher in application of 75 kg P<sub>2</sub>O<sub>5</sub> + 125 kg K<sub>2</sub>O ha<sup>-1</sup>. The nitrogen use efficiency increased with increase in levels of P and K, however, the P and K use efficiency decreased with increases in their quantity. In the present investigation, application of 125: 75: 125 N: P<sub>2</sub>O<sub>5</sub>: K<sub>2</sub>O ha<sup>-1</sup> with SOP recorded the maximum onion growth viz, plant height, number of leaves and yield parameters.
- A study on nutrient management practices in grape orchards and its influence on soil fertility, petiole nutrient contents and grape yields. The amount of fertilizer - N and P<sub>2</sub>O<sub>5</sub> added in grape orchards varied distinctly in the order of category-3 = category-2 > category-1 orchards while, the applied K<sub>2</sub>O varied significantly in the order of category-3 > category-2 > category-1 grape orchards. Most of the soil samples recorded higher available- P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O contents and none of them were found in lower range. The grape yields obtained in different orchards ranged from 20.0 to 27.50 t ha<sup>-1</sup> and recorded significant differences in the order: category-3 (26.18t ha<sup>-1</sup>) >category-2 (24.39t ha<sup>-1</sup>) >category-1 (22.99t ha<sup>-1</sup>) grape orchards.
- Comparative assessment of soil parameters and organic carbon distribution in horticulture crops results revealed that, cultivation of perennial crops like mango and cashew showed improvement in all soil physical, chemical and biological properties in comparison with annuals like rose, vegetables and medicinal and aromatic crops. Cultivation of perennial crops showed highest soil enzyme activities and microbial populations in comparison to the cultivation of annual crops. The nutrient content, microbial population and enzyme activities decreased with increase in soil depth. The highest carbon sequestration was recorded in cultivation of mango and cashew over the years.

- An investigation was carried out to assess nutrient management practices adopted by grape growers and their effects on soil fertility status of orchards of wine grape, table purpose white and coloured grape types in Bagalkot and Jamakhandi talukas. The results revealed that, the amounts of major nutrients added through fertilizers were found significantly different in the order of table purpose white grape > table purpose coloured grape > wing grape orchards. The soil pH of grape orchards was in neutral to slightly alkaline and the EC ranged from normal to moderately saline. Nitrogen, phosphorus and potassium contents in petioles of different genotypes belonging to three grape types revealed that the table purpose white and coloured grape types recorded higher values compared to the wine grape petioles. In general, the petiole nutrient contents increased significantly with their fertilizer applications. Higher grape yields were obtained with petiole-N content of 1.95 – 2.51 per cent, petiole-P contents of 0.20 to 0.26 per cent. However the petiole-K content and respective grape yields increased linearly with increase in K applications.

### 3.8.2 Doctoral Research in Horticulture

- Investigations are carried out to assess the genetic variability of Asiatic Lily (*Lilium asiaticum* L.) through morphological and molecular markers, study the performance of F<sub>1</sub> hybrids and to standardize the dates of planting and NPK nutrition along with the effect of chemical preservatives on vase life of cut-flowers revealed that, Mestre genotype recorded maximum plant height, Pirandeu, CEB Dazzle, Dazzle, Courier, Pavia and Tresor recorded maximum number of spikes per square meter. The maximum plant height, leaf area, leaf area index and number of spikes per square meter were recorded in the treatment which received NPK @ 20: 20: 20 g/m<sup>2</sup>. The maximum vase life (13.17 days) was recorded in vase solution containing 1-Mehtyl Cyclo Propane (MCP) @ 1000 ml/l + Sucrose 2 per cent.
- Studies on genetic variability, genetic divergence, screening of germplasm against

YVMV disease, stability for promising genotypes, heterosis and combining ability in okra [*Abelmoschus esculentus* (L.) Moench] revealed that, variance due to treatments (genotypes) was highly significant for 17 assessed characters. The genotypes, KRCO-22 and MHO-5 recorded higher fruit yield per plant with superior quality parameters compared to other genotypes. Heterosis and combining ability studies was conducted in 45 crosses (15 lines x 3 testers). The crosses, MHO-12 x CIBB-1, MHO-12 x CIBB-2, KRCO-13 x CIBB3, KRCO-16 X CIBB-2, MHO-22 x CIBB3 and MHO-12 x CIBB-3 produced the superior hybrids for total yield per plant and total number of fruits per plant.

- Studies on effect of pre-harvest bunch treatment and bagging on yield and post harvest quality of banana revealed that the bunches sprayed with potassium silicate sprays at 6 ml/l + bagging treatment significantly improved bunch weight, total number of fruits per bunch and physical quality (mature fruit weight, fruit length, fruit diameter, ripe fruit weight and pulp weight) over control. Treatment also recorded the significantly minimum cumulative PLW, respiration rate and maximum shelf life of 12.83 days in var. Grand Naine and 7.50 days in case of cv. Ney Poovan. The treated fruits were also found organoleptically superior. Bunches sprayed with 20 ppm of 2, 4-D recorded better bunch weight, fruit weight, length, diameter and pulp weight in Grand Naine and Ney Poovan fruits.
- Research studies on intercropping of vegetables in medicinal crops under *alfisols* of Eastern Dry zone of Karnataka under irrigated condition' was carried out. The growth and yield of garden rue and coleus were not affected due to intercropping with vegetables. The sole crop of garden rue recorded better growth, yield and quality in both the seasons, while in intercropping systems, cluster bean intercropped with garden rue recorded the maximum fresh herb and dry herb yield (13.21 and 4.32 t ha<sup>-1</sup> respectively). The intercropping

system of Coleus + french bean and Garden rue + okra intercropping systems recorded the maximum LER (1.55) and had higher yield advantage. Garden rue intercropped with okra recorded the maximum benefit: cost ratio of 7.94 among the cropping systems in the summer. Sole crop of garden rue recorded the maximum benefit: cost ratio of 9.15 among the cropping systems in the *Kharif*.

- Development of functional mutants, cloning, characterisation and expressional analysis of selected resistance gene analogs (RGAs) and transcription factor (TF) genes in French bean (*Phaseolus vulgaris* L.) were studied to create spectral variability and to develop functional mutants using Ethyl Methyl Sulphonate (EMS) in the background of the cv. Arka Anoop of French bean. The EMS at 0.25% was found to be the LD<sub>50</sub>. A set of 1500 plants in M<sub>1</sub> and similar population in plant-to-row manner in M<sub>2</sub> generation was studied for spectral variability. A set of 20 TF genes and 10 RGAs was tested for expression in manifesting the rust and the MYMV diseases. Nine RGAs and AP2-2, AP2-3, AP2-4, AP2-5, B3-1, B3-2, B3-3, BHLH-1, BHLH-2, BHLH-3, BHLH-4, BHLH-5, BZIP-1, BZIP-2 and BZIP-3 TFs found up regulated in rust resistance. COHFBRGA-3, 4, 5 and 7, AP2-3, AP2-5, B3-2, B3-3, BHLH-4, BZIP-1 and BZIP-2 genes down-regulated and COHFBRGA-2, 25, 27 and 38 genes of French bean were up-regulated in MYMV resistance manifestation compared to control.
- Investigations on Gene expression and genotypic responses to bacterial blight in Pomegranate indicated genotypes with varying degree of resistance exhibited significant variation at phenotypic and molecular level. Transcriptome profiling of differentially expressed genes in resistant and susceptible genotypes through suppressive subtractive hybridization and Illumina HiSeq.TM500 (NGS) methods categorized all the genes into three groups *viz.*, biological process, molecular function and cellular component. Subsequently,

the genes identified were found confined to membrane transport, photosynthesis response, defense response, metabolic process and signal transduction sub groups. Further, genes specifically annotated to defense transcripts were catalase enzyme, transcription factors, LRR domain, trichome birefringence-like 34 and TMV resistance N-like in pomegranate with response to *Xap*. Thus, the investigation upshots would pave a path to identify disease resistant markers for effective crop improvement programme.

- Investigations on 'Genetics, molecular analysis of bacterial wilt (*Ralstonia solanacearum*) disease resistance and characterization of recombinant inbred lines in tomato' was carried out. Inheritance of bacterial wilt disease resistance was studied in Vaibhav x Anaga cross. The inheritance of bacterial wilt disease resistance was found to be controlled by single dominant gene in the cross Vaibhav x Anaga. The parents were tested with five linked bacterial wilt disease resistance SSR markers in which, three amplicons recorded polymorphism. The PCV and GCV were moderate for days to first flowering, number of branches, total soluble solids and pericarp thickness. Genotypic and phenotypic correlation showed that plant height had significant and positive correlation with average fruit weight, number of branches per plant, number of fruits per branches and fruit yield per plant. Recombinant inbred line COHRIL - 128, COHRIL - 272 and COHRIL - 286 were identified for higher fruit yield with resistance to bacterial wilt disease.
- Studies were undertaken on epidemiology and management of downy mildew [*Pseudoperonospora Cubensis* (Berk. and Curt.) Rostow.] In Ridge gourd the ridge gourd crop sown on 15<sup>th</sup> July attained the maximum Per cent Disease Index (PDI) of 92.60 per cent as compared to the crop sown in the month of August (86.90%) during the year 2012. Out of twenty ridge gourd genotypes tested against

downy mildew, under both natural and artificial epiphytotic conditions, only two germplasm lines viz., Arabhavi Local and Green Long showed moderately susceptible reaction and comparatively lower AUDPC values (1410.4 and 1447.1 respectively). Azoxystrobin (0.1%), Fosetyl- Al (0.2%), Metalaxyl + Mancozeb (0.2%) effectively reduced the intensity of downy mildew disease (26.67% PDI each) and increased the fruit yield of ridge gourd (11.04 t/ha, 9.86 t/ha and 9.0 t/ha respectively). Among the biorationals, three sprays of Azadirachtin (0.3%) and *Trichoderma harzianum* (0.5%) at fortnightly intervals reduced the disease intensity significantly over the control. However the Benefit-Cost ratio of these treatments was 3.59, 3.56, 3.0, 1.71 and 1.41 respectively.

- Studies on variability, *in vitro* mutagenesis and validation of fertilizer adjustment equations for target yield concept in banana revealed that, the plants of Udhayam, Hoovu bale, Hanuman, Pisang Awk and Robusta were found most vigorous in growth among thirty cultivars studied as noted by their plant height, stem girth, number of leaves per plant and leaf area at different stages of growth. Screening of banana cv. Grand Naine and Rajapuri revealed that, the EMS concentration of 0.4 per cent was found optimum with better survival percentage and also produced dwarfing mutants. The studies on fertilizer adjustment equation based on target yield concept revealed that, the banana cv. Ney Poovan plants applied with 150.75 g N: 17.81 g P: 344.5 g K achieved the highest but negative yield than expected target yield of 38 t/ha with minimum per cent deviation in plant crop and plants applied with 132.17 g N: 16.02 g P: 377.02 g K achieved the expected target yield of 40 t/ha with minimum per cent deviation in ratoon crop.
- Investigations on 'Development of heterotic hybrids with combined resistance to both tomato leaf curl virus (ToLCV) and bacterial wilt and validation of molecular markers for ToLCV

in tomato (*Solanum lycopersicum* L.)', among the hybrids, Arka Sourabh × C-13-1-2-1 recorded maximum number of flowers per cluster, number of fruits per cluster and yield per plant. The selected 11 hybrids subjected for stability study in three different environments, IIHR-2201 × IIHR-2199 and Megha × IIHR-2199 exhibited high adaptability for yield per plant, Arka Sourabh × D-6-9-6-1 for fruit firmness and Arka Ahuti × IIHR-2201 for average fruit weight. In molecular marker analysis for resistance to ToLCV disease, a SCAR marker JB-1 associated with resistance Ty1 gene was present in IIHR-2199, IIHR-2200, IIHR-2201, D-6-1-9-6-1, H-24 and Vaibhav.

- Studies on *In vitro* and *in vivo* mutagenesis in crossandra (*Crossandra infunduliformis* L. Nees) five varieties were evaluated for resistance against *Phytophthora nicotianae*. 'Arka Ambara' and 'Arka Shreeya' were found to be resistant. Highest number of multiple shoots was obtained on MS medium with Kn 0.5 mg l<sup>-1</sup>+BAP 0.5 mg l<sup>-1</sup> or Kn 0.25 mg l<sup>-1</sup>+BAP 0.25 mg l<sup>-1</sup> subcultured onto BAP 0.25 mg l<sup>-1</sup> in 'Arka Shrivya'. Per cent rooting was low on MS medium, whereas WPM supplemented with cytokinin/auxin induced 100 % rooting on Kn 0.25 mg l<sup>-1</sup>+IBA 3 mg l<sup>-1</sup>. Molecular profiling with RAPD analysis revealed 24 polymorphic primers in 'Arka Ambara', 14 in 'Arka Shreeya' and 19 in 'Arka Shrivya' indicating variations in DNA of control and irradiated plants in all varieties. The resistant varieties can be recommended for commercial cultivation. These studies can help to develop resistant/novel varieties using *in vitro/in vivo* techniques.
- An investigation on 'Evaluation of genotypes and standardization of production and drying techniques in Bachelor's button (*Gomphrena globosa* L.)' revealed that, closed level of spacing (30 cm x 30 cm) increased yield of flower (6.67 t/ha). Among the nutrients the treatment F<sub>3</sub> (220:75:75 NPK kg/ha) recorded the maximum flower yield (6.54 t/ha). Among the growth regulators studied, maximum flower

yield was obtained from cycocel @ 1000 ppm treatment (7.40 t/ha) while minimum flower yield was recorded in control (6.49 t/ha). Results of the post harvest techniques showed that, the flower harvested at full bloom stage with silica gel as embedding material took least number of days to dry flowers with superior quality. Pretreatment of flowers with 1:3 glycerols: water for three hours significantly resulted in maximum moisture loss with good quality. Shade drying by embedding in silica gel resulted in best quality dried flowers.

### 3.9 Interactive PG Poster Seminar

One-day seminar on **“Frontier Post Graduate Research Areas of UHS-B and its Impact on Horticulture Development”** was organized at UHS-B on 8<sup>th</sup> March 2017. The programme was inaugurated by the chief guest, Dr. V. C. Patil, former Dean PGS &

Dean, UAS, Dharwad & Raichur, around 150 students presented the paper/concept notes on five themes during the seminar.

### 3.10 Co-curricular Activities

The Directorate of Students Welfare has been coordinating actively with Sports, Cultural, NSS, Placement Cell, Alumni activities and other events at constituent colleges. The report of all these activities from nine constituent colleges of the University is as follows.

#### 3.10.1 National Service Scheme (NSS)

National Service Scheme is a mandatory course for II year B.Sc (Hons.) Hort. and I year diploma students. It includes day to day activities, special camps and evaluation of volunteers. The selected volunteers also participated in the National Integration Camp (NIC), Republic Day Parade and NSS youth festivals.

#### NSS Special Camps conducted at various constituent colleges

COH	Special Camp		No. of Units	No. of Volunteers	
	Date	Place			
1	KRCCH, Arabhavi	04-01-2017 to 10-01-2017	Mudalagi, Gokak	3	300
2	COH, Bagalkot	17-02-2017 to 23-02-2017	Bidardinni, Bilagi	3	300
3	COH, Bidar	14-02-2017 to 20-02-2017	Lada Avaradi, Bidar	2	200
4	COH, Kolar	19-03-2017 to 25-03-2017	Tinlishrinishapur, Hogalagere	2	200
5	COH, Munirabad	09-03-2017 to 15-03-2017	Kaddi Rampur, Hospet	2	200
6	COH, Mysore	21-04-2017 to 27-04-2017	Shrirampur, K.R.Nagar	2	200
7	COH, Sirsi	17-03-2017 to 23-03-2017	Aminahalli, Sirsi	2	200
8	COH, Bengaluru	13-03-2017 to 19-03-2017	Bagaluru	2	200
<b>Grand Total</b>				<b>18</b>	<b>1800</b>

### Special Achievements in NSS

The NSS units are functioning actively in all the constituent colleges of UHS, Bagalkot. NSS

volunteers participated in various NIC, national parades & youth festival and brought laurels to the University.

#### UHS-B NSS Volunteers at State Republic Day Parade Camp in 2016

NSS Volunteer		Constituent College
1	Praveen Mathpati	COH, Bagalkot
2	Vishwasgowda	KRCCH, Arabhavi
3	Shilpa H.S.	COH, Bengaluru

### State Level NSS Best Volunteer Awards

NSS Volunteer		Award
1	Tejukumar B.K. , COH, Bagalkot	State Best NSS Volunteer Award Dept. of Youth Empowerment & Sports, GOK
2	Manasa N.S., COH, Bidar	
3	Neetu T.M., COH, Munirabad	

#### 3.10.2 National Integration Camp (NIC)

National Integration camp was organized at the KRCCH, Arabhavi from 20<sup>th</sup> to 26<sup>th</sup> March, 2017. Around 150 volunteers from different states participated in the NIC.

#### Participation in the National Integration Camp

State		No. of Volunteers
1	Karnataka	96 [42(04)*] from UHS, Bagalkot)
2	Chhattisgarh	11 (01)*
3	Telangana	11 (01)*
4	Gujarat	11 (01)*
5	Rajasthan	10 (01)*
<b>Total</b>		<b>150</b>

\* Figures in parenthesis is Number of Programme Officers

#### 3.11 Sports and Games

##### 3.11.1 Athletics & Games Meet

The 8<sup>th</sup> inter-collegiate athletics meet was organized from 8<sup>th</sup> and 9<sup>th</sup> November, 2016 at COH, Bagalkot and Sports & Games Meet was held at COH, Munirabad from 1<sup>st</sup> to 2<sup>nd</sup> December, 2016. The various games like kabaddi, kho-kho, volley ball, etc., were organized during this event.

##### 3.11.2 AIIAU Sports and Games Meet

The 17<sup>th</sup>All India Inter Agri. Universities Sports and Games Meet was organized at Chaudhary Charan Singh Haryana Agricultural University, Hisar,

In athletics COH, Bagalkot bagged overall championship and COH, Kolar was the runners-up. Sumanth, B.T., student of COH, Sirsi and Ranjitha, S., student of COH, Mysuru won the individual championship in men and women category respectively. In sports and games COH, Munirabad bagged the overall championship and KRCCH, Arabhavi was runners-up.

Haryana from 25<sup>th</sup> to 29<sup>th</sup> March, 2017. A team of 40 participants and 2 team managers participated in this event from UHS-B.

#### Achievements in the 17<sup>th</sup>All India Agri Universities Sports & Games meet

Name		Event	Accomplishment
1	Sumanth B T, COH, Sirsi	4x400 m Relay	Second Position
2	Santosh Hadagali, COH, Bagalkot		
3	Nitinakumar, COH, Bagalkot		
4	Shivaprakash, COH Kolar		
5	Sumant B T, COH, Sirsi	200 m Athletics	Third Position

### 3.12 Cultural Activities

Dean, Students Welfare with Deans at constituent colleges are providing the conducive platform for active participation of students and bringing out their hidden talents. The cultural competitions are held during the annual day celebrations every year which forms the basis for selecting the team for inter collegiate youth festival and later to inter-varsity youth festival.

#### 3.12.1 Cultural Clubs

Various clubs are formed in all the constituent colleges of the University to strengthen

the co-curricular activities among the students, clubs include: Fine Arts, Literary, Music, Sports, Adventure and Science. A faculty is assigned for mentoring the students and effective functioning of these clubs.

#### 3.12.2 Inter Collegiate Youth Festival

The 8<sup>th</sup> inter collegiate youth festival of the University was held at COH, Bengaluru from 10<sup>th</sup>-12<sup>th</sup> December, 2016. All Constituent College teams participated in the events organised. The overall championship was bagged by the COH, Bengaluru and COH, Bagalkot was the runners-up.

#### Result of the 8<sup>th</sup> Inter-Collegiate Youth Festival

I. Music Events	Positions obtained by the Colleges			
	IV	III	II	I
1. Light Vocal (Indian)	Bagalkot	Bengaluru	Arabhavi	Munirabad
2. Patriotic Song (Indian)	Mysuru	Bengaluru	Kolar	Arabhavi
3. Group Song (Indian)	Arabhavi	Bagalkot	Kolar	Bengaluru
4. Group Dance (Folk)	Kolar	Bagalkot	Bengaluru	Arabhavi
II. Theatre Events	IV	III	II	I
1. Mono Acting	Bengaluru	Bidar	Sirsi	Bagalkot
2. Mime	Arabhavi	Bagalkot	Mysuru	Bengaluru
3. Skit	Mysuru	Bengaluru	Bagalkot	Munirabad
4. One Act Play	Munirabad	Sirsi	Bengaluru	Arabhavi
III. Fine Arts	IV	III	II	I
1. On the Spot Panting	Arabhavi	Bagalkot	Kolar	Munirabad
2. Collage	Munirabad	Arabhavi	Mysuru	Sirsi
3. Poster Making	Mysuru	Bagalkot	Munirabad	Sirsi
4. Clay Modeling	Bagalkot	Arabhavi	Sirsi	Kolar
5. Cartooning	Mysuru	Sirsi	Bengaluru	Bagalkot
IV. Literary Events	IV	III	II	I
1. Quiz	Sirsi	Bidar	Bagalkot	Bengaluru
2. Elocution	Kolar	Bengaluru	Bidar	Munirabad
3. Extempore Speech	Mysuru	Sirsi	Bengaluru	Bidar
4. Debate	Arabhavi	Bagalkot	Bidar	Mysuru

### 3.12.2 Inter Agri. University Youth Festival – 2016-17

The team of UHS, Bagalkot participated in the 17<sup>th</sup> All India Inter Agri. University Youth Festival held at Rajasthan University of Veterinary & Animal

Sciences, Bikaner (Rajasthan). The team representing the 17<sup>th</sup> AIIAU Youth Festival is as follows.

#### Participants of AIIAU Youth Festival 2016-17

Name		College	Name		College
1	Ranjitha Bilagi	KRCCH, Arabhavi	12	Nitin	COH, Bengaluru
2	Vinayak		13	Ramakumar	
3	Mohan D		14	Chandan M	COH, Kolar
4	Divya		15	Anup Vasista	
5	Deepti C S		16	Sahana K N	
6	Shivaraj S Hullatti	17	Lavanya H N		
7	Swegha Antony K	COH, Bengaluru	18	Sharanappa	COH, Munirabad
8	Sharon Jakob		19	Sanchita H	
9	Deepa S		20	Sachinkumar Bileri	
10	Meghana		21	Vijay Pramathi V S	COH, Mysuru
11	Manu M		22	Swathi B	COH, Sirsi

### 3.13 Literary Competitions

#### 3.13.1 Debate Competition

The debate competition was organized on “Indian Agriculture System Reformation is possible only through Co-operative Principles” which was sponsored by Karnataka State Co-operative Union on 11-11-2016 at UHS-B main campus. The winners of the competition were as follows:

1. Rahul Pathak, PG student, KRCCH, Arabhavi.
2. Niranja Prabhu, PG student, KRCCH, Arabhavi.
3. Deepa S., B.Sc (Hort.) student, COH, Bengaluru
4. Sushma, L., B.Sc (Hort.) student, COH, Mysuru

The winners represented UHS-B in state level debate competition held at Kuvempu University,

Shivamogga on 3-02-2017. Deepa, S., of COH, Bengaluru won 1<sup>st</sup> prize and brought laurels to the University.

#### 3.13.2 Essay Competition

On the eve of 8<sup>th</sup> foundation day of UHS-B inter-collegiate essay competition was organized on the topic “Diversified Options and Opportunities of Horticulture Sector for Growth and Promotion of Society” at University main campus on 11-11-2016. Shweta Kumari, COH, Bengaluru won the 1<sup>st</sup> place, Kousal Bai, COH, Kolar won the 2<sup>nd</sup> place and the 3<sup>rd</sup> place was jointly shared by Harshita Patil, COH, Munirabad & Abhimanyu, S.C., KRCCH, Arabhavi.

#### 3.13.3 Release of College Magazines

College	Magazine
1 Bagalkot	Prakruti
2 Bengaluru	Sirivatika -2016
3 Bidar	Spandana
4 Kolar	Pragati
5 Munirabad	Spandana
6 Mysuru	Ambari
7 Sirsi	Savismruti

### 3.14 Youth Red Cross

There are eight Youth Red Cross units functioning in each of the constituent colleges of the University. The blood donation camps are held regularly. This year COH, Bengaluru organized the "Blood Donation Camp" on 12-01-2017 in co-ordination with the Rotary Club Bengaluru, around 50 students and faculty enthusiastically participated in the blood donation camp

### 3.15 Health Camp

On 21-10-2016 one-day free B.P and Sugar checkup camp was organized at the main campus in co-ordination with the District Hospital, Bagalkot and office of DSW. The camp was inaugurated by the Director of Education, UHS-B and District Surveillance Officer, Bagalkot. All the teaching and non-teaching personnel of the university participated in the camp and took the benefit of the same.

### 3.16 Swachh Bharat Abhiyan

On the eve of Mahatma Gandhiji's birth anniversary, the Hon'ble Prime Minister of India

initiated a program called Clean India Campaign *i.e.*, *Swachh Bharat Abhiyan*. The program was conducted in all the constituent college campuses with the following broad initiations.

1. Elimination of open defecation.
2. Eradication of manual scavenging.
3. Modern and scientific municipal solid waste management.
4. To effect behavior change regarding total health sanitation.
5. General and scientific awareness about sanitation and its linkage with public health.
6. Capacity augmentation for urban local bodies.

### 3.17 Student Amenities

All the constituent colleges of UHS-B are well equipped with exclusive hostels for boys and girls. All the hostels have been provided with nutritious food and recreation amenities like gymnastics, table tennis, carom, chess, reading room (newspapers & magazines) etc. The occupancy in the different hostels of the university is as follows:

**Occupancy in Hostels of Constituent Colleges**

College		Occupancy	
		Boys	Girls
1	Arabhavi	161	142
2	Bagalkot	187	158
3	Bengaluru	123	124
4	Bidar	85	53
5	Kolar	79	121
6	Munirabad	97	68
7	Mysore	91	103
8	Sirsi	91	108
<b>Total</b>		<b>914</b>	<b>877</b>

### 3.18 Knowledge & Information Centre

The Sarvajna library at the main campus and libraries at sub-campuses of the University play a pivotal role in achieving academic, research and extension mission of the University. The main motto of library system is to reach the wide user community of students, scientists, teaching and non-teaching faculty of the University. A good collection of books, periodicals, theses, reports, maps and encyclopedia relevant to the mandate areas of the university have

been housed in Sarvajna library and sub-campus libraries.

The library bestows access to collection of e-books, e-journals and databases. The primary objective of the library is to be support system in providing best information services to the user community. The Sarvajna library at the main campus is equipped with remote access server, through which the digital library services are extended to libraries at sub-campuses, HRESs, KVK and HEEUs.

### 3.18.1 Components of the Library

- **Reference Section**

Each library of the University has an exclusive reference section which is housed with a vast collection of books meant for ready reference with quick and accessible information on any particular topic.

- **Book Bank Scheme**

Important books are provided for the benefit of SC/ST and BC students under special book bank scheme. Special text book collection has been built up at each campus.

- **Competitive Examination Cell**

An elite collection of books is created at Sarvajna library and sub-campus libraries for the benefit of students appearing for various competitive exams. The collection includes dictionaries, encyclopedias, gazetteers, competitive books *etc.*, this section is also equipped with study material essential for the aspirants of ICAR, ASRB, ARS, JRF *etc.*

- **Library Utilization**

During the period, 2612 registered members have availed the library services across the campuses. Average number of books is issued per week is around 1599 to the reading community.

- **Digital Services**

The digital infrastructure amenities like computers with latest configuration, Wi-fi & internet facility in the library premises *etc.* are provided at the

main and sub-campus libraries. Members avail the digitalized electronic information like CAB abstract online, Elsevier and Springer e-books, CeRA, on line Krishikosh *etc.*, for their academic achievements.

- i. **e-Resources**

The Sarvajna library has subscribed e-resources and shares the same with the sub-campus libraries to cater to the informational needs of all the stakeholders.

- ii. **CAB Abstract**

CAB abstract is the leading and extensive source of bibliographic database in applied life sciences. Through this complete CABI online database can be surfed.

- iii. **Krishikosh**

It is an Indian Agricultural Doctoral Dissertations Repository Service. It provides access to the Ph.D theses of all the SAUs, ICAR and premier institutions in India. It includes the repository of knowledge in agriculture and allied sciences, it is digitized collection of old and valuable books, records and various documents spread across the country in different libraries of Agricultural Research Institutions and SAUs

- iv. **CeRA**

CeRA is an online e-resource provided by the ICAR. Through this one can get access to more than 3800+ journals, e-books and IndiaAgriStat and CABI Abstracts in agriculture and allied subjects. Training sessions are conducted regularly in libraries for effectual use of e-resources.

### RESOURCES IN THE LIBRARIES OF UHS, BAGALKOT

Library	Books		Theses		Periodical	e-Books	Membership	
	Addition	Total	Addition	Total			Members	Avg. per Week
1 Bagalkot	839	9665	44	253	59	1100	582	168
2 Arabhavi	1165	10482	45	597	98		384	273
3 Bengaluru	2091	6006	35	81	20		317	200
4 Bidar	501	8974	-		58		276	250
5 Kolar	334	5012	3	3	-		280	200
6 Munirabad	-	3936	-		-		267	200
7 Mysuru	633	5084	-		27		252	178
8 Sirsi	352	4219	-		28		254	130
<b>TOTAL</b>	<b>5915</b>	<b>53378</b>	<b>127</b>	<b>934</b>	<b>271</b>	<b>1100</b>	<b>2612</b>	<b>1599</b>

# CONSTITUENT COLLEGES



**Bagalkot**



**Bengaluru**



**Bidar**



**Kolar**



**Arabhavi**



**Mysuru**



**Sirsi**



**Munirabad**



**Laptop Distribution**



**Interactive PG Seminar**



**Inauguration of NI Camp**



**NSS Volunteers in Shramadana**



**Health Camp**



**Swachh Bharat Abhiyan**



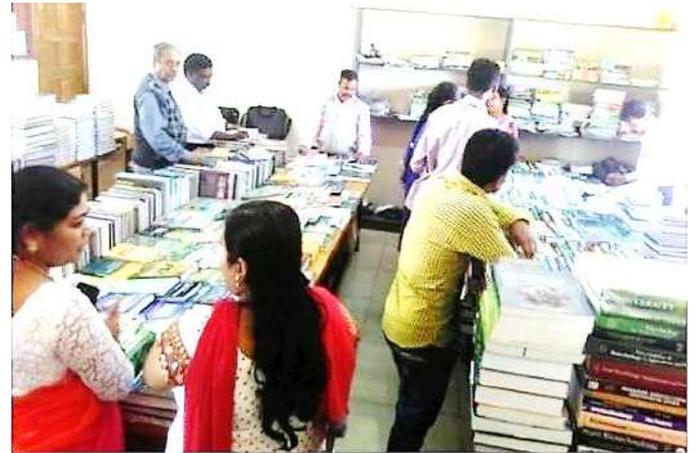
**Career Path Finder - I**



**Career Path Finder -II**



**Collection of Books at Library**



**Books Exhibition**



**PG- Research -Banana Bunch Feeding Study**

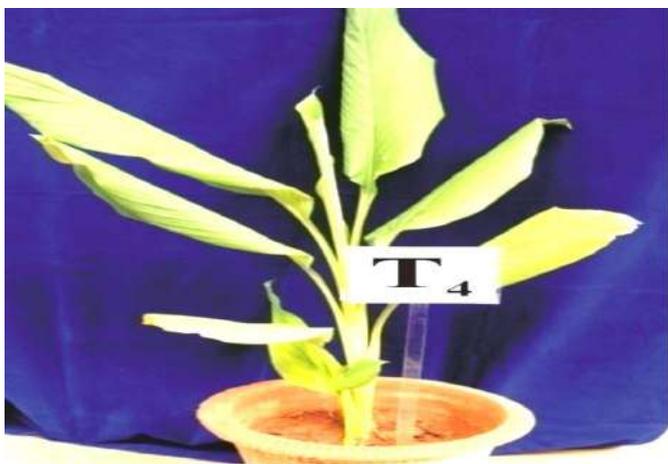




**PG- Research – Fertigation Studies in Athurium**



**PG- Research – Drumstick Tea Preservation Studies**



**PG- Research – Studies on Rhizome Rot Complex in Turmeric**

## 4. RESEARCH

The Directorate of Research focuses on meeting the location specific research needs of farming communities and other stakeholders in Horticulture sector in Karnataka. University has 11 HRES, 10 AICRP Centres and 10 Centres of Excellence spread over all the agro-climatic zones of Karnataka (Annexure XII, XIII-a & b) The research activities of the University provide solutions for the location specific problems impeding productivity and quality of horticulture crops. University carries out the research activities through several projects including ICAR and other agencies *viz.*, RKVY, NHM, NHB, DBT, DST etc.

### 4.1 Thrust Areas of Research

- Development of crop varieties and hybrids through conventional breeding and biotechnological interventions in major crops *viz.*, Fruits (pomegranate, grape, sapota, banana, mango *etc.*) Vegetables (tomato, brinjal, chilli and potato), Flower crops (gerbera, rose, marigold, chrysanthemum and jasmine), Plantation crops (Coconut and Oil palm) and other Medicinal and Aromatic plants for high yield potential, quality traits and tolerance against biotic and abiotic stresses.
- Targeted breeder and foundation seed production in major crops *viz.*, drumstick, chilli, onion, garlic and flower crops to meet the ever-growing needs of the farmers.
- Water management including micro irrigation and fertigation in well, tank and canal irrigated command areas and rain fed areas for resource conservation, enhanced yield, water productivity and fertilizer use efficiency.
- Agro-meteorology and climate smart horticulture.
- Crop diversification and integrated farming systems management for sustainable agriculture production systems.
- Crop protection through integrated pest, disease and weed management including biological control of pests and diseases.
- Post-harvest production technologies including value addition in fruits, vegetables, flower crops and plantation and medicinal crops.
- Land Resource Inventorization, Hydrological Studies and Baseline studies in Bidar district with World Bank aid is one of the unique initiatives of the university for developing Decision Support System in Dryland areas through integrated watershed management approach for natural resource conservation and ensuring stability in production under adverse climatic conditions.
- Farm mechanization for identification and development of small farm mechanization equipment for land preparation, sowing/seedling planter, interculture, plant protection, harvesting, threshing and post-harvest processing of produce.
- Market intelligence and cost of cultivation for remunerative farming.
- Food safety and quality control.
- Food packaging.
- Entrepreneurship development.
- Food fortification with micronutrients.
- Women empowerment in Eco-friendly dyes and textiles.

### 4.2 Seasonal Conditions and Crop Performance

- In 2016, Karnataka received 744 mm annual rainfall against normal of 1027 mm indicating deficit rainfall (-28%). South west monsoon was normal (-18% departure) with 690 mm against 839 mm normal but the N-E monsoon has failed as it was scanty (-71% departure) with 54 mm against 188 mm normal. Rainfall varied among the different regions of state. South-Interior Karnataka received annual rainfall of 380 mm against normal of 469 mm indicating (-19%) deficit. Rainfall during S-W monsoon was normal (-12%), however rainfall received during N-E monsoon was scanty (-68%) with just 66 mm rainfall against 210 mm normal rainfall. North interior Karnataka received annual rainfall of 491

mm against normal 639 mm indicating (-23%) deficit. Rainfall during S-W monsoon was normal (-2%), however during N-E monsoon rainfall was scanty (-81 %). In Malnad region annual rainfall was deficit (-34%) with 1140 mm actual rainfall against 1732 mm normal. Rainfall during S-W

monsoon was deficit (-29%) and during N-E monsoon it was scanty (-68%).

- On the other hand, in coastal region annual rainfall was deficit (-23%) with 2515 mm actual rainfall against 3280mm normal. Rainfall during S-W monsoon was deficit (-20%) and during N-E monsoon it was scanty (-57%).

### Region wise Rainfall in Karnataka

Region	South West Monsoon			N-E Monsoon			Annual Rainfall		
	Normal (mm)	Actual (mm)	Departure (%)	Normal (mm)	Actual (mm)	Departure (%)	Normal (mm)	Actual (mm)	Departure (%)
South Interior	359	314	-12	210	66	-68	469	380	-19
North Interior	494	464	-6	145	27	-81	639	491	-23
Malnad	1504	1066	-29	228	74	-68	1732	1140	-34
Coastal	3019	2403	-20	261	112	-57	3280	2515	-23
<b>Total</b>	<b>839</b>	<b>690</b>	<b>-18</b>	<b>188</b>	<b>54</b>	<b>-71</b>	<b>1027</b>	<b>744</b>	<b>-28</b>

- Untimely rains and hailstorms on 16-03-2017 affected grapes orchards in Bagalkot and Vijayapur district.
- In 2016-17 borer infestation in ajwain, bacterial wilt in banana, thrips infestation in onion, chilli, seed spice and drumstick, weevil infestation in onion and malformation mango aggravated in Haveri district.

Most of the farmers in state faced water scarcity for irrigation (January to April, 2017) due to scanty rainfall ensuing poor flowering, fruit set & further drooping and non-attainment of physiological maturity in mango, guava, jamun and other fruit crops plunging the yield by 45-50 per cent.

## 4.3 Significant Research Accomplishments

### 4.3.1 Varieties developed

#### a) AAC-1

Characters	
1	<ul style="list-style-type: none"> <li>• Open pollinated seedling selection from the germplasm</li> <li>• Flowers are pink in colour with diameter of 5.5-6.0 cm, weighs 4 g, plant height is 55 cm with stalk length of 30 cm, takes about 138 days to flower.</li> <li>• Produces 50 flowers per plant.</li> <li>• Resistant to <i>Alternaria</i> leaf spot.</li> <li>• Yield: 18.58 t/ha (30% more than cv. Arka Kamini).</li> </ul>

### 4.3.2 Varieties Identified for Adoption

#### a) Anthurium Saffron

Characters	
1	Variety Saffron (Orange colour spathe) has produced higher yield 8-10 flowers per plant per year and is suitable to be grown under poly house condition.

**b) Coriander Hisar-Sugandha**

Characters	
1	High yielding improved coriander variety released from Hisar Agricultural University is suitable for growing in <i>Rabi</i> season for seed purpose. Crop matures in 100-105 days after sowing. Yields 10-11 quintals seeds per hectare and possesses around 0.4% essential oil in seeds.

**4.4 Technologies developed and approved for inclusion in the Package of Practices (POP)**

Technologies		Number
1.	Crop Improvement & Biotechnology	8
2.	Crop Production	7
3.	Crop Protection	5
4.	Post-Harvest Technology	3
5.	Social and Allied Sciences	3
<b>Total</b>		<b>26</b>

**4.4.1 Crop Improvement & Biotechnology****1. Seed priming to enhance germination in****Babchi (*Psoralea corylifolia*)**

- Keeping seeds in water bath at 100 °C for 30 min and retaining in water bath for a day will give maximum germination (55.3%) Seedling vigour index (SVI) -I (372) and Seedling vigour index (SVI)-II (1.68) compared to control (18.67%)
- In Babchi crop seed germination test, first count should be taken by 4<sup>th</sup> day and second count may be by 14<sup>th</sup> day.

**2. Seed priming to enhance germination in Chrysanthemum**

- Seed priming of Chrysanthemum with panchagavya (3% for 3 hours) retained higher germination at six months of storage (46.7%) compared to control (36.7%). Seedling vigour index (SVI) - I (195) and Seedling vigour index - II (0.129) was superior compared to control (97 & 0.05 respectively).

**3. Seed priming to enhance germination in Marigold**

- In Marigold, germination of 6 months stored seeds can be improved by treating seeds with panchagavya (3% for 3 hours). Higher germination (76.44%) and seedling vigor index-I can be obtained compared to the control (73.31%).

- Priming treatments have shown higher seed germination of stored seeds compared to the fresh harvested seeds.

**4. Seed pelleting with plant products in Chrysanthemum**

- Pelleting of Chrysanthemum seeds with pongamia leaf powder (150-200 g/kg seeds) will help to retain germination and other quality parameters up to six months of storage under normal condition in brown paper bag.

**5. Seed priming to enhance germination in Chilli**

- Chilli seeds stored for long (up to 6 months) treating with panchagavya 3% for 3 hour or duranta leaf extract (1:1 w/v) or pongamia leaf extract (1:1 w/v) gives 23-27 per cent increase in germination over untreated control.

**6. Okra genotypes for drought tolerance**

- Okra genotypes were subjected to drought stress tolerance evaluation in field condition by 65% field capacity stress and in the laboratory by induced water stress using up to 15% Poly Ethylene Glycol-6000. It is found that among okra genotypes Arka abhay followed by Parbani Kranti showed relatively drought tolerant traits which are suitable to grow under mild water stress condition.

## 7. Tomato genotypes for drought tolerance

- Tomato genotypes were subjected to drought stress tolerance evaluation in field condition by 65% field capacity stress and in the laboratory by induced water stress using up to 15% Poly Ethylene Glycol-6000. It is found that among tomato genotypes Arka Abha and PKM-1 showed relatively drought tolerant traits which are suitable to grow under mild water stress condition.

## 8. Chemical seed treatments to break seed dormancy and enhance germination of Oil Palm seeds.

- Soaking of de-pericarped oil palm seeds in gibberellic acid @ 1g/lit for 72 hours or polyethylene glycol @ 5% for 24 hours before incubation (keeping the dried seeds at 40°C for 60 days) results in breaking the seed dormancy. This helps in 25.44% increase in germination percentage of oil palm seeds over control (Immersing in water).

### 4.4.2 Crop Production

#### 1. Optimum spacing and fertigation in Muskmelon

- Adopting raised bed with spacing of 60 cm from row to row and 45 cm plant to plant under polyhouse condition with application of recommended quantity of FYM (30 tons per hectare) and fertigation with 100 per cent water soluble fertilizers (100:75:50 kg NPK/ ha) through drip irrigation system in 10 equal splits at an interval of 10 days during crop growth period gives highest yield of muskmelon (200 ton/ha).

#### 2. Optimum fertilizers and Jeevamrutha application in Onion

- In transplanted onion application of 100 % (RDF 125:75:125 NPK kg/ha + 30 t FYM) + soil application of Jeevamrutha @ 500 lit/ha at transplanting, vegetative stage (30 DAT) and bulb initiation (60 DAT) gives 16 % increased bulb yield compared to RDF application alone.

#### 3. Nutrient management in chilli - cotton + onion cropping system

- In a cropping system of chilli, growing of onion as intercrop (1 : 2 rows) and desi cotton as a relay

crop (dibbling of cotton seeds between two chilli plants in the same row) with application of 100 per cent RDF (100:50:50 NPK kg/ha) for chilli, 75 per cent RDF (125:75:125 NPK kg/ha) for Onion and 50 per cent RDF (80:40:40 NPK kg/ha) for cotton gives highest chilli equivalent yield (15.1 q/ha) and highest benefit cost ratio (4.6) compared to application of 100 per cent RDF for all the crops.

#### 4. Nutrient management in chilli – cotton + garlic cropping system

- In a cropping system of chilli, growing of garlic as intercrop (1 to 2 rows) and desi cotton as a relay crop (dibbling of cotton seeds between two chilli plants in the same row) with application of 100 per cent RDF (100:50:50 NPK kg/ha) for chilli, 50 per cent RDF (125:62.5:62.5 NPK kg/ha) for garlic and 50 per cent RDF (80:40:40 NPK kg/ha) for cotton gives highest chilli crop equivalent yield (16 q/ha) and benefit cost ratio (5.1) compared to application of 100 per cent RDF for all the crops.

#### 5. Optimum potting media for Orchid cultivation

- Potting media of Charcoal +Stone Pebbles+ Coconut Husk is optimum for orchid cultivation and gives higher number of psuedobulbs, number of florets/spike and number of spikes/plant.

#### 6. Rose varieties for open condition

- Dutch rose varieties viz. Grandgala and Corvette are suitable for open condition.

### 4.4.3 Crop Protection

#### 1. Management of fruit cracking in Pomegranate

- Sulphate of potash (SOP) application (50 gm/plant) to soil at 15, 30 and 45 days after the flowering and foliar application of SOP (3gm/litre) along with micronutrients complex (1.5gm/lit) at 20, 40 and 60 days after fruit setting reduces the fruit cracking associated with fruit blight of pomegranate.

#### 2. Management of Citrus Butterfly in acid lime

- Spraying of Chlorantraniliprole 18.5 SC @ 0.15 ml/l during first week of October and December in young (3-4 years old) orchards of acid lime reduces the incidence of citrus butterfly to the

extent of 65 per cent. This is more effective in young orchards only.

### 3. Management of Citrus leaf miner in acid lime

- During new / fresh flush period, spraying of Chlorantraniliprole 18.5 SC @ 0.15 ml/l during first and fourth week of July, October &

December reduces the incidence of leaf miner in acid lime to the extent of 62 per cent.

### 4. Management of Mango hoppers

- Two sprays of Thiamethoxam 25WG @ 0.25 g/lit of water- one at 50% flowering and another spray at 15 days interval was found highly effective against mango hoppers as compared to Imidacloprid 17.8SL @ 0.25 ml/l of water by more than 20 per cent.

## 5. IPM of Brinjal shoot and fruit borer

1. Before transplanting to the main field, dipping of brinjal seedlings in Imidacloprid 17.8SL @ 0.2 ml/lit solution for 10 minutes followed by  
↓
2. Soil application of Neem cake @ 250 kg / ha in two parts (50% at the time of transplanting and remaining 50% after one month of transplanting) reduces the sucking pests for more than 75.0 to 80.0 % on brinjal shoots and fruit borer incidence in the initial stage of the crop.  
↓
3. When the incidence of shoot and fruit borer is noticed, at 15 days interval spraying of Thiodicarb 75 SP @ 1.0 g/lit  
↓
4. Cyantraniliprole 10 OD (Cyazypyr) @ 1.80 ml  
↓
5. Chlorantraniliprole 18.5 SC (Rynaxypyr) @ 0.2 ml  
↓
6. *B.t. (Bacillus thuringiensis)* @ 1.0 ml  
↓
7. Destruction of damaged fruits  
↓
8. Recorded lowest shoot damage (7.19 %), fruit damage (11.96 %) and highest fruit yield (21.65 t/ha).  
↓
9. Overall, there was 21.90 % increase in brinjal fruit yield as compared to the check.

### 4.4.4. Post-Harvest Technology

#### 1. Recipe for Pumpkin Candy

- Best sensory quality pumpkin candy with highest retention of  $\beta$  carotene can be prepared by blanching pumpkin slices for 7-10 minutes followed by dipping in 40-70<sup>0</sup>Brix syrup for 6-7 days and drying in electric tray dryer at 60<sup>0</sup>C for 2-3 hours.

#### 2. Dehydrated Bitter gourd

- Good sensory quality dehydrated bitter gourd slices with highest recovery can be obtained by

dipping bitter gourd slices of 2-3mm size in 0.1 per cent KMS + 0.5 per cent citric acid solution for 1 hour and drying at 60<sup>0</sup>C for 16-18hours in electric tray dryer.

#### 3. Dehydrated Carrot

- Good sensory quality dehydrated carrot slices with highest recovery can be obtained by blanching carrot slices of 2-3 mm size for 2 minutes followed by dipping in 40<sup>0</sup> Brix syrup + 6 per cent salt solution for 2 hours and drying at 60<sup>0</sup>C for 20-24 hours in electric tray dryer

#### 4.5 Farm Trials/ Multi-Location Trials

A total of 67 Farm trials (11 from IIHR), 05 Multi-Location Trials conducted at different research stations, colleges and farmers field. The list of farm trials is as follows:

##### 4.5.1 New Farm Trials for the technology developed by the UHS-Bagalkot.

1	Development of high yielding green chilli varieties
2	Development of high yielding dry chilli varieties
3	Evaluation of F1 Hybrids for dual purpose chilli
4	Effect of zinc and sulphur on yield of onion
5	Crop improvement in Brinjal
6	Crop improvement and standardization of production technology in Spider Lilly
7	Effect of time of sowing and seed rate on seed production potentiality of coriander
8	Effect of secondary nutrients on growth and yield of chilli
9	Management of shoot borer in Ginger variety Humnabad local
10	Evaluation of four released varieties of turmeric viz., Suroma, Shobha, Salem and CO-1
11	Evaluation of new molecules or management of jasmine budworm
12	Management of leaf spot of Jasmine
13	Bio-efficacy of Fluxapyroxad 250g/l + Pyraclostrobin 250 g/l 500sc (Merivon 500sc) against Fruit rot, Leaf spot and Powdery mildew of chilli
14	Evaluation of different fungicides against leaf spot of ginger caused by <i>Phyllosticta zingiberi</i> under Field condition
15	Bio-efficacy of GA with Fosytl AI 80%WP against Downey mildew of Grapes
16	Efficacy of new molecules of Fungi toxicants against Phytophthora wilt of Black pepper in existing plantation
17	Management of Heart Rot of pineapple
18	Varietal trial on French bean
19	Effect of foliar application GA <sub>3</sub> on Okra
20	Standardization of spacing, levels of fertilizers through fertigation in parthenocarpic cucumber under polyhouse
21	Effect of nutrient on growth and yield of Yard long Bean in dry zone of Karnataka
22	Utilization of Tomato waste for extraction and encapsulation of lycopene
23	Studies on minimal processing of Jack fruit
24	Evaluation of Biopesticides and botanicals against leafhoppers in mango
25	Efficiency of Cal-MB against Tomato Leaf miner
26	Bio-efficiency of Metarfenon against powdery mildew of cucumber
27	Bio-efficacy of Merivon 500sc against powdery mildew of Cucumber
28	Scheduling of fungicides against potato late blight
29	Varietal trial on French bean
30	Varietal trial on cluster bean
31	Varietal trial on pigeon pea
32	Varietal trial on vegetable soyabean
33	Varietal trial on Sambhar onion

#### 4.5.2 Ongoing Farm Trials for the technology developed by UHS-Bagalkot

1	Effect of Graded levels of fertilizers and Jeevamrutha application to Garlic
2	Evaluation of fenugreek genotypes for seed yield
3	Evaluation of IPM module for the management of <i>Tuta absoluta</i> in tomato
4	Evaluation of Chlorantraniliprole 18.5 SC against pomegranate fruit borer
5	Evaluation of Fipronil 5 % SC against grape thrips
6	Management of tea mosquito bug in cashew
7	Management of guava kajji bug
8	Management of Mango Bark eating caterpillar
9	Management of Sapota Bark eating caterpillar
10	Effect of AM fungi on rooting of Passion fruit
11	Testing of Phosfik-8 potassium phosphate for management of black foot rot disease of black pepper
12	Effectiveness of new molecules of fungi toxicants against <i>Phytophthora</i> foot rot of black pepper in existing plantation
13	Management of heart rot of pineapple
14	Management of post-harvest disease of mango anthracnose
15	Evaluation of vegetable pigeon pea genotypes
16	Effect of bio-inoculants on quick establishment of black pepper in nursery
17	Sequential application of herbicides in Drill sown onion
18	Sequential application of herbicides in Transplanted onion
19	Composting of Areca nut
20	Performance of transplanted turmeric
21	Evaluation of New insecticides against tomato fruit borer
22	IPM for <i>Tuta absoluta</i>
23	Management of DBM in cabbage through new molecules

#### 4.5.3 Farm Trials for the technology developed by IIHR

1.	Mango variety- Arka Udaya,
2.	Guava- variety Arka Rashmi
3.	French Bean variety Arka Arjun
4.	Dolichos variety A. Krishna, A. Swagath and A. Vistar.
5.	Garden pea variety Arka Pramodh
6.	Water melon variety - Arka Akash.
7.	Multiplier onion variety Arka Ujjwal
8.	Rose onion variety Arka Vistas
9.	Marigold (variety Arka Agni and Arka Bangara)
10.	China aster Arka Aadya and A. Archana
11.	Ashwagandha variety A. Ashwagandha

#### 4.5.4 Multilocation Trial

1.	Multilocation Trial for breeding line/variety in tomato
2.	Multilocation Trial for wild melon genotypes for northern Karnataka.
3.	Multilocation Trial for Developing new variety of turmeric
4.	Multilocation Trial for Identification of new genotypes of cherry tomato
5.	Multilocation Trial for Genetic and molecular characterization of ecotype\land races group of brinjal prevailing in Karnataka

#### 4.6 Projects

The University conducts experiments at main campus and 11 HRESs through externally funded and

in-house projects. During the year 2016-17 the university has received Rs.1884.84 Lakhs from various funding agencies.

##### 4.6.1 Abstract of External Funded Ongoing projects

Funding Agency	Number	Amount released (Rs. in lakh)
1. National Horticulture Mission (NHM)	11	426.83
2. National Horticulture Board (NHB)	1	48.89
3. Cashew and Cocoa Development (DCCD)	1	12.50
4. Coconut Development Board, (CDB)	1	9.64
5. Dept. of Biotechnology (DBT),	3	135.65
6. Dept. of Science and Technology (DST).	3	60.19
7. Dept. of Watershed Development, GoK	1	482.40
8. Dept. of Information Technology & Biotechnology (KBITS)	1	500.00
9. K-FIST, VGST, GoK	1	20.00
10. Bioversity International, New Delhi	4	51.90
11. Indian Council of Agricultural Research	1	29.60
12. Karnataka Tanda Development Corporation Ltd.,	1	17.25
13. Karnataka State Spice Development Board (KSSDB)	2	9.53
14. Karnataka State Agricultural Marketing Board (KSAMB)	1	1.86
15. Karnataka Agricultural Price Commission (KAPC)	2	10.00
16. National Bee Board (NBB)	1	10.00
17. Department of Forest, GOK	2	3.80
18. Agri power Australia Ltd	1	2.00
19. Zilla Panchayat (ZP)	2	26.40
20. National Mission for food Processing (NMFP)	2	26.40
<b>Total</b>	<b>42</b>	<b>1884.84</b>

##### 4.6.2 New External Funded Projects Sanctioned

###### RKVY Projects

Centre	Title	Budget released (Rs in lakh)
1 COH Bagalkot	Demonstration of precision farming technologies under open and protected structures for flowers and vegetable crops.	67.00
2 COH Bagalkot	Establishment of bee breeding, colony multiplication and training center on beekeeping for sustainable pollination In horticultural Crops.	84.00
3 COH Bagalkot	Strengthening of quality control laboratory at UHS, Bagalkot	29.00
4 COH Bangalore	Popularization of value added products in Jackfruit ( <i>Artocarpus heterophyllus</i> Lam.)	39.00
<b>Total</b>		<b>219.00</b>

###### SERB / (DST) Projects

Centre	Title of the Project	Budget released (Rs. in lakh)
1 Directorate of Research, UHSB	Biotechnological intervention in pomegranate for efficient and rapid regeneration and crop improvement	11.00
<b>Total</b>		<b>11.00</b>

#### 4.6.3 New and Ongoing In-house Projects

SL No	Particulars	Continued	Concluded	Drop	New Projects	Farm trail	MLT	POP
01	Fruit Science	45	07	0	13	0	0	0
02	Vegetable Science	47	01	0	03	01	04	07
03	PSMA	30	00	0	07	11	07	
04	FLA	18	10	0	00	0	02	03
05	PHT	19	08	0	05	0	0	0
06	BCI	51	13	0	16	0	0	0
07	ENT	42	14	01	07	0	0	0
08	Pathology	49	04	04	21	02	0	0
09	NRM	40	02	08	15	0	0	05
10	SAS	17	07	0	19	0	0	0
<b>Total</b>		<b>358</b>	<b>66</b>	<b>13</b>	<b>106</b>	<b>14</b>	<b>13</b>	<b>15</b>

#### 4.6.4 External Projects Completed

**RKVY**

Title		Year of sanction	Budget released (Rs. In lakhs)	Project outcome
1	Establishment of Climate Resilient Horticulture Promotion Center at Bagalkot.	2012-13	190.00	<ol style="list-style-type: none"> <li>1) Established laboratory equipped with latest instruments to understand the impact of climate change on pest and disease incidence and developed forecast model useful for the farming community.</li> <li>2) Analysed district wise past 100 years weather data and future climate and used for understanding possible impact on future horticulture crops suitability area, water requirement using crop model.</li> </ol>
2	Establishment of Centre for PHT of Horticulture Crops at Bagalkot	2012-13	305.00	<ol style="list-style-type: none"> <li>1) Created awareness among farmers, youth, public about need for processing of fruits and vegetables.</li> <li>2) Facilities helped in human resource development in the form of PG students. They are exposed to high end equipment in quality analysis, thus making them assets for any research organisation in the future.</li> <li>3) One process and five product protocols are developed and about 6 protocols are in progress.</li> <li>4) Research and product development work geared up.</li> <li>5) Trainees are exposed to practical hands-on training.</li> <li>6) Students of experiential learning program produced and sold juices worth Rs. 1.20 lakhs during Totagarike Mela-2017 by making use of facilities created under the project.</li> </ol>
3	Establishment of Centre for Viticulture and Oenology (Wine Research and Training Institute)	2012-13	305.00	<ol style="list-style-type: none"> <li>1) Human resource development.</li> <li>2) Introduction of new table and wine grape varieties.</li> <li>3) Orchard establishment.</li> <li>4) Created awareness on importance of grapes and wine on health.</li> </ol>

4	Establishment of Sub-center for PHT of Horticulture Crops at PG Centre, Bangalore	2012-13	100.00	<ol style="list-style-type: none"> <li>1) Establishment of sub-centre for PHT of horticulture crops.</li> <li>2) Project helped in undertaking growers and processor specific need using best facilities available at the centre.</li> <li>3) Postharvest centre is demonstrating the latest technologies on the principle of 'Seeing is believing and learning by doing'</li> <li>4) It is developing various nutraceuticals products such as Jamun encapsulation, and packing technology for fresh cut jack bulbs.</li> <li>5) Enhancement of postharvest shelf life of fruits and vegetables through application of low temperature, sanitizers, ethylene inhibitors and storage.</li> <li>6) This centre has the best facilities for drying and dehydration of fruits and vegetables with various methods ranging from solar, tray, portable, vacuum, spray freeze drying.</li> </ol>
5	Establishing Centre for Soil, Water and Plant diagnostics at main campus, Bagalkot	2013-14	325.00	<ol style="list-style-type: none"> <li>1) Providing soil, water &amp; plant analytical services to farmers</li> <li>2) Extending farm advisory services to farmers on soil health.</li> </ol>
6	Establishment of Centre for horticulture Biotechnology (Bagalkot and Bangalore)	2013-14	305.00	<ol style="list-style-type: none"> <li>1) Availability of healthy and quality planting material of horticulture crops to farmers</li> <li>2) Availability of new varieties hybrids of vegetables and vegetables that contribute for the increased income of the farmers.</li> <li>3) Preservation of endangered and local varieties of vegetables.</li> <li>4) Developed rapid disease diagnostic kits for farmers in taking timely care of plant protection measures to save their crops.</li> <li>5) Availability of practical training facilities for UG, PG students and extension workers.</li> <li>6) The genetic markers identified will be helpful for marker-assisted selection during crop breeding programs.</li> </ol>
7	Establishing Centre for Vegetable Research & Development	2013-14	205.00	<ol style="list-style-type: none"> <li>1) The centre has introduced indigenous vegetables like Wild melon, Oriental pickling melon, Karachikai and promoted to the commercial cultivation and nutraceutical importance.</li> <li>2) The centre has standardised the value-added products like Jam, Squash and Nectar of indigenous vegetables in oriental pickling melon which focused on scope for small scale industries.</li> <li>3) The centre has enhanced the nutritional security by providing the vegetable kit.</li> </ol>
8	Establishing Horti – business and export knowledge centre at Main campus, Bagalkot	2013-14	120.00	<ol style="list-style-type: none"> <li>1) Increased bargaining power of the farmers through various interventions.</li> <li>2) Facilitated in the dissemination of Good Agricultural Practices to the farmers for the production of export quality horticulture produce.</li> </ol>

				<ul style="list-style-type: none"> <li>3) Educated the farmers for export of horticulture produce.</li> <li>4) Exposed the farmers for various alternative marketing options.</li> </ul>
9	Centre for commercially important medicinal and aromatic crops	2013-14	190.00	<ul style="list-style-type: none"> <li>1) Collection, conservation and propagation of medicinal and aromatic plants.</li> <li>2) Standardized propagation/production technologies.</li> <li>3) Created awareness in students and public.</li> <li>4) Transfer of technology.</li> <li>5) Facilitated farmers and industries linkage.</li> </ul>
10	Karnataka center of excellence in Foods for Health	2014-15	125.00	<ul style="list-style-type: none"> <li>1) Production of nutraceutical products to alleviate malnutrition which cure certain diseases and disorders among the population is the need of the hour. Nutritional security is gaining a momentum in recent times apart from food security.</li> <li>2) Development of nutraceutical products from fruits, vegetables, medicinal herbs and other allied plant products will help to maintain sound health of the population.</li> <li>3) The UHS-B in partnership with Vegetable and Fruit Improvement Centre, Texas A&amp;M University has plans to expand the cultivation of various kinds of fruits, vegetables including under exploited and medicinal herbs and also have the programme for developing appropriate products for different ailments.</li> </ul>
11	Information Communication Technology based IVR System and responsive Website Project to reach unreached farmers	2014-15	20.00	<ul style="list-style-type: none"> <li>1) Real time advisory with Scientists (SME's) and sharing information with end users.</li> <li>2) Horticulture marketing, weather information and disaster solution in real time.</li> <li>3) Periodical update e-POP and providing complete solution to emerging horticulture problems.</li> <li>4) Forewarning and timely management of pests and diseases.</li> <li>5) Precision and organic farming in horticulture and actionable knowledge</li> <li>6) Assessment of UHS-B technologies adopted and provided avenues for new research problems.</li> <li>7) Generates crop-wise and region-wise database for Policy and decision-makers</li> <li>8) District-wise soil mapping and cropping models based on GIS and remote sensing technology</li> <li>9) Revenue generation to the University through advertisement by private sector</li> <li>10) Enhance productivity &amp; adoption of PHT to create new business opportunities.</li> </ul>
12	Strengthening of tissue culture laboratory for mass multiplication of pomegranate ( <i>Punica granatum</i> . L) through micro propagation.	2015-16	81.00	<ul style="list-style-type: none"> <li>1) The improvised protocols are helpful for scaling up, cost reduction and accelerating the rate of disease free planting material production.</li> <li>2) Production and distribution of disease free pomegranate seedlings to farmers.</li> <li>3) Standardized protocol can be employed for mass multiplication of pomegranate.</li> </ul>

				<p>4) Awareness about pomegranate tissue culture plants among the farming community.</p> <p>5) Created facility can be utilised for the intensive research purpose for development of transgenic crops and development of protocol for the other crops which are more economical.</p>
13	Development of Consortia of Bio-fertilizer and Bio-pesticide products for enhanced productivity and soil health in Horticulture	2015-16	50.00	<p>1) The consortia developed by University is significant component of integrated disease and pest management module for horticultural crop production</p> <p>2) A total of 17.8 per cent area of pomegranate has been increased in the districts of the technology adoption</p> <p>3) 17-different competent strains of biofertilizers and biopesticides were identified and mass production protocols were standardized to supply ready formulations based on the demand from the farmers</p> <p>4) These developed formulations were also found beneficial in organic horticulture by replacing unsafe pesticides and fertilizers.</p>
<b>Total</b>			<b>2321.00</b>	

**NHM**

Title of the Project		Year of Sanction	Amount (Rs. In Lakhs)	Salient Impacts
1	Establishment of Tissue Culture Lab	2011-12	100.00	<ul style="list-style-type: none"> <li>Provision of disease free quality genuine planting materials to farmers.</li> <li>Increase in the productivity of crops.</li> <li>Rural youth will be trained on tissue culture production of planting materials</li> </ul>
2	Small fruit Nursery	2013-14	6.25	Production and supply of genuine quality planting materials of elite perennial commercial fruit crops to farmers
3	Vegetable Seed Production	2013-14	2.50	Production of genuine and quality seeds of popular varieties of onion (Arka Kalyan), Pea (GS-10) and Chilli (Byadagidabbi)for Dharwad district.
4	Vegetable Seed Production	2013-14	2.50	<ul style="list-style-type: none"> <li>Onion Variety Arka Kalyan most suitable in <i>Kharif</i> for entire Dharwad, Gadag, Haveri and other districts.</li> <li>There is huge demand for Onion Variety Arka Kalyan because of its adoptability in this region. UHS, Bagalkot reached onion farmers and became popular for its quality seed production.</li> </ul>
5	Model Fruit Nursery	2015-16	25.00	Production and supply of genuine quality planting materials of elite perennial commercial fruit crops to farmers.
6	Establishment of small nursery in medicinal plants	2016-17	4.00	Established small nursery and multiplication of medicinal plants
<b>Total</b>			<b>140.25</b>	

**Biodiversity**

Sl No.	Title of project	Year of sanction	Budget Released (Lakhs)	Project Out come
01	Baseline survey of Biodiversity of minor fruits in Western Ghats	2014-15	7.22	<ul style="list-style-type: none"> <li>Totally 23 minor fruits species were collected and characterized</li> <li>The multiplication of species for distribution to other centers was carried out either through seed or vegetative propagation as the case may be.</li> <li>Species characterization was done according to the leaf length, leaf breadth and fruit diameter. Minor fruits species recipes were collected and documented</li> </ul>
02	Improving Nutritional Security of rural population biodiversity	2015-16	5.72	In day to come growing different fruit crops which are given to the farmers in the region help to overcome malnutrition and will also help to conserve ecosystem.
		<b>Total</b>	<b>12.94</b>	

**NHB**

	Title of project	Year of sanction	Budget Released (Lakhs)	Project Out come
01	Technology Demonstration through new generic high-tech machines in Horticulture	2014-15	48.9	<ul style="list-style-type: none"> <li>Procured and Demonstrated new generic high tech machineries in Horticulture like-                             <ul style="list-style-type: none"> <li>- Orchard Pruning Machine (FL 600 P 5+3+2)</li> <li>- Orchard Electrostatic Spraying machine (600 Litre)</li> <li>- Automatic row seeding Machine</li> <li>battery Operated Pruner</li> </ul> </li> </ul> <p>All the machines were supplied and demonstrated successfully on 7<sup>th</sup> October 2016 and 19<sup>th</sup> October 2016. During the Horticulture fair 2016 large scale demonstration of all four machines were carried at UHS, Bagalkot</p>
		<b>Total</b>	<b>48.9</b>	

## 4.7 Annual Technical Meetings

Annual Technical Meetings of 10 disciplines were conducted at different research stations and colleges of the University and discussed about ongoing, concluding and new experiments. The details are as follows.

Discipline		Date	Place
1	Fruit Science	22 <sup>nd</sup> - 23 <sup>rd</sup> February, 2017	COH Mysuru
2	PHT	17 <sup>th</sup> - 18 <sup>th</sup> February, 2017	COH Kolar
3	Entomology	20 <sup>th</sup> -21 <sup>st</sup> February, 2017	COH Kolar
4	PSMA	22 <sup>nd</sup> - 23 <sup>rd</sup> February, 2017	COH Sirsi
5	NRM and Allied Science (SAC, AGR, FOR, AGRIL.MIC & AGRIL ENGG)	27 <sup>th</sup> - 28 <sup>th</sup> February, 2017	KRCCH Arabhavi
6	Vegetable Science	2 <sup>nd</sup> - 4 <sup>th</sup> March, 2017	COH Bagalkot
7	Plant Pathology	6 <sup>th</sup> -7 <sup>th</sup> March, 2017	COH Munirabad
8	Social and Allied Science(Agril,Ext,Agril,Econ,PE,Lib Sci, Eng, CS,Agril., Stat)	8 <sup>th</sup> -9 <sup>th</sup> March, 2017	KRCCH Arabhavi
9	BCI (GPB, SST, BT, CROP PHY & BIO-CHEM)	10 <sup>th</sup> -11 <sup>th</sup> March, 2017	COH Bagalkot
10	FLA	13 <sup>th</sup> - 14 <sup>th</sup> March, 2017	COH Bengaluru

## 4.8 Important activities of the Directorate of Research

### 4.8.1 Workshop

Regional horticultural research and extension advisory and project formulation workshop of Northern Region on 24<sup>th</sup> to 26<sup>th</sup>April, 2017 and South Region was organised on 2<sup>nd</sup> to 4<sup>th</sup> May, 2017 and to take the decisions regarding:

1. Continuation of ongoing experiments, varieties to be released and technologies for POP,

2. Farm trials, multi-location trials, large scale demonstrations and new projects to be conducted in 2017-18.

3. Collection of feedback on problems and researchable issues from the officers of the line departments, progressive farmers and industrialists for planning and addressing the issues.

4. In the forum, the existing and newly emerged problems were also discussed.

### 4.8.2 Cropping Plan Meetings

The Directorate of Research is responsible for conduct of Crop Plan Meetings for the ensuing year. The region wise meeting was conducted and important issues discussed as follows:

#### Region wise highlights of Crop Plan Meeting

Region and Date	Station	Suggestions
1 Northern 11-05-2016	MHREC Bagalkot	<ul style="list-style-type: none"> <li>• Asked to re-examine the cost of cultivation of drumstick seed production as well as green manure cultivation to enhance soil fertility.</li> <li>• Suggested to use baggasse and FYM to enhance soil fertility.</li> <li>• Extending the seed village concept to drumstick seed production.</li> <li>• Suggested to vegetative propagation of selected true to type drumstick plants and go for seed production.</li> <li>• Enhancement of revenue of the farm through better use of floriculture polyhouse and growing high value crops in protected structures.</li> <li>• Planting of botanicals along the boundary.</li> </ul>

		<ul style="list-style-type: none"> <li>Instructed to handover the floriculture polyhouse to floriculture division of COH, Bagalkot.</li> <li>Establishment of separate block with released varieties of UHS</li> <li>Suggested go for proper pruning and training of canopy of tree crops.</li> <li>Critically analyze the cost and income of the farm and go for technical audit of the expenditure.</li> <li>Water budgeting of farm</li> <li>Plan for new activity to enhance the revenue of the farm</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> </ul>
	COH Bagalkot	-
	KRCCH Arabhavi	<ul style="list-style-type: none"> <li>Rework out the cost of cultivation for all crops once again.</li> <li>Identify the suitable tamarind germplasm for the black soil from available collection.</li> <li>Yield of flower are not realistic and contribution from the FLA division need to be increased</li> <li>Suggested to reduce area under Sapota as well as production</li> <li>Suggested to remove senile old plantation and replant with other high value crops like butter fruit, bread fruit, rose apple and litchi etc.</li> <li>Work out thumb rule for fixing revenue target for different fruit crops and vegetables.</li> <li>Suggested to minimize the use of chemical pesticides and go for converting 20% area into organic cultivation annually.</li> <li>Economic analysis of polyhouse.</li> <li>Plan for new activity to enhance the revenue of the farm</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>Use of solar energy and solar traps</li> </ul>
	HRES Vijayapur	<ul style="list-style-type: none"> <li>Critically analyze the cost and income of the farm and go for technical audit of the expenditure.</li> <li>Water budgeting of farm</li> <li>Plan for new activity to enhance the revenue of the farm</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>Use of solar energy and solar traps</li> </ul>
	COH Bidar	<ul style="list-style-type: none"> <li>Suggested to remove old mango and sapota plantation in phased manner and replant with suitable high value crops.</li> <li>Suggested to concentrate on polyhouse to earn revenue by growing crops like perennial coriander, tomato etc.</li> <li>Suggested to thin the closely planted coconut plants to normal spacing.</li> <li>Use of solar energy and solar traps</li> <li>Water budgeting of farm</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> </ul>
	COH Munirabad	-

	RHREC Kumbapur	<ul style="list-style-type: none"> <li>• Suggested to plant cashew/Guava and sweet flag in the vacant land behind main road.</li> <li>• Suggested to give number of bearing and non-bearing trees in each block and recalculate yield per tree considering only bearing trees.</li> <li>• Suggested to establish live hedge along farm boundary with suitable diverse perennial plants in 2-3 lines to reduce wind speed as well as to increase diversity.</li> <li>• Establishment of separate block with released varieties of UHS</li> <li>• Remove old and redundant plantation and replant with suitable high value crops.</li> <li>• Suggested go for proper pruning and training of canopy of tree crops.</li> <li>• Critically analyze the cost and income of the farm and go for technical audit of the expenditure.</li> <li>• Plan for new activity to enhance the revenue of the farm</li> <li>• Give detailed utilization plan of revenue earned from revolving fund for next year.</li> </ul>
	HRES Devihosur	<ul style="list-style-type: none"> <li>• Asked to review the expenditure and revenue calculation and go for technical audit of the expenditure.</li> <li>• Asked to review the reason for the low yield level of seed production plots.</li> <li>• Advised to concentrate on Spices-coriander and garlic crop seed production and promotion instead of field crops.</li> <li>• Asked to stress on organic spice production.</li> <li>• Suggested to explore the marketing channel for seeds and farm produce.</li> <li>• Suggested to enhance revenue earning through high income activities.</li> <li>• Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>• Water budgeting of farm</li> </ul>
	HRES Sirsi	<ul style="list-style-type: none"> <li>• Compare the yield level of different crops with standard yield.</li> <li>• Suggested to tag all the germplasm collection with GPS reading and put the germplasm information in the University website.</li> <li>• Suggested to explore about getting fund from spices board for infrastructure development.</li> <li>• Suggested to rename the centre as “Advanced Spice Centre”.</li> <li>• Plan for new activity to enhance the revenue of the farm</li> <li>• Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>• Use of solar energy and solar traps</li> </ul>
	HRES Kanabargi	<ul style="list-style-type: none"> <li>• Suggested to construct Farm pond to harvest rain water.</li> <li>• Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>• Critically analyze the cost and income of the farm and go for technical audit of the expenditure.</li> <li>• Take action to enhance the sale of planting material.</li> </ul>

			<ul style="list-style-type: none"> <li>Total expenditure should be split into recurring and non-recurring.</li> <li>Water budgeting of farm.</li> <li>Plan for new activity to enhance the revenue of the farm.</li> </ul>
		COH Sirsi	<ul style="list-style-type: none"> <li>Suggested to concentrate on production of pepper and other high value planting materials instead of arecanut.</li> <li>Explore market for high value flower crops and grow high value specialty flower crops like ginger flower, red hot coke</li> <li>Suggested to plan mushroom production.</li> <li>Suggested to include organic and bioagent plan in the Cropping plan.</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>Use of solar energy and solar traps</li> <li>Water budgeting of farm</li> </ul>
		HRES Hidkaldam	<ul style="list-style-type: none"> <li>Suggested to remove old mango plantation in phased manner and replant with high value crops.</li> <li>Critically analyze the cost and income of the farm and go for technical audit of the expenditure.</li> <li>Water budgeting of farm</li> <li>Plan for new activity to enhance the revenue of the farm</li> <li>Give detailed utilization plan of revenue earned from revolving fund for next year.</li> <li>Use of solar energy and solar traps</li> </ul>
2	Southern 05-05-2016	RHREC Bengaluru	<ul style="list-style-type: none"> <li>Enhance the revenue of the farm</li> <li>Achieve propagation target fixed.</li> </ul>
		HRES Arasikere	<ul style="list-style-type: none"> <li>Suggested to identify the suitable coconut gardens for procuring the coconut seeds</li> <li>Suggested to include labour wages and exclude salary component from expenditure table</li> <li>Suggested to change red gram into fodder maize in the cropping plan</li> <li>Suggested to prioritize the developmental activities with proper justification</li> <li>Asked to strengthen and generate FYM/vermicompost from farm only</li> <li>Asked to well maintain at least 4.0 ha area with new technology as demonstration plot to the farmer</li> </ul>
		HRES Hassan	-
		COH Kolar	-
		COH Mysuru	-
		HRES Hogalagere	<ul style="list-style-type: none"> <li>Suggested to establish jack, Jamun and new varieties of cashew as demonstration block in the new block to be obtained from Horticulture department</li> <li>Suggested to plan for new area expansion</li> <li>Effective utilization of protected structures by growing high value crops like cucumber, muskmelon, capsicum etc.</li> </ul>
		COH Bengaluru	-
		KVK Kolar	-

#### **4.8.3 Sasya Santhe-One stop shop for farm inputs**

Bagalkot district is popular for horticultural crops as area and production is in increasing trend. Farmers are forgoing sugarcane and concentrating of higher income and less water consuming crops like pomegranate, acid lime, mango, grapes, fig, Jamun, custard apple etc. Keeping this in mind from past two years Hon'ble Vice Chancellor, UHS-B has taken keen interest in organizing the first of its kind and unique programme called "Sasya Santhe" on 11-06-2016 provide different horticultural inputs in a single platform for the benefit of farming community. During Sasya Santhe around 25,000 planting materials of various horticulture crops and 150 kitchen garden kits were distributed to the farmers. More than ten thousand farmers participated and benefited from the programme. Farmers from entire Bagalkot and other districts also took the benefit of this special platform.

#### **4.8.4 Chemical Testing Trials**

During the year 2016-17, the university conducted 42 chemical testing trials in the various

horticulture crops to validate the efficacy of various insecticides and pesticides sponsored by various agencies. The details of these trials are enlisted in Annexure XXIV.

#### **4.8.5 Seeds and Planting Materials**

Besides teaching, research and extension activities University also serves as to supply of seeds and planting materials of various crops to the needy farmers. To a tune of **4,06,216** planting material comprising of rooted cuttings of pomegranate, pepper, betel vine; seed materials/seedlings of coconut, curry leaf, tamarind; grafts of mango, sapota, custard apple, layers of guava, pomegranate; banana tissue culture seedlings, seedlings and seed nuts of various ornamentals and plantation crops were multiplied and distributed to the farmers.

Seeds of vegetable crops like drumstick, onion, chilli; field crops like sorghum, sun hemp, soybean were also produced. During the year 2016-17 **5,505.13** kg of seeds were distributed to the farmers. Details of Planting material and seeds produced during 2016-17 is given in the Annexure-XXV.



**AAS-1**



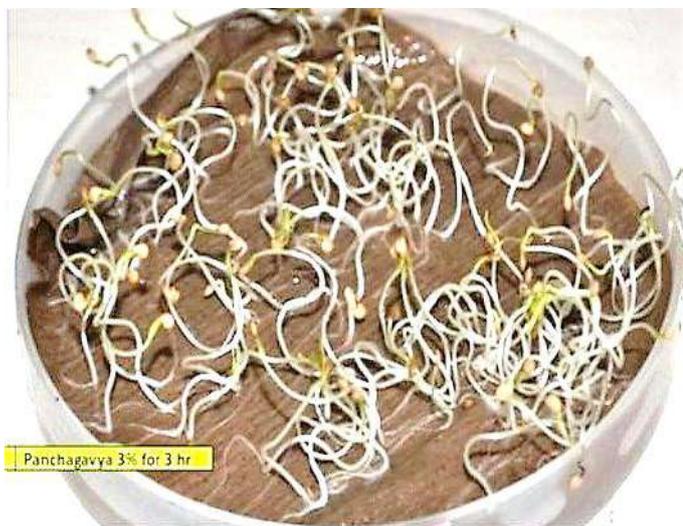
**Saffron**



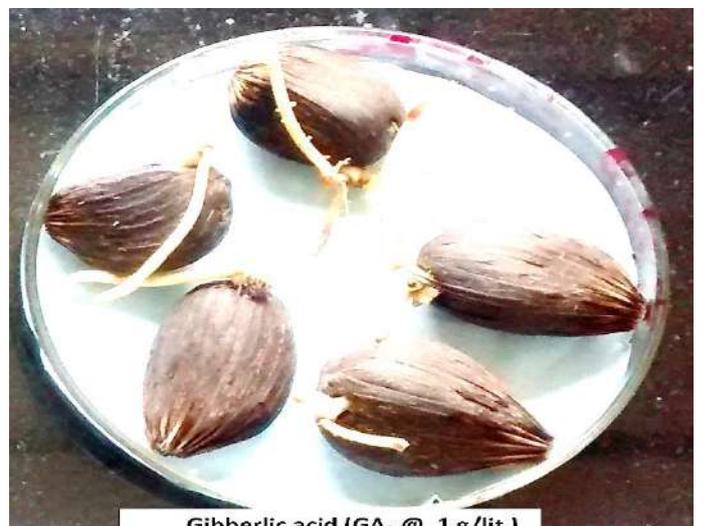
**Hisar Sugandha**



**Seed Pelleting with plant products in Chrysanthemum**



**Seed Priming in Chilli**



**Breaking Seed Dormancy in Oil Palm**



**Potting Media for Orchids**



**Dutch Rose for open Cultivation**



**Mango Hopper damage to leaves**



**Pumpkin Candy**



**Dehydrated Bitter gourd**



**Sasya Santhe**

## 5. EXTENSION

The Directorate of Extension operates through 12 HEEUs and one KVK that are involved in transfer of technology and reaching out farming community. It is an organized exchange of information and purposive transfer of skills. Information and skills are disseminated through several extension approaches as outreach activities. The concept of human resource development and transfer of technology though closely related, both demand unique skills for capacity enhancement.

### 5.1 Objectives

1. Conducting need based training programs for rural youth, farm women and farmers.
2. Identification of thrust areas/field problems and providing feedback to researchers.
3. Conducting demonstrations, farm trials, melas, exhibitions, farmers' exposure tours and field extension activities for transfer of technologies.
4. Publication of extension literature in regional (Kannada) language for the benefit of all the stake holders in general and farmers in particular.
5. Use of modern ICT tools for reaching the unreached farmers.

### 5.2 Important Extension Activities

#### 5.2.1 Totagarike Mela (Horticulture Fair) -2016

University organized **Totagarike Mela (Horticulture Fair)** from 17-19<sup>th</sup> December, 2016 at Bagalkot, in collaboration with NABARD, Karnataka Vikas Grameena Bank, NHM, NHB, Karnataka State Mango Development and Marketing Corporation Ltd., Bagalkot, DCCB, Bagalkot, Arsta Eco-Australia, Sarala Jeevan, JISL Pvt. Ltd., Karnataka Wine Board, Indo-American Hybrid Seeds Pvt. Ltd., Bengaluru, Departments of Horticulture & Agriculture and other developmental departments of GOK. **Totagarike Mela 2016** with the main theme of '**Horticulture for**

**Inclusive Income Growth'** was inaugurated by Smt. Veena V. Kashappanavar, President, ZP, Bagalkot on 17-12-2016 in presence of Hon'ble Board Members, Dr. D. L. Maheswar, Hon'ble Vice-Chancellor and other distinguished guests.

His holiness Sri. Siddeshwara Swamiji of Gnanayogashrama, Vijayapura, Sri. M. I. Ganagi, Chief General Manager, NABARD, Bengaluru, Dr. T. N. Prakash Kammaradi, Chairman, Karnataka Agriculture Price Commission, Bengaluru were the guests on the second day. The **Best Horticulture Farmers and Farm Women** selected from jurisdiction of the university were felicitated with a memento and a cash prize of Rs. 5,000.

All the constituent colleges and research stations exhibited different horticulture technologies, research publications, seeds and planting materials of various horticulture crops. On farm demonstrations, experimental fields, indoor exhibition on fruits, vegetables, flowers, plantation, medicinal & aromatic crops, post-harvest technology, important pests and diseases of horticultural crops and their management, soil sampling method etc. were the major attractions during the mela. There were totally 450 stalls by different organizations. SAUs, ICAR Institutions, Private firms and SHGs exhibited agri-horti inputs/machineries, provided information to farmers about developmental programmes and services

More than two lakh farmers, farm women, students, children, youth, public, staff of all line departments from all the districts of Karnataka and neighboring states of Maharashtra, Tamil Nadu and Andhra Pradesh were part of this the mega event. All the guests and visitors appreciated the progress and development of the university within a short span of eight years.

5.2.2 Best Horticulture Farmer/ Farmwomen Awardee Address

	District	Name	Address
1	Bagalkot	Ramappa Tukaram Kadakol	Village: Alagur, Tq: Jamakhandi Tel: 9739705815, 9448019516
2	Bellary	Basayyaswami	S/o Kotrayya, Village: Kattirampur Tel: 9449133154
3	Belgavi	Sanna Yamanappa Bhimappa Rajapure	Village: Pamaldinni, Tq: Gokak, Tel: 9611378997
4	Bengaluru	Timmaraju	S/o Nanjegowda Village: Shravanuru Tq: Doddaballapur, Tel: 9242823156
5	Bidar	Mohammad Jafar Saba	S/o Karimasaba Kadenuru Village: Chitta Tel 9538146622
6	Chamarajanagar	C.M. Sadashivamurthy	S/o C.K Madappa Village: Choudhahalli (Gundlupet) Tel: 9741525617, 08229-234036
7	Chikkaballapur	C R Radhakrishna	S/o Rayappa, Village: Kurtahalli, Tq: Chintamani, Tel: 9902266750
8	Dharwad	Basavaraj Doddamallappa Harijan	Village: Hosatti Tq: Tel: 9980441753, 0836-2781053
9	Gadag	Jagadish Siddappa Vijayapur	Village: Mulagunda Tq: Gadag Tel: 8050566408
10	Hassan	K. Hema Anantaraj	Village: Gauripur, Tq: Hassan Tel: 9482444406
11	Haveri	Chandrashekhar Uliveppa Bilki	Village: Hire Aanaji Tq: Byadgi Tel: 8722489214
12	Kalaburagi	Suraj Patil	S/o Sharathchandra Patil, Village: Kamalapur Tq: Kalaburgi, Tel 9448012702, 08472-222185
13	Kolar	G. Venkateshappa	S/o Gurappa Village: Akkammanadine Tq: Bangarapet, Tel: 8453820659
14	Koppal	Yamanappa Hanumappa Gaddi	Village: Ganadal, Tq Yalburga Tel: 9740933825
15	Mandya	S Suresh	S/o Siddegowda, Village: Karekur (Belgol) Tq: Srirangapatna, Tel: 9880507318
16	Mysore	Gopalgowda	S/o Chikkegowda, Village: Hosakoppa Tq: K.R. Nagar Tel: 9008267999
17	Raichur	Kavita Umashankar Mishra	Kavital Tq: Manavi Tel: 9481548871
18	Ramanagar	Smt. Asha Papanna	Village: Neraluru Tq: Chennapattan Tel: 9900763660, 9611985535
19	Tumakuru	A. S. Mahesh	S/o Siddaramayya, Village: Ammanaghatta Tq: Gubbi, Tel: 08131-222542, 895566305
20	Uttar Kannada	Ramakrishnappa Ganapati Hegde	Village: Bedehaklu, Tq Yellapura Tel: 9379495633, 08419-254574
21	Vijayapur	Malkappa Kallappa Bolegao	Village: Athagra, Tq: Indi, Tel: 9880662105
22	Yadagiri	Shanti Lal Bojanayak Rathod	Village: Jamunal, Tq: Shahapur, Tel: 9741007511

Apart from the Totagarika Mela the University has also organized other Melas and showcased technologies for the benefit of horticulture stakeholders.

Mela		Date	Place	Farmers visited
1	Krishi Utsava	25-08-2016	Jamakhandi	50012
2	Krishi Mahotsava-Organic Krishi Mela	22-08-2016	Kolhar	5000
3	Tuber Crops Mela	30-11-2016	Joida, Sirsi	1415
<b>Total</b>				<b>56427</b>

### 5.3 Horticultural Extension Education Units (HEEUs)

#### 5.3.1 Training Programs Organised

This has been another excellent year for educating the end users through various on-field and off-the field training programmes organized by the HEEUs, research stations and constituent colleges of the University. During the year 2016-17, 160 training programs were organized for the benefit of 8,371 end users with the financial support of public organizations like ICAR, State Dept. of Horticulture, KCDC, NRC-Banana etc. The details of the training programs conducted at HEEUs are given in Annexure-XV.

#### 5.3.2 Scientists as Resource Persons

The scientists of the University participated as resource persons in 422 training programs organized by University and other line departments of Horticulture and Agriculture. The details of these guest lectures are provided in Annexure-XVI.

#### 5.3.3 Diagnostic field visits

The scientists of the University made visits to farmer's field to diagnose the problems and provided suitable suggestions and solutions to the needy farmers. In the year 2016-17, the University scientists made 201 visits to the farmer's field and the details are provided in Annexure-XVII.

#### 5.3.4 Demonstrations and Farm Trials

A total of 77 method, 04 results, 14 front line demonstrations, 05 on-farm testing and 24 farm trials were conducted by the scientists at the farmer's fields to validate and popularize the production technologies of the University and the details are provided in Annexure-XVIII.

#### 5.3.5 Field Days Organized

The horticultural crops are raised in all the campuses at colleges, research stations and even in

farmer's field following all the latest technologies. To popularise the technologies, the field days are organised inviting the farmers. As many as 16 field days were conducted during the year and 1642 farmers participated. The details of these field days are given in Annexure-XIX.

#### 5.3.6 Workshops

The University scientists organised 24 workshops on different subjects to formulate and also to come out with different measures for improving farmer's status. During these workshops 2293 farmers were benefitted. The details of these workshops are given in Annexure-XX.

#### 5.3.7 Participation in Krishi Mela Exhibitions

The University scientists participated in 26 Melas and exhibitions organized by farm Universities and different developmental departments. In these melas the stalls were arranged for showcasing the technologies to the stakeholders. During the exhibition 50, 740 farmers and other stake holders visited the stall enhanced their knowledge and purchased university planting materials and publications. The details of these exhibitions are given in Annexure-XXI

#### 5.3.8 Radio Talks and Television Programs

The University scientists have given 63 radio talks and 34 TV interviews for disseminating the technologies with respect to crop production, protection, value addition, IFS etc. The details of these radio talks and TV interviews are given in Annexure-XXII.

#### 5.3.9 Farmers tour

Ten exposure visits of farmers to the various institutions were organized by the University. The total numbers of beneficiaries of such visits were 405 farmers during the year. These exposure visits enabled the farmers of state to interact and learn from each other, allowing them to view practical examples of successful integration practices in horticulture farming.

Date		Place of Visit	Number of farmers
1.	13-08-2016	Anegundi, (SDT Trainees)	38
2.	21-08-2016 to 24-08-2016	Maharashtra- NRC Pomegranate, NRC-Grapes, KVK, Baramati, DROG-Rajgurunagar	40
3.	24-08-2016	AICRP Oil Palm, Gangavati, ARS Gangavati, KVK Raichur, IFS Unit, Post-Harvest and other related Department, UAS Raichur and halt at UAS Raichur.	38
4.	25-08-2016	Directorate of Rice Research, Directorate of Oilseeds Research, ANGRAU, Directorate of Sorghum Research, Hyderabad	38
5.	26-08-2016	ICRISAT, CRIDA, NIRD/ and Dr. Y S R Horticulture University.	38
6.	27-08-2016	Fruit/Hort. Research Station of Hyderabad	38
7.	29-08-2016	Visit to Koppal Krishi Bhagya Yojane	38
8.	23-09-2016 to 27-09-2016	NRC Pomegranate, ICRISAT, Hyderabad, CRIDA, Hyderabad	35
9.	04-10-2016 to 07-10-2016	Maharashtra- NRC Pomegranate, NRC-grapes, KVK, Baramati	30
10.	20-03-2017 To 24-03-2017	Directorate of Cashew Research, Puttur Achal Industries, Baikampady, Mangalore Cashew Research Station, Ullal Regional Fruit Research Station, Vengurla Central Coastal Agricultural Research Institute, Ela, Old Goa	72
<b>Total</b>			<b>405</b>

### 5.3.10 Institutional Advisory SMS Services

The Directorate of Extension has sent in total 91 messages to 7,34,002 registered farmers through KISAN Portal from various Transfer of Technology Centres of UHS, Bagalkot during 2016-17 across the state and the details of this services are provided in Annexure-XXIII.

### 5.3.11 Important Days / Week / Campaign Observed/ Organised

The University celebrated important Days like World Environmental Day, World Soil Day, World Food Day, World Coconut Day and Farmers Day and conveyed the significance of these days to students and farmers.

### Awareness Programs

	Title	Date	Place	Number of participants
1.	Water conservation and recharging of water	04-06-2016	BanahattiTq. Jamakhandi	250
2.	World Environmental Day	05-06-2016	COH, Munirabad	40
3.	World Environment Day Celebration	06-06-2016	KRCCH, Arabhavi	65
4.	Seed Treatment Campaign in Turmeric	08-06-2016	Kalloli, Gokak, Belagavi	288

Title		Date	Place	Number of participants
5.	XI Parthenium Awareness Week	16-08-2016 to 22-08-2016	KRCCH, Arabhavi	100
6.	Awareness program on Parthenium eradication	22-08-2016	Main Campus, UHS-B	56
7.	World Coconut day	02-09-2016	HRES, Arasikere	175
8.	World Food Day	27-10-2016	Annayaikanahalli, Arasikere	100
9.	Agricultural Education Day	03-12-2016	COH, Bidar	136
10.	World Soil Day	05-12-2016	Mangalatti, Dharwad	76
11.	World Soil Day	05-12-2016	Vitalapura, Arasikere	117
12.	Technology week: Safe use of pesticide and importance of integrated pest management	22-12-2016	O. Mitturu, Kolar	100
13.	Farmer' s Day celebration	23-12-2016	KRCCH, Arabhavi	120
14.	Farmers Day	23-12-2016	Mauothanahalli, Arasikere	79
15.	Farmers day	23-12-2016	Manhalli, Bidar	54
16.	Technology week: Production of export quality mango and importance of pest & Post-harvest management	23-12-2016	Gattahalli, Kolar	320
17.	Technology week: Animal health camp- Management of Animal diseases.	25-12-2016	Mullahalli, Kolar	65
<b>Total</b>				<b>2141</b>

#### 5.4 Summer & Winter School

The following ICAR sponsored schools of 21 days' duration were organized by the university in the reporting period.

School	Organizer	Date	Title
1	Summer COH Bengaluru	1 <sup>st</sup> to 21 <sup>st</sup> Jul,2016	Exploring genomic resources for the improvement of horticulture crops.
2	Winter UHS- Bagalkot	5 <sup>th</sup> -25 <sup>th</sup> Jan, 2016	Protected cultivation of commercial flowers & vegetables.
3		8 <sup>th</sup> to 28 <sup>th</sup> Nov,2016	Entrepreneurship Development for farmers empowerment and sustainable livelihood.

#### 5.5 Skill Development Training in Horticulture

The Horticulture sector is short of skilled labors, to bridge this gap and to create more self-employment opportunities for rural youths University has organized five one-month duration skill development trainings in Horticulture at Directorate of Extension, Arabhavi, Bidar, Munirabad and Kolar colleges. In these programs, farm youths

were trained for skill development in various disciplines like PHT, nursery techniques, propagation, organic manure preparation, landscape gardening, pest and disease identification etc. The training included visits to industries and national centres on various crops for confidence building and exposure of 163 farmers. The details of these trainings are provided in Annexure XV.

### 5.6 Agri Clinic and Agri Business Centre (ACABC)

The university in association with MANAGE, Hyderabad organized 2 months ACABC training to 33 farm graduates from 13-07-2016 to 10-09-2016. In this program all farm related enterprise details regarding scope, operational area, markets and project preparation for financial assistance were presented by professionals along with special lectures by successful entrepreneurs and auditors. Successful industries visit to Dharwad, Vijayapur and Bagalkot were part of this training.

### 5.7 Induction Training

The University has organized five one-month induction training program to newly recruited 312 AHO and ADH probationary officers of Horticulture department, GOK. All aspects of horticulture were explained in depth with special reference to current problems to prepare the officers to attend the extension work in their department. The details of these trainings are provided in Annexure XV.

### 5.8 Regular Publications of University

Particulars	No. of Issue
Newsletter (Bi-monthly)	06
Udyana Loka (Quarterly)	04

### 5.9 Krishi Vigayana Kendra (KVK), Kolar

#### 5.9.1 Trainings Organized

This has been another year of performance for educating the end users through various on-field and off-the field training programmes organized by

KVK, Kolar. During the reporting year, 65 training programs were organized for the benefit of 3582 end users with the financial support of ICAR, New Delhi, state Dept. of Horticulture, etc., the details of the training programs conducted at KVK are given below.

Title		Duration	Type of Beneficiaries	Number of Beneficiaries
1	Value addition in Jack Fruit	05-06-2016	Farmers	15
2	Soil health management and importance of micro nutrients in groundnut	11-06-2016	Farmers	25
3	Value added products and nutraceutical properties of Amla	28-06-2016	Farmers	23
4	New technologies in sericulture	05-07-2016	Farmers	42
5	Improved production technology for better yields in tomato	11-07-2016	Farmers	35
6	Improved production technology for better yields in tomato	13-07-2016	Farmers	45
7	Improved production technologies in mulberry cultivation	20-07-2016	Farmers	15
8	Fertigation in Tomato	20-07-2016	Farmers	25
9	Value addition of Tomato	21-07-2016	Farm women	23
10	Tree Mulberry cultivation & Bivoltine silkworm rearing techniques	05-08-2016	Farmers	42
11	Role of Disinfection and hygiene maintenance in silkworm rearing	19-08-2016	Farmers	35
12	Diseases of silkworms and their control measures	19-08-2016	Farmers	45
13	Improved technologies in Groundnut cultivation and soil fertility and water conservation	22-08-2016	Farmers	47
14	Improved Mango production	23-08-2016	Farmers	80

Title		Duration	Type of Beneficiaries	Number of Beneficiaries
15	Role of nutrients in managing disorders of guava and other fruit crops	24-08-2016	Farmers	30
16	Integrated nutrient management, tree mulberry cultivation and Bivoltine silkworm rearing	27-08-2016	Farmers	35
17	Malnutrition in Rural areas & solutions	01-09-2016	Farmers	124
18	Integrated nutrient management in red gram	02-09-2016	Farmers	26
19	Importance of Tree mulberry cultivation and Bivoltine silkworm rearing	15-09-2016	Farmers	25
20	Integrated nutrient management of tree mulberry system	21-09-2016	Farmers	25
21	Production Techniques of value added products of Jackfruit and marketing	26-09-2016	Farmers	15
22	Recent technologies in bivoltine sericulture	05-10-2016	Farmers	25
23	Improved technologies in vegetable cultivation	07-10-2016	Farmers	124
24	Health benefits and employment opportunities through value addition of Aonla	08-10-2016	Farmers	26
25	Reduction of post-harvest losses and importance of value addition in Tomato	13-10-2016	Farmers	39
26	Role of disinfection and hygiene maintenance in bivoltine sericulture	17-10-2016	Farmers	30
27	Integrated pest management and tree mulberry cultivation	19-10-2016	Farmers	39
28	Advances in mango cultivation, post-harvest handling and prospects of value addition	19-10-2016	Farmers	30
29	Pest management in Red gram	28-10-2016	Farmers	25
30	Preparation of compost from silkworm rearing waste	28-10-2016	Farmers	350
31	Integrated pest & disease management in mulberry	16-11-2016	Farmers	15
32	Importance of Balanced diet in Human Nutrition	19-11-2016	Farmers	40
33	Eco-friendly management practices for key pests of mulberry and silkworm	19-11-2016	Farmers	70
34	Role of boron and molybdenum in the management of whiptail and brown rot of cauliflower	19-11-2016	Farmers	10
35	Importance of Balanced diet in Human Nutrition	21-11-2016	Farmers	60
36	Importance of Balanced diet in Human Nutrition	22-11-2016	Farmers	60
37	Importance of Tree mulberry cultivation in bivoltine sericulture	23-11-2016	Farmers	80
38	Importance of soil sampling and nutrient management in mulberry cultivation	23-11-2016	Farmers	60
39	Importance of Balanced diet in Human Nutrition	26-11-2016	Farmers	50
40	Importance of Balanced diet in Human Nutrition	28-11-2016	Farmers	60
41	Importance of Balanced diet in Human Nutrition	29-11-2016	Farmers	60
42	Preparation of Value added products, minimal processing, packaging, labeling and branding of Jackfruit	12-12-2016 to 15-12-2016	Farmers	23
43	Dry land sericulture	15-12-2016	Farmers	20
44	Pest and disease management in sericulture	26-12-2016	Farmers	10
45	Preparation of Biocraft from Grain age Cut Cocoons	17-01-2017 to	Farmers	30

Title		Duration	Type of Beneficiaries	Number of Beneficiaries
		21-01-2017		
46	Progressive Farmers to farmers training	18-01-2017 to 20-01-2017	Farmers	30
47	Progressive Farmers to farmers training	23-01-2017 to 25-01-2017	Farmers	30
48	Community participation for soil & water conservation	28-01-2017	Farmers	30
49	Preparation of Biocraft from Grain age Cut Cocoons	28-01-2017	Farmers	450
50	Management of Tree Mulberry for rain fed sericulture	30-01-2017	Farmers	65
51	Progressive Farmers to farmers training	30-01-2017 to 01-02-2017	Farmers	30
52	Balanced diet in Human nutrition	30-01-2017	Farmers	48
53	Management of Tree Mulberry for rain fed sericulture	09-02-2017	Farmers	50
54	Water conservation and water management in horticulture	10-02-2017	Farmers	25
55	Integrated management of major pests and diseases of Mango and tomato	16-02-2017	Farmers	65
56	Minimal processing, packaging, labeling & branding of Jack Fruit	20-02-2017 to 22-02-2017	Farmers	65
57	Importance of tree mulberry cultivation and pest management	02-03-2017	Farmers	30
58	Soil health & INM in field crops	04-03-2017	Farmers	48
59	Improved cultivation of Potato	13-03-2017	Farmers	50
60	Importance of nutrition garden & terrace gardening	19-03-2017	Farmers	25
61	Vegetable Science as a profitable venture	20-03-2017	Farmers	65
62	Importance of kitchen and Terrace gardening	22-03-2017	Farmers	30
63	Conservation & Judicious use of water	22-03-2017	Farmers	48
64	Balanced Diet in human Nutrition	24-03-2017	Farmers	85
65	Importance of kitchen and Terrace gardening	25-03-2017	Farmers	200
<b>Total</b>				<b>3582</b>

### 5.9.2 Scientists as Resource Persons

The scientists of the KVK, Kolar participated as resource persons in 51 training programs organized by University and other line departments of Horticulture and Agriculture.

### 5.9.3 Demonstrations and Farm Trials

A total of 14 front line demonstrations and 05 on-farm testing were conducted by the scientists of KVK, Kolar at the farmer's fields to validate and popularize the production technologies of the University and the details are provided below:

**Front Line Demonstration Conducted**

Title		Place	Number of Beneficiaries
1	Integrated crop management in Red gram var. BRG-1	S. Madamangal Mullahalli Balagera	20
2	Efficacy of bio fertilizers, micronutrients for enhancing yield in groundnut.	Budaderu	20
3	Introduction of new variety KMR-204 and defoliator management in Ragi	Abbenahalli Madiwala	60
4	Introduction of new horse gram variety, PHB-9	Meleri	10
5	Integrated crop management in mango with special emphasis on water conservation methods	Y.Hosalli	05
6	Integrated nutrient management in guava	Kenchapura	03
7	Nutrient management in tomato through fertigation	Mallandahalli	05
8	Management of excess growth of haulm and late blight and insect pest management in potato	Gannerahalli	10
9	Management of whiptail and brown rot in cauliflower	Gaddekannur	05
10	Demonstration of tree mulberry for rain fed sericulture	Nayakarahalli	08
11	INM in mulberry and use of silkworm growth enhancer for higher cocoon yield	Mullahalli Balagere	10
12	Introduction of bivoltine hybrid Krishnaraja for quality cocoon production	Thoraganadoddi	05
13	Linking SHGs for branding and market for minimal processing of jackfruit(EDP)	Kallipura	02
14	Nutritional security of adolescent girls through nutrition garden.	Hasala	02
<b>Total</b>			<b>165</b>

**On Farm Testing Trials Conducted**

Title		Place	Number of Beneficiaries
1	Evaluation of various pest management practices in cabbage	Mindahalli	3
2	Assessment of irrigations systems in for better WUE in mulberry	Balagere	1
3	Assessment of different mountages for quality cocoon production	Nadupalli	3
4	Improving efficiency & reducing drudgery of farm women in groundnut weeding by hand operated twin wheel and wheel hoe weeder	Gadduru	2
5	Evaluation of transplanters in horticulture crops for increasing work efficiency and reducing drudgery	Chadumanahall Kallipura	2
<b>Total</b>			<b>11</b>

**5.9.4 Field Days Organized**

The horticultural crops are raised in farmers' field and in KVK campus implementing all the latest technologies. To popularise the technologies, the

field days are organised inviting the farmers. Total 07 field days were conducted during the year and 233 farmers participated. The details of these field days are given below:

	Title	Date	Place	Number of Beneficiaries
1	Nutrient management in tomato through fertigation	24-08-2016	Mallandahalli, Kolar	25
2	Cultivation of vegetable crop under polyhouse condition	16-09-2016	COH, Kolar	80
3	Integrated nutrient management in Guava	23-09-2016	Kenchapura, Kolar	25
4	Integrated nutrient management in mulberry and use of silkworm growth enhancer	18-10-2016	Balagere, Kolar	25
5	Role of different mountages for quality cocoon production	28-10-2016	Nadupalli, Kolar	20
6	Productive bivoltine silkworm hybrid FC2XFC1	02-11-2016	Thoraganadoddi, Kolar	28
7	Management of excess growth of haulm, late blight and pests in potato	23-03-2017	Gennerahalli, Kolar	30
<b>Total</b>				<b>233</b>

### 5.9.5 Workshops Organized

The KVK, Kolar organised 6 workshops on different subjects to formulate and also to come out with different measures for improving farmer's status by enhancing knowledge of extension staff of

Agriculture and Horticulture Department, GOK, Bengaluru. During these workshops 495 extension staff was benefitted. The details of these workshops are given below:

	Title	Date	Place	Number of Beneficiaries
1	Bi monthly workshop of Agriculture Department	05-05-2016	KVK, Kolar	70
2		24-06-2016		62
3		25-08-2016		58
4	Trimonthly Horticulture workshop	26-08-2016		100
5		18-11-2016		110
6		04-04-2017		95
<b>Total</b>				<b>495</b>

### 5.9.6 Participation in Krishi Mela Exhibitions

The KVK, Kolar participated in 3 exhibitions organized by UHS, Bagalkot. In these melas the stalls were arranged for showcasing the technologies to the stakeholders. During the exhibition 496 farmers

and other stake holders visited the stall improved their knowledge and purchased university planting materials and publications. The details of these exhibitions are given below:

	Exhibition	Date	Place	Number of Farmers visited
1	Pradhan Mantri Fasal Bima Yojana	06-04-2016	KVK, Kolar	210
2	National seminar on Management of Jack on adverse climatic condition, value addition & marketing	22-04-2016		150
3	Agricultural Exhibition- Krishi Abhiyan	16-08-2016	Thotli, Kolar	136
<b>Total</b>				<b>496</b>

### 5.9.7 Important Days / Week / Campaign Observed/ Organised

The University celebrated important Days like World Water Day, World Soil Day, Farmers Day and weeks to convey the significance of these days to students and farmers.

#### Awareness Programs

Title		Date	Place	Number of Participants
1.	Technology week: Improved production technologies and grafting techniques in vegetables	21-12-2016	KVK, Kolar	75
2.	Technology week: Importance of tree mulberry and bivoltine silkworm rearing under dry land farming	24-12-2016	KVK, Kolar	82
3.	Pradhan Mantri Fasal Bima Yojana	04-06-2016	KVK, Kolar	320
4.	Awareness program on improved bivoltine hybrids for quality cocoon production	29-08-2016	KVK, Kolar	105
5.	National Nutrition Week - Awareness Program on Mal Nutrition	01-09-2016	KVK, Kolar	1166
6.	Pre- Rabi Campaign	05-12-2016	KVK, Kolar	300
7.	World Soil Day	05-12-2016	KVK, Kolar	300
8.	Farmers Day (Jai Kissan Jai Vigyan)	23-12-2016	KVK, Kolar	320
9.	World Water Day	22-03-2017	KVK, Kolar	60
<b>Total</b>				<b>2728</b>



**Horticulture Mela -2016  
Inauguration**



**Best Farmer/ Farm Women  
Felicitation**



**Skill Development Training**



**Jack Fruit Training**



**Grape Field Day**



**Vegetables Field Day**



**National Level Grape Seminar**



**Japanese Mint Field Day**



**Jack Fruit Seminar**



**ICAR - Winter School**



**Workshop on Organic Management of Pests & Diseases**

## 6. RESEARCH PUBLICATIONS

## 6.1 Research Papers published in Scientific National/International Journals

## A. Research Papers published in Scientific National / International Journals (08 Nos) with NAAS rating &gt;7 (given in parenthesis)

Hamzehzarghani, H., A. Vikram, Abu-Nada, Y., and A.C. Kushalappa, 2016, Tuber metabolic profiling of resistant and susceptible potato varieties challenged with *Phytophthora infestans*, *European Journal of Plant Pathology*, **145**, (2): 277–287 (7.49).

Karaba N, Nataraja K. H. Dhanyalakshmi, Mahantesha B. N. Naika, R. S. Sajeevan, Oommen K. Mathew, K. Mohamed Shafi and Ramanathan Sowdhamini, 2016, An Approach to Function Annotation for Proteins of Unknown Function (PUFs) in the Transcriptome of Indian Mulberry, *PlosOne*, **10**(1): 1-18 (9.06).

Karaba N., Nataraja K. H. Dhanyalakshmi, Mahantesha B. N. Naika, R. S. Sajeevan, Oommen K. Mathew, K. Mohamed Shafi and Ramanathan Sowdhamini, 2016, An Approach to Function Annotation for Proteins of Unknown Function (PUFs) in the Transcriptome of Indian Mulberry, *PlosOne*, **10**(1): 1-18 (9.06).

P. Kumar, R. Dolkar, G. Manjunatha and H.M. Pallavi, 2017, Molecular fingerprinting and assessment of genetic variations among advanced breeding lines of *Moringa oleifera* L. by using seed protein, RAPD and Cytochrome P 450 based markers, *South African Journal of Botany*, **111**: 160–67(7.24).

P. Kumar, R. Dolkar, G. Manjunatha and H.M. Pallavi, 2017, Molecular fingerprinting and assessment of genetic variations among advanced breeding lines of *Moringa oleifera* L. by using seed protein, RAPD and Cytochrome P 450 based markers, *South African Journal of Botany*, **111**: 160–67(7.24).

Pankaj Barah, Mahantesha Naika B N, Naresh Doni Jayavelu, Ramanathan Sowdhamini, Khader

Shameer and Atle M. Bones, 2016, Transcriptional regulatory networks in *Arabidopsis thaliana* during single and combined stresses, *Nucleic Acids Research*, **44**(7): 3147-64 (15.2).

Pavan kumar, Rinchan Dolkar, Manjunath, G and Pallavi.2017. Molecular fingerprinting and assessment of genetic variations among advanced breeding lines of *M. Oleifera* by using Seed proteins and Cytochrome p-450 based markers. *South African Journal of Botany*, **111**: 62-67 (7.24)

## B. Research Papers published in Scientific National / International Journals (72 Nos) with NAAS rating between 5 &amp;7 (given in parenthesis)

A K Vandana, G J Suresh and G S K Swamy, 2016, Impact of calcium chloride pre- storage treatment on 69apot (*Syzygium cumini* skeels) fruits under cold storage, *The Bioscan* **10**(1): 199-202 (5.26)

Al-Mughrabi, K.I., Vikram, A., Poirier, R., Jayasuriya, K and G. Moreau, 2016, Management of common scab of potato in the field using biopesticides, fungicides, soil additives or soil Fumigants, *Bicontrol Science and Technology*, **26** (1): 125–135 (6.94)

Anand G Patil, Srinivas N and Mangesh, 2016, An organic production of palak (*Beta vulgaris* L.) in north eastern transitional zone of Karnataka, *Eco.Env. & Cons.* **22** (September Suppl.): S417-S419 (5.02)

Anand G Patil, Srinivas N and Mangesh, 2016, Effect of pulse intercropping on weed dynamics in mango orchards on mango equivalent yield and economics, *Eco.Env. & Cons.* **22** (September Suppl.): S421-S424 (5.02)

Anand Sadashiv Kalatippi, Swamy, G.S.K and Kumbarigire, G.A, 2016, Effect of diatomaceous earth on quality of pomegranate var. Kesar, *The Bioscan*, **11**(4):2359-2362 (5.26)

Ansar, H., Dhananjaya, M.V., Amreen Taj, Fakrudin, B., Rekha, A., Rajiv Kumar and Halesh, G.K., 2016, Analysis of Relative Nuclear DNA content in Carnation (*Dianthus caryophyllus*)

- accessions reveals Ploidy levels by Flow Cytometry, *Indian Journal of Agricultural Sciences*, **86**(11): 1466-1470 (6.17)
- Ashok Alur and Maheswar.D.L., 2016, Horticulture - The Growth Engine of Farm Sector, *CommodityIndia.com*, Volume – 16(10), PP:- 25 – 27
- Ashok Alur and Maheswar.D.L., 2016, Key Strategies for Enhancing Farmers Income, *CommodityIndia.com*, Volume – 16(12), PP:- 29 – 31
- Ashok Alur and Maheswar.D.L., 2016, Urban Farming a Promising Avenue for Food- Nutrient Security and Health Benefits, *CommodityIndia.com*, Volume – 16(8), PP:- 12 – 14
- Ashok Alur and Maheswar.D.L., 2016, Crop Diversification - A Strategy to Improve Agricultural Production, *CommodityIndia.com*, Volume – 16(9), PP:- 35 – 40
- Ashok Alur and Maheswar.D.L., 2017, From plough to plate -an overview of Indian food processing sector, *CommodityIndia.com*, Volume – 17(9), PP:- 37 – 40
- Ashok Alur and Maheswar.D.L., 2017, Future of supply and market chain management with regards to fruits and vegetables, *CommodityIndia.com*, Volume – 17(08), PP:- 28 – 32
- Ashok Alur and Maheswar.D.L., 2017, Overview of Horticulture Sector in Karnataka, *CommodityIndia.com*, Volume – 17(03), PP:- 36 – 39
- Ashwini, S Ganur, Kulapati Hipparagi, D R Patil, S L Jagadeesh, R Suma and K Arun, 2016, Impact of Canopy management on growth and yield of wine grapes under Northern dry zone of Karnataka, *The Bioscan*, **11**(4): 2589-2592 (5.26)
- Ashwini, S. Ganur\*, Kulapati hipparagi, D. R. Patil, S. L. Jagadeesh, Suma, r. And Arun, K., 2017, Impact of canopy management on growth and yield of wine grapes under northern dry zone of Karnataka, *The Bioscan*, **12**(1):421-424 (5.26)
- Babu, A. G., Hadimani, H.P., Venkatesha, J., and Prabhuling, G.2016. Evaluation of the Bio-efficacy of Ethephon 39% SL on overall ripening of Tomato (*Solanum lycopersicum*L.) *The Bioscan*, **11**(2) 1273-1279 (5.26)
- B. N. Harsha Kumar, Sumangala Bhat, B. Borphukan and B. Fakrudin., 2017, Association analysis of charcoal rot disease component traits in sorghum minicore germplasm with EST-SSR markers, *Ind. J. Genet*, **77**(1): 74-82 (6.28)
- Bhat, M. N., Mesta, R. K., Tatagar, M.H., Sardana, H. R., Singh, D., Vennila, S., Sabir N. And Ahmad, M. 2016. Biological control of 70apota70n wilt of chillies using *Trichoderma* spp, *Indian Journal of Horticulture*, **73**(1): 74-77 (6.13)
- Biradar I.B, Rathod A.M, Venkatesh J, Patil D.R, Maheswar D.L and Muniyappa T.V.,2017, Importance of horticultural based integrated farming system approach in changing climatic situations at North Karnataka, XIII Agricultural Science Congress-2017, Climate Smart Agriculture, 21-24, UAS, Bangalore
- Brundakumari, M.S. and Kotikal, Y. K,2016, Studies on natural enemies in drumstick ecosystem *J. Exp.Zool. India*, **19**(2):1151-1155 (5.51)
- Brundakumari, M.S., Kotikal, Y.K and Asma, A.,2016, Effect of New molecules of insecticides, botanicals and bio pesticides on the damage inflicted by drumstick defoliator, *Noorda bliatealis* Walker on drumstick. *J. Exp.Zool. India*, **19**(2):1093-1097 (5.51)
- D.L. Maheswar, 2017, Exploring Horticultural Education, a Key Driver for Economic Security, *Indian Horticulture*, pg: 34-37
- G.C. Sandhya, Kulapati Hipparagi, S.N. Patil, Sadanand Mushrif and Sarvamangala Cholin,2016, Effect of post shooting spray of nitrogen and potassium on bunch characters and fruit yield of banana cv. Grand Naine, *The Bioscan*, **11**(4):2453 2456 (5.26)
- G.R. Rajkumar and S.V. Patil, 2016, Influence of foliar supplement of NPK and B on growth and yield of Sesame, *Ecology, Environment and Conservation* (5.00)
- H Ansar, MV Dhananajaya, A Taj, B Fakrudin, A Rekha. Analysis of relative nuclear DNA content in carnation (*Dianthus caryophyllus*) accessions reveals ploidy levels by flow cytometry. 2016. *Ind. J. Agril. Sci*, **86**:11(6.17)
- H.M. Manya, S. L. Jagadeesh and G. Bhuvaneshwari, 2016, Effect of different level of ingredients used in ready -to-use ,sapota powder mixture on its nutritional status, *The Bioscan*, **11** (4), 2303-2305 (5.26)

- I.B. Biradar, A.M. Rathod, J. Venkatesh, D.R. Patil, D.L. Maheswar and T.V. Muniyappa, 2017, Importance of Horticultural based Integrated Farming system approach in changing climatic situations at North Karnataka, *Agriscience congress-2017, Bengaluru, India from 21<sup>st</sup>-24<sup>th</sup> Feb-2017*
- I.B. Biradar, and Y. Raghuramulu, 2017, Diversification is the need of the hour in Coffee plantations in changing climatic situations, *Agriscience congress-2017, Bengaluru, India from 21<sup>st</sup>-24<sup>th</sup> Feb-2017*
- I.B. Biradar, J. Venkatesh and T.V. Muniyappa, 2017, Impact of climate change on yield of horticulture crops in north Karnataka, *Agriscience congress-2017, Bengaluru, India from 21<sup>st</sup>-24<sup>th</sup> Feb-2017*
- Itigi Prabhakar, K Vijayaragavan, Premlata singh, Balraj singh, Janakiram, B L Manjunatha, Seema jaggi & I Sekar, 2016, Constraints in adoption and strategies to promote polyhouse technology among farmers: A multi-stakeholder & multi-dimensional study. *Indian Journal of Agricultural Sciences*. 87 (4):485-490 (6.17)
- Kalpana, P.R, Suma, R, Kantesh Gandolkar and Kirankumar, S. 2016. Effect of phosphorus and sulphur applications on growth, yield and quality of tomato in calcareous soil. *The Bioscan*, 11(1): 597-601(5.26)
- Kiran Nagajjanavar, Menon Rekha Ravindra, Preeti Birwal, Mahesh Kumar G, 2016, Kulfi a traditional and nutritional frozen dessert: a review, *International Research Journal of Natural and Applied Sciences*, 3(7), 79-88 (5.46)
- Kishore Kumar Das, Swamy, G.S.K Debalina Biswas and Kuldeep Kumar Chnaniya, 2017, Response of soil application of diatomaceous earth as a source of silicon on leaf nutrient status of guava, *Int. Journal of Current Microbiology and Applied sciences*, 6(4):1394-1399 (5.38)
- Kishore Kumar Das, Swamy, G.S. K Shivalingappa Kumabr, Gangadharppa, P.M and Jagadeesha, R.C, 2017, Effect of silica on physical and biochemical characters of guava, *Int. J. curr. Microbiology and Applied sciences*, 6(4):1527-1532 (5.38)
- Kumbargire, G. A, Swamy, G.S.K. and Anand Sadashiva Kalatippi, 2016, Influence of diatomaceous earth as source of silicon on leaf nutrient status and yield attributing charactes of banana cv. Grand Naine, *The Bioscan*, 11(1):435-438 (5.26)
- L. Mukunda Lakshmi, H.B. Lingaiah, A Mohan Rao and A Ramesh, 2017, RAPD Molecular marker based genetic diversity among oriental pickling melon (*Cucumis melon var. Conomon*) Genotypes in Karnataka, India, *Int.Curr. Microbio App. Sci* 6(3): 324-330, (5.38)
- M Harshavardhan, D P Kumar, A M Rajesh, H A Yathndra and Shivanand Hongal, 2016, Economic feasibility of integrated nutrient management in carnation (*Dianthus caryophyllus L.*) under polyhouse condition, *Ecology, Environment and Conservation*, 22: 29-33, 2016 (5.02)
- M. Abdul Kareem, M.H. Tatagar, Krishna D. K, R. K. Mesta, Dileepkumar and M.A. Waseem, 2016, Evaluation of Bio-Efficacy and Phytotoxicity of Pyraclostrobin 20% WG against Anthracnose Disease Chilli, *Journal of Pure and Applied Microbiology* (6.00)
- Maheswar.D.L. and Ashok Alur, 2016, Kitchen Gardening – A Potential Strategy for Nutritional Security, *CommodityIndia.com*, Volume – 16(6), PP:- 14 – 16
- Maheswar.D.L. and Ashok Alur, 2016, Vulnerability of Water Resources to Impacts of Climate Change, *CommodityIndia.com*, Volume – 16(4), PP:- 14 – 18
- Maheswar.D.L. and Ashok Alur, 2016, Farm Producers Companies – An Innovative Institutional Model to Empower Small and Marginal Farmers in India, *CommodityIndia.com*, Volume – 16(2), PP:- 7 – 10
- Maheswar.D.L. and Ashok Alur, 2016, Jack – An Untapped Potential Fruit crop, *CommodityIndia.com*, Volume – 16(5), PP:- 14 – 16
- Maheswar.D.L. and Ashok Alur, 2016 Promoting Mechanization through Custom Hiring to Enable Small Land Holdings More Remunerative, *CommodityIndia.com*, Volume – 16(3), PP:- 23 – 26
- Mallikarjun G. Awati, C.G. Anand and Y. Raghuramulu, 2016, Evaluation of Arabica coffee cultivars under Pulney hill conditions

- of Tamil Nadu, *Indian Journal of Horticulture*, **73**(4): 475-481(6.13)
- Mohd Yaqoob Dar, R. J. Rao & G. K. Ramegowda., 2016. Age-stage, two-sex life table of European red spider mite, *Panonychus ulmi* (Koch) (Prostigmata: Tetranychidae) on mulberry varieties. *Archives of Phytopathology and Plant Protection*, **49** (7-8): 182-194 (5.07)
- Mudassar and Venkateshalu, 2017, Faunistic studies on the genus *Xanthodes* (Lepidoptera: Nocutidae: Bagisarinae) associated with Bhendi ecosystem of Karnataka, *Journal of Entomology and Zoology Studies*, **5**(3): 247-251 (5.53)
- Naraboli, C.V., Greeshma Reddy, B.C., Shivannanavar, S., Meti, S., Alur Ashok. S and Nagaraj, M.S., 2017, Optimization of soil and plant indices for managing potassium nutrition in grape orchard of northern Karnataka. *The Bioscan*, **12**(1):301-304 (5.26)
- Navyashree M., Munikrishnappa P. M., Seetharamu G. K., Krishna H. C., Anil kumaR S. and Dayamani K. J, 2016, Effect of major and micronutrients on yield, vase life, soil and leaf nutrient content of bird of paradise (*Strelitzia reginae* L.), *International Journal of Biomedical Research*, **11**(7) (6.24)
- Netravati, S L Jagadeesh. G J Suresh and G S K Swamy, 2016, Influence of eco friendly post harvest treatments on pulp chroma and hue on mango cv alphonso fruits, *The Bioscan***10**(1): 29-32 (5.26)
- Omem, T., Balaji S. Kulkarni and Sateesh R. Patil, 2016, Genetic variability in gaillardia (*Gaillardia pulchella*), *Indian Journal of Agricultural Sciences*,**85**(5): 684-687(6.17)
- P.M. Gangadharappa, 2016, In-Vitro Evaluation of Plant Extracts and Oils against the growth of *Colletotrichum musae*, *The Bio Scan*, **11**(4):2799-2802 (5.26)
- Patil S. V., Gurumurthy S. B., Rajkumar G. R. and Prashant A., 2017, Effect of bioinoculants on growth parameters of black pepper (*Piper Nigrum*) at nursery stage, *Research on Crops*, **18**(1): 193-196 (6.80)
- Pushpa, H., Jagadeesh, S.L. and Suresha, G.J. Influence of blending of natural extracts on Physicochemical and sensory qualities of aloe vera Squash. 2016. *The Bioscan*, **11**(1): 113-117 (5.26)
- Pushpa, H., Jagadeesh, S.L. and Suresha, G.J. Processing and storage of aloe vera into naturally Flavored ready- to- serve (RTS) beverage using ginger, lemon and peppermint extracts. 2016. *The Bioscan*, **11**(2): 833-836 (5.26).
- Rani R. Unnithan, N., Thammaiah, P.M. Gangadharappa and M.S. Kulkarni, 2016, In vitro evaluation of Plant extracts and oils against the growth of *Colletotrichum musae*, *The Bioscan*, **11**(a): 2799- 2802 (5.26)
- Ratnakar M Shet, M.V. Mohan Kumar, N. Jagadeesha, Ashok, MS, Anantha and MP Rajanna, 2016, Variability and genetic diversity of rice for yield and yield related traits under aerobic condition, *Eco. Env. & Cons.***22** (December Suppl.) S291-S298 (5.02)
- Rekha, M.V., Kirankumar, S., Nagaraja, M.S., Ashok, S. Alur and Suma, R., 2016. Availability of Micronutrients Among Different Cropping Systems in A Typical Black Soil of Northern Karnataka. *The Bioscan*, **11**(4): 2425-2428 (5.26)
- Reshma Gokak, SH Ramanagouda and J Jayappa, 2017, Collection, isolation, bioassay studies of indigenous isolates of *Lecanicillium lecanii* (Zimm.) Zare and Games against *Myzus persicae*, *Journal of Entomology and Zoology Studies* (5.53)
- S. V. Patil, S. I Halikatti, S. B. Gurumurthy, M. S. Lokesh and RatnakarManjunath Shet, 2016, Dry matter accumulation in chickpea (*Cicer arietinum* L.) at different growth stages as influenced by organic manures and rock phosphate with PSB in vertisol, *Research on Crops*, **13**(3):906-911 (6.02)
- S.V.Patil, S.B.Gurumurthy, G.R.Rajkumar and A.Prashantha, 2017, Effect of bio-inoculants on growth parameters on black pepper at nursery stage, *Research on Crops*, **18** (1) : 185-189 (5.00)
- Sanjeev.P.Jakatimath., R.K.Mesta.,Sadanand K Mushrif., I.B. Biradar and P.S.ajjappalavar, In vitro evaluation of fungicide, botanicals and bio-agents against colletotrichum melongenae caused fruit rot of Brinjal, *Journal of Environment and Bio-Sciences*, **30**(2)509-514 (4.43)
- Sanjeev.P. Jakatimath., R.K. Mesta., I.B. Biradar and P.S.Ajjappalavar, 2017, In vitro Evaluation of Fungicide, Botanicals and Bio agents against

- Phomopsis vexans casual Agent of Fruit Rot of Brinjal, *Journal of pure and Applied Microbiology*, **2**(1): 38 – 43 (5.00)
- Sanjeevraddi G, Reddy, M S Gawankar, H P Maheshwarappa. P Madhavi lata , and R K Mathur. 2016. Initial performance of 10 oil plum cross combination under three agroclimatic conditions in India. *Journal of plantation crops*, **44**(3): 1-12 (5.54).
- Satish, K.S, Shirol, A.M, Swamy, G.S.K. Chavan, M, Praveen, J and Krishnamurthy, G.H, 2016, Physiological investigation on growth and yield of 73apota (*Manilkara achras*(mMill) Fosberg, *Int.j.Adv.Res.***4**(12):2290-2299 (5.33)
- Siddanagouda Yadachi, 2016, Influence of multiple passes and speed ratios of rotary tiller on soil properties, *Ecology, Environment and Conservation* (5.60)
- T. Ganapathi, G.R. Rajkumar and S V Patil, 2016, Evaluation of Cashew Varieties under hill tract of Karnataka, *Ecology, Environment and conservation* (5.00)
- T. Ganapathi, S V Patil and Rajkumar, G.R, 2016, Chemical weed management in Ginger (*Gingiber Officinale* Rosc.), *Ecology, Environment and conservation* (5.00)
- Thungamani and Shwetha M.S, 2016, A survey on privacy preserving and authenticated routing in mistrustful mobile Ad-hoc networks, *Inter. Journal of innovative research in computer and communication engineering*: **4**(4):7692-7698 (5.81)
- Venkateshalu and Mahesh Math, 2017, Bioefficacy of Ready Mixture, Spirotetramat 120 +Imidacloprid 240 SC against Sucking Pests of Brinjal, *The Bioscan*, **11**(4): 2655-2658 (5.26)
- Vijaymahantesh, H.V. Nanjappa and B.K. Ramachandrappa, 2016, Tillage and nitrogen management effects on weed seed bank and yield of finger millet *Indian Journal of Weed Science* **48**(2): 186–190 (5.17)
- WART Wickramaarachchi, KS Shankarappa, KT Rangaswamy, MN Maruthi, RGAS Rajapakse, Saptarshi Ghosh. 2016. Molecular characterization of banana bunchy top virus isolate from Sri Lanka and its genetic relationship with other isolates, *Virus Disease*, **27**(2): 154-160 (5.90)
- C. Research Papers published in Scientific National / International Journals (121 Nos) with NAAS rating <5 (given in parenthesis)**
- Airadevi P. Angadi\*, B. S. Reddy, R. C. Jagadeesha, Balaji S. Kulkarni and S. Nishani, (2017) Effect of summer season on correlation coefficient in bird of paradise (*Strelitzia reginae*) progenies, *Journal of Applied and Natural Science* **9** (1): 364 – 369 (4.84)
- Ambresh, H.B. Lingaiah and B Fakrudin (2016) Genetic heritability and genetic advance studies in tomato, *International journal of Horticulture*.**6**(18) pp.1-3 (2.87)
- Ajitkumar, S., Hegde, N. K., Ravi Pujari, Saraswati, S. Sampagavi and Laxman Kukanour, 2016, Influence of different storage structures on storability of garlic, *Environment and Ecology*, **34** (4C),1843-1848 (4.18)
- Amruta S. Bhat and Laxmidevi V., 2017, GBNV sequences from tomato, weeds and gerbera *GenBank*
- Anand G Nanjappanavar, D. R Patil, Balesh Goudappanavar., 2017 Quality and Yield of Grapes cv. Manik Chaman influenced by Application of Gibberellic Acid 0.001% L in Comparison to Standard Market Sample, *Indian Horticulture Journal*, **7**(1):103-106 (2.86)
- Anand G Nanjappanavar, Shivayogi Ryavalad and Sujata Padadalli., 2017. Effect of Boron, Calcium Nitrate and NAA on Initial Seed Quality of Chilli, *Indian Horticulture Journal*. **7**(1):103-115 (2.86)
- Anand G Nanjappanavar, Shivayogi Ryavalad and Mahadev Kivati. 2017. Studies on Use of Indigenous Treatments for Healthier Germination and Seedling Growth in Chilli 5(cv. Byadagi Dabbi), *Indian Horticulture Journal*, **7**(1):103-118 (2.86)
- Anand G Nanjappanavar, Satish R Patil and Basavarajappa H R., 2017. Study on Changes in Physiological Parameters and Yield with the Application of Thioproline N-ATCA 2350 (Elanta Topper) in Pomegranate (*Punica Sapota* Sn L.) cv. Bhagwa/Kesar, *Trends in Biosciences*. **10**(13):2350-2354 (3.94)
- Anand G Nanjappanavar, H.R. Basavarajappa and Balesh Goudappanavar., 2017. Naturally Occurring ABA (Abscisic Acid), Sugar and Protein Content During Embryogenesis in Mallika (Monoembryonic) and Nekkere (Polyembryonic) Varieties of Mango, *Trends in Biosciences*. **10**(9):1792-1796 (3.94)

- Anand G Nanjappanavar, Balesh Goudappanavar and H. R. Basavarajappa.,2017. Fluctuation in Naturally Occurring Cytokinin During Embryogenesis in Mallika (Monoembryonic) and Nekkere (Polyembryonic) Varieties of Mango, *Trends in Biosciences*.**10(9)**:1806-1811 (3.94)
- Anand G Nanjappanavar, D. R. Patil and Balesh Goudappanavar., 2017. Bio efficacy of Elanta (N Acetyl Thiazolidine 4 – Carboxylic Acid) in Sonaka Grape., *Trends in Biosciences*. **10(12)**:2261-2265 (3.94).
- Anand G. Nanjappanavar, Basavaraj H. R. and Balesh Goudappanavar., 2017. Growth Kinetic Studies in Mallika (Monoembryonic) and Nekkere Polyembryonic) Varieties of Mango, *Trends in Biosciences*. **10(11)**:1977-1981(3.94).
- Anand G Nanjappanavar, D. R. Patil and Balesh Goudappanavar., 2017. Studies on use of Medicinal Plant Extract's as Priming Treatments for Healthier Germination and Seedling Growth in Chilli, *Trends in Biosciences* (3.94)
- Anand Nanjappanavar, Shivayogi, Ryavalad, Vasudeva Naik K. and Deelep Masuthi., 2017. Studies on use of Medicinal Plant Extract's as Priming Treatments for Healthier Germination and Seedling Growth in Chilli, *Trends in Biosciences* (3.94).
- Anita Rajkumar Ghandhe and Basavaraja Sannakki, 2016, Temperature Dependence on Dielectric Properties of PMMA with Al<sub>2</sub>O<sub>3</sub> Composite Polymer Film, *Adv.Sci. Lett* **22**,884-888 (4.42)
- Anjaneya Reddy, B\*., Shalini D. Sagar, R. K. Mesta and I. Shanker Goud, 2016, Chemical management of *Alternaria* leaf blight of sunflower, *Journal of Farm Sciences*, **29(1)**: 119-120 (3.54)
- Anupama Hachcholli, Kulapati Hipparagi., Rani, S., Ravindranth and Balesh, G., 2016, Evaluation of wine grape varieties for growth and yield under northern dry zone of Karnataka, *International J. Sci. Res.*,**5**:409-4109 (4.79)
- Anupama, H.H., Kulapati Hipparagi, S.N. Patil and Rani Shirnal, 2016, Berry parameters of coloured wine grape varieties under northern dry zone of Karnataka, *GreenFarming*,**7(6)**:1503-1505 (4.38)
- Ashok, Shantappa Tirakannanavar, Vithal Navi, Ratnakar M Shet, Shivanand Hongal, Raju Chavan, G.K. Halesh, 2016, Sustainable Silvi based cropping systems for improving socioeconomic status of horticulture farmers– A Review, *Int. J. Adv. Res. Biol. Sci*. **3(7)**: 99-104 (2.82)
- Ashoka N, 2016, Econometric analysis of wholesale coffee prices in India, *Economic Affair* (4.87)
- Bapurayagouda Patil, M. N. Merwade and Laxmi N. Tirlapur., 2016. Influence of inter row spacing and fertilizer levels on seed production and economic benefit in perennial fodder sorghum cv. CoFS-29. *Seed Research* **44(2)**: 97-101 (4.72).
- B. Arunkumar, H. B. Lingaiah, T. B. Puttaraju, K. T. Rangaswamy and Jyothi Kattegoudar, 2016, Studies on genetics of bacterial wilt resistance in green eggplant (*Solanum melongena* L.), *The Bioscan*,**11(2)**:1243-1246 (4.57)
- B. Arunkumar, H.B. Lingaiah, T.H Singh.R Venugipalan, Jyothi Kattegoudar, 2017, Line X Tester analysis for the study of Combining Ability in Egg plant (*Solanum melongena* L.), *Environment and Ecology*, **35 (2B)**:1136-1141, (4.18)
- B.R. Sahithya, B. Raju, Kulapati hipparagi, S. Raghavendra and B.S. Sagar, 2017, Effect of phytohormones and signal molecules on biochemical changes and shelf life of banana fruit, *Research in Environment and Life Sciences* **10(3)**: 205-208 (3.74)
- BaleshGoudappanavar, D.R. Patil, Sateesh Pattepur and *Kulapati Hipparagi*, 2017, Efect of structured water and fertilizer on yield attributing and quality parameters of grape (*Vitisvinifera* L.) cv. Manjri Naveen, *Green Farming*, **8(1)**:142-146 (4.38)
- Chandrashekar G.S, Manjunath Hubballi, H.P. Maheshwarappa., 2016. Evaluation of olfactory pre- conditioned larval parasitoid *Goniozus nephanitdis* Muesebeck in suppression of *Opisina arenosella* Walker under field condition in Tumkur district of Karanataka, coconut Research and Development (ISOCRAD3) organized at ICAR-CPCRI, Kasargudu. *Indian coconut Journal*
- Chandrashekar G.S, H.P. Maheshwarappa and Jilu.V. sajan.,2016. Outbreak of coconut slug caterpillar in Karnataka, *Coconut Research*

- and Development (ISOCRAD3) organized at ICAR-CPCRI, Kasargodu. *Indian coconut Journal*
- Desai, P. B., B. S. Patil, A. G. Vijayakumar, V. R. Kulkarni, M. P. Basavarajappa, 2016, Genetic Variability Studies on yield Traits and Dry Root Rot Resistance in Chickpea, *International Journal on Agricultural Sciences*. **VII** (II): 171-179 (2.60)
- Desai, P.B., B.S. Patil, A.G. Vijayakumar and M.P. Basavarajappa, 2017, A comparative analysis of genetic variability and correlation in chickpea under normal and late sown conditions, *Green Farming*, **8**(2): 266-270 (4.38)
- Dodamani, S., Hegde, N.K., Gangadharappa, P.M., Shashikant, E., Pujari, R., and Sharatbabu, A.G., 2016, Evaluation of turmeric (*Curcuma longa* L.) genotypes for growth, yield and yield attributes, *Res. Environ. Life Sci.*, 2016, **9**(8) : 917-919 (3.74)
- Ganiger.V.M., Shruti Gondi, Balesh Godappanavar, Anand G Nanjappanavar. 2017. Response of organic amendments on leafy vegetables *Green farming* 2017. **8**(4) (4.38).
- G B Srinivasulu, M Harshavardhan and K Chandan, 2017, Comparative effect of different potting media on vegetative and reproductive growth of Dendrobium orchid var. Sonia-17, *Environment and Ecology*, **35** (2C), 1252-1255 (4.18)
- Gayakawad, P. S., Evoor, S., Mulge, R, Nagesh, G. C., Reshmika, P. K. and Rathod, V., 2017, Combining ability analysis for characters related to earliness and yield in bottle gourd, *Environment and Ecology*, Jan- to March, 2017, **35**(1):70-73 (4.18)
- Gayakawad, P. S., Evoor, S., Mulge, R., Reshmika, P. K. and Nagesh, G. C., Heterosis studies in bottle gourd for growth and yield parameters, *Environment and Ecology*, Oct.-Dec., 2016, **34** (4B): 1756—1763 (4.18)
- H A Yathindra, R Krishna Manohar, A M Rajesh, M Harshavardhan, 2016, Effect of Integrated nutrient management on growth parameters of Bird of Paradise [*Strelitzia reginae* (L.)], *The Bioscan*, **11** (2), 565-568 (4.57)
- Hussain, S. M. D., Hegde, L., Hegde, N. K., Shantappa, T., Gurumurthy, S. B., Manju, M. J., and Shivkumar, K. M., 2016, Morphological characterization and evaluation of Local black pepper (*Piper nigrum* L.) genotypes for yield and quality under arecanut based cropping system, *Journal of Agriculture Research*, **1**(3)
- I N NagaraI, V B Kuligod and V P Singh, 2016, Soil nutrient status of chilli growing area of Northern Transitional Zone of Karnataka, *Asian Journal of Soil Science.*, **11** (1): 140-145 (4.34)
- Jagadeesha N., 2016, Production potentials and economic of finger millet based intercropping under organic production system in alfizols of Karnataka, *Indian Journal of Dry Land Agriculture* (4.50)
- Jagadeesha N., 2017, Solar radiation utilization efficiency in cereal-legume intercropping system: A review, *Agriculture review* (4.80)
- Jagadish, K. Ramachandra Naik, Laxman Kukanoor, B.C Patil and Chaya P Patil, 2017, Physico-chemical properties of tomato (*S. lycopersicum*) wine as influenced by yeast strains and fermentation conditions, *Green farming*, **8** (2): 498-501 (4.38)
- Jaishankar H P., Laxman Kukanoor, 2016, Biochemical quality evaluation of different varieties of 75apota at ambient storage, *Advances in life sciences*, **5**(8): 3346-3353 (3.15)
- Jaishankar H P., LaxmanKukanoor, 2016, Effect of post-harvest treatments on biochemical changes of Sapota cv. Kalipatti at ambient storage, *Advances in Life Sciences*, **5**(7): 2950-2956 (3.15)
- Jaishankar H P., Laxman Kukanoor, 2016, Organoleptic evaluation of different varieties at ambient storage, *Advances in life sciences*, **5**(9): 3466-3469 (3.15)
- Jaishankar H P., Laxman Kukanoor, 2016, Physiological changes of different varieties of Sapota at ambient storage, *Advances in life sciences*, **5**(8): 3279-3285 (3.15)
- Jaishankar H P., Laxman Kukanoor, Effect of post-harvest treatments on physiological changes of Sapota cv. Kalipatti at ambient storage, 2016, *Advances in life sciences*, **5**(7): 2942-2949 (3.15)
- Jyothi Kattedgoudar, H. B. Lingaiah, Mamatha N.C and Arunkumar B, 2017, Combining ability studies in tomato (*Solanum lycopersicum* L.) for yield quality and bacterial wilt resistance, *Eco, Env and Cons*, **23**, S287-S290, (4.89)

- Kotikal Y.K. and Math, M, 2016 Insect and non- insect pests associated with drumstick *Entomology, Ornithology and Herpetology: Current Research* **5**(2):180-189.
- Kotikal Y.K. and Manjula, K.N,2016, Evaluation of new insecticides and bio pesticides against defoliators on palak, *International Journal of Plant Protection* **9**(2):365-371 (3.15).
- Jakatimath S., Mesta R. K, Biradar, I. B. and Ajjappalavar P., 2016, Management of fruit rot of brinjal through Fungi toxicants in the Northern Dry Zone of Karnataka, *Advances in life Sciences* **5**(21) 2278-3849 (3.15)
- Jakatimath S., Mesta R. K, Mushriff, S. K. Biradar, I. B. and Ajjappalavar P, 2016, *In vitro* evaluation of fungicides, botanicals and bio-agents against *Colletotrichum melongenae* caused fruit rot of brinjal (*Solanum melongena* L.), *Journal of Environmental Bioscience*, **30**(2), (0973-6913)
- Kantharaju, V., Shobha, G., Gururaj Sunkad and Amaresh, Y.S. 2016. Survey for Distribution of Burrowing Nematode, *Radopholus similis* in Banana Growing Area of North Eastern Karnataka. *Advances in Life Sciences* **5**(7): 2878-2884 (3.56).
- Kirankumar, S., Nagaraja, M.S., Suma, R. and Kalpana, P.R., 2016, Extent of Soil Salinity and Chloride Toxicity as influenced by Different Irrigation Water Sources in A Typical Black Soils of Northern Karnataka, *Research Journal of Agricultural Sciences*, 2016, **7**(2);406-408 (4.54)
- Kantharaju, V., Shobha, G., Gururaj Sunkad and Amaresh, Y.S,2016, Survey for Distribution of Burrowing Nematode, *Radopholus similis* in Banana Growing Area of North Eastern Karnataka, *Advances in Life Sciences* **5**(7): 2878-2884 (3.15).
- Manjunath Gowda, D.C., Lingaiah H.B., Nachegowda V. and Anilkumar S, 2016, Effect of Speciality Fertilizers on quality, yield and economics of tomato (*Solanum Lycopersicum* L) *Environment & Ecology*,**34**(1):150-154 (4.18).
- Manjunath Hubballi, H.P. Maheshwarappa, R. Siddappa and G.S. Chandrashekar., 2016. Basal stem rot disease: A bane to coconut grower, coconut Research and Development (ISOCRAD3) organized at ICAR-CPCRI, Kasargodu. *Indian coconut Journal*
- Manjunath Hubballi, H.P. Maheshwarappa and Chandrashekar G.S.,2016. Gyanoderma disease- sever effect to coconut garden. Coconut Research and Development (ISOCRAD3) organized at ICAR-CPCRI, Kasargodu. *Indian coconut Journal*
- Meti, S., Pradeep, B., James Jacob, Shebin, S.M. and M.D. Jessy.2016. Application of Remote sensing and GIS for estimating area under natural rubber cultivation in India. *Rubber Science*, **29**(1): 7-9 (3.98).
- Mittal V, Ramegowda G.K., Illai I, Babulal & Sharma SP., 2016. Bionomics of mycophagous coccinellid, *Halyzia tschitscherini* Semenov (Coleoptera: Coccinellidae) on mulberry in temperate region of Kashmir, *Indian Journal of Forestry*, **39** (1): 57-61(3.78)
- M Harshavardhan, D P Kumar, A M Rajesh H A Yathindra and Shivanand Hongal, 2016, Effect of integrated nutrient management on floral attributes of carnation (*Dianthus caryophyllus* L.), *The Bioscan* **11** (2), 1163-1166 (4.57)
- M Harshavardhan, D P Kumar, A M Rajesh H A Yathindra and Shivanand Hongal, 2016, Growth and development of carnation [*Dianthus caryophyllus* L.] as influenced by integrated nutrient management, *The Bioscan* **11** (4), 2691-2694 (4.57)
- M Harshavardhan, D P Kumar, H A Yathindra, A M Rajesh and Shivanand Hongal, 2016, Effect of integrated nutrient management on soil health, nutrient uptake, flower quality and yield of carnation (*Dianthus caryophyllus* L.), *Environment and Ecology* **34** (4A), 1862-1867 (4.09)
- M Harshavardhan, D P Kumar, H A Yathindra, A M Rajesh and Shivanand Hongal, 2016, Influence of integrated nutrient management on flower quality, yield and post harvest behavior of carnation [*Dianthus caryophyllus* L.] under polyhouse condition, *Environment and Ecology* **34** (4A), 1857-1861(4.09)
- M. Abdul Kareem, M.H. Tatagar, Krishna D. Kurubetta, Dileepkumar Masuthi and M.A. Waseem, 2016, Evaluation of Bio-Efficacy and Phytotoxicity of Chlorothalonil 75% WP against fruit rot Disease of Chilli, *Journal of Pure and Applied Microbiology*,**10**(4):2909-2911

- M. Abdul Kareem, M.H. Tatagar, Krishna D. Kurubetta, Raghavendra Mesta, Dileepkumar Masuthi and M.A. Waseem, 2016, Evaluation of Bio-Efficacy and Phytotoxicity of Pyraclostrobin 20% WG against Anthracnose Disease of Chilli, *Journal of Pure and Applied Microbiology*, **10**(3): 2397-2399
- M. G. Kerutagi & M. B. Deshetti, 2017, Vegetable nursery production under protected conditions in Karnataka- A success story, *Trends in Biosciences*:**10**(2):843-844 (3.94)
- M. S Nagaraja, A.K. Bhardwaj, G.V. P Reddy, V.R.R. Parama and B. Kaphaliya, 2016, Soil carbon stocks in natural and manmade agri-hortilivipastural land use system in dry zone of southern India, *Journal of Soil and water Conservation* **16**(3) (1.42)
- Madhushree. M, Bhuvaneshwari. G, Jagadeesh S. L and V. M. Ganiger, Studies on effect of pre-treatments and drying methods on quality of dried pomegranate arils, 2016, *International Journal of Agricultural Science and Research*, 2016, **7**(2), 489-498 (4.13)
- Mahaveer Shrikant Muttur., Ravindra Mulge., V.D. Gasti., B. Mastiholi., Sumangala Koulagi and C.G. Nagesh, 2017, Genetic variability Studies in F4 Generation of Pumpkins (*Cucurbita* sp.), *International J. of Agriculture Science.*, **9**(1):3603-3605 (4.13)
- Mamatha N P, Swamy G.S.K, Anil I Sabarad, Jagadeesha R.C. Jagadeesh S.L. and Thammaiah N., 2016, Effect of Seed storage on Germination and Graft success in Jackfruit, National Seminar on Management of Jack under adverse climatic conditions, Value addition and Marketing
- Mamatha N C, Lingaiah H. B. and Jyothi H K, 2017, Performance of parents and hybrids for yield and other economic traits in Tomato (*Solanum lycopersicum* L.), *Int.J.Pure App. Biosci* **5**(3):1080-1083,(4.74)
- Mamatha N C, Lingaiah H. B. and Jyothi H K, 2017, Variability studies in F2 Population of tomato (*Solanum lycopersicum* L.) for yield and other economic traits, *Int.J.Pure App. Biosci* **5**(3) 1093-1096 (4.74)
- Megharaj, K.C, Ajjappalavara, P.S, Revanappa, Raghavendra S, Tatagar, M.H and Satish, D, 2016, Study on morphological and biochemical bases for thrips (*Scirtothrips dorsalis* Hood) resistance in Chilli (*Capsicum annum* L.), *Research in Environment and Life Sciences* **9**(10): 1200-1202 (3.74).
- Mrunalini, B. N., Bhuvaneshwari G, Jagadeesh S. L. and Vasant M. Ganiger, 2016, Sensory quality of pomegranate RTS beverage blended with drumstick leaf extract and ginger juice, *Green Farming*, 2016, **7** (5), 1252-1255 (4.38)
- Pallavi H. M. \*, K. Vishwanath, Bapurayagouda Patil1, N. Naveen, and Manjunath Thattimani., 2016. Seed anatomical studies on dormancy and germination in *Chamaecrista absus*. *Journal of Applied and Natural Science* **8** (2): 868 – 873 (3.73).
- P.M. Gangadharappa, 2016, Genetic Variability studies in ginger (*Zingiber officinale*77apo) genotypes, *Res.Environ. Life Sci.***9**(10) 1272-1273 (4.09)
- Prashanthi P., Rajamma A.J., Sateesha S.B, Chandan K., Tiwari S.N. and Ghosh S.K., 2016, Pharmacogostical and larvacidal evaluation of *Artocarpus lakoocha* Roxb. From Western ghats, *Indian Journal of Natural Products and Resources*, **7**(2): 141-149
- Praveenkumar, D. A., Hegde, N. K., Patil C. P. and Agasiman in, A. D., 2016, Effect of pre-inoculation of VA Mycorhyzal fungi on growth and yield of onion, *Environment and Ecology*, **34** (3C):1605-1608 (4.18)
- Rajakumar G. R. and S. V. Patil., 2016. Development and performance verification of soil testing kit, *International journal of forestry and crop improvement*, **7**(1):41-45 (4.04)
- Praveenkumar, D. A., Hegde, N. K., Patil C. P. and Agasimanin, A. D., 2016, Effect of bio formulations on growth and yield of onion, (*Allium cepa*), under irrigated ecosystem of northern dry zone of Karnatka, *Environment and Ecology*, **34** (3C) :1609-1612 (4.18)
- R T Patil, B.S. Reddy, Manjula Karadiguddi and K B Naik, 2016, Evaluation of standard carnation (*Dianthus caryophyllus* L.) cultivars under naturally ventilated polyhouse for flowering and quality parameters, *Corm-The journal of floriculture*, **3**(2):123-126 (1.72)
- Rachappa B. Kore., Mukund Shiragur., Ravi Pujari, Sandhyarani Nishani, and Akshata, G. H., Assessment of genetic diversity of china aster (*Callistephes chinensis*(L)Nees) genotypes

- using SRAP markers, *Indian Journal of ecology*. **43**(1): 192-196 (4.47)
- Rajeshwari Hosamani, Jagadeesh, S.L. and Suresha, G.J., 2016, Fortification of carrot, jackfruit and 78apot powder to enhance nutritional and sensory qualities of sweet biscuits, *Journal of Nutritional Health & Food Engineering*: **4**(3), 130-135
- Rani Shirnal, S. N. Patil, Kulapati Hipparagi, Ravindra Naik and Balesh, G. 2016, Effect of time of pruning on growth and yield parameters of guava cv. Sardar under different planting densities, *Green Framing*, **7**(4): 962-965 (4.38)
- Ravindra Naik, S. N. Patil, Jyoti Naik, Rani Shrinall and Balesh Goudappanavar, 2016, Influence of biochemical parameters on rooting of air layering in guava cv. Sardar, *International J. Scientific Res.*, **5**(1): 23-25 (4.79)
- Ravindra Naik, S. N. Patil, Jyoti Naik, Rani Shrinall and Balesh Goudappanavar, 2016, Effect of rooting media on growth survival and economics on decoction of air layers of guava cv. Sardar., *Green farming* **10**: **7**(3) 702-705 (4.38)
- Ravindranath Naik, S.N. Patil, Kulapati Hipparagi, D.R. Patil and Rani Shirnal, 2016, Effect of media on root and growth parameters of air layers of guava (*Psidium 78apota* 78L.) cv. Sardar., *Green Farming*, **7**(6):1452-1455 (4.38)
- Rekha H. Hallur, Shantappa T, Archana A. M and Jagadeesha R. C, 2016, Pollen storage conditions and pollination with stored pollens on fruit set, seed yield and quality in okra hybrid (*Abelmoschus esculentus* (L.) 78apota.), *International Journal of Advanced Research*, **4**(7):1567-1571
- Rekha Hallur, T. Shantappa, S.B. Koppad and R.C. Jagadeesha, 2016, Correlation and Path Coefficient Analysis of Yield Attributes in Okra (*Abelmoschus esculentus* (L.) Moench.), *Indian Journal of Ecology*, **43** (1): 188-191
- Reshmika, P. K., Gasti, V.D., Evoor, S., Jayappa, J., Mulge, R. and Basavaraj, L. B., 2016, Character association for yield, quality and pest resistance in brinjal, *Environment & Ecology*, April-June 2016, **34** (2): 512—518 (4.50)
- Reshmika, P. K., Gasti, V.D., Evoor, S., Jayappa, J., Mulge, R. and Basavaraj, L. B., 2016, Evaluation of brinjal (*Solanum melongena* L.) genotypes for yield and quality characters, *Environment & Ecology*, April-June, 2016, **34** (2): 531—535 (4.50)
- Reshmika, P. K., Gasti, V.D., Evoor, S., Jayappa, J., Mulge, R. and Basavaraj, L. B., Performance of brinjal (*Solanum melongena* L.) genotypes under GLBC condition, *Environment & Ecology*, April-June, 2016, **34** (2): 519—525 (4.50)
- Sajjan A.M. Lingaiah H. B., Fakrudin B, 2016, Studies on Genetic Variability, Heritability and Genetic advance for yield and quality traits in tomato (*Solanum Lycopersicum* L), *International Journal of Horticulture*, **J.6**, **18**,1-3, (2.87)
- Sunkam Mahesh, kulapati Hipparagi, I.B. Biradar, S.R. Patil and Balesh Goudappanavar, 2016, Effect of mango variety and time of grafting on graft-take, leaves & girth of rootstock in playhouse and shade net, *Green Farming*, **7** (3): 710-714 (4.38)
- Sanjeev.P. Jakatimath., R.K. Mesta., I.B. Biradar and P.S. Ajjappalavar, Management of fruit rot of In vitro Brinjal through fungi toxicants in northern dry Zone of Karnataka, *Advances in life sciences*, **5**(21)10160–10163 (3.15)
- S Malthi, V P Singh, S S Saraswati, H T Sakhubai and P M Preeti, 2016, Influence of different media on shoot regulation, shoot multiplication and callus induction in long pepper (*piper longum* L.), *The Asian Journal of Horticulture.*, **11** (1): 52-57 (3.26)
- Salimath, S.V., Venkatesh, J., Kotikal Y.K., and Ravi Rajshetty, G, 2016, Screening of turmeric curcuma longa L cultivars for quality in southern dry zone of Karnataka *The Asian Journal of Horticulture*, **11** (1):186-188 (3.26).
- Samiullah, S., Sreenivas, K. N., Shankarappa, T. H., Krishna, H.C. and G.K. Sadananda, Sulfur dioxide pads on enhancement of shelf life of strawberry (*Fragaria annassa*), *Environment & Ecology*, **33**(4B): 1821-1826 (4.09)
- Sampath P.M., Nagesh Naik, Swamy G.S.K., Laxman Kukanoor & Jagadish Hiremath, Evaluation of elite clones of karilshada mango (*Mangifera indica* L.) for the morphological parameters of the fruits, *International journal of agricultural science and research*, **7** (1): 377-384 (4.82)

- Shashikumar, S, 2017, Impact of IPM in Bt Cotton in Belgaum district of Karnataka, *Research Journal of Agricultural Sciences* (4.54).
- Shashikumar, S, 2017, Pest Scenario and Appropriate Management for Bt Cotton in Belgaum district of Karnataka, *International Journal of Plant Protection* (4.59)
- Shambulingappa. N.D. R Patil, Kulapati Hipparagi, S. N. Patil, P. Babu, A. M. Nadaf and K. C. Kirankumar, studies on variability of growth strains of acid lime, *Advance in life sciences*, **5**(4) 1401-1408 (3.15)
- Shantappa Tirakannanavar, Jagadeesha, R.C., Munikrishnappa, P.M., and Ashok, 2016, Seed quality as influenced by seed treatment, packing material and storage condition of China aster (*Callistephus chinensis*), *Seed Research*, **44**(2) :137-137-143 (4.72)
- Shobha, G., Kantharaju, V., Gururaj Sunkad, Patil, M.B, Abbas Hussain, 2016. Management of root-knot nematode, *M. incognita* in ridgeguard by using bio agents, botanicals and chemicals. *National Journal of Life Sciences*, **13**(1): 49-54 (3.73).
- Shobha, G., Kantharaju, V., Gururaj Sunkad, Patil, M.B. and Abbas Hussain, 2016, Survey for Incidence and Occurrence of Root-Knot Nematode, *Meloidogyne incognita* Infesting Ridge Gourd, *Advances in Life Sciences* **5**(7): 2797-2803 (3.15).
- Shobha, G, Kantharaju, V, Gururaj Sunkad and Amaresh, Y.S., 2016, Management of root-knot nematode, *M. incognita* in ridgeguard by using bio agents, botanicals and chemicals, *National Journal of Life Sciences*, **13**(1): 49-54 (3.73)
- Sherzad, R.A., Sreenivas, K.N., Krishna, H.C., Tayeebulla, H.M., and M.G. Omari, 2017, Physico-Chemical Changes in Minerals and antioxidant Activity of Strawberry (*Fragaria ananassa*) Based Blended Ready to Serve Beverages during storage, *Trends Biosci.*, **10**(2): 723-728 (2.74)
- Sherzad, R.A., Sreenivas, K.N., Krishna, H.C., Tayeebulla, H.M., and M.G. Omari, 2017, Valorisation of Strawberry (*Fragaria ananassa*) Based Blended Ready-To-Serve Beverage With Muskmelon, Grape, Ginger and Lime During storage, *Trends Biosci.*, **10**(2): 901-906 (2.74)
- Sherzad, R.A., Sreenivas, K.N., Krishna, H.C., Tayeebulla, H.M. and M.G. Omari, 2017, Valorisation of Strawberry (*Fragaria ananassa*) based blended squash beverage with Muskmelon, Grape, Ginger and Lime During storage, *Inter. J. Agril. Sci. Res.*, **7**(1): 465-474 (3.53)
- Shivakumar, K. M. Nagaraja, M. S., 2016, Micronutrient status in soils of chilli grown areas of UKP command area, Karnataka, *Asian J. Soil Sci.*, **11** (2): 337-340 (4.72)
- Shivanand Rayar, Laxman Kukanoor, Ravi Pujari and ShakuntalaYadal, 2016, Influence of varieties on physical characteristics of dehydrated red onion slices, *Research in environment and life sciences*, **9**(2): 251-253 (3.74)
- Shivappa M. Karadi, V.M. Ganiger, Siddappa, Vittal Mangi and Bhuvaneshwari G., 2016, Character association and path analysis studies in wild melon (subsp.), *Green Farming*, **7**(3): 666-669 (4.38)
- Shruti P.G., V.M. Ganiger, Bhuvaneshwari G., M.B. Madalageri, Y.K. Kotikal, Manjunatha G. and Kantesh G., 2016, Evaluation studies of oriental pickling melon (*Cucumis melo* L. var. Conomon) genotypes for growth, yield and quality traits, *Green Farming*, **7** (3): 663-665 (4.38)
- Shruti Prakash. Gondi, V. M. Ganiger, Bhuvaneshwari. G, M. B. Madalageri, Y. K. Kotikal, Manjunatha. G, 2016, Evaluation of oriental pickling melon (*cucumis melo* l. var. conomon) genotypes for pest and disease reaction under northern dry zone of Karnataka, *Journal of Environment and Ecology*, **7**(1), 30-36 (4.18)
- Sunilkumar Shirasangi, M. P. Basavarajappa and V. B. Nargund, 2017, Effect of Different Glucose and Sucrose Levels on Uredospore Germination, *Environment & Ecology* **35** (3B): 2182—2184
- Sunkam Mahesh, Kulapati Hipparagi, I.B. Biradar, S.R. Patil and Balesh Goudappanavar, 2016, Effect of mango variety and time of grafting on graft take, leaves and girth of rootstock in polyhouse and shadenet, *Green Farming*, **7**(3): 710-714 (4.38)
- Suresh Patil, 2016, Analysis of achievement motivation and aggression among the attacker, starter and libero player at inter

- collegete men volley- ball players, *International journal of applied research*
- Uttam, Tripura., Hegde, N. K., and Chaya P. Patil, 2016, Effect of planting dates and VA Mycorrhiza on the performance of turmeric (*Curcuma longa* L.) cv Salem, *The Bioscan*, **11** (1): 459-462 (4.57).
- Vandana V., 2017, Critical study on "Galliver's Travel", IRJCS New Delhi
- Vandana V., 2017, Divine justice in King Lear, IRJCS New Delhi
- Vandana V., 2017, Nature of Law depicted in King Lear: A Study, IRJCS New Delhi
- Vikram, H.C. and Hegde, N.K., 2016, Genetic variability in cashew (*Anacardium occidentale* L.) under Northern dry zone of Karnataka, *Environment and Ecology*, **34** (1): 1519-1522 (4.18)
- 6.2 Papers presented and published in Seminar / Symposia / Workshops (92 Nos)**
- A K Vandana, G J Suresh and G S K Swamy, 2016, Impact of calcium chloride pre- storage treatment on 80apot (*Syzygium cumini* skeels) fruits under cold storage, *The Bioscan* **10**(1): 199-202
- Abhishek Gowda, G Manjunath\*, Pavan Kumar and V Lokesh. 2016 Novel molecules and their synergistic combination for management of bacterial blight of pomegranate, In: *National symposium on Recent Advances in Plant Health Management for Sustainable Productivity*, University of agriculture sciences, Dharwad, December 2016
- Al-Mughrabi, K.I., Vikram, A., Poirier, R., Jayasuriya, K and G. Moreau, 2016, Management of common scab of potato in the field using biopesticides, fungicides, soil additives or soil Fumigants, *Bicontrol Science and Technology*, **26** (1): 125–135
- Ambresh, H.B. Lingaiah and B Fakrudin, Genetic heritability and genetic advance studies in tomato, *International journal of Horticulture*. Vol.6(18) pp.1-3
- Anand G Patil, Srinivas N and Mangesh, 2016, An organic production of palak (*Beta vulgaris* L.) in north eastern transitional zone of Karnataka, *Eco.Env. & Cons.* **22** (September Suppl.): S417-S419
- Anand G Patil, Srinivas N and Mangesh, 2016, Effect of pulse intercropping on weed dynamics in mango orchards on mango equivalent yield and economics, *Eco. Env. & Cons.* **22** (September Suppl.): S421-S424,
- Anand Nanjappanavar, D.R. Patil, Sateesh Pattepur, 2016. Package practices for export grapecultivation. In: *National Seminar on grape cultivation*, Vijayapur, April, 2016.
- Anand Nanjappanavar, D.R. Patil, Sateesh Pattepur, Manjunath.2016. Physiological disorders in grapes. In: *National Seminar on grape cultivation*, Vijayapur, April, 2016.
- Anand Nanjappanavar, D.R. Patil, Sateesh Pattepur, Manjunath,2016. C.I. B and R. C claimed chemicals grape cultivation In: *National Seminar on grape cultivation*, Vijayapur, April, 2016
- Anand Sadashiv Kalatippi, Swamy, G.S.K and Kumbarigire, G.A, 2016, Effect of diatomaceous earth on quality of pomegranate var. Kesar, *The Bioscan*,**11**(4):2359-2362
- Anilkumar, S. Basavaraj, G. 2016. Leaf sampling technique in jack fruit to diagnose nutrientstatus. In: *National Seminar on Management of Jack under Adverse Climatic condition, Value and Marketing*, COH, Kolar. **22-23<sup>rd</sup>** April, 2016.
- Ansar, H., Dhananjaya, M.V., Amreen Taj, Fakrudin, B., Rekha, A., Rajiv Kumar and Halesh, G.K., 2016, Analysis of Relative Nuclear DNA content in Carnation (*Dianthus caryophyllus*) accessions reveals Ploidy levels by Flow Cytometry, *Indian Journal of Agricultural Sciences*, **86**(11): 1466-1470
- Ashiwini, S Ganur, Kulapati Hipparagi, D R Patil, S L Jagadeesh, R Suma and K Arun, 2016, Impact of Canopy management on growth and yield of wine grapes under Northern dry zone of Karnataka, *The Bioscan*, **11**(4): 2589-2592
- Ashwini, S. Ganur\*, Kulapati hipparagi, D. R. Patil, S. L. Jagadeesh, Suma, r. And Arun, K., 2017,

- Impact of canopy management on growth and yield of wine grapes under northern dry zone of Karnataka, *The Bioscan*, 12(1):421-424
- B. Aravind, Pavan Kumar and G. Manjunath. 2016. Molecules and Bioagents for management of pomegranate wilt, In: *National symposium on Recent Advances in Plant Health Management for Sustainable Productivity*, University of agriculture sciences, Dharwad in December 2016
- B. N. Harsha Kumar, Sumangala Bhat, B. Borphukan and B. Fakrudin., 2017, Association analysis of charcoal rot disease component traits in sorghum minicore germplasm with EST-SSR markers, *Ind. J. Genet*, **77**(1): 74-82
- Bapurayagouda Patil\*, Vinod kumar, N K Biradar patil and SR Salkinkop., 2017 Effect of inter row spacings and fertilizer levels on crop growth, seed yield and seed quality of perennial fodder sorghum cv. CoFS-29 In: *National Seed Seminar on "food security through augmented seed supply under climate uncertainties*, January 2017., CAR-IARI, New Delhi.
- Bapurayagouda Patil, Vinodkumar, NK Biaradar patil and JS Hilli., 2017. Effect of sowing dates and Intra row spacings on plant growth and seed yield of perennial fodder sorghum cv. CoFS29. In: *National Seed Seminar on "food security through augmented seed supply under climate uncertainties*, January 2017. ICAR-IARI, New Delhi
- Bhat, M. N., Mesta, R. K., Tatagar, M.H., Sardana, H. R., Singh, D., Vennila, S., Sabir N. And Ahmad, M. 2016. Biological control of 81apota81n wilt of chillies using *Trichoderma* spp, *Indian Journal of Horticulture*, **73**(1): 74-77.
- Brundakumari, M.S. and Kotikal, Y. K, 2016, Studies on natural enemies in drumstick ecosystem J. Exp.Zool. India, **19**(2):1151-1155.
- Brundakumari, M.S., Kotikal, Y.K and Asma, A., 2016, Effect of New molecules of insecticides, botanicals and bio pesticides on the damage inflicted by drumstick defoliator, *Noorda bliatealis* Walker on drumstick. J. Exp.Zool. India, **19**(2):1093-1097.
- Dar M Y, Rao R J & Ramegowda G K., 2017. Age stage two sex life table of strawberry spider mite, *Tetranychus turkestani* (Ugarov & Nikolsii) (Acari: Tetranychidae) on mulberry cultivars. In: *National Seminar on Responsible Research and Innovations in Science and Technology*, 2017. Guru Nanak College Buldhana Punjab Diagnose nutrient status. In: *National Seminar on Management of Jack*
- G.C. Sandhya, Kulapati Hipparagi, S.N. Patil, Sadanand Mushrif and Sarvamangala Cholin, 2016, Effect of post shooting spray of nitrogen and potassium on bunch characters and fruit yield of banana cv. Grand Naine, *The Bioscan*, **11**(4):2453 2456
- G.R. Rajkumar and S.V. Patil, 2016, Influence of foliar supplement of NPK and B on growth and yield of Sesame, *Ecology, Environment and Conservation*
- Guruprasad T. R. 2016. Physico-chemical characteristic of tree and fruit in three types of Jack fruits. In: *National Seminar on Management of Jack under Adverse Climatic condition, Value and Marketing*, COH, Kolar in April, 2016.
- Guruprasad T. R, 2016. Phenotypic characteristic of tree and fruit in three types of Jack fruits. In: *National Seminar on Management of Jack under Adverse Climatic condition, Value and Marketing*, COH, Kolar in April, 2016.
- H Ansar, MV Dhananajaya, A Taj, B Fakrudin, A Rekha. Analysis of relative nuclear DNA content in carnation (*Dianthus caryophyllus*) accessions reveals ploidy levels by flow cytometry. 2016. *Ind. J. Agril. Sci*, **86**:11
- H.M. Manya, S. L. Jagadeesh and G. Bhuvaneshwari, 2016, Effect of different level of ingredients used in ready -to-use 81apota powder mixture on its nutritional status, *The Bioscan*, **11** (4), 2303-2305
- H.M. Manya, S.L. Jagadeesh and G. Bhuvaneshwari, 2016. Effect of 81apota81nt level of ingredients used in ready to use 81apota

- powder mixture on its nutritional status. *The Bioscan*, **11**(4): 2303-2305
- I.B. Biradar, A.M. Rathod, J. Venkatesh, D.R. Patil, D.L. Maheswar and T.V. Muniyappa, 2017, Importance of Horticultural based Integrated Farming system approach in changing climatic situations at North Karnataka, *Agrisciencecongress-2017*, Bengaluru, India in Feb-2017
- I.B. Biradar, and Y. Raghuramulu, 2017, Diversification is the need of the hour in Coffee plantations in changing climatic situations, *Agriscience congress-2017*, Bengaluru, India from 21<sup>st</sup>-24<sup>th</sup> feb-2017
- I.B. Biradar, J. Venkatesh and T.V. Muniyappa, 2017, Impact of climate change on yield of horticulture crops in north Karnataka, *Agriscience congress-2017*, Bengaluru, India in Feb-2017
- Itigi prabhakar, K Vijayaragavan, Premlata singh, Balraj singh, Janakiram, B L Manjunatha, Seema jaggi & I Sekar, 2016, Constraints in adoption and strategies to promote polyhouse technology among farmers: A multi-stakeholder & multi-dimensional study. *Indian Journal of Agricultural Sciences*. **87** (4):485-490.
- Kalpana, P.R, Suma, R, Kantesh Gandolkar and Kirankumar, S. 2016. Effect of phosphorus and sulphur applications on growth, yield and quality of tomato in calcareous soil. *The Bioscan*, **11**(1): 597-601
- Kantharaju. V., Shobha, G.,Gururaj Sunkad and Amaresh, Y.S,2016, Survey for Distribution of Burrowing Nematode, *Radopholus similis* in Banana Growing Area of North Eastern Karnataka, *Advances in Life Sciences* **5**(7) : 2878-2884.
- Karaba N. Nataraja K. H. Dhanyalakshmi, Mahantesha B. N. Naika, R. S. Sajeevan, Oommen K. Mathew, K. Mohamed Shafi and Ramanathan Sowdhamini, 2016, An Approach to Function Annotation for Proteins of Unknown Function (PUFs) in the Transcriptome of Indian Mulberry, *PlosOne*, **10**(1): 1-18.
- Kiran Nagajjanavar, Menon Rekha Ravindra, M. Manjunatha, B. Surendra Nath, B.V. Balasubramanyam, 2017, Effect of Condensation Method on Quality Attribute of *Kulfi*, *International*
- Kishore Kumar Das, Swamy, G.S. K Debalina Biswas and Kuldeep Kumar Chnaniya, 2017, Response of soil application of diatomaceous earth as a source of silicon on leaf nutrient status of guava, *Int. J.curr. Microbiology and Applied sciences*,**6**(4):1394-1399
- Kishore Kumar Das, Swamy,G.S.K Shivalingapp Kumabr, Gangadharppa ,P.M and Jagadeesha, R.C, 2017, Effect of silica on physical and biochemical characters of guava, *Int. J.curr. Microbiology and Applied sciences*, **6**(4):1527-1532
- Kotikal Y.K. and Manjula, K.N,2016, Evaluation of new insecticides and bio pesticides against defoliators on palak, *International Journal of Plant Protection* **9**(2):365-371.
- Kotikal Y.K. and Math, M,2016 Insect and non insect pests associated with drumstick *Entomology, Ornithology and Herpetology, Current Research* **5**(2):180-189.
- Kumbargire, G .A, Swamy, G.S.K. and Anand Sadashiva Kalatippi, 2016, Influence of diatomaceous earth as source of silicon on leaf nutrient status and yield attributing charactes of banana cv. Grand Naine, *The Bioscan*,**11**(1):435-438
- M Harshavardhan, D P Kumar, A M Rajesh, H A Yathndra and Shivanand Hongal, 2016, Economic feasibility of integrated nutrient management in carnation (*Dianthus caryophyllus L.*) under polyhouse condition, *Ecology, Environment and Conservation*, **22** : 29-33, 2016
- M. Abdul Kareem, M.H. Tatagar, Krishna D. K, R. K. Mesta, Dileepkumar and M.A. Waseem, 2016, Evaluation of Bio-Efficacy and Phytotoxicity of Pyraclostrobin 20% WG

- against Anthracnose Disease Chilli, *Journal of Pure and Applied Microbiology*,
- Mallikarjun G. Awati, C.G. Anand and Y. Raghuramulu, 2016, Evaluation of Arabica coffee cultivars under Pulney hill conditions of Tamil Nadu, *Indian Journal of Horticulture*, **73**(4): 475-481
- Manjunath G. 2017, Recent developments in the management of blight and wilt, in: *the proceedings of national conference*, NRCP-Solapur held during April, 2017
- Manjunath, Huballi, G.S. Chandrashekar. 2016. Evaluation of olfactory pre-conditioned larval parasitoid *Goniozus nephantidis* Muesebeck in suppression of *Opisina arenosella* Walker under field condition in Tumkur district of Karnataka. In: *International symposium on coconut Research and Development (ISOCRAD3)*, ICAR-CPCRI, Kasargodu. DEC 2016.
- Mohammed Shareef and G Manjunatha. 2016. Evaluation of Genotypes for identification new resistance sources for bacterial blight management, in: *National symposium on Recent Advances in Plant Health Management for Sustainable Productivity* held at University of agriculture sciences, Dharwad. December, 2016.
- Mudassar and Venkateshalu, 2017, Faunistic studies on the genus *Xanthodes* (Lepidoptera: Nocutidae: Bagisarinae) associated with Bhendi ecosystem of Karnataka, *Journal of Entomology and Zoology Studies*, **5**(3): 247-251
- Muniswamy S, Ramesh, Kantharaju V. and Suhas D.Yelshetty, 2016. Strategies to improve pigeonpea yield potential for North Karnataka. In: *National Conference on Sustainable and Self Sufficient Production of Pulses through an Integrated Approach*.
- Navyashree M., Munikrishnappa P. M., Seetharamu G. K., Krishna H. C., Anil kumar S. and Dayamani K. J, 2016, Effect of major and micronutrients on yield, vase life, soil and leaf nutrient content of bird of paradise (*Strelitzia reginae* L.), *International Journal of Biomedical Research*, **11**(7)
- Netravati, S L Jagadeesh. G J Suresh and G S K Swamy, 2016, Influence of eco friendly post harvest treatments on pulp chroma and hue on mango cv alphanso fruits, *The Bioscan***10**(1): 29-32
- Omam, T., Balaji S. Kulkarni and Sateesh R. Patil, 2016, Genetic variability in *Gaillardia* (*Gaillardia pulchella*), *Indian Journal of Agricultural Sciences*, **85** (5): 684-687.
- P. Kumar, R. Dolkar, G. Manjunatha and H.M. Pallavi, 2017, Molecular fingerprinting and assessment of genetic variations among advanced breeding lines of *Moringa oleifera* L. by using seed protein, RAPD and Cytochrome P 450 based markers, *South African Journal of Botany*, **111**: 160-67
- P.M. Gangadharappa, 2016, In-Vitro Evaluation of Plant Extracts and Oils against the growth of *Colletotrichum musae*, *The Bio Scan*, **11**(4):2799-2802
- Pankaj Barah, Mahantesha Naika B N, Naresh Doni Jayavelu, Ramanathan Sowdhamini, Khader Shameer and Atle M. Bones, 2016, Transcriptional regulatory networks in *Arabidopsis thaliana* during single and combined stresses, *Nucleic Acids Research*, **44**(7): 3147-64
- Patil S. V., Gurusurthy S. B., Rajkumar G. R. and Prashant A., 2017, Effect of bioinoculants on growth parameters of black pepper (*Piper Nigrum*) at nursery stage, *Research on Crops*, **18**(1): 193-196
- Pavan Kumar, Aravind L.B., G. Manjunath, V. Lokesh and Jyotsna Sharma, 2016. Genetic variability assessment of *Ceratocystis fimbriata* using ITS and RAPD marker systems. Poster presented, in: *National symposium on Recent Advances in Plant Health Management for Sustainable Productivity* University of agriculture sciences, Dharwad. December 2016.

- Pavan Kumar, B. Aravind, Abhishek Gowda, V. Lokesh, Jyothsna Sharma and G. Manjunath. 2016. Bioformulations for enhanced disease tolerance against Bacterial Blight and fungal wilt of Pomegranate. In: *National Symposium (IPS, South Zone) on Recent Trends in Plant Pathological Research and Education*, University of Agricultural Sciences, Raichur. January 2016.
- Prakasha D.P, 2017, Effect of adenine sulphate, agar and light on in vitro multiplication of banana cv. Grand Naine, *The Bio Scan*, in press
- Pushpa, H., Jagadeesh, S.L. and Suresha, G.J. Influence of blending of natural extracts on Physicochemical and sensory qualities of aloe vera Squash. 2016. *The Bioscan*, **11**(1): 113-117.
- Pushpa, H., Jagadeesh, S.L. and Suresha, G.J. Multiplication of banana cv. Grand Naine, *The Bio Scan*, in press
- Pushpa, H., Jagadeesh, S.L. and Suresha, G.J. Processing and storage of aloe vera into naturally Flavored ready- to- serve (RTS) beverage using ginger, lemon and peppermint extracts. 2016. *The Bioscan*, **11**(2): 833-836.
- Rani R. Unnithan, N., Thammaiah, P.M. Gangadharappa and M.S. Kulkarni, 2016, In vitro evaluation of Plant extracts and oils against the growth of Colletotrichum musae, *The Bio –scan*, **11**(a): 2799- 2802
- Ratnakar M Shet, M.V. Mohan Kumar, N. Jagadeesha, Ashok, MS, Anantha and MP Rajanna, 2016, Variability and genetic diversity of rice for yield and yield related traits under aerobic condition, *Eco. Env. & Cons.* **22** (December Suppl.) S291-S298
- Ravindranath N.,S.N.Patil, Satish P., Anupama H. and Sunkam M. 2016. Effect of rooting media on growth, survival and economics production of air layers of Guava cv.Sardar. In: *National Seminar on grape cultivation*, Vijayapur (**7**) 702 – 705. May-June 2016.
- Rekha, M.V., Kirankumar, S., Nagaraja, M.S., Ashok, S. Alur and Suma, R., 2016. Availability Of Micronutrients Among Different Cropping Systems In A Typical Black Soil Of Northern Karnataka. *The Bioscan*, **11**(4): 2425-2428.
- S. V. Patil, S. I Halikatti, S. B. Gurumurthy, M. S. Lokesh and RatnakarManjunath Shet, 2016, Dry matter accumulation in chickpea (*Cicer arietinum* L.) at different growth stages as influenced by organic manures and rock phosphate with PSB in vertisol, *Research on Crops*, **13**(3):906-911
- S.V.Patil, S.B.Gurumurthy, G.R.Rajkumar and A.Prashantha, 2017, Effect of bio-inoculants on growth parameters on black pepper at nursery stage, *Research on Crops*, **18** (1) : 185-189
- Salimath, S.V., Venkatesh, J., Kotikal Y.K., and Ravi Rajshetty, G, 2016, Screening of turmeric curcuma longa L cultivars for quality in southern dry zone of Karnataka The Asian Journal of Horticulture, **11** (1):186-188.
- Sanjeev.P. Jakatimath. R.K. Mesta., Sadanand K Mushrif., I.B. Biradar and P.S. Ajjappalavar, In vitro evaluation of fungicide,
- Sanjeev.P. Jakatimath., R.K. Mesta., I.B. Biradar and P.S.Ajjappalavar, 2017, In vitro Evaluation of Fungicide, Botanicals and Bio agents against Phomopsis vexans casual Agent of Fruit Rot of Brinjal, *Journal of pure and Applied Microbiology*, **2**(1): 38 – 43
- Sanjeev.P. Jakatimath., R.K. Mesta., I.B. Biradar and P.S. Ajjappalavar, Management of fruit rot of In vitro Brinjal through fungi toxicants in northern dry Zone of Karnataka, *Advances in life sciences*, **5**(21)10160–10163
- Sanjeevraddi G, Reddy, M S Gawankar, H P Maheshwarappa. P Madhavi Lata, and R K Mathur. 2016. Initial performance of 10 oil plam cross combination under three agroclimatic conditions in India. *Journal of plantation crops*, **44**(3): 1-12.
- Sateesh Pattepur, A.N. Mokashi and R.V. Hegde. 2016. Effect of cytokinins and auxins on shoot proliferation of cotyledonary nodes derived from axenic seedling of Tamarind (*Tamarindus indica*). Souvenir of National seminar on planting material production in

- spices In: *National Seminar on grape cultivation*, Vijayapur. April, 2016. 21-22.
- Sateesh Pattepur, D.R. Patil, Anand Nanjappanavar and Manjunath Tattimani. 2016. Present status, problems and prospects of grape cultivation in Karnataka. In: *In: National Seminar on grape cultivation*, Vijayapur. April, 2016. 21-22.
- Sateesh Pattepur, D.R. Patil, Anand Nanjappanavar and Manjunath Tattimani. 2016. New grape varieties in: *National Seminar on grape cultivation*, Vijayapur. April, 2016. 21-22.
- Satish, K.S, Shirol, A.M, Swamy, G.S.K. Chavan, M, Praveen, J and Krishnamurthy, G.H, 2016, Physiological investigation on growth and yield of 85apota (*Manilkara achras* (mMill) Fosberg, *Int.j.Adv.Res.* **4**(12):2290-2299
- Shankar Meti .2016, Horticulture crops scenario in northern Karnataka under changing climate, In: *International Conference on climate change adaptation and biodiversity, Ecological sustainability and resource management for livelihood security*, Port Blair, Andaman, 8-10 Dec 2016.
- Shashikumar, S, 2017, Impact of IPM in Bt Cotton in Belgaum district of Karnataka, *Research Journal of Agricultural Sciences*
- Shashikumar, S, 2017, Pest Scenario and Appropriate Management for Bt Cotton in Belgaum district of Karnataka, *International Journal of Plant Protection*
- Shobha, G, Kantharaju, V, Gururaj Sunkad and Amaresh, Y.S., 2016, Management of root-knot nematode, *M. incognita* in ridgeguard by using bio agents, botanicals and chemicals, *National Journal of Life Sciences*, **13**(1): 49-54
- Shobha, G., Kantharaju, V., Gururaj Sunkad, Patil, M.B. and Abbas Hussain, 1 for Incidence and Occurrence of Root-Knot Nematode, *Meloidogyne incognita* Infesting Ridge Gourd, *Advances in Life Sciences* **5**(7) : 2797-2803.
- Shruti, P.G., Ganiger, V.M., Bhuvaneshwari, G., Madalgeri, M.B., Kotikal, Y.K., 2016, Evaluation studies of oriental pickling melon genotypes for growth, yield and quality traits, *Green farming* **7**(3):663-665.
- Siddanagouda Yadachi, 2016, Influence of multiple passes and speed ratios of rotary tiller on soil properties, *Ecology, Environment and Conservation*
- Sunkam Mahesh, Kulapati Hipparagi, I.B. Biradar, S.R. Patil and Balesh Goudappanavar, 2016, Effect of mango variety and time of grafting on graft-take, leaves & girth of rootstock in playhouse and shade net, *Green Farming*, **7**(3): 710-714
- T. Ganapathi, G.R. Rajkumar and S V Patil, 2016, Evaluation of Cashew Varieties under hill tract of Karnataka, *Ecology, Environment and conservation*,
- T. Ganapathi, S V Patil and Rajkumar, G.R, 2016, Chemical weed management in Ginger (*Gingiber Officinale Rosc.*), *Ecology, Environment and conservation*
- Thungamani and Shwetha M.S, 2016, A survey on privacy preserving and authenticated routing in mistrustful mobile Ad-hoc networks, *Inter. Journal of innovative research in computer and communication engineering*: **4**(4):7692-7698
- Uma Akki, Sateesh Pattepur, Anand Nanjappanavar and Manjunath Tattimani., 2016. in: Success story of Export Grape farmer Mr. V.L. Channal –Chamman Chanal. In: *National Seminar on grape cultivation*, Vijayapur, April, 2016.
- Venkateshalu and Mahesh Math, 2017, Bioefficacy of Ready Mixture, Spirotetramat 120 + Imidacloprid 240 SC against Sucking Pests of Brinjal, *The Bioscan*, **11**(4): 2655-2658 Vijayapur, April, 2016.
- Vijaymahantesh, H.V. Nanjappa and B.K. Ramachandrappa, 2016, Tillage and nitrogen management effects on weed seed bank and yield of finger millet *Indian Journal of Weed Science* **48**(2): 186–190.
- WART Wickramaarachchi, K S Shankarappa, KT Rangaswamy, MN Maruthi, RGAS Rajapakse, Saptarshi Ghosh. 2016. Molecular characterization of banana bunchy top virus

isolate from Sri Lanka and its genetic relationship with other isolates, *Virus Disease*, 27(2): 154-160

**6.3 Research Note/ Communication in Journal /Abstract in Symposium / Seminar / Workshop / Training Manual/Proceedings of Workshop**

A.B. Patil, Vijaymahantesh and Hosamani, 2016, Prospects and constraints of organic farming in India, Published by Indian Academy of Social Sciences, Allahabad, XL Indian Social Science Congress Held from 19-23 Decmeber,2016 at University of Mysore, Karnataka , Social Science Abstracts XL,2016,356-357.

A.B. Patil and Vijaymahantesh,2017, Climate warming- Potential impacts on agriculture and strategies to sustain the food production., Published by Indian Academy of Social Sciences, Allahabad, XL Indian Social Science Congress Held from 19-23 Decmeber,2016 at University of Mysore, Karnataka, Social Science Abstracts, XL,2016 pp,356-357.

Thippa Reddy, Varun Amingad and Ambresh, 2016, Effect of different levels of Fertigation and mulching on vegetative parameters in chilli var Arka Lohit, National Seminar on Chilli and Turmeric, pp,45

**6.4 Books/Booklets/ Chapters in Standard Books**

Books				
	Author	Year	Title	Publisher
1	H P Jaishankar and LaxmanKukanoor	2016	“Instant of tropical and subtropical fruit crops” with ISBN No. 9789384337988	Jaya publishing house New Delhi
2	Vijaymahantesh, A.B. Patil, Vijaya Hosamani	2016	Organic Farming ISBN:978-81-922104-9-0 145 pages	UHS, Bagalkot
3	Chengappa P. G., Arun M., Yadava C. G.	2016	Diversification of Indian Agriculture towards High Value Commodities: A Temporal and Spatial Analysis (ISBN: 9789332703360)	Academic foundation, New Delhi
Booklets				
	Author	Year	Title	Publisher
5	I N NagaraI, V P Singh and Prabhakar Itagi	2016	Nutrient Management in Agricultural Crops	(Kannada) published by IFS project, Phase II, COH Bagalkot
6	ಸುಹಾಸಿನಿಜಾಲವಾದಿ, ಕಾಂತರಾಜು, ವೈ. ಎ. ಎಮ್. ಶಿರೋಳ ಮತ್ತು ವೈ. ನಾಜೀಗೌಡ	2017	ಬಾಳೆ ಬೆಳೆಯ ನೂತನ ಉತ್ಪಾದನಾ ತಾಂತ್ರಿಕತೆಗಳು	ಭಾ.ಕೃ. ಅ.ಪ. ಮತ್ತು ಅ.ಭಾ. ಸ.ಸಂ.ಯೋ (ಹಣ್ಣುಗಳು)
Chapters				
	Author	Year	Title	Publisher
7	Manjula Karadiguddi and R T Patil	2016	“Papaya” published in a book “Instant of tropical and subtropical fruit crops” with ISBN No. 9789384337988	Jaya publishing house New Delhi
8	Vijaymahantesh	2016	Setting of Vermiculture Unit in a book Compendium of Technical Papers for Agri clinics and Agri Business Centres	Directorate of Extension, UHSB
9	Ashoka N.	2017	Agribusiness Management Agriculture Exam made easy,	New Delhi Publisher New Delhi

## 6.5 Popular Articles

### Publication in Magazines and Newspapers

1. Nagaraja, G. Krishna, H. C. Anilkumar, S, 2016  
“ಮಾವು ಕಟಾವು ಮತ್ತು ಕೊಯ್ಲೋತ್ತರ ನಿರ್ವಹಣೆ”  
*Udyana Loka* (ಸಂಪುಟ:5, ಸಂಚಿಕೆ:4 ಜನವರಿ-ಮಾರ್ಚ್).
2. ಜಿ. ಆರ್. ರಾಜಕುಮಾರ ಮತ್ತು ಎಸ್. ವಿ. ಪಾಟೀಲ, 2016,  
“ಸಸ್ಯ ನರ್ಸರಿಯೂ ಒಂದು ಸ್ವ -ಉದ್ಯೋಗವಾಗಬಲ್ಲದು” ಕೃಷಿ  
ಮುನ್ನಡೆ: 29(5), ಪುಟ ಸಂಖ್ಯೆ: 28-29.
3. G. Basavaraj, Harish, B.S., Sudarshan, G.K.,  
Mutturaj. G.P., and Indires, K.M., 2016  
“Economic analysis of tomato cultivation and  
marketing, in Tomato”, “*Krushikara  
Margadarshi*”
4. Prakash, B.G. Manjunath, H. Siddappa, R. and  
Chandrashekar G.S., 2016, ವೈವಿಧ್ಯಮಯ ಉತ್ಪನ್ನಗಳ  
ಆಗರ.
5. Prakash, B.G. Manjunath, H. and Siddappa,  
R., 2016, Progressive farmer of Hassan district.
6. Kantaraju, V., Suhasini Jalavadi, Shirol. A. M.  
Nachegowda, V. 2016, Technologies developed  
under ICAR- AICRP on Banana and Sapota.  
*Annadata Sukheebhava*. P.p.47
7. Suhasini Jalavadi, Kantaraju, V., Shirol. A. M.  
Nachegowda, V., 2017, Recent production  
technologies is banana, *Annadata Sukheebhava*.  
P.p 47-49
8. Shirol. A. M. Suhasini Jalavadi Kantaraju, V.  
Nachegowda, V., 2017 Recent production  
technologies in sapota. *Annadata Sukheebhava*.  
P.p.27-29
9. Kantaraju, V. 2017, Important disease of  
Vegetable & their management *Annadata  
Sukheebhava*. P.p 16-19
10. Kantaraju, V. 2017, Diseases of Crucifers and  
Cucurbits *Annadata Sukheebhava*. P.p 23-25
11. Ravindranath N., S.N. Patil, Satish P., Anupama H.  
and Sunkam M. 2016, Effect of rooting media on  
growth, survival and economics production of air  
layers of Guava cv. Sardar. (7), P. p702 – 705,
12. Sateesh Pattepur, A.N. Mokashi and R.V. Hegde.  
2016 Effect of cytokinins and auxins on shoot  
proliferation of cotyledonary nodes derived from  
axenic seedling of Tamarind (*Tamarindusindica*).  
*Souvenir of National seminar on planting  
material production in spices* P.p 21-22
13. Sateesh Pattepur V. Nachegouda, D.R. Patil,  
Anand Nanjappanavar, 2016 Present status,  
problems and prospects of grape cultivation in  
Karnataka, National seminar on grapes orgasied  
by Karnataka Grape grower's association.
14. Sateesh Pattepur, D.R. Patil, Anand  
Nanjappanavar and Manjunath Tattimani 2016,  
New grape varieties National seminar on grapes  
orgasied by Karnataka Grape grower's  
association.
15. Anand Nanjappanavar, D.R. Patil, Sateesh  
Pattepur, Manjunath Tattimani 2016  
Physiological disorders in grapes, National  
seminar on grapes orgasied by Karnataka Grape  
grower's association.
16. Anand Nanjappanavar, Balesh Godappanavar,  
and Sateesh Pattepur, 2016, C.I.B and R.C  
Claimed chemicals grape cultivation, National  
seminar on grapes orgasied by Karnataka Grape  
grower's association.
17. Anand Nanjappanavar, D.R. Patil, Sateesh  
Pattepur 2016 Package practices for export grape  
cultivation, National seminar on grapes orgasied  
by Karnataka Grape grower's association.
18. Uma Akki, Sateesh Pattepur, Anand  
Nanjappanavar and Manjunath Tattimani 2016,  
Success story of Export Grape farmer Mr. V.L.  
Channal – Chamman Chanal National seminar on  
grapes orgasied by Karnataka Grape grower's  
association.
19. Anand Nanjappanavar, Sateesh Pattepur, Balesh  
Godappanavar, and Manjunath Tattimani, 2016,  
Grape wine exporter details, National seminar on  
grapes orgasied by Karnataka Grape grower's  
association.
20. Sateesh Pattepur, Uma Akki, Anand  
Nanjappanavar, Manjunath Tattimani, 2016,  
Improved management practices in Grapes,  
National seminar on grapes orgasied by  
Karnataka Grape grower's association.
21. Sateesh Pattepur, 2016, Improved management  
practices in Banana, National seminar on grapes

- organised by Karnataka Grape grower's association.
22. Sateesh Pattepur, Anand Nanjappanavar, D.R. Patil, 2016, Export quality grapes cultivation by Mr. Channal, *Annadata Sukibhava*,
23. Anand Najappanavar, Sateesh Pattepur, D.R. Patil, 2016, Apple ber cultivation, *Annadata Sukibhava*,
24. Sateesh Pattepur, 2016, Nutrient and Water management in pomegranate, *Annadata Sukibhava*
25. Sateesh Pattepur, 2016, Rejuvenation in Mango, *Annadata Sukibhava*
26. ಪಲ್ಲವಿ, ಎಚ್.ಎಂ., ಪ್ರಭುದೇವ ಅಜ್ಜಪ್ಪಳವರ ಮತ್ತು ಬಾಪುರಾಯಗೌಡ ಪಾಟೀಲ, 2016, ಬ್ಯಾಡಗಿ ಮೆಣಸಿನಕಾಯಿ-ಗುಣಮಟ್ಟದ ಬೀಜೋತ್ಪದನಾ ತಾಂತ್ರಿಕತೆಗಳು, *ಉದ್ಯಾನ ಲೋಕ*, 5(4): 11-13.

## 6.6 Folders

The different centers have published 49 folders in regional language (Kannada) to disseminate latest knowledge to horticulture stakeholders.

Title	
1	Bee keeping
2	Liquid manures
3	Fruit fly management in Guava
4	Chilli varieties and their characters
5	INM in Chilli
6	IDM in Chilli
7	IPM in Chilli
8	Garlic and Coriander cultivation
9	Seed production in Byadagi chilli
10	Fenugreek cultivation
11	IFS- Kaipidi
12	Production technology of Chilli
13	Production technology of Guava
14	Mango production and marketing
15	Production technology of tamarind, curry leaf, and coriander and their marketing
16	Value added products of Coconut
17	Coconut Production technology
18	Micronutrient management in Coconut
19	Water management in Coconut
20	Tall Coconut varieties suitable for Karnataka
21	Dwarf Coconut varieties suitable for Karnataka
22	Disease management in Coconut
23	Black hairy caterpillar management in Coconut
24	Plant protection measures in French bean
25	Plant protection measures in Rose
26	Plant protection measures in Onion
27	Organic Ginger cultivation
28	Cashew production technology

29	Pomegranate production technology
30	Saline, Alkaline and Acidic soil management
31	Importance of INM in Soil Health management.
32	Mulberry cultivation under dry land condition
33	Oozy fly management in silkworm rearing
34	Water melon and cucumber production guide
35	Turmeric production guide
36	Tomato production guide
37	Chilli production guide
38	Belagal utpadhaneyalli laghu poshakanshagala pathra
39	Mannu mathu nirina sadbalake hagu sanmrakshane
40	Hani neeravari vevastheya nirvahane
41	Kumbal jathiya belegalige haani maduva kitagal samagra nirvahane
42	Kumbal jathiya belegala rogagalu haagu avugal samagra nirvahane
43	Technical Compendium of Agri Clinics and Agri Business Centers Training.
44	Mavu: Utpadhana tantrikathe, avakashgalu haagu savalugalu
45	Phala Shrestatru
46	Technology Inventory of UHS, Bagalkot
47	Organic Farming
48	Sanrakshita puspha krushiyalli sasya sanrakhsane
49	Totagarike mathu krushi Nigantu

## 7. FINANCE AND BUDGET

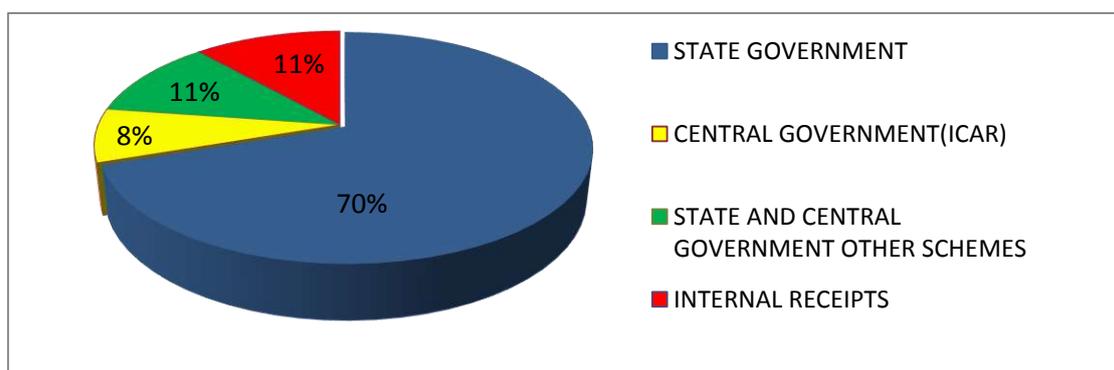
The Government of Karnataka extends financial support to the University through regular plan and non-plan grants on annual basis, which stood at **Rs.6949.00 lakhs** during the year 2016-17.

Apart from uninterrupted annual funding by the State, ICAR has funded Rs. 786.54 lakhs and

Rs. 1076.22 lakhs by other agencies of the State and Central Government. The University from its internal resources has generated of Rs.1150.82 lakhs. Thus during the year 2016-17 total budget of the university stood at **Rs. 9962.58 lakhs**. The budget components for the year 2016-17 are presented in Table and Figure.

Descriptions		Sanctioned	Released	Utilization
<b>I.</b>	<b>State Government</b>			
1	Plan	1254.00	1254.00	1254.00
2	Non-Plan	5695.00	5695.00	5695.00
	<b>Total</b>	<b>6949.00</b>	<b>6949.00</b>	<b>6949.00</b>
<b>II.</b>	<b>Indian Council of Agriculture Research (ICAR)</b>			
3	AICRP	152.28	152.28	152.28
4	Education Division	600.94	600.94	600.94
5	KVK	33.32	33.32	33.32
	<b>Total</b>	<b>786.54</b>	<b>786.54</b>	<b>786.54</b>
<b>III.</b>	<b>State and Central Government Other Agencies</b>			
6	RKVY	219.00	219.00	219.00
7	NHM Govt. OF Karnataka	806.47	806.47	806.47
8	NHB Govt. of India	50.75	50.75	50.75
	<b>Total</b>	<b>1076.22</b>	<b>1076.22</b>	<b>1076.22</b>
<b>IV.</b>	<b>Internal Receipts</b>			
9	University Income generation from Internal Resources	1150.82	1150.82	1150.82
	<b>Grand Total</b>	<b>9962.58</b>	<b>9962.58</b>	<b>9962.58</b>

**Budget Components for the year 2016-17**



### Audit

- SAD audit report submitted to State Audit & Accounts Department for the financial year from 2007-08 to 2010-11 on dated 03-01-2017 and 31-03-2017.
- Revised AG audit compliance report submitted to Government for the financial year from 2009 -10 to 2012-13 on dated: 26-06-2016 and 24-12-2016.
- SAD audit done by State Audit & Accounts Department Belgaum for the financial year 2014-15 and 2015-16.
- SAD audit compliance report submitted to Government for the year 2014-15 on dated : 06-03-2017

## 8. PHYSICAL INFRASTRUCTURE (CIVIL WORKS)

The University has received the budget from various funding agencies and the state government. The major budget assistance is received from ICAR / SAU's, RKVY, RIDF, SCSP /TSP and Govt. of Karnataka. The details of civil works executed during the

financial year 2016-17 under the assistance of funding from various funding agencies and government of Karnataka is provided in the following table.

Name of Work		Budget sanctioned/ Estimated cost (Rs. In lakhs)	Work order Amount (Rs. In lakhs)	Year of Sanction	Spill over to 2017-18	Remarks
<b>I</b>	<b>Works under ICAR / SAU Grants</b>					
1	Construction of centralised exam hall at UHS, Bagalkot (Main Campus)	90.00	122.93	2016-17	Yes	Work under progress
2	Renovation by providing cupboard shutter to Girls hostel (UG) at UHS, Bagalkot (Main Campus)	33.00	7.46	2016-17	Yes	Work completed
3	Renovation by providing cup boards to PG Boys Hostel at UHS, Bagalkot (Main Campus)		11.90	2016-17	Yes	Work completed
4	Renovation by providing solar water heater, UPS wiring and other works to boys & girls hostel at UHS, Bagalkot (Main Campus)		7.75	2016-17	Yes	Work completed
5	Protected cultivation structures at COH, Bangalore	41.01	39.41	2016-17	Yes	Work completed
6	Construction of pack house at COH, Bangalore	7.11	6.02	2016-17	Yes	Work completed
7	Construction of Natural Ventilated Hi-tech Poly Houses at KRCCH, Arabhavi	71.00	67.61	2016-17	Yes	Work completed
8	Protected cultivation structures at COH, Munirabad	23.48	23.48	2016-17	Yes	Work completed
<b>II</b>	<b>Works under RIDF</b>					
1	Construction of Library building	471.72	488.23	2016-17	Yes	Work under progress
2	Construction of Udyan Bhavan (VIP Guest House) @ UHS Bagalkot	302.00	302	2016-17	Yes	Work is nearing completion

3	Construction of Viticulture & Oenology (wine research) @ UHS Bagalkot	238.87	256.79	2016-17	Yes	Work completed
4	Construction of Horticulture Information and technology center @ UHS Bagalkot	244.47	218.25	2016-17	Yes	Work order is to be issued
5	Construction of 2nd floor over main administrative building at COH, Bangalore	296.31	285.63	2016-17	Yes	Work under progress
6	Construction of 2nd floor over main administrative building at COH, Sirsi	342.48	337.43	2016-17	Yes	Work under progress
7	Construction of 2nd floor over main administrative building at COH, Munirabad	334.19		2016-17	Yes	Retendered & technical scrutiny is under progress
8	Providing kerbs along the double road at UHS, Bagalkot (Main Campus)	78.16	62.4	2016-17	Yes	Work is nearing completion
9	Construction of drain and pavers around the Main Administrative Building at UHS, Bagalkot (Main Campus)	33.54	29.98	2016-17	Yes	Work is nearing completion
<b>III</b>	<b>Works under SCSP/ TSP</b>					
1	Construction of Boys Hostel Building at COH, Bangalore	498.09	467.87	2016-17	Yes	Work under progress
2	Construction of Girls Hostel Building at COH, Bangalore	414.53	372.26	2016-17	Yes	Work under progress
<b>IV</b>	<b>Works under University Development Grants</b>					
1	Construction of Auditorium building @ UHS Bagalkot	1047.71	1046	2016-17	Yes	Work under progress
2	Construction of sports complex @ UHS Bagalkot	654.46	650	2016-17	Yes	Work under progress
3	Construction of Main Entrance Gate at UHS, Bagalkot (Main Campus)	62.45	61.17	2016-17	Yes	Work under progress
4	Construction of PG boys hostel at UHS, Bagalkot	254.41	322.75	2015-16	Yes	Work completed

## 9. HUMAN RESOURCE DEVELOPMENT

The University has been proactive in developing the human resource by deputing the staff for higher studies and training programmes organised by state, national and international institutions.

The list of technical and non-tech. staff who have attended the international/ national level symposium / conference / seminar / workshop / trainings (21 days, 10 days, 2 days etc.,) is presented in the table below:

### 9.1 Overseas Visits

Name	Nation	Duration	Purpose
Dr. D L Maheswar Hon'ble Vice-Chancellor	Singapore	9 <sup>th</sup> to 12 <sup>th</sup> Feb 2017	To participate in World Cashew Convention

### I) Teaching Staff

Name	Title	Period	Place
1. Dr. Ashok S .Alur Special Officer, Regional Office, COH, Bengaluru	World Cashew Conference	8-12 Feb 2017	Singapore
2. Dr. Ashok S. Alur Special Officer , Regional office, COH, Bengaluru	Visited Ben-Gurion University & Hebrew University to interact with Scientists	05-10 Dec 2016	Israel
3. Dr. Ashok S. Alur, Special Officer, Regional Office, COH, Bengaluru	workshop on “ Integrated soil health management”	08 <sup>th</sup> to 13 <sup>th</sup> August-2016	Kingdom of Swaziland
4. Dr. Venkat Rao Asst. Prof. of Fruit. Sc. COH, Mysuru	International Training on Integrated Seed sector development	23 <sup>rd</sup> May to 10 <sup>th</sup> June 2016	Centre for Development Innovation, Wageningen, UR, Netherlands
5. Dr. Meenakshi Sood Asst. Prof. of Veg. Sc., COH, Mysuru			
6. Mr. Basavarajappa H.R. Asst. Prof. of BCI, COH, Bengaluru	Netherland Fellowship Programme	9 <sup>th</sup> to 27 <sup>th</sup> May 2016	Netherland
7. Dr. Nagesh Naik, Professor & Head (Fruit Sc.), KRCCH, Arabhavi	“8 <sup>th</sup> International Symposium on Light in Horticulture”	22 <sup>nd</sup> to 26 <sup>th</sup> May 2016	East Lansing, Michigan State University, Michigan, USA
8. Dr. H.C. Krinshna Asst. Prof. of PHT, COH, Bengaluru	Training for Afghan students	5 <sup>th</sup> to 19 <sup>th</sup> Aug. 2016	Heart University, Afghanistan
9. Dr. Sadanand G.K. Asst. Prof. of PHT, COH, Bengaluru	International Course on “ Feeding the Future: Food safety and technology in times of global change”	5 <sup>th</sup> to 29 <sup>th</sup> Sept. 2016	International School of Agricultural Sciences, Rehovat, Israel.
10. Dr. N. Basavaraj, Dean (PGS), UHS, Bagalkot	SEAVEG-2016	6 <sup>th</sup> to 8 <sup>th</sup> Sept. 2016	Malesiya

	Name	Title	Period	Place
11.	Dr. S.M. Prasanna, Asst Prof. (SS & AC), COH, Bagalkot	MASHAV International training programme on Agri-Green Management	31 <sup>st</sup> Oct. to 24 <sup>th</sup> Nov. 2016.	Jerusalem, Israel Embassy, Israel
12.	Dr. Raghavendra K Mesta, Professor, Pl. Pathology, COH, Bagalkot	Training on "Post Harvest Physiology, Pathology and Handling of Fresh Commodities"	5 <sup>th</sup> to 24 <sup>th</sup> Feb. 2017.	CINADCO and ARO Israel
13.	Dr. A. B. Patil, Registrar, UHS, Bagalkot	The Association of International Education Administrators (AIEA), Annual conference-2017	19 <sup>th</sup> to 22 <sup>nd</sup> Feb. 2017	Washington-DC
14.	Dr. Sarvamangala S. Cholin Assistant Professor (GPB) & PI (DBT BLOCARe) COH, Bagalkot	"38th International Carrot Conference"	19 <sup>th</sup> to 22 <sup>nd</sup> March 2017	Bakersfield, California, USA hosted by University of California.
15.	Dr. Anjaneya Reddy. Assistant Professor of Pl. Path.COH, Bengaluru	International Course on" Integrated Pest Management"	19 <sup>th</sup> Mar. to 7 <sup>th</sup> Apr. 2017	Tel. Aviv, Israel

## II) Non-Teaching Staff

	Name	Title	Period	Place
1	Mr. Mohan Sullad Assistant Engineer Estate Office, UHS, Bagalkot	Training on "Energy Efficiency for Buildings"	6 <sup>th</sup> to 10 <sup>th</sup> June-2016	Paris, France

## 9.2 Out of State

### I) Teaching Staff

	Name	Title	Period	Place
1.	Dr. Prashant, Extn. Leader, HEEU, Yadagiri	"Establishment of mother culture of different bio- control agents and mycorrhiza"	21st to 23rd April-2016	NIPHM, Hyderabad
2.	Dr. Rudresh D. L. Asst. Prof. of Agril. Microbiology, COH, Bagalkot			
3.	Dr. Tulasiram, Programme Coordinator, KVK, Kolar			
4.	Dr. T. B. Basavaraju, Professor of Agronomy & Head, AICRP, on Palms, COH, Kolar	XXI Annual Group Meeting of ICAR-AICRP on Palms-2016	18 <sup>th</sup> to 21 <sup>st</sup> May, 2016	ICAR-Central Plantation Crops Research Institute, Kasaragod, Kerala
5.	Dr. Arun M. Asst. Prof. of Agril. Econ. COH, Kolar	Big data analytics in agriculture (Big data initiative Division DST sponsored)	13 <sup>th</sup> to 22 <sup>nd</sup> Jun 2016	NAARM, Rajendranagar Hyderabad
6.	Dr. Yathindra, H.A. Asst. Prof. of FLA, COH, Mysore	Advances in micro irrigation for improving water use efficiency and productivity	15 <sup>th</sup> to 24 <sup>th</sup> June, 2016	TNAU, Coimbatore
7.	Dr. Rajesh A.M. Asst. Prof. of FLA, COH, Kolar			

Name	Title	Period	Place
8. Mrs. Girija Endigeri, Asst. Librarian, UHS Library, Bagalkot	Elsevier eBook Forum- 2016(South Asia)	29 <sup>th</sup> to 30 <sup>th</sup> May 2016	Gurgaon
9. Dr. Lakshaman Reddy B.S, Extn. Leader, HEEU, UHS, Bagalkot	"Impact Assessment of Agricultural Extension"	6 <sup>th</sup> to 10 <sup>th</sup> June-2016	ICAR-NAARM, Hyderabad
10. Dr. G. K. Seetharamu, Associate Professor, RHREC, Bengaluru.			
11. Dr. R. M. Hiremath, Assist. Prof. of Physical Education, DSW Office, UHS, Bagalkot	"International workshop of Recent Trends in Physical Education & Sports Industry- 2016"	26 <sup>th</sup> to 27 <sup>th</sup> June-2016	Hyderabad
12. Mr. C. G. Yadava, Asst. Prof. of Agril. Econ. COH, Sirsi	"ICAR-Summer School training programme on "Experiencing Advanced Analytical Methods in Agricultural Extension Research"	4th to 25th July-2016	<i>Central Agricultural University, Umiam, Meghalaya</i>
13. Dr. Pushpa P., Asst. Prof. of Agril. Extn., COH, Sirsi			
14. Dr. Itigi Prabhakar, Asst. Prof. of SS&AC, COH, Bagalkot			
15. Dr. M. S. Nagaraj, Assoc. Prof. of Soil Science, COH, Bagalkot	'Visiting Scientist'	25 <sup>th</sup> to 31 <sup>st</sup> July-2016	CSSRI, Karnal
16. Dr. Raghavendra, Asst. Prof. of Computer Sc. KRCCH, Arabhavi	Summer school training on "ICT use in Agriculture"	5 <sup>th</sup> - 26 <sup>th</sup> July, 2016	Punjab Agricultural University, Ludhiana
17. Dr. Shashikumar S, Assoc. prof. & Extn. Leader, HEEU, UHS Bagalkot	Extension plus: expending the roles of extension	18 <sup>th</sup> to 22 <sup>nd</sup> July 2016	Coimbatore, Tamil Nadu
18. Ms. Netravati, Asst. Prof. of PHT, COH, Bagalkot	Summer school on "Approaches to Identification, Quantification and Reduction of Post-Harvest losses in India"	17 <sup>th</sup> Aug. to 8 <sup>th</sup> Sept. 2016	CIPHET, Ludhiyana, Punjab
19. Mr. Chandan K., Asst. Prof (PHT), COH, Sirsi			
20. Dr. Ravikumar B., Asst. Prof. of Plant Path. COH, Koppal	"Production protocol for bio control agents, microbial bio- pesticides and quality analysis of microbial bio pesticides"	18 <sup>th</sup> Aug. to 07 <sup>th</sup> Sept. 2016	National Institute of Plant Health Management, Hyderabad
21. Dr. Raghunath R., Asst. Prof. of Agril. Ent. COH, Sirsi			
22. Dr. Anil Kumar S. Asst. Prof. of SS&AC RHREC, Bengaluru	7 days training on " Best Nutrient Management Practices for Enhancing input Use Efficiency and Soil Health"	30 <sup>th</sup> Aug. to 6 <sup>th</sup> Sept. 2016	IISS, Nabibagh, Bhopal

Name	Title	Period	Place
23. Mr Mahantesh L. Padadalli JRF, SEED, DST Project, Dept. of Entomology, KRCCH, Arabhavi	Agharkar Research Institute Pune for the identification of Entomopathogenic fungi as the part of DST project entitled "Collection Isolation, Screening, Mass production and Promotion of Entomopathogenic fungi among the vegetable growers of Belgaum District"	1 <sup>st</sup> Sept. 2016	Visit to Agharkar Research Institute Pune
24. Mr. Nagaraj G, Asst. Prof. of Agril. Engg. RHREC, Bengaluru	21 days training on "Manufacturing Technology of Agricultural Equipment"	1 <sup>st</sup> to 21 <sup>st</sup> Sept. 2016	CIAE, Nabibagh, Bhopal, M.P.
25. Miss. Shobha H, Asst. Prof. of Agril. Engg. COH, Koppal			
26. Dr. P.S. Ajjapanavar Asst. Prof. of Veg. Science, HREC, Devihosur	21 days training on "Improving resiliency of crop varieties through novel and integrative breeding approaches"	8 <sup>th</sup> to 28 <sup>th</sup> Sept. 2016	G B Pant U.A.T, Pantnagar
27. Dr. Dhananjaya P. Asst. Prof. of Seed Science & Technology, COH, Bidar	21 days training on "Recent Trends In Seed Production, Post-Harvest Handling and Value Addition Techniques for Effective Seed Supply Chain"	14 <sup>th</sup> Sept. to 4 <sup>th</sup> Oct. 2016	Tamil Nadu Agricultural University, Coimbatore,
28. Dr. Fakrudin Professor and Head, Dept. of BCI, COH Bengaluru.	4th Annual South Asia Biosafety Conference	19 <sup>th</sup> to 21 <sup>st</sup> Sept. 2016	Taj Krishna, Hyderabad Telangana
29. Dr. Gurumurthy S.B., Asst. Prof. of Agril. Microbiology, COH, Sirsi	"On-Farm production of bio control agents and microbial bio pesticides"	21 <sup>st</sup> to 30 <sup>th</sup> Sept. 2016	NIPHM, Hyderabad
30. Dr. Mohammed Farooq, Associate Professor (PMA), COH, Bidar	Tour leader during exposure visit of Horticulture skill development training programme	23 <sup>rd</sup> to 27 <sup>th</sup> Sept. 2016	Sohlapur & Mohol, Maharashtra) and Sangareddy , Hyderabad Telangana
31. Dr. R.C. Jagadeesh Professor of CIB COH, Bagalkot	Workshop on "Krishikosh- An Institutional Repository Tool for Dissemination of Agricultural Knowledge"	29 <sup>th</sup> Sept. 2016	Agriculture University, Rajendernagar, Hyderabad, Telangana
32. Sri. Manjunath, B. Hadimani Assistant Librarian, KRCCH, Arabhavi			
33. Dr. Anita R. Ghandhe, Assistant Professor (Nano Technology) COH, Bagalkot	Short Course trg on "Synthesis & Characterization of Nano materials for Agriculture application"	19 <sup>th</sup> to 28 <sup>th</sup> Sept. 2016 at	ICAR Central Institute of Research on Cotton Technology (CIRCOT) Mumbai Maharashtra

Name		Title	Period	Place
34.	Dr. B. Fakrudin Professor & Head, Dept. of BCI, COH, Bengaluru	"Global Water Meet-2016"	19th to 21 <sup>st</sup> Sept. 2016 at	Taj Krishna, Road Number 1, Banjara Hills, Hyderabad, Telangana- Organized by Biotech Consortium India Limited, 5 <sup>th</sup> Dayal Upadhyan Marg, New Delhi
35.	Dr. Raghavendra Gunnaiah, Assistant Professor of Molecular Biology COH, Bagalkot			
36.	Dr. R. C. Jagadeesha Professor of CIB COH, Bagalkot	"Developing Winning Research Proposals in Agricultural Research"	20th to 24th Sept. 2016	National Academy of Agricultural Research Management, Rajendranagar, Hyderabad-500030.
37.	Dr. Basavarajappa. H. R. Asst. Prof. of Hort. PPMC UHS, Bagalkot			
38.	Dr. Sachinkumar Nandimath Asst. Prof. of Agril. Econ. PPMC, UHS, Bagalkot			
39.	Dr. Shankar Meti, Asst. Prof. of Agronomy DR Office, UHS, Bagalkot			
40.	Mr., Srinivas N. Asst. Prof. of Fruit Science, COH, Bidar	21 days training on "Exploitation of Under Utilized Fruits of Arid and Semi-Arid Region"	04 <sup>th</sup> to 24 <sup>th</sup> Oct. 2016	Maharana Pratap University of Agriculture & Technology, Udaipur (Rajasthan)
41.	Dr. Shankar Meti, Asst. Prof. of Agronomy DR Office, UHS, Bagalkot	"Geospatial Analysis for Natural Resource Management"	18th to 27 <sup>th</sup> Oct. 2016	NAARM, Rajendranagar, Hyderabad-500030
42.	Dr. Amruta S. Bhat, Asst. Prof. of Plant Pathology, KRCCH, Arabhavi	Visit to tomato and chilli growing areas in Tamil Nadu for to spo virus disease incidence and survey in southern part of India which is a part of the project objective	23rd to 31st Oct. 2016	Tamil Nadu
43.	Dr. Ramanagouda Hadlageri, Assistant Professor of Agril. Entomology, KRCCH, Arabhavi	Group Monitoring Workshop to presentation Annual Progress Report of DST Project entitled "Collection, Isolation, Screening, Mass production and Promotion of Entomopathogenic fungi among the vegetable growers of Belgaum District"	24 <sup>th</sup> Oct. 2016,	Periyar University, Salem Tamil Nadu.
44.	Dr. K. S. Shankarappa, Asst. Professor COH Bengaluru	"8th International Geminivirus Symposium and the 6th International ss DNA Comparative Virology Workshop	6 <sup>th</sup> to 11 <sup>th</sup> Nov. 2016	New Delhi.

Name	Title	Period	Place
45. Dr. Pavan Kumar, Asst. Prof. of FLA, COH, Bagalkot	1 <sup>st</sup> International Agrobiodiversity Congress “Isolation and Characterization of New SSR Markers for Bougainvillea using NGS Technologies”	6 <sup>th</sup> to 9 <sup>th</sup> Nov. 2016.	NASC, Pusa, New Delhi
46. Dr. M. Shivapriya Assistant Professor of BCI, COH Bengaluru.	Natioanl Conference on “1 <sup>st</sup> International Agrobiodiversity Congress”	6 <sup>th</sup> to 9 <sup>th</sup> Nov. 2016	New Delhi
47. Dr. H. Amarnanjundeshwar Asst. Prof. & Head, HRES, Somanahallikaval, Hassan	“2nd National Symposium on Edible Alliums: Challeges and Future Strategies for Sustainable Production”	7 <sup>th</sup> to 9 <sup>th</sup> Nov. 2016,	Jalna, Maharashtra
48. Dr, Prashanth. S.J, Assistant Professor of Vegetable Science COH, Bengaluru	Training on “Innovative Approaches to Technology Enhanced Learning (Under TELAGGE Project)”	17 <sup>th</sup> to 26 <sup>th</sup> Nov. 2016	ICAR- NAARM Hyderabad Telangana State
49. Dr. S.G. Praveenakumar., Asst. Prof. of Physical Education, COH, Bidar			
50. Dr. Sanjeevraddi G. Reddi, Asst. Prof. of Agronomy & Head AICRP on Palms, ARS Campus, Gangavati	Fourth International Agronomy Congress	22 <sup>nd</sup> to 26 <sup>th</sup> Nov. 2016	IARI, New Delhi
51. Dr. Shankar Meti, Asst. Prof. of Agronomy DR Office, UHS, Bagalkot	Climate change adaption and mitigation strategies for sustainable agriculture	24 <sup>th</sup> Nov. to 3 <sup>rd</sup> Dec, 2016	SKN College of Agriculture, Jobner, Jaipur (Rajasthan)
52. Dr.Vishwanath Y.C, Asst. Prof. of Spices & plantation crops, COH, Bagalkot	21 days training on “Bio-active compounds from medicinal plants: A wealth of novelties and opportunities”	01 <sup>st</sup> to, 21 <sup>st</sup> Dec. 2016	ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi- Anand (Gujarat)
53. Dr. Shankar Meti, Asst. Prof. of Agronomy DR Office, UHS, Bagalkot	Climate change adaption and biodiversity ecological sustainability and resource management for livelihood security	8 <sup>th</sup> to 10 <sup>th</sup> Dec, 2016	ICAR-CRARI, Port Blair (Andaman & Nicobar Island) India
54. Dr. T. B. Basavaraju, Professor of Agronomy Head, AICRP, on Palms, COH, Kolar	3 <sup>rd</sup> International Symposium on Coconut Research and development (ISOCRAD 3)	10 <sup>th</sup> to 12 <sup>th</sup> Dec. 2016	CPCRI, Kasaragod
55. Dr. Manjunath Hubballi, Asst. Prof. of Pl. Pathology AICRP on Palms (Coconut), HRES, Arasikere	PLACROSYM 22 “Leveraging Innovation System in Plantation Sector Through Value Addition”	15 <sup>th</sup> to 17 <sup>th</sup> Dec. 2016	Central Plantation Crops Research Institute, Kasaragod, Kerala
56. Dr. Mallikarjun Gowda A.P. Asst. Prof. of PSMA, COH Bengaluru	National Seminar on “ Forest and tree based land use systems for livelihood, nutritional and environmental security”	21 <sup>st</sup> to 23 <sup>rd</sup> Dec. 2016,	(As a member of scientific committee) Navasari Agril. University, Navasri, Gujarath.

Name	Title	Period	Place
57. Dr. M.S. Nagaraja, Assoc. Prof. of SS & AC COH, Bagalkot.	Guest lecture on 'Use of organic manures to reduce the toxic effects of pesticides' in the training programme on "Recent Advancement in Bio-Fertilizer and Vermicomposting Technology for Sustaining Agricultural Development"	26 <sup>th</sup> Dec. 2016	Dr Rajendra Prasad Central Agricultural University, Pusa, Bihar,
58. Dr. Fakrudin, Professor and Head, Dept. of BCI, COH Bengaluru.	National Symposium Diagnosis and Management of plant Diseases "QT Lomics analysis of resistance to Macrophomina phaseolina causing stalk rot in sorghum revealed involvement of transcription factor genes"	09 <sup>th</sup> to 11 <sup>th</sup> Jan. 2017	ICAR Research Complex for NEH Region, Umiam Meghalaya
59. Dr. V. Devappa Professor and Head & Dept. of Pl. Pathology COH Bengaluru			
60. Dr. G.S. Chikkanna G. S., Scientist (Home Science), ICAR, KVK, Kolar	"Advanced workshop on Jackfruit and Kokum",	13 <sup>th</sup> to 14 <sup>th</sup> Jan., 2017	GCCI Convention Hall, Panaji, Goa. Goa Chamber of Commerce & Industry in Association with Western Ghats Kokum Foundation
61. Dr. Ganeshagouda I Patil, Asst. Prof. of Agril. Econ. COH, Bidar	2 days specialized training on "STEP software organized by World Bank"	19 <sup>th</sup> to 20 <sup>th</sup> Jan. 2017	State Institute of Rural Development, Yashada, Raj Bhavan Complex, Baner Road, Pune.
62. Dr. Yekanath Ningappa, Assistant Librarian, COH Bidar	National Conference on "Libraries and Social Responsibilities in the Democratic World: Information Deeksha for All" for present a paper entitled "Performance appraisal of management institution libraries"	20 <sup>th</sup> Jan. 2017	Dr. Ambedkar College Deekshabhoomi, Nagpur (Maharashtra)
63. Dr. N. G. Holeyannavar, Asst. Prof. of English, DSWoffice,UHS, Bagalkot	"Marginalisation". An International conference Contextual Approach	28 <sup>th</sup> Jan.- 2017	Mandangod, Ratnagiri, (dist.,) Kalyan
64. Dr. Shantappa Tirakannavar Professor of Seed Science & Technology COH, Sirsi	National seed Seminar on "Food security through augmented seed supply under climate uncertainties"	28 <sup>th</sup> to 30 <sup>th</sup> Jan. 2017	IARI, New Delhi
65. Dr. Chandravathi B., Tech.Asst. AICRP on Palms (Oil Palm), ARS Campus, Gangavathi	National Seed Seminar – 2017 on "Food Security Through Augmented Seed Supply Under Climate Uncertainties"	28 <sup>th</sup> to 30 <sup>th</sup> Jan. 2017	ICAR-Indian Agricultural Research Institute, New Delhi

Name		Title	Period	Place
66.	Dr. Pavan Kumar P., Asst. Professor of FLA, COH, Bagalkot	Workshop cum exhibition 'Horti India -2017' on 'Conventional and Alternative Horticultural Production System'	9 <sup>th</sup> to 10 <sup>th</sup> Feb. 2017	Horticultural Technology Park, Greater Noida, Uttar Pradesh
67.	Dr. Sarvamangala Cholin, Asst. Prof. (GPB) dept. of BCI, COH, Bagalkot	21 days Training on "Computational Approaches for Next Generation Sequencing (NGS) Data Analysis in Agriculture"	8 <sup>th</sup> to 28 <sup>th</sup> Feb.- 2017	ICAR-Indian Agricultural Statistics Research Institute, New Delhi
68.	Mr. M. A. Waseem, Asst. Prof. of Agril. Ento. DE office, UHS, Bagalkot	Training on "Pest Risk Analysis"	13 <sup>th</sup> to 17 <sup>th</sup> Feb. 2017	Hyderabad
69.	Dr. Pallavi H.M., Asst. Prof. of Seed Technology, dept. of BCI, COH, Mysuru	Advances in variety maintenance & quality seed production for entrepreneurship	14 <sup>th</sup> to 23 <sup>rd</sup> Feb. 2017	IARI Regional Research Station, Karnal
70.	Dr. Ramangouda Hadalageri Asst. Prof of Agril. Ento. KRCCH, Arabhavi	"Fruit fly Surveillance and Management"	20 <sup>th</sup> to 24 <sup>th</sup> Feb. 2017	Plant Biosecurity Division, NIPHM, Rajendranagar, Hyderabad
71.	Dr. N. Aswathanarayana Reddy, Asst. Prof of Agril. Ento., HRES, Hogalagere.			
72.	Dr. Shashidhar K.R., Scientist (Sericulture), ICAR, KVK, Kolar,	Training programme on "Participatory Impact Assessment and Monitoring (PIMA)"	21 <sup>st</sup> to 25 <sup>th</sup> Feb. 2017 at	ICAR KVK,(MYRADA), Arepalayam, Erode, Tamil Nadu ICAR- ATARI Zone VIII, Bangalore
73.	Dr. Nagaraja K.S. Scientist (Horticulture), ICAR, KVK, Kolar	"Second KVK Symposium 2017"	7 <sup>th</sup> to 8 <sup>th</sup> Mar 2017	TNAU, Coimbatore, ICAR
74.	Ms. Suhasini Jalawadi, Asst. Prof.(AICRP on Fruits), KRCCH Arabhavi,	Training on PGR management of mandated fruit crops	22 <sup>nd</sup> to 25 <sup>th</sup> Mar 2017	ICAR-National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi

## II) Non- Teaching Staff

Name		Title	Date	Place
1	Mr. M. H. Kulkarni, ACCO, Registrar Office, UHS, Bagalkot.	"The RTI Act. 2005 & Sexual Harassment" and "Implementation of Reservation Policy"	04 <sup>st</sup> to 08 <sup>th</sup> Aug. 2016	Society Economic Research and training, New Delhi
2	Ms. Shashikala Kumbar, ACCO, AO's office, UHS, Bagalkot.			
3	Ms. Deepa Nadiger, Assistant Executive Engineer (Civil), Estate Office, UHS, Bagalkot.	"Purchase Policy & Procedures, E-Procurement Process, Contract Management, Materials	08 <sup>st</sup> to 10 <sup>th</sup> Sept. 2016	Society Economic Research and training, New Delhi

Name	Title	Date	Place
4	Sri. B. S. Gadagin, Assistant Comptroller, Estate Office, UHS, Bagalkot	Management & Tendering in Govt. Department, Autonomous Bodies along with the provision of GFR/DoFPR"	
5	Sri. Shivakumar Mensinakai Junior Engineer KRCCH, Arabhavi	Workshop cum exhibition 'Horti India -2017' on 'Conventional and Alternative Horticultural Production System',	9 <sup>th</sup> to 10 <sup>th</sup> Feb. 2017 Horticultural Technology Park, Greater Noida, Uttar Pradesh. organized by Institute of Horticulture Technology, Greater Noida

### 9.3 Within the State

#### I) Teaching Staff

Name	Title	Period	Place
1. Dr. V. Nache Gowda, Dean, COH, Kolar	National Seminar on Jack under adverse climatic condition, value addition and marketing	22 <sup>nd</sup> to 23 <sup>rd</sup> Apr-2016	College of Horticulture, Kolar. University of Horticultural Sciences, Bagalkot
2. Dr. Kulpathi Hipparagi, Professor of Fruit Science, COH, Bagalkot			
3. Dr. Honnabyraiah M. K, Professor of COH, Bengaluru			
4. Dr. J. Dinakar Adiga, Professor of Fruit Science, COH, Bengaluru			
5. Dr. S. I. Athani, Professor of of ADRE, RHREC, Kumbapur			
6. Dr. Nagesh Naik, Professor of Fruit Science, KRCCH, Arabhavi.			
7. Mr. Basavaraj Padashetti, Asst. Prof. COH, Bagalkot			
8. Mr. Nataraj K. H., Asst. Prof. KRCCH, Arabhavi.			
9. Dr. Praveen Jhoglekar, Asst. Prof. of Fruit Science, COH, Bidar	National Seminar on Jack under adverse climatic condition, value addition and marketing	22 <sup>nd</sup> to 23 <sup>rd</sup> Apr-2016	College of Horticulture, Kolar. University of Horticultural Sciences, Bagalkot
10. Mr. Srinivas N., Asst. Prof. COH, Bidar			
11. Dr. Nagaraj K. S., Asst. Prof. KVK, Kolar			
12. Dr. Manukumar H. R, Asst. Prof. COH, Sirsi			
13. Dr. Venkat Rao, Asst. Prof. COH, Mysuru.			
14. Dr. D. P. Prakash, Asst. Prof. COH. Munirabad			

Name		Title	Period	Place
15.	Mr. Sateesh Pattepur, Asst. Prof. RHREC, Bagalkot			
16.	Dr. Rajendra B. N., Asst. Prof. AICRP, Hogalagere			
17.	Dr. G.S.K. Swamy Professor COH Mysuru			
18.	Mr. Nagaraja G., Asst. Prof. of Agril. Engg. RHREC, Bengaluru	"Refresher training session on Tractors and implements"	6 <sup>th</sup> to 10 <sup>th</sup> Jun 2016	Escort Training & Development Centre, Anekal road, Chandapura, Bengaluru
19.	Mr. Sreenatha A Asst. Prof. Agril. Engg. MHREC, Bagalkot			
20.	Dr. Shivanand Hongal, Asst. Prof. of Veg. science, COH, Sirsi	ICAR-Summer School on "Exploring Genomic Resources for the Improvement of Horticultural Crops"	1 <sup>st</sup> to 21 <sup>st</sup> Jul2016 at	College of Horticultural, Bengaluru
21.	Smt. Namita Raut, Asst. Prof. of Veg. Sc. COH, Bagalkot			
22.	Dr. N. Ashwathanarayan Reddy Asst. Prof. of Agril. Entomology. HREC, Hogalagere			
23.	Dr. Mangala K.P., Asst. Prof. Agril Economics, COH, Mysuru	Orientation training programme UGC Administrative staff college	14 <sup>th</sup> Aug. to 10 <sup>th</sup> Sept. 2016	University of Mysore, Manasgangothri
24.	Dr.Suresh. G.J. Assistant Professor, Dept. of Postharvest Technology COH, Bengaluru.	International Conference on "Agricultural and Food Technologies"	25th to 27th Aug. 2016	UAS, Bengaluru.
25.	Dr. K.R. Vasudeva, Associate Professor of PHT COH, Bengaluru	International Conference on "Minimal Processing of Jackfruit (Artocapus heterophyllus L.)	25 <sup>th</sup> to 27 <sup>th</sup> Aug. 2016	UAS, Bengaluru.
26.	Dr. K. M. Indires, h, Dean, COH, Mysuru.	National Conference of Horticultural Education Present Status and Future Prospects	24 <sup>th</sup> Sept. 2016	IIHR, Bengaluru
27.	Dr. A M. Nadaf Assist. Prof. of Agril. Ent. HRES, Vijaypur (Tidagundi)	National Meet of Entomologists – 2016	7 <sup>th</sup> to 8 <sup>th</sup> Oct. 2016	Indian Institute of Horticultural Research, Hesaraghatta, Bengaluru
28.	Dr. N. Ashwathnarayana Reddy ,Asst. Prof. of Agri. Ent., HRES, Hogalagere			
29.	Mr. K. Thulasiram Programme Coordinantor & Assoc.Prof. of Agril. Ent, KVK, Kolar			

	Name	Title	Period	Place
30.	Dr. G. K. Ramegowda Asst. Prof. of Agril Entomology. RHREC, Bengaluru			
31.	Dr. Babu. A.G, Asst. Prof. of Crop Physiology DR office, UHS, Bagalkot	“Phenotyping for drought adaptive traits and their introgression for crop improvement”	17 <sup>th</sup> to 24 <sup>th</sup> Oct. 2016	University of Agricultural Sciences, Bengaluru
32.	Dr. C.N. Hanchinamani Prof. of Veg. Sc. KRCCH, Arabhavi	“Global Water Meet-2016”	24 <sup>th</sup> to 26 <sup>th</sup> Oct. 2016	University of Agricultural Sciences, Dharwad
33.	Dr.Kantesh Gandolkar Assoc. Prof. of Agronomy, DR office, UHS, Bagalkot.			
34.	Mr. Tippanna K.S., Assistant Professor, of PHT COH, Bidar	On “Recent Advances in Post- Harvest Management of Fruits, Vegetables and Flowers for Minimization of Quantitative and Qualitative Losses”	2 <sup>nd</sup> to 22 <sup>nd</sup> Nov. 2016	IIHR, Bengaluru
35.	Dr. Bhuvaneswari G. Asst. Prof. of PHT. COH, Bagalkot	Winter School on “Entrepreneurship development for farmers empowerment and sustainable livelihood”	8 <sup>th</sup> to 28 <sup>th</sup> Nov. 2016	University of Horticultural Sciences, Bagalkot
36.	Smt. Shashikala B. Algond, Asst. Prof. of Agril. Extn., COH, Bidar			
37.	Dr. Ramanagouda Hadlageri, Asst. Prof. of Agril. Ento. KRCCH, Arabhavi			
38.	Dr. Jagadeesha N., Asst. Prof. of Agronomy & Extn. Leader, COH, Koppal			
39.	Smt. Rajeshwari Nidgundi Asst. Prof. of PSMA, COH Koppal	Winter School on “Entrepreneurship development for farmers empowerment and sustainable livelihood”	8 <sup>th</sup> to 28 <sup>th</sup> Nov. 2016	University of Horticultural Sciences, Bagalkot
40.	Miss. Sweta B.S., Asst. Prof. of Agril. Extn, COH Koppal			
41.	Mr. Siddanna Thoke, Asst. Prof. Fruit Sc., HEEU, Yadagiri			
42.	Dr. Tanveer Ahmed, Asst. Prof. of Agril. Econ., DOE Office, UHS, Bagalkot	Winter school on “Application of Advanced Statistical Tools in Agricultural Research”	8 <sup>th</sup> to 28 <sup>th</sup> Nov. 2016	UAS, Dharwad
43.	Dr. Arun M. Asst. Prof. of Agril. Econ., COH, Kolar			
44.	Mr. Yashavantakumar K.H. Asst. Prof. Veg. Sci. RHREC, Dharwad			

	Name	Title	Period	Place
45.	Mr. Anand G. Patil, Asst. Prof. of Agronomy COH, Bidar	On "Agro ecological strategies for designing sustainable farming systems"	1 <sup>st</sup> to 21 <sup>st</sup> Dec. 2016	University of Agricultural Sciences, Raichur
46.	Mr. Abdul Kareem Asst. Prof. of Pl. Pathology, HREC, Devihosur	"Development of Utilization of Genetic & Genomic Resources through Biotechnology for Biotic & Abiotic Stress Management & Quality Improvement in field crop"	1 <sup>st</sup> to 21 <sup>st</sup> Dec. 2016	University of Agricultural Sciences, Dharwad
47.	Dr. Amruta Bhat, Asst. Prof. of Pl. Pathology KRCCH, Arabhavi	International Conference of Indian Virological Society (IVS) on Global perspectives in Virus disease management" VIROCON 2016	7 <sup>th</sup> to 10 <sup>th</sup> Dec. 2016	IIHR, Bengaluru
48.	Dr. Rajeshwari R., Asst Prof. of Pl. Pathology COH Mysuru			
49.	Dr. Devappa. V. Professor of Pl. Pathology, COH Bengaluru	National Symposium on "Recent advances in plant health management for sustainable productivity and IPS South Zone".	15 <sup>th</sup> to 16 <sup>th</sup> Dec. 2016	College of Agriculture, Krishinagar, UAS, Dharwad.
50.	Dr. B. Anjaneya Reddy, Asst. Prof. of Plant Pathology, COH Bengaluru			
51.	Dr. Sangeetha. C.G. Assistant Professor, Plant Pathology, COH Bengaluru			
52.	Dr. M. S. Kulkarni, Dean, KRCCH, Arabhavi			
53.	Dr. S.N. Patil., Asst. Prof. of Fruit Science COH, Bagalkot	"Quality seed and planting material production in horticulture crops and certification under changing WTO regime"	21 <sup>st</sup> to 31 <sup>st</sup> Dec. 2016	University of Agricultural Sciences, Raichur
54.	Dr. K. M. Indires, h, Dean, COH, Mysuru.	Assessment committee meeting for category III Technical staff of IIHR Bengaluru	23 <sup>rd</sup> Dec. 2016	IIHR, Bengaluru
55.	Dr. Vijayalaxmi Padaganur, Asst. Prof. of Horticulture, COH, Bidar	Winter school training on "Protected cultivation of Commercial flowers and vegetables"	5 <sup>th</sup> to 25 <sup>th</sup> Jan. 2017	University of Horticultural Science, Bagalkot,
56.	Mrs. Anasubai S. Hosagoudar, Asst. Prof. of FLA, MHREC, Bagalkot			
57.	Dr. Gajanan Kustagi, Asst. Prof of PHT, COH Koppal			
58.	Dr. Harshavardhan M., Asst. Prof. of FLA, COH Sirsi			
59.	Mr. Naveen M Puttaswamy, Asst. Prof. of FLA, HRES, Kanabargi			
60.	Dr. H.P. Hadimani, Assoc. Prof. of Veg. Sc. KRCCH, Arabhavi			

Name		Title	Period	Place
61.	Mr. Aravind M Rathod, Assoc. Prof. of Agril. Engg.CO.H, Bidar	“Spatial Decision Support System for Watershed Management”	10 <sup>th</sup> to 30 <sup>th</sup> Jan. 2017	College of Agriculture, Vijayapura
62.	Mr. Venkatesh Hosamani, Asst. Prof. of Agril. Entomology, COH Koppal	“Taxonomy of Insects and Mites”	24 <sup>th</sup> Jan. to 13 <sup>th</sup> Feb. 2017	UAS Bengaluru GKVK campus
63.	Dr. K. M. Indires, h, Dean, COH, Mysuru	National Conference on Spices: Challenges and Opportunities (NSC-2017) towards 2020: Strategies for Sustainable Spice Processing	02 <sup>nd</sup> to 03 <sup>rd</sup> Feb. 2017	CSIR–CFTRI, Mysuru
64.	Dr. Vikram Appanna., Asst. Prof. of Agril. Microbiology, COH, Mysuru			
65.	Mrs. Rashmi H.B., Asst. Prof. of PHT, COH, Mysuru			
66.	Dr. Anand B. Mastiholi Professor of Agronomy MHREC, Bagalkot	One-day Workshop under Jal Kranti Abhiyan	13 <sup>th</sup> February 2017	UAS, Dharwad
67.	Mr. Sreenatha A. Asst. Prof. of Agril. Engg. MHREC, UHS, Bagalkot			
68.	Dr. Seetharamu G.K., Assoc. Prof. of FLA, KRCCH, Arabhavi	“National Consultative Workshop on Protected Cultivation to Meet Future Challenges”	17 <sup>th</sup> to 18 <sup>th</sup> Feb. 2017	University of Agricultural Sciences, Dharwad
69.	Dr. Satish R. Patil Assoc. Prof. of FLA, COH, Bagalkot			
70.	Dr. Pavankumar P Asst. Prof of FLA, COH, Bagalkot	“National Consultative Workshop on Protected Cultivation to Meet Future Challenges”	17 <sup>th</sup> to 18 <sup>th</sup> Feb. 2017	University of Agricultural Sciences, Dharwad
71.	Dr. Padmanabha. K Asst. Prof. of Veg. Sc. , COH, Bengaluru			
72.	Dr. Shivapriya. M. Asst. Prof. of BCI COH, Bengaluru	XIII Agricultural Science, Congress-2017 on “Climate Smart Agriculture”	21 <sup>st</sup> to 24 <sup>th</sup> February 2017	University of Agricultural Sciences, GKVK, Bengaluru
73.	Dr. I.B. Biradar, Professor of Agronomy, KRCCH, Arabhavi,			
74.	Dr. Satish D., Asst. Prof. of GPB KRCCH, Arabhavi			
75.	Dr. Chandrashekar. G. S. Assoc. Prof. of Agril. Ento. AICRP(Plam), HREC, Arsikere	Special survey on “Coconut Rugose spiraling whitefly”	21 <sup>st</sup> to 23 <sup>rd</sup> March 2017	In Karnataka (Tamil Nadu border), Deputy Director (PP) CIPMC, Bengaluru
76.	Dr. N. G. Holeyannavar, Asst. Prof. of English, DSW office, UHS, Bagalkot	One Day State Level Seminar	25 <sup>th</sup> March 2017	Hunagund

## II) Non- Teaching Staff

Name	Title	Date	Vanue
1. Ms. Raziya Begum M. Ron, Assistant Executive Engineer (Ele), Estate Office, UHS, Bagalkot	“Cause of the Fire Accidents”	25 <sup>th</sup> Aug. 2016	Bengaluru

### 9.4 Deputation of Teachers for Higher Studies

The following teachers are permitted to for higher study leading to PhD on Deputation basis / on study leave basis during the academic year 2016-17

Name	Semesters	On deputation/ Study leave	Name of the University
1. Mr. Rudragouda T. Patil, Asst. prof of FLA, KRCCH, Arabhavi	3 semesters	On deputation basis for three semesters (within University)	UHS, Bagalkot
2. Mr. Anil Sabarad, Asst. Prof. of Fruit science, KRCCH, Arabhavi	3 semesters		
3. Mr Jagadishchandra Hiremath, Asst. Prof, of PSMA, KRCCH, Arabhavi	3 semesters		
4. Mr. Kirankumar Gorabal, Asst. Prof. of PHT KRCCH, Arabhavi	3 semesters		
5. Mrs. Namita Raut, Asst Prof of Veg. Sc. COH, Bagalkot	3 semesters		
6. Mr. Shivayogi Ryavalad, Asst Prof of Seed science and technology, MHREC, UHSB	3 semesters	On deputation basis	UAS Dharwad
7. Mrs. Lakshmiddevamma, asst prof. of Bio technology and crop improvement, KRCCH, Arabhavi	3 semesters	On deputation basis	UAS Dharwad
8. Mr. Lakshman Reddy, Asst Prof. of Agril. Extension, Registrar Office, UHS, Bagalkot	2 semesters	On deputation basis	UAS, Bengaluru (Re admission)
9. Mr. Raghavendra Achari Asst. Prof. of Pl. Path., HRES, Tidagundi	3 semesters		
10. Mr. Wasim, Asst. Prof. Agril. Entomology, DE office, UHS, Bagalkot	1 semester	On study leave (29.08.2016 to 07.01.2017)	UAS Dharwad (Re admission)
11. Mr. Vasudeva Naik, Field Asst. MHREC, UHS, Bagalkot (non teaching staff)	1 semester	On study leave (29.08.2016 to 21.01.2017)	UAS, Dharwad (Re admission)
12. Ms. Suhasini Jalawadi, Asst. Prof. of Fruit Science KRCCH Arabhavi	On part time basis	4th semester (three seminars and 26 Research credits) at KRCCH Arabhavi	KRCCH Arabhavi (UHS, Bagalkot)
13. Mr. Srikantaprasad D., Assistant Professor (PMA) KRCCH, Arabhavi		5th semester (three seminars and 26 Research credits) at KRCCH Arabhavi	
14. Mrs. Pallavi G., Asst. Prof. of Agril. Extn. COH, Mysuru	1 semester	On study leave (06.02.2017 to 08.08.2017)	UAS, Bengaluru

### **9.5 Faculty Development Programme**

A three days faculty development programme was organized from 26<sup>th</sup> to 28<sup>th</sup> September, 2016 for the new incumbent assistant professors of the university. The training programme was imperative to the new recruits of the university. Various eminent personalities & scientists from different parts of nation were invited to train them effectively and making them to enthusiastically involve in teaching, research, extension and administration of the university.

### **9.6 Faculty Sports**

On the eve of the Independence Day celebration, various sports & games were organized to the officers, teaching and non-teaching staff of the UHS-B. All of them actively participated and showcased their sportsmanship. Hon'ble Vice-Chancellor, Dr. D.L. Maheswar also actively participated in cricket & volley ball and espoused the sportsmen spirit among the faculty of the University.

## 10. AWARDS AND HONOURS

The University has attained new heights of academic excellence in 2016-17 as many moments of pride were accomplished among them few are listed below:

1. The UHS-B and its constituent colleges have been accredited by NAEAB, ICAR, New Delhi.
2. ICAR JRF Award- first position under horticulture and forestry awarded to the UHS-B for achieving highest number of JRF Awards.
3. KSHEC has conferred UHS-B with 3 Star rating.
4. The UHS-B has been ranked Number 13 amongst agricultural universities of the country by ICAR for the year 2016-17.

### 10.1 Certificate of Accreditation by NAEAB

The UHS-B and its 08 following Constituent Colleges have been accredited by NAEAB, ICAR, New Delhi till March 10, 2019.

1. Kittur Rani Chennamma College of Horticulture, Arabhavi
2. College of Horticulture, Bidar
3. College of Horticulture, Bagalkot
4. College of Horticulture, Kolar
5. College of Horticulture, Mysuru
6. College of Horticulture, Munirabad
7. College of Horticulture, Sirsi
8. College of Horticulture, Bengaluru

### 10.2 National Excellence Award

ICAR JRF award- first position under horticulture and forestry awarded to UHS-B for securing highest number of JRF awards. In the 22<sup>nd</sup> AIEEA-PG 2016 conducted by ICAR. During the year 2016-17, 10 students secured JRF and 16

students were awarded SRF. A total of 169 students of UHS-B have qualified in JRF examination to get admissions for higher studies in other universities.

### 10.3 KSHEC Rating

Karnataka State Higher Education Council (KSHEC) rated universities based on their strengths and locally relevant yet globally flavored aspects of higher education. Karnataka is the first amongst all the states to undertake a detailed audit & evaluation of all its universities. Government of Karnataka, through KSHEC, aims to assess and identify the strengths and weaknesses of the universities in the state, and help them improve on their deficiencies. An annual exercise, the council will rate universities based on parameters such as Research Excellence, Innovation, Teaching Excellence, Employability, Infrastructure and Inclusiveness & Social Impact. The framework consists of 5 broad parameters and 27 indicators. Based on the above-mentioned parameters the university has received **3 STARS** rating from KSHEC for the year 2016-17.

### 10.4 Rating of University among SAUs by ICAR

Based on the recommendations of the review committee and approval by the competent authority of ICAR, the UHS-B has been ranked number 13 amongst agricultural universities by ICAR for the year 2016-17. In this ranking the university is first among the horticulture universities and second among the SAUs of Karnataka

**10.5 International/National Awards; Best Scientist/Paper Presentation Awards; other honour and recognitions**

Honours			
	Name of the Scientist	Awards/Recognitions	Sponsors
1	Dr. H B Lingaiah, DOE, UHS, Bagalkot	Member of Peer Review Team for NDUAT, Faizabad, UP	ICAR, New Delhi
2	Dr. K.M. Indresh, Dean, COH Mysore	Vice President	Indian Potato Association
3	Dr. Ashok S. Alur, Special Officer, RO, COH, Bengaluru	Member of Peer Review Team for Assam Agricultural University, Assam	ICAR New Delhi
4	Dr. Ashok S. Alur, Special Officer, RO, COH, Bengaluru	Member of the Regional Committee of UNDP-GEF-SGP programs in India	United Nations Development Program Ministry of Environment and Forests, GOI , New Delhi
International Awards			
5	Dr. Anil Kumar, Asst. Prof., RHREC, Bengaluru	Young Scientist Award	International Conference on advancing Frontiers in Biotechnology, Allahabad
6	Dr. A.B. Patil, Registrar, UHS, Bagalkot	Life time Achievement Award	Venus International Foundation, Chennai
7	Dr. T.B. Basavaraj, Prof. COH, Kolar	Best Research Paper presentation	3 <sup>rd</sup> International Symposium on Coconut Research and Development, Kasaragod
National Awards			
8	Dr. N. Basavaraj Dean PGS, UHS, Bagalkot	Fellow of AABS	Association for the advancement of Biodiversity Science, Belagavi
9	Dr. Y.K. Kotikal, DE, UHS, Bagalkot	Fellow of AAPMHE	Association for the advancement of Pest Management in Horticulture Ecosystem IIHR Bengaluru
10	Dr C N Hanchinamani, Professor, COH, Bidar	BIOVED Fellow	BIOVED Society, Allahabad
11	Dr. G. Manjunath, Asst. Prof., UHS, Bagalkot	Best Research Scientist Award	UHS, Bagalkot
12	Dr. Vasant M. Ganiger, Prof. MHREC, UHS-B	Best Extension Scientist Award	
13	Dr. A.B. Patil Registrar, UHS, Bagalkot	Eminent Scientist Award	Samagra Vikasa Welfare Society, Lucknow
14	Dr. G.K. Seetharamu, Assoc. Prof., RHREC, Bengaluru	Best Oral Paper Presentation	National Seminar on Horticulture Diversity for Prosperity 2016, Bhuvaneshwar
15		Best Poster Presentation	

## 11. PROJECT PLANNING AND MONITORING CELL (PPMC)

Realizing the importance of planning and monitoring in the management system of the Academia, the University has constituted PPMC. It works directly under the supervision of Vice-Chancellor. The cell collaborates with teaching, research, extension and other administrative staff in its operations. The cell has the mandate for preparation of an overall perspective development plan for the University. Appoint specific teams or task forces consisting of internal or external experts from time to time for evaluation of the work of specific department, college or program. Building sound knowledge base including statistical information on the various activities of the university helps in making precise projections for the future.

PPMC has played an active role in bringing out appraisal and vision documents of the University. Training program for HRD and support for various action committees of the university are other major activities of the PPMC.

PPMC has also played a pivotal role in developing several project proposals for infrastructure development, establishing specialized research centres is collaboration with Directorate of Research and other divisions. The cell has taken lead role in mobilizing external funding to the university as per the details provided below.

### 11.1 Development of project proposals for funding

The 42 proposals worth of Rs. 1884.84 lakhs are developed in collaboration with Directorate of Research and other divisions of the University and submitted for the external agency for financial assistance.

### 11.2 Collaborations of the UHS-B

In the Academic year 2016-17, the UHS-B has signed 11 MOU's and 26 in total with following international and national institutions for collaborative teaching, research and transfer of technology.

#### New Collaborations Developed by the UHS-B in 2016-17

Collaborations		Impact
1.	Totgars' Co-operative Sale Society, Sirsi, Uttara Kannada Dist. Karnataka for fellowship for PG Students.	31-03-2016
2.	Central Coffee Research Institute, Chickmagalur for PG studies.	10-06-2016
3.	Dr. V.B. Hosagoudar Bio Research Foundation, Bilagi for teaching and research.	25-07-2016
4.	ICAR – Indian Institute of Oil Palm Research, Andhra Pradesh to facilitate PG research in oil palm,	12-07-2016
5.	CSIR- Central Food Technological Research Institute (CFTRI)-Mysuru for academic, research and extension activities.	23-08-2016
6.	Indian Institute of Plantation Management (IIPM), Bengaluru to extend advanced research facilities and services of faculty/scientists for mutual benefit	12-09-2016
7.	Mr. R. S. Hiremath CEO, Flexitron, Bengaluru for collaborative research.	19-09-2016
8.	Agriculture Skill Council of India for training assessment, research and skill development.	16-09-2016
9.	NRDC (National Research Development Corporation) Bengaluru for IP protection and technology commercialization	04-10-2016
10.	BCRL , Bengaluru for PG research	11-11-2016
11.	CIMAP for PG research and collaborative projects	25-01-2017

### 11.3 UHS-B Membership for National Knowledge Network (NKN)

The University is the member of National Knowledge Network. The NKN is a State-of-the-Art, Multi-Gigabite, PAN-India network for providing a unified high speed network backbone for all knowledge related institutions in the country. The purpose of such a knowledge network goes to the very core of the country's quest for building quality institutions with requisite research facilities and creating a pool of highly trained professionals. The NKN will enable scientists, researchers and students from different backgrounds and diverse geographies to work closely for advancing human development in critical and emerging areas.

The following applications of NKN are under consideration by the University in near future.

- Countrywide Virtual Classroom
- Collaborative Research
- Virtual Library
- Sharing of Computing Resources
- Grid Computing

- Network Technology Test-bed
- e-Governance

### 11.4 All India Survey on Higher Education (AISHE) Membership.

The UHS-B is an active participant of the All Indian Survey on Higher Education (AISHE), conducted by Higher Education council. Higher education is of vital importance for the country, as it is a powerful tool to build knowledge based society of the 21<sup>st</sup> Century. India possesses a highly developed higher education system which offers facility of education and training in almost all aspects of human creative and intellectual endeavors: arts and humanities; natural, mathematical & social sciences, engineering; medicine; dentistry; agriculture; education; law; commerce and management; music and performing arts; national and foreign languages; culture; communications *etc.* The AISHE website was updated with the details pertaining to main campus and constituent colleges in the prescribed format for the year 2016-17.

## 12. IMPLEMENTATION OF RIGHT TO INFORMATION ACT 2005 AND STATUTORY CELLS

The University is committed to showcase complete transparency in the recruitment assessment and selection process and to implement the Right to Information Act-2005 in letter and spirit. According to the section 4(1)(b) of the RTI Act-2005, all the up to date information pertaining to the Public Information Officers and Public Appellate Authority and the information pertaining to the University are made available on the UHS, Bagalkot website ([www.uhsbagalkot.edu.in](http://www.uhsbagalkot.edu.in)) from time to

time. The University has efficiently and satisfactorily responded to various requests and appeals under RTI Act-2005 within the stipulated time period as per the provisions of Right to Information Act-2005.

In all, the University received 70 requests concerning to the various section of the University. All the cases were disposed of successfully to the satisfaction of the all concerned. Annual Report of requests processed under RTI Act-2005, during 2016-17 is furnished in the following Table

**No. of Applications Received (01-04-2016 to 31-03-2017)**

Sl. No	Name of the District & Regional / Zonal Offices & HOD	Total No. of PIO's in each District & Zonal Offices & HOD	Total No. of Applications pending as end of the last Year	Total No. of Applications received during the Period	Total (Cols.4+5)	Total No. of Applications Disposed during the period	Total No. of Applications pending (6-7)	Out of cases Disposed shown in Col.7 Information furnished.	Out of cases Disposed shown in Col.7 Deemed Refusals u/s 7(2)/18(1)
1	2	3	4	5	6	7	8	9	10
1	List appended as Annexure – XXVI	30	-	70	70	70	-	70	-

**Out of cases disposed shown in Col.No.(7), Cases rejected under Sections**

6	8 (1)(a)	8 (1)(b)	8 (1)(c)	8 (1)(d)	8 (1)(e)	8 (1)(f)	8 (1)(g)	8 (1)(h)	8 (1)(i)	8 (1)(j)	9	11	24	Other	Amount of Total Application Fee and Charges collected for furnishing information	Any other information
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**No. of Appeals Received (01-04-2016 to 31-03-2017)**

Sl. No.	Name & Address of the PIO	Total No. of 1 <sup>st</sup> appeals pending at the end of the last year	Total No. of 1 <sup>st</sup> appeals received during the Period	Total (Cols.3+4)	Total No. of 1 <sup>st</sup> appeals Disposed during the period	Total No. of 1 <sup>st</sup> appeals pending (5-6)	Out of cases Disposed shown in Col.6 Information furnished.
1	2	3	4	5	6	7	8
1	Dr. M.B. Madalageri Registrar UHS, Bagalkot, (01-04-2016 to 31-05-2016)	-	-	-	-	-	-
2	Dr. A.B. Patil Registrar UHS, Bagalkot, (01-06-2016 to 31-05-2017)						

**Out of cases disposed shown in Col.No.(6), Cases rejected under Sections**

6	8 (1) (a)	8 (1) (b)	8 (1) (c)	8 (1) (d)	8 (1) (e)	8 (1) (f)	8 (1) (g)	8 (1) (h)	8 (1) (i)	8 (1) (j)	9	11	24	Other	Amount of Total Application Fee and Charges collected for furnishing information	Any other information
09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**12.1 STATUTORY CELLS**

**12.1.1 Anti-Ragging Cell**

Anti-Ragging Cell is operational in the university and Anti-ragging committees have been formed at all-constituent colleges of University of Horticultural Sciences, Bagalkot to prevent ragging activities. The Anti-ragging squads are formed and are working effectively at all constituent colleges. The Anti-ragging squad in each college consists of the Dean of the college, senior professors, teachers, eminent social personnel, wardens, the senior non-teaching staff and student representatives of the college. The anti-ragging squad will have its own time table and frequent and surprise visits by the squad members will be undertaken at various

sensitive areas like Hostel premises, Canteens, Corridors, Class-rooms, Laboratories, Field Labs and Play grounds. The team supervises at peak hours like commencement of classes, closer of class/lab sessions and even after office hours in the playground and hostel premises. Strict vigilance is done during holidays as well as at late hours in the night in the hostels.

During the reporting period, no ragging incidents have been recorded. All the students have to register themselves on the website [Aman Movement](http://www.antiragging.in) and <http://www.antiragging.in> and give an undertaking that they will not involve in ragging or else they have to give an affidavit for not involving any kind of ragging activity. This will be endorsed by their parents or guardians also. Regular

video clips have been arranged to inform students not to involve in ragging activities and if involved the consequences they have to face. Periodical reports of ragging incidents if any or nil reports were submitted to MHRD and UGC Secretariats of Government of India.

### 12.1.2 Women Grievances Cell

In 2013, India enacted the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 is a legislative act that seeks to protect women from sexual harassment at their place of work. In this context, the internal complaints committee/Sexual Redressal Committee was formulated on 19-05-2015 at all the colleges, Research Stations and KVK under the purview of UHS, Bagalkot.

During the year 2016-17, the following work has been carried out by the women grievance redressal cell.

1. Attended as a member of fact finding committee for the complaints received by the working women of UHS, Bagalkot at two places during the year 2016-17 and find out the facts then reported to the University.
  - RHREC, Somanahalli Kavalu, (Hassan) on 2<sup>nd</sup> to 4<sup>th</sup> June, 2016.
  - RHREC, Kumbapur (Dharwad) on 15<sup>th</sup> September, 2016.
2. Organized International Women's Day celebration on 8<sup>th</sup> March, 2017
3. Conducted awareness training programme for women faculty (teaching and non- teaching) of UHS main campus on "Protection laws for women rights".

### 12.1.3 SC/ST Cell

The SC/ST cell in the UHS, Bagalkot is established in the year 2014-15 by nominating Dr. Kulapati Hipparagi, Professor and Head Department of Fruit Science as Head for the smooth functioning of Cell. Since then various activities for the welfare of SC/ST student and staff were carried out under

SCSP/TSP scheme. A plan grant Rs. 45 lakhs was earmarked for the financial year 2016-17 under AB/AC6610/300 accordingly, the expenditure has been incurred for the following activities:

Laptop facility was extended to 52 M.Sc. (Hort) and Ph.D students (24 Boys and 28 Girls)

1. The contingency facility was extended to all SC/ST PG students for their study material /textbook/stationery/thesis preparation *etc.*, at the rate of 6000/year/student during I & II year M.Sc (Hort) and Rs. 10,000/year/student for Ph.D students.
2. The study tour expenditure for Graduate students at the rate of Rs.5000/student was given.
3. The zero-mess bill system was extended to Ph.D, M.Sc (Hort) and Diploma (Hort) students by meeting out the hostel expenditure in excess of Rs.1850/-(GOI Scholarship of Rs 1200 + Rs. 650 of GOK) to ensure that students do not face the hardship in payment of their monthly mess bill.

The SC/ST cell is equipped with the required furniture, computer, laptop and printer cum Xerox machines. To carry out day-to-day office activities of the cell one Assistant cum Computer Operator and one messenger have been appointed on contractual basis.

### 12.1.4 Grievance Redressal Cell

The university of Horticultural Sciences, Bagalkot has constituted a grievance committee on 16-02-2016. The grievance committee consisting the following members and invitees to examine all grievance received time to time from employees of UHS, Bagalkot. All the grievance are to be addressed to member convener and the committee meeting was held on 15-03-2017, in the Chairmanship of Director of Education to provide a solution in connection with grievance received from teaching and non teaching employees of UHS, Bagalkot upto 15-03-2017 and committee recommended the UHS, competent authority to take further actions.

**GRIEVANCE REDRESSAL COMMITTEE**

<b>Chairman</b>	
1.	Director of Education, UHS, Bagalkot
<b>Members</b>	
2.	Director of Research, UHS, Bagalkot
3.	Director of Extension, UHS, Bagalkot
4.	Registrar, UHS, Bagalkot
5.	Dean, Student Welfare, UHS, Bagalkot
6.	Comptroller, UHS, Bagalkot
<b>Member Convener</b>	
7.	Administrative Officer, UHS, Bagalkot
<b>Invitees</b>	
1.	President, Teacher Welfare Association, UHS, Bagalkot
2.	President, Non-teaching Employees Association (R), UHS, Bagalkot

**12.1.5 Vigilance Cell**

In order to bring transparency in administration by controlling corruption, nepotism and indiscipline, to improve the efficiency in public administration, Karnataka Lokayukta Act was established in 1984. Under this act, to control the corruption effectively in the State, Government has taken step to start the Vigilance cell in each of the Government Departments in the State vide order

No.: ಸಿ.ಆ.ಸು.ಇ./14/ಸೇ.ಲೋ.ಯು. 2016, Bangalore, dated: 14-03-2016. As per the government directive, the Vigilance Cell was established in the UHS, Bagalkot Vide order No. ತೋ.ಇ.83.ತೋ.ಸ.ವಿ./2016, Bangalore, dated: 05-01-2017 and Director of Education, UHS, Bagalkot was nominated as a Chief Vigilance Officer for the Vigilance Cell at UHS, Bagalkot. The enquiries carried out under Vigilance Cell are as follows:

Opening Balance	Enquiries (No.)	Total Issues	Final report of issues by the enquiring officer	Order issued by the disciplinary committee	Remaining issues
(1)	(2)	(3)	(4)	(5)	(6) 3-5=6
-	15	15	03	08	07

### 13. OTHER SIGNIFICANT EVENTS

#### 13.1 Convocation

The VI Convocation of the University was held on 24<sup>th</sup> January 2017. Sri. S. S. Mallikarjun, Hon'ble Minister of Horticulture & Agricultural Marketing and the Pro-Chancellor of UHS-B presided over the convocation. Padmashree Dr. K. L. Chadha, President, Horticultural Society of India, New Delhi and Former DDG (Hort.), ICAR, New Delhi was the Chief Guest. During the convocation, 412 students of

B.Sc. (Hort.), 105 students of M.Sc. (Hort.) and 12 students of Ph.D. were conferred with the degrees.

Ms. Delna Rose S, student of COH, Kolar emerged as Golden girl bagging 18 gold medals, Hon'ble Minister of Horticulture and Agriculture Marketing Shri. S. S. Mallikarjun honored the gold medalists; Chief Guest Padmashree Dr. K L Chadha delivered the convocation address in the gracious presence of Hon'ble Vice-Chancellor, members of BOM & academic council.

#### Gold Medal Awardees in B.Sc.(Hort.)

	Name	Gold Medals	College
1	Delna Rose S	18	Kolar
2	Prasad Shivappa Karoshi	4	Arabhavi
3	Shilpashree N	3	Bidar
4	Ganesh M C	3	Mysuru
5	Anusha Ramesh Bhagwat	2	Sirsi
6	Shwetha Desai	2	Munirabad
7	Meghalakshmi Guddad	1	Bagalkot
8	Jasmitha B G	1	Sirsi
9	Sunil Gandavvagol	1	Bagalkot

#### Gold Medal Awardees in M.Sc.(Hort.)

	Name	Gold Medals	Discipline
1	Mahantagouda G Rajolli	4	Vegetable Science
2	Sampath P M	3	Fruit Science
3	Anuradha Rajkumar Wadgave	3	FLA
4	Chaitra A Poleshi	3	BCI
5	Madhushree M	2	PHT
6	Mahantesh P S	1	PSMA
7	Bhavya V P	1	SS & AC

### 13.2 URC Team at UHS-B

The URC team visited the university on 12<sup>th</sup> to 14<sup>th</sup> October, 2016 to review the progress & development of the university and expressed satisfactory appreciation.

### 13.3 ICAR Accreditation Team at UHS-B

The ICAR accreditation team visited the main campus and constituent colleges during April 2016. After reviewing the growth and development, ICAR granted accreditation to “main campus and all the constituent colleges” of the University up to March 2019.

### 13.4 Institutional Capacity Building

1. Hon’ble Chief Minister GOK, Sri. Siddaramaiah inaugurated the college building and also laid the foundation stone for UG hostels of COH, Bengaluru.

2. Inauguration of Raitha Vikas Bhavan and PG Hostel at UHS-B main campus by Hon’ble Minister of Horticulture and Agriculture Marketing Shri. S. S. Mallikarjun.
3. Plant Tissue Culture Laboratory at COH, Sirsi was inaugurated by Shri Vishveshwar Hegde Kageri, former Minister, Sirsi on 5-5-2016
4. Inauguration of Soil, Water and Plant Diagnostic Centre on 24-01-2017 by Hon’ble Minister Shri S S Mallikarjun in the presence of distinguished guests.

### 13.5 Foundation Day

The 8<sup>th</sup> foundation day of UHS-B was celebrated great opulence on 22-11-2016. The function was inaugurated by Shri. Ramesh Halagali, Former Deputy Chief of Indian Army in the presence of Hon’ble Vice-Chancellor Dr. D L Maheswar, UHS-B and other distinguished guests.



**VI Convocation**



**URC Team at UHS-B**



**ICAR Accreditation Team Review**



**Inauguration of Raitha Vikas Bhavan**



**Inauguration of Plant Tissue Culture Laboratory**



**Inauguration of Soil, Water and Plant Diagnostic Centre**



**Inauguration of Green Graduation**



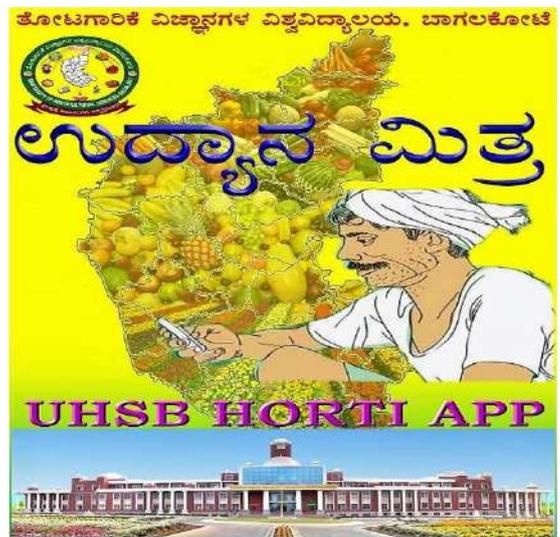
**Inauguration of Udyana Sahaya Vaani**



**Farmers To Farmers' Training**



**Prativaar Parihara**



**Udyana Mitra**

## 14. NEW INITIATIVES

### 14.1 Green Graduation- A Novel Concept

Green environment plays a vital role in human health. Green environment ensures a balance in nature with respect to optimum and timely rainfall, temperature control and reduction in carbon dioxide level. It is also well documented that “*contact with nature*” is vital for psychological, physical and spiritual health. The healing power of nature has been applauded by parks advocates, landscape architects and horticulture patrons. The famous writer, Frank Lloyd rightly cites that “*The best friend of man on earth is the tree*”. When we use the tree respectfully and economically, we have one of the greatest resources on the earth.

Tree plantations not only beautify the environment but also contribute to soil fertility, groundwater enrichment and maintenance of ecological balance of the natural beings. They also contribute a lot in prevention of pollution. Planting trees and maintaining them is of immense importance in eliminating exposure to health risks as trees purify the air by absorbing carbon dioxide and maintain the temperature and atmospheric humidity by their vital activities like transpiration and photosynthesis.

To promote healthier, kinder, smarter, more effective, more resilient, more beautiful more vital populace, the University has designed a unique and novel initiative known as “**Green Graduation program**” to provide every individual student with regular, diverse advantages of green wealth.

The green graduation program is a *one student-one tree* concept and is a part of the sustainable development goal by World Health Organization. The University intends to implement it in its true spirit by assigning a student to plant a sapling who gets enrolled and this would ingrain environmental consciousness and love of nature among them thereby leaving an everlasting impression in their alma mater.

As per this program, students will have to plant a sapling and nurture it all through their four years’ term. At the end of their graduation, they will be awarded with a green graduation certificate along with the photo of plant species nurtured by him/her, which will be cherished by the students as a memory of their student life.

So far 1135 species of plants belonging to different families have been planted by the students of university in the 9 constituent colleges and thus UHS-B is making its own efforts to make the environment green, healthy and beautiful.

### 14.2 Udyana Sahaya Vani –Toll free Helpline to Farmers

The extension wing of the University has reached even closer to farmers by launching Udyana Sahaya Vani–Toll free number -1800425 7910 on 3<sup>rd</sup> September, 2016 for the benefit of farmers. The UHS-B helpline works on all working days from 9.00 AM to 5.00 PM and on Saturday 9.00 AM to 1.00 PM. Farmers of Karnataka have utilized this service very well as this was evidenced by attending 3943 calls. Farmers have enquired and received solutions from our scientists through this toll free service in the area *viz.*, Fruits and vegetable production technology, flowers and medicinal crops production technology, fertilizer application, drip and fertigation schedules, seeds and seedling availability, cereals, pulses, commercial crop and oilseed production technology, subsidy availability in various departments, marketing and processing information of horticulture produce, pests and diseases of horticulture crops, weed management in different crops, horticulture fair 2016, stall reservation UHS publications, training and admission procedures to various programs.

### 14.3 Prativara Parihara

The new initiative by Directorate of Extension **Prativara Parihara** has attracted many farmers on every Monday who visited different centers and resolved their crop related problems.

Centers		Farmers visited
1	HEEU, Bagalkot	165
2	HEEU, Kumbapur	53
3	HEEU, Arabhavi	98
4	HEEU, Munirabad	63
5	HEEU, Haveri	83
6	HEEU, Arasikere	66
7	HEEU, Bengaluru	36
8	HEEU, Bidar	58
9	KVK, Kolar	152
10	HEEU, Mysore	126
11	HEEU, Vijayapur	42
12	HEEU, Yadagiri	31
13	HEEU, Sirsi	46
<b>Total</b>		<b>1019</b>

#### 14.4 Technology transfer from Awardee

##### Farmers to Farmers

The University through its Directorate of Extension organized “Farmers to Farmers” training at its 12 HEEUs, where in awardee farmers were invited as resource person to share their achievement details to other farmers on first day and remaining two days the farmers were taken to fields of awardee farmers to observe their field. In each training 8 awardee farmers were invited and beneficiary farmer’s number was 30. In the current year University has organized 50 FTF training benefitting 1466 farmers.

##### 14.5 Udyana Mitra (Horti App) –Farmers Friend in Need

The UHS-B has developed an android based mobile Horti App called **Udyana Mitra**, a friend for horticulture farmers in their palm. This App is available in Google Play store and can be downloaded. It’s a new initiative by the university to provide detailed information about the horticulture crops like fruit crops (22), vegetable crops (43),

plantation crops (21) flower crops(17) medicinal and aromatic crops (22) , PHT(12),special studies (31) and reach the farming community. Farmers can upload the pictures of their problematic crops and obtain solutions from the experts instantly. It is an interactive facility to promote skill and information technology. Farmers can get timely opinion directly from the experts for crop improvement and obtain instant response and solutions from the experts. Udyana Mitra (Horti App) can be used for following purposes:

1. To get information about modern farming techniques.
2. Information and advices from farm site to market.
3. Farmers can view success stories of the progressive farmers.
4. Consult discipline wise crop wise experts and get crop specific suggestions.
5. Farmers can get picture-based solutions to their crops & field problems.
6. Instant solutions to famers from the experts.

## Hon'ble Members, Board of Management

Chairman	
1	Dr. D. L. Maheswar, Vice-Chancellor, UHS, Bagalkot
Members	
2	Principal Secretary, Department of Horticulture, GOK, Bengaluru
3	Principal Secretary, Department of Finance, GOK, Bengaluru
4	Sri Basavaraj Neelappa Shivannavar, MLA, Bydagi, District: Haveri
5	Sri Gurupadagouda Sanganagouda Patil, MLA, Ron, District: Gadag
6	Sri R. Chowda Reddy Thoopalli, MLC, Kolar
7	Sri Prabhash Chandra Ray, Commissioner of Horticulture, GOK, Bengaluru
8	Dr. T. Janakiram, Asstt. Director General (Hort. Sci.-I), ICAR, New Delhi
9	Dr. H. B. Lingaiah, Director of Education (I-c), UHS, Bagalkot
10	Dr. K. M. Indires, Dean, COH, Mysuru
Member Secretary	
11	Dr. A. B. Patil, Registrar, UHS, Bagalkot

## Officers of the University

	Name	Designation
1	Dr. D. L. Maheswar	Vice-Chancellor
2	Dr. H. B. Lingaiah	Director of Education
3	Dr. V. Nache Gowda	Director of Research
4	Dr. Y. K. Kotikal	Director of Extension
5	Dr. A. B. Patil	Registrar & Administrative Officer
6	Dr. N. Basavaraja	Dean (PGS)
7	Dr. K. N. Kattimani	Dean Students Welfare
8	Dr. R. C. Jagadeesh	University Librarian
9	Dr. Umesh K.	Dean, COH, Bengaluru
10	Dr. H. B. Patil	Dean, COH, Bagalkot
11	Dr. M. S. Kulkarni	Dean, KRCCH, Arabhavi
12	Dr. K. N. Srinivas	Dean, COH, Kolar
13	Dr. S. I. Athani	Dean, COH, Sirsi
14	Dr. K. M. Indiresh	Dean, COH, Mysuru
15	Dr. P. M. Gangadharappa	Dean, COH, Munirabad
16	Dr. Ravindra Mulge	Dean, COH, Bidar
17	Sri D. L. Sutagatti	Comptroller
18	Sri V.G. Jotennavar	Estate Officer
19	Dr. Ashok S. Alur	Special Officer, Regional Liaison Office, Bengaluru

## Members of Academic Council

Chairman	
1	Hon'ble Vice-Chancellor, UHS, Bagalkot
Members	
2	Registrar, UHS, Bagalkot
3	Director of Research, UHS, Bagalkot
4	Director of Extension, UHS, Bagalkot
5	Dean PGS, UHS, Bagalkot
6	Dean Students Welfare, UHS, Bagalkot
7	Dean, COH, Bagalkot
8	Dean, KRCCH, Arabhavi
9	Dean, COH, Bengaluru
10	Dean, COH, Bidar
11	Dean, COH, Kolar
12	Dean, COH, Munirabad
13	Dean, COH, Mysuru
14	Dean, COH, Sirsi
15	Nodal Officer,CHEFT, Haveri
16	Dean, HC&RI,TNAU, Coimbatore
17	University HOD,PSMA crops
18	University Head Dept. of Entomology
19	Professor Head Dept. of BCI, COH, Bengaluru
20	Director of Horticulture, GOK, Bengaluru
Member Convener	
21	Director of Education, UHS, Bagalkot

**Members of Research Council**

<b>Chairman</b>	
1	Hon'ble Vice-Chancellor,UHS, Bagalkot
<b>Members</b>	
2	Director of Horticulture, Bengaluru
3	Director of Agriculture - Nominated Joint Director of Agriculture, Department of Agriculture, Bengaluru
4	Director of Agriculture Marketing ,Bengaluru
5	Director of Watershed Management, Bengaluru
6	Chief Conservator of Forest, Research and Training, Bengaluru
7	Director KSNDMC, Bengaluru
8	Director National Bureau of Agriculturally important Insects, Bengaluru
9	Director of Education, UHS, Bagalkot
10	Registrar, UHS,Bagalkot
11	Director of Extension, UHS, Bagalkot
12	Dean, PGS, UHS, Bagalkot
13	Dean, Students Welfare, UHS, Bagalkot
14	Dean, KRCCH, Arabhavi
15	Dean, COH, Bidar.
16	Dean, COH, Bagalkot
17	Dean, COH, Kolar
18	Dean, COH, Mysuru
19	Dean, COH, Sirsi.
20	Dean, COH,Munirabad
21	Dean, COH, Bengaluru
22	ADRE, MHREC,UHS,Bagalkot
23	ADRE, RHREC, Dharwad
24	ADRE, RHREC, Bengaluru
25	Shri. C. R. Sorgavi, Ex-MLC and Chairman of Sufala Pomegranate Growers Association, Bilgi.
26	Dr. C.L.L. Gowda, Deputy Director General Research, ICRISAT, Hyderabad
27	Shri. Sharan Angadi, Bengaluru
28	Shri. K. Srinivas Gowda, Chikkaballapur
29	General Manager - Head, Safal Market,Bengaluru
30	Director - Nominated member, IIHR, Bengaluru
31	Director - Nominated member, CFTRI,Mysuru
32	Managing Director - Nominated member, KAPPEC, Bengaluru
33	Managing Director, HOPCOMS, Bengaluru
34	University Head (Fruit Science) - Dr. S. I. Athani, Dean, COH, Sirsi
35	University Head (Vegetable Science) - Dr. H. B. Patil, Head, HRES, Vijayapur
36	University Head (PSMA) – Dr. Umesh. K, Dean, COH, Bengaluru
37	University Head (FLA)- Dr. Balaji S. Kulkarni, Prof. of Floriculture, KRCCH, Arabhavi
38	University Head (BCI)- Dr. B. G. Prakash, Professor of BCI,COH,Mysuru
39	University Head (NRM)- Dr. T. B. Basavaraju, Prof of Agronomy & Head, HRES, Arasikere
40	University Head (Plant Pathology)- Dr. N. Tammaiah, Head, AICRP (Fruits), KRCCH, Arabhavi
41	University Head (PHT) - Dr. K. N. Sreenivas, Professor of PHT, COH,Bengaluru
42	University Head (Entomology) - Dr. Prasad Kumar, COH, Mysuru
43	University Head (Social Science) - Dr. M. G. Kerutagi, Prof. of Agril. Economics, KRCCH, Arabhavi
<b>Member Secretary</b>	
44	Director of Research, UHS, Bagalkot

## Members of Extension Education Council

Chairperson	
1.	Hon'ble Vice Chancellor, UHS, Bagalkot
Members	
2.	Director of Horticulture, Lalbagh, Bengaluru
3.	Director of Agriculture, Bengaluru
4.	Director of Agricultural Marketing, Bengaluru
5.	Director of Women and Child Welfare, Bengaluru
6.	Conservator of Forest, Research and Training, Bengaluru
7.	Director, IIHR, Bengaluru
8.	Director, CFTRI, Mysuru
9.	The Managing Director, KAPPEC, Bengaluru
10.	General Manager-Head, Safal Market Unit (Mother Dairy-Food Process Ltd), Bengaluru
11.	The Director, Department of Watershed, Bengaluru
12.	Director of Education, UHS, Bagalkot
13.	Director of Research, UHS, Bagalkot
14.	Registrar, UHS, Bagalkot
15.	Dean (PGS), UHS, Bagalkot
16.	Dean Students Welfare, UHS, Bagalkot
17.	Dean, COH, Bagalkot
18.	Dean, KRCCH, Arabhavi
19.	Dean, COH, Bidar
20.	Dean, COH, Kolar
21.	Dean, COH, Mysuru
22.	Dean COH, Sirsi
23.	Dean, COH, Munirabad
24.	Dean, COH, Bengaluru
25.	ADRE, MHREC, UHS, Bagalkot
26.	ADRE, RHREC, Dharwad
27.	ADRE, RHREC, Bengaluru
28.	University Head Dept. of Fruit Science, UHS, Bagalkot

29.	University Head Dept. of Vegetable Science, UHS, Bagalkot
30.	University Head Dept. of FLA,UHS, Bagalkot
31.	University Head Dept. of PSMA,UHS, Bagalkot
32.	University Head Dept. of BCI, UHS,Bagalkot
33.	University Head Dept. of Entomology,UHS, Bagalkot
34.	University Head Dept. of Plant Pathology,UHS, Bagalkot
35.	University Head Dept. of NRM, UHS, Bagalkot
36.	University Head Dept. of PHT, UHS, Bagalkot
37.	University Head Dept. of SAS, UHS, Bagalkot
38.	Sri B. S. Kudare, Progressive Horticulture Farmer, Bidar
39.	Sri Ajayakumar Sarnaik, Progressive Horticulturist and Chairman, DCC Bank, Bagalkot
40.	Dr. L. Krishna Naik, Former Director of Extension, UAS, Dharwad
41.	Sri C. R. Vijayakumar, Agri-Horti Industrialist and Technical Advisor to CDB,Bengaluru
42.	The Managing Director, HOPCOMS, Bengaluru
43.	The Director, Rural Development and Panchayat Raj, Bengaluru
44.	The Director, Department of Co-operation, Bengaluru
45.	The Director, Department of Water Resources, Bengaluru
46.	The Director, Department of Karnataka State Seeds Corporation, Bengaluru
47.	The Director, Department of Karnataka State Seeds Certification Agency, Bengaluru
48.	The Executive Director, Karnataka Farmers' Resource Centre, Bagalkot
49.	The Managing Director, Karnataka State Agriculture Marketing Board, Bengaluru
<b>Member Secretary</b>	
50.	Director of Extension, UHS, Bagalkot

## Members of Sports &amp; Cultural Council

Chairman	
1	Hon'ble Vice-Chancellor, UHS, Bagalkot
Members	
2	Director of Education, UHS, Bagalkot
3	Registrar and In-Charge Administrative Officer, UHS, Bagalkot
4	Director of Research, UHS, Bagalkot
5	Director of Extension, UHS, Bagalkot
6	Dean(PGS), UHS, Bagalkot
7	Dean, KRCCH, Arabhavi
8	Dean, COH, Bagalkot
9	Dean, COH, Mysuru
10	Dean, COH, Bidar
11	Dean, COH, Munirabad
12	Dean, COH, Sirsi
13	Dean, COH, Bengaluru
14	Dean, COH, Kolar
15	Nodal Officer, CHEFT, Haveri
16	Estate Officer, UHS, Bagalkot
17	Dr.R. M. Hiremath, Asst. Professor of PE
18	Deputy Comptroller,UHS, Bagalkot
19	Programme Coordinator,NSS, UHS,Bagalkot
Member Secretary	
20	Dr. K.N.Kattimani, Dean, Student Welfare, UHS, Bagalkot

**Members of Board of Studies (Graduate Program)**

Chairman	
1.	Director of Education, UHS, Bagalkot
Members	
2.	Registrar, UHS, Bagalkot
3.	Director of Research, UHS, Bagalkot
4.	Director of Extension , UHS, Bagalkot
5.	Dean Student Welfare, UHS, Bagalkot
6.	Dean, COH Bengaluru
7.	Dean, COH, Bidar
8.	Dean, COH, Arabhavi
9.	Dean, COH, Mysuru
10.	Dean, COH, Sirsi
11.	Dean, COH, Munirabad
12.	Nodal Officer, CHEFT, Haveri
13.	ADRE, MHREC, UHS, Bagalkot
14.	Head, Pl. Pathology, UHS, Bagalkot
15.	Head, Entomology, UHS, Bagalkot
16.	Head, SAS, UHS, Bagalkot
17.	Head, NRM, UHS, Bagalkot
18.	Head, FLA, UHS, Bagalkot
19.	Dr. R. K. Mesta, Prof. & Head, Dept. of Plant Pathology, COH, Bagalkot
20.	Dr. B. Fakruddin, Prof. & Head, Dept. of BCI, COH, Bengaluru
21.	Dr. C. N. Hanchinamani, Prof.& Head , Dept. of Vegetable Science, KRCCH, Arabhavi
22.	Dr. Shantappa T , Professor COH, Sirsi
23.	Dr. S V Patil, Professor of Agronomy, RHREC, Bengaluru
24.	Dr. Laxminaryan N Hegde, Professor (PSMS), HRES, Sirsi
25.	Dr. E. Rajashekhar, Co-ordinator EE. Cell & Assoc. Prof. COH, Bagalkot
26.	Dr. Aravind Rathod, Assoc. Prof. (Agril. Engg.), COH, Bidar
27.	Dr. D.L. Rudresh, Asst. Prof., COH, Bagalkot
28.	Dr. Shivanand Hongal, Asst. Prof. COH, Sirsi
29.	Dr. Vijayalakshmi P, Asst. Prof.(FLA) COH, Bidar
30.	Dr. Chaya P. Patil, Prof.& Head , NRM, KRCCH, Arabhavi
Member Secretary	
31.	Dean, COH, Bagalkot

## Members of the Board of Studies (Post Graduate Program)

Chairman	
1.	Director of Education
Members	
2.	Director of Research
3.	Director of Extension
4.	Registrar
5.	Dean, KRCCH, Arabhavi
6.	Dean, COH, Bidar
7.	Dean, COH, Bagalkot
8.	Dean, COH, Kolar
9.	Dean, COH, Mysore
10.	Dean, COH, Sirsi
11.	Dean, COH, Koppal
12.	Dean, COH, Bengaluru
13.	Dean, Student Welfare
14.	Special Officer, CHEFT, Haveri
All University Heads of Department of UHS, Bagalkot	
1.	Dr. Nagesh Naik, Professor of Fruit Science, KRCCH, Arabhavi
2.	Dr.C.N. Hanchinamani, Professor of Vegetable Science, KRCCH, Arabhavi
3.	Dr. B.S. Kulkarni, Professor of FLA, COH, Bengaluru
4.	Dr. N.K. Hegde, Professor of Spices and Plantation Crops, COH, Sirsi
5.	Dr. R.C. Jagadeesh, Professor of BCI and Librarian (I/C), COH, Bagalkot
6.	Dr. N. Thammaiah, Professor of Plant Pathology, COH, Mysuru
7.	Dr. Prasad Kumar, Professor of Agril. Entomology, COH, Mysuru
8.	Dr. Ramachandra Naik K., Prof. of PHT, AICRP on Tuber Crops, RHREC, Kumbhapur
9.	Dr. T.B. Basavarju, Professor of Agronomy, COH, Kolar
10.	Dr. M.G. Kerutagi, Professor of Agril. Economics, COH, Bagalkot
Ten Post-Graduate Teachers nominated by the Chairperson in the Cadre of Professor	
1.	Dr. Shankaragowda Patil, Professor of MAP, COH, Kolar
2.	Dr. Janardhan G., Professor of Agronomy, COH, Mysuru
3.	Dr. M.S. Lokesh., Professor of Plant Pathology, COH, Koppal.
4.	Dr. G.S.K. Swamy, Professor of Fruit Science, COH, Mysuru
5.	Dr. Ashok Alur., Professor of SS&AC, COH, Bengaluru
6.	Dr. Kulpathi Hipparagi, Professor of Fruit Science, COH, Bagalkot
7.	Dr. L.H. Kukanoor, Professor of PHT, KRCCH, Arabhavi
8.	Dr. M. Shivanna, Professor of SS&AC, COH, Bengaluru
9.	Dr. Raveendra S. Jawadagi, Professor of Fruit Science, HREC, Tidagundi
10.	Dr. Anjanappa M., Professor of Vegetable Science, COH, Bengaluru
Ten Post-Graduate Teachers nominated by the Chairperson in the Cadre of Associate Professor	
1.	Dr. B.C. Patil, Associate Professor of FLA, KRCCH, Arabhavi.
2.	Mr. G. K. Seetharamu, Associate Professor of FLA, KRCCH, Arabhavi.
3.	Mr. K.N. Gandolkar, Associate Professor of Agronomy, UHS, Bagalkot
4.	Dr. M.H. Tatagar, Associate Professor of Agril. Entomology, KRCCH, Arabhavi
5.	Mr. Aravind M. Rathod, Associate Professor of Agril. Engineering, COH, Bidar
6.	Mr. Basavaraj Tamadaddi, Assoc. Professor of Agro Forestry & Sericulture, MHREC, Bagalkot
7.	Dr. Satish R. Patil, Associate Professor of FLA, COH, Bagalkot

8.	Dr. Basavarajappa M.P., Associate Professor of Plant Pathology, COH, Bagalkot
9.	Dr. K.R. Vasudeva, Associate Professor of PHT, COH, Bengaluru
10.	Mr. Kantharaju V., Assoc. Professor of PAT, AICRP on Tropical Fruits, Arabhavi
<b>Ten Post-Graduate Teachers nominated by the Chairperson in the Cadre of Assistant Professor</b>	
1.	Dr. Mallikarjunagowda A.P., Assistant Professor of PSMA, COH, Bengaluru
2.	Dr. Shankar Meti., Assistant Professor of Agronomy, UHS, Bagalkot
3.	Dr. Basavarajappa H.R., Assistant Professor of Horticulture, UHS, Bagalkot
4.	Mr. Dadapeer A. Peerajade., Asst. Professor of Genetics & Plant Breeding, HREC, Tidagundi
5.	Dr. G.K. Halesh., Assistant Professor of PAT, COH, Bengaluru
6.	Dr. Shashikant Evoor, Assistant Professor of Vegetable Science, COH, Bidar
7.	Ms. Sandhyarani Nishani., Asst. Professor of Biotechnology, KRCCH, Arabhavi
8.	Dr. Amruta S. Bhat., Assistant Professor of PAT, KRCCH, Arabhavi
9.	Dr. Gangadhar Narabenchhi., Asst. Professor of Agril. Entomology, COH, Bagalkot
10.	Dr. Pallavi H.M. Assistant Professor of Seed Technology COH, Mysuru
<b>Two Professors of eminence from outside the University</b>	
1.	Dr. D. Srihari, Dean PGS, Dr. Y.S.R. Horticultural University. Tadepalligudem, West Godhawari Dist., Andhra Pradesh. M: 09848509948
2.	Dr. S.A. Rampise, Head Dept. of Horticulture Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmad Nagar Dist., Maharashtra. M: 09404980456,
<b>Member Secretary</b>	
3.	Dr. N. Basavaraja, Dean Post Graduate Studies, UHS, Bagalkot

Members of Finance Committee

President	
1	Dr. D. L. Maheswar, Vice-Chancellor
Members	
2	Sri. K. Muralidhar, Under Secretary, Finance department, GOK, Bengaluru
3	Smt. Joythi R. J. Under Secretary, Horticulture department, GOK, Bengaluru
4	Dr. T.V. Muniyappa
5	Dr. M.B.Madalgeri, Registrar
Member Secretary	
6	Sri. D.L. Sutagatti, Comptroller

## Meetings of the Authorities of the University

Governing Bodies		Meeting	Date
1.	Board of Management	36 <sup>th</sup>	25-04-2016
		37 <sup>th</sup>	04-08-2016
		38 <sup>th</sup>	21-11-2016
		39 <sup>th</sup>	23-01-2017
2.	Academic Council	20 <sup>th</sup>	18-04-2016
		21 <sup>st</sup>	19-08-2016
		22 <sup>nd</sup>	23-01-2017
3.	Research Council	7 <sup>th</sup>	18-07-2016
4.	Extension Council	7 <sup>th</sup>	17-07-2016
5.	Board of Studies (PG)	15 <sup>th</sup>	12-04-2016
		16 <sup>th</sup>	17-08-2016
		17 <sup>th</sup>	23-01-2017
6.	Board of Studies (Graduate)	13 <sup>th</sup>	12-04-2016
		14 <sup>th</sup>	17-08-2016
		15 <sup>th</sup>	23-01-2017
7.	Finance Committee	13 <sup>th</sup>	25-04-2016
		14 <sup>th</sup>	23-01-2017
8.	Sports & Cultural Council	2 <sup>nd</sup>	18-07-2016

## Existing Staff Position of the University as On 31-03-2017

Particulars		Sanctioned	Filled	Vacant
<b>I</b>	<b>University Main Campus</b>			
	<b>Teaching</b>			
A	Officers	9	7	2
B	Professor	7	2	5
C	Associate Professor	15	5	10
D	Assistant Professor	16	13	3
E	Technical Assistant	4	3	1
	<b>Total</b>	<b>51</b>	<b>30</b>	<b>21</b>
F	<b>Non-Teaching</b>	317	144	173
	<b>Grand Total (A-F)</b>	<b>368</b>	<b>174</b>	<b>194</b>
<b>II</b>	<b>Constituent Colleges</b>			
	<b>Teaching</b>			
A	Dean	8	8	0
B	Professor	28	15	13
C	Associate Professor	52	17	35
D	Assistant Professor	201	188	13
	<b>Total</b>	<b>289</b>	<b>228</b>	<b>61</b>
E	<b>Non-Teaching</b>	421	209	212
	<b>Grand Total (A-E)</b>	<b>710</b>	<b>437</b>	<b>273</b>
<b>III</b>	<b>Horticultural Research Stations</b>			
	<b>Teaching</b>			
A	Professor	4	1	3
B	Associate Professor	9	4	5
C	Assistant Professor	27	23	4
D	Technical Assistant	0	0	0
	<b>Total</b>	<b>40</b>	<b>28</b>	<b>12</b>
E	<b>Non-Teaching</b>	172	82	90
	<b>Grand Total (A-E)</b>	<b>212</b>	<b>110</b>	<b>102</b>
<b>IV</b>	<b>AICRP Schemes</b>			
	<b>Teaching</b>			
A	Associate Professor	3	1	2
B	Assistant Professor	13	12	1
C	Technical Assistant	9	9	0
	<b>Total</b>	<b>25</b>	<b>22</b>	<b>3</b>
D	<b>Non-Teaching</b>	12	10	2
	<b>Grand Total (A-D)</b>	<b>37</b>	<b>32</b>	<b>5</b>
<b>V</b>	<b>HEEU's</b>			
	<b>Teaching</b>			
A	Associate Professor	4	1	3
B	Assistant Professor	17	12	5
C	Technical Assistant	3	1	2
	<b>Total</b>	<b>24</b>	<b>14</b>	<b>10</b>
D	<b>Non-Teaching</b>	9	6	3
	<b>Grand Total (A-D)</b>	<b>33</b>	<b>20</b>	<b>13</b>

**Annual Report 2016-17**

<b>VI Krishi Vijnana Kendra</b>				
	<b>Teaching</b>			
A	Associate Professor	1	1	0
B	Assistant Professor	6	5	1
C	Technical Assistant	3	3	0
	<b>Total</b>	<b>10</b>	<b>9</b>	<b>1</b>
D	<b>Non-Teaching</b>	6	3	3
	<b>Grand Total (Ato D)</b>	<b>16</b>	<b>12</b>	<b>4</b>
<b>Abstract of Staff Position</b>				
A	Officers	9	7	2
B	Dean	8	8	0
C	Professor	39	18	21
D	Associate Professor	84	29	55
E	Assistant Professor	280	253	27
F	Technical-Research Assistant-Farm Manager- Prog. Asst.	19	16	3
	<b>Total</b>	<b>439</b>	<b>331</b>	<b>108</b>
G	<b>Non-Teaching</b>	937	454	483
	<b>Grand Total (A-G)</b>	<b>1376</b>	<b>785</b>	<b>591</b>

## RHREC &amp; HRES

Agro climatic Zone		RHREC-HRES	Estd	Area (ha)	Proposed Mandate Crops
1	Central Dry	Arasikere	1958	48.61	Coconut
2	Hilly	Sirsi	1965	07.10	Areca nut, Pepper, Cardamom, Tree spices, Turmeric, Ginger, Pineapple, Medicinal plants, Garcinia
3	Northern-Transitional	Belgaum (Kanabargi)	1986	08.45	Cashew, Flowers and Vegetables
		RHREC, Dharwad (Kumbapur)	1994	49.52	Mango, Guava, Sapota, Potato, Vegetables
		HRES, Haveri (Devihosur)	2000	31.85	Chilli, Garlic, Vegetables and Annual Spices
4	Northern-Dry	HRES, Vijayapur (Tidagundi)	2002	20.25	Grapes, Pomegranate, Lime, Fig, Jamun, Annona
		MHREC, Bagalkot	2009	120.00	Pomegranate, Mango, Sapota, Coconut, Vegetables, Flowers, Medicinal and Aromatic crops
5	Eastern -Dry	RHREC, Bengaluru	2009	40.00	High-tech Horticultural crops, Mango, Sapota, Guava, Minor fruits Flowers and Medicinal and aromatic Crops
9	Northern-Transitional	Hidkal dam	2009	27.57	Mango, Sapota, minor fruits medicinal and aromatic plants
10	Eastern -Dry	Srinivasapura (Hogalagere)	2009	60.00	Cashew, Mango, Arid zone fruits and Vegetables
11	S-Transitional Zone	Hassan (Somanahalli Kaval)	2013	20.00 (7.50)	Potato, Banana &Vegetables

## AICRP Centres

AICRP		Commencement	Location
1.	AICRP on Palm	1976	HRES, Arasikere
2.	AICRP on Cashew	1982	HRES, Hogalagere
3.	AICRP on Oil Palm	1987	HRES, Gangavati
4.	AICRP on Potato	1993	HRES, Hassan
5.	AICRP on Tropical Fruits	1994	KRCCH, Arabhavi
6.	AICRP on Vegetables	1995	RHREC, Dharwad
7.	AICRP on Tuber crops	2001	RHREC, Dharwad
8.	AICRP on Spices	2006	HRES, Sirsi
9.	AICRP on Cashew (Voluntary centre)	2009	HRES, Kanabargi
10.	AICRP on Grapes (Voluntary centre)	2014	HRES, Vijayapur

Distinguished Visitors

Name of the Visitors		Designation	Date & Place	Purpose
1	Dr. Vijay Singh Thakur	Chairman, ICAR Accreditation Committee and Vice Chancellor	06-04-2016 COH, Bagalkot	To examine facilities for accreditation of COH, Bagalkot
2	Dr. Manjaiah	Member, ICAR Peer Review Team and Associate Deam IARI		
3	Dr. Venkateshwaralu	Member, ICAR Peer Review Team and ADG -ICAR		
4	Dr. S.K.Upadhaya	Member ICAR Peer Review Team		
5	Dr.R.S. Hiremath	Flexitron	30-07-2016 COH, Bagalkot	signed MOU with UHS, Bagalkot
6	Dr. M. Mahadevappa	Member, URC	12-10-2016 COH, Bagalkot	Reviewed the working of the University research in the Dept. of Post Harvest Technology. COH, Bagalkot
7	Prof.Ram Rajasekaran	Director, CFTRI, Mysuru	15-10-2016 COH, Bagalkot	Inaugurated of Horticulture Produce Processing Centre of Dept. of PHT and delivered lecture on the importance of fats in human nutrition
8	Dr. Bangali Baboo	Chairman, ICAR Review Committee, Southern Region	COH, Bagalkot	Review the utilization and impact of SAU grants sanctioned by the ICAR
9	Dr. M.B. Chetti	ADG (HRD), ICAR, New Delhi		
10	Dr. Vijay Singh Thakur,	Vice Chancellor, Dr. Yashwanth Singh Parmar University of Horticulture and Forestry, Nauni, Solan- Himachal Pradesh	04-04-2016. COH, Bengaluru	Peer review team of ICAR visited to all the Colleges on the spot for review the self study report.
11	Dr. K.M Manjaiah,	Principal Scientist, Division of Soil Science & Agril. Chemistry, IARI, New Delhi,		
12	Dr. S.K. Upadhyay,	Prof. & Head, Dept. of Horti. Chaudhari Sarwan Kumar Krishi Vishvavidyalaya, Palampur, Himachal Pradesh		
13	Dr. Venkateshwarlu	ADG (EQR), ICAR, New Delhi		
14	Sri. Siddramaiah	Hon'ble Chief Minister of GoK	20-05-2016 COH, Bagalkot	The College and Farm building inauguration of COH, Bengaluru
15	Sri Krishna Byregowda	Hon'ble Agriculture Minister.GOK		
16	Sri. M. Narayanswamy	MLC		
17	Sri. H.Y Meti,	MLA		
18	Sri. R.V. Venkatesh,	MLC		
19	Sri. J. T. Patil,	MLA & Member, BOM		

20	Sri. Basavaraj Horatti,	MLC & Member, BOM	20-05-2016 COH, Bagalkot	The College and Farm building inauguration of COH, Bengaluru
21	Dr. T.V Muniyappa,	Member, BOM		
22	Smt. Laxmibai Gour	Member, BOM		
23	Sri. H.K Shrikanta,	Member, BOM		
24	Sri. P.S. Suresha,	Member, BOM		
25	Sri G.R. Gujjannavar	Member, BOM		
26	Sri. Rajeev Chawla	Principal Secretary (Horticulture) & Member, BOM		
27	Dr. Nazeer Ahmad	Vice Chancellor, Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir	19-06-2016 COH, Bagalkot	General visit
28	Director	Centre for Natural Resource Management National Institute of RDPR, GOI	24-10-2016 COH, Bagalkot	International training to the selected countries from NIRD, Hyderabad, visited post harvest technology centre
29	Dr. Mahadev B.Chetti	ADG (Education) ICAR	06 -08-2016 COH, Bagalkot	Delivered a talk to the staff on " <i>Activities and new initiatives of Education division of ICAR</i> " at COH, Bengaluru
30	Dr. T. N Prakash,	Chairman, Karnataka Agricultural Price Commission	30-08-2016 COH, Bagalkot	Stakeholders workshop
31	Shri Hanumana Gowda Belagurki	Member, KAPC		
32	Dr. Parashiva Murthy	Additional Director of Horticulture, Dept. of Horticulture		
33	Dr. R. Selvamani	CEO, Bidar	02-01-2017 COH, Bidar	Visited and discussed about the introduction of millets in perennial horticulture crops as inter crop.
34	Dr. R. R. Hanchinal	Chairperson, Protection of Plant. Varieties and Farmers Rights Authority, GOI, New Delhi.	22-02-2017 COH, Bidar	Advised the faculty about the PPV & FR
35	Mr. Harshabanu	Assistant Conservatory of Forest	13-07-2016 COH, Munirabad	Delivered a lecture on the occasion of Dr. Jagaadeesh, H.M. Memorial function
36	Dr.Venkatesh, J.	Director of Education, UHS, Bagalkot	20-07-2016 COH, Munirabad	Visited College and interact with the teaching staff
37	Dr.A.B.Patil	Registrar, UHS, Bagalkot		
38	Dr.D.L.Maheswar	Hon'ble Vice-Chancellor, UHS, Bagalkot	02-08-2016 COH, Munirabad	Inauguration of Skill development Training Programme at COH, Munirabad

39	Dr. Nachegowda	Director of Research, UHS, Bagalkot	20-08-2016 COH, Munirabad	Visited the college & interacted with scientists on research progress
40	Sri. Rajendra	SADH, Hospet	31-08-2016 COH, Munirabad	Closing session of Skill development Training Programme at COH, Munirabad
41	Dr. D. L. Maheswar	Hon'ble Vice-Chancellor, UHS, Bagalkot	01-11-2016 COH, Munirabad	Visited college and attended the Karnataka Rajyostava programme as a chief guest
42	Dr. V. Nachegowda	Director of Research	03-11-2016 COH, Munirabad	Visited College and held review meeting with the teaching staff
43	Dr. D. R. Patil	Assoc. Director of Research, UHS, Bagalkot		
44	Dr. K.N.Kattimani	Dean (Student Welfare), UHS, Bagalkot	16-11-2016 COH, Munirabad	Visited in connection with the preparations of VIII Inter Collegiate Group Meet 2016-17
45	Mr. Prabhat Hegde	Land solutions, Goa	19-11-2016 COH, Munirabad	Presented the guest lecture on opportunities and scope in Landscape Architecture to B.Sc.(Hort.) students.
46	Dr. D.L. Maheswar	Hon'ble Vice Chancellor, UHS, Bagalkot	05-02-2017 COH, Munirabad	Reviewed the progress of COH, Munirabad
47	Dr.Y.K.Kotikal	Director of Extension, UHS, Bagalkot	06-03-2017 COH, Munirabad	Attended the farmers to farmers training programme as a chief guest
48	Dr. D.L. Maheswar	Hon'ble Vice Chancellor, UHS, Bagalkot	07-03-2017 COH, Munirabad	Attended the Annual Technical Meet of Plant Pathology
49	Dr. P.M.Salimath	Hon'ble Vice Chancellor, UAS, Raichur	09-03-2017 COH, Munirabad	Inuaguration of Farmers to Farmers (II) Training Programme at COH, Munirabad
50	Mr. T. Sudhakar	Deputy General Manager, Agricultural and Processing Food products and Export Development Authority (APEDA), Hyderabad	16-06-2017 COH, Mysuru	Addressed faculty about Agricultural and Processing Food products and Exporting activities of Vegetables and Fruits.
51	Dr. M.B. Chetty, Dr. P. M. Salimath	ADG (HRD), ICAR, New Delhi VC, UAS, Raichur	07-08-2016 COH, Mysuru	Witnessed the ongoing activities of the college campus, & interacted with the staff of COH, Mysuru.
52	Dr. D.L. Maheswar	VC, UHS, Bagalkot	23-08-2016 COH, Mysuru	Participated in the "IFS Training Programme" organized by IFS Unit, COH, Mysuru as Chief guest.

**Annual Report 2016-17**

53	Dr. A.S. Kumarswamy	Rtd., DOE, UAHS, Shivamoga	24-10-2016 COH, Mysuru	Fresher's Day Celebration
54	Prof. Niranjana Vanalli	Registrar, Karnataka State Dr. Gangubai Hangal Music and Performing University, Mysuru	23-02-2017 COH, Mysuru	Chief Guest for the Annual College and Hostels Day
55	Dr. S.V. Hithalamani	Addl. Director of Horticulture (Rtd.)	24-03-2017 COH, Mysuru	Attended the "Phalasiri" Radio Series Programme organized at Seminar Hall of the College by HEEU.
56	Dr. Ramakrishnappa	Addl. Director of Horticulture (Rtd.)	24-03-2017 COH, Mysuru	-
57	Dr. Vijay Singh & other 4 members	Chairman, ICAR- Peer Review Team	06-04-2016 COH, Sirsi	ICAR- Peer Review Team for Accreditation of the college
58	Dr. D.L. Maheswar	Hon'ble Vice Chancellor, UHS-B		
59	Sri. Vishweshwar Hegde Kageri	MLA, Sirsi-Siddapur	05-05-2016 COH, Sirsi	Opening ceremony of Tissue Culture, laboratory
60	Sri. Anantha Hegde Ashishar	Laksha vrisksha Andolana		
61	Dr. D.L. Maheswar	Hon'ble Vice Chancellor, UHS-B		
62	Dr. T.V. Muniyappa	Hon'ble Board Member, UHS, Bagalkot		
63	Smt. Laxmibai Gour			
64	Mr. G. R.Gujjannavar			
65	Mr. P.S. Suresh			
66	Dr. M.B. Madalageri	Registrar, UHS, Bagalkot		
67	Dr. Y.K. Kotikal	DSW, UHS, Bagalkot		
68	Mr. Nagarjungouda	SADH, ZP, Sirsi		
69	Dr. J. Venkatesh	DOE, UHS, Bagalkot	29-07-2016 COH, Sirsi	Attended farewell function
70	Dr. S.B.Dandin	Former Vice Chancellor, UHS, BAGALKOT & Director of Bioversity Board, Bengaluru	26-08-2016 COH, Sirsi	Monitoring of Bioversity research blocks at COH, Sirsi and HRES, Sirsi.
71	Dr. D.L. Maheswar	Hon'ble Vice Chancellor, UHS, Bagalkot	23-02-2017 COH, Sirsi	Participated in PSMA Annual Technical Meet held at COH, Sirsi
72	Sri. K. Raju Mogaveer,	Asst. Commissioner, Sirsi	03-03-2017 COH, Sirsi	Celebration of College & Hostels Day for the year 2016-17
73	Dr. K.N.Kattimani	DSW, UHS, BAGALKOT		
74	Dr. Basappa H.	Dean, COF, Sirsi		

## Training Programmes Organized

Title		Duration	Type of Beneficiaries	Number of Beneficiaries
1	Agriclinic and Agribusiness (ACABC) training	13-07-2016 to 10-09-2016	Farm Graduates	33
2	Terrace Gardening	17-8-2016	Farmers	32
3	Skill Development in Horticulture	9-9-2016 to 8-10-2016	Farm youths	32
4	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	18-1-2017 to 20-01-2017	Farmers	30
5		23-1-2017 to 25-01-2017	Farmers	20
6		30-01-2017 to 01-02-2017	Farmers	25
7		02-02-2017 to 04-02-2017	Farmers	13
8		06-02-2017 to 08-02-2017	Farmers	25
9		09-02-2017 to 11-02-2017	Farmers	30
10		13-02-2017 to 15-02-2017	Farmers	30
11		16-02-2017 to 18-02-2017	Farmers	30
12		20-02-2017 to 22-02-2017	Farmers	30
13		27-02-2017 to 01-3-2017	Farmers	30
14		02-03-2017 to 04-03-2017	Farmers	30
15		06-03-2017 to 08-3-2017	Farmers	30

16	Empowerment of Farm Women	27-12-2016 to 29-12-2016	Agriculture officials	17
17	Skill development in Horticulture	02-01-2017 to 11-01-2017	Rural Farm Youths	36
18	Formation of FIG and CIG and value addition	19-10-2016 to 21-10-2016	Agriculture officials	18
19	Induction training to AHO and ADH probationary officers	17-10-2016 to 11-11-2016	AHO and ADH of Horticulture Department	54
20	Induction training to AHO and ADH probationary officers	14-11-2016 to 09-12-2016	AHO and ADH of Horticulture Department	55
21	Value addition to Fruits and vegetable and competition	02-01-2017	Farm women	73
22	Soil Health and Conservation	02-04-2016	Farmers	207
23	Mango and Guava Production Technology	03-02-017	Farmers	150
<b>HEEU, Arabhavi</b>				
24	ICM in Potato	06-06-2016	Farmers	62
25	ICM in Vegetables	13-06-2016	Farmers	34
26	Plant Protection in Chilli and Bitter gourd	23-07-2016	Farmers	29
27	Skill development in Horticulture	01-08-2016 to 31-08-2016	for rural youths	40
28	Induction training programme to AHO and ADH Probationary Officers	17-10-2016 to 11-11-2016	Probationary AHO's and ADH	54
29		14-11-2016 to 09-12-2016	Probationary AHO's and ADH	54
30		13-12-2016 to 07-01-2017	Probationary AHO's and ADH	95
31	Organic Farming	13-01-2017	Farmers	41
32	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	01-02-2017 To 03-02-2017	Farmers	30
33		07-02-2017 to 09-02-2017	Farmers	30
34		14-02-2017 to 16-02-2017	Farmers	30
35		21-02-2017 To 23-02-2017	Farmers	30

36		27-02-2017 to 01-03-2017	Farmers	30
37	Protected Cultivation	27-03-2017 to 05-04-2017	Farmers	14
38	ICM in Turmeric	21-06-2016	Farmers	47
39	Plant Protection in vegetables & IPM of Root Grub	01-07-2016	Farmers	48
40	Use of Mycorrhiza in chilli- organic cultivation of chilli	21-07-2016	Farmers	29
41	Technological innovations in Horticulture Crops	04-10-2016	Farmers	95
<b>HEEU, Dharwad</b>				
42	Organic Farming and improved cultivation techniques in Vegetable and input distribution	05-08-2016	Farmers	100
43	Pest management in vegetables	19-08-2016,	Farmers	50
44	Fruit fly Management in horticultural Crops	31-08-2016	Farmers	100
45	Integrated Farming System	13-10-2016	Farmers	75
46	Pest Management in Cucurbits	21-11-2016	Farmers	100
47	Improved cultivation practices in Vegetables	03-12-2016	Farmers	45
48	Organic Farming and improved cultivation techniques in Vegetables	05-08-2016	Farmers	100
49	Importance of Beekeeping In Horticultural Crops	07-12-2016	Farmers	100
50	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	23-01-2017 to 25-01-2017	Farmers	30
51		30-01-2017 to 01-02-2017	Farmers	30
52		02-03-2017 to 04-03-2017	Farmers	30
53		07-03-2017 to 09-03-2017	Farmers	30
<b>HEEU, Munirabad</b>				
54	Modern production technology of onion.	08-07-2016	Farmers	78
55	Skill Development training in Horticulture	01-08-2016 to 30-08-2016	Farm youths	38

56	Onion Production technology	07-10-2016	Farmers	80
57	Weed management in horticulture crops	18-10-2016	Farmers	39
58	Management of pest and diseases in Banana	09-11-2016	Farmers	64
59	Management of pest and diseases in Chilli	12-11-2016	Farmers	26
60	Management of pest and diseases in Chilli and Ber.	12-11-2016	Farmers	43
61	Importance of organic farming in Horticulture	06-12-2016	Farmers	50
62	Farming system approach	07-12-2016	Farmers	40
63	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	06-03-2017 to 08-03-2017	Farmers	30
64		09-03-2017 to 11-03-2017	Farmers	30
65		14-03-2017 to 16-03-2017	Farmers	30
66	Banana Production technology	17-03-2017	Farmers	60
67	Mango production technology	27-03-2017	Farmers	60
<b>HEEU, Haveri</b>				
68	Improved cultivation practices in onion	04-06-2016	Farmers	75
69	Improved cultivation practices for Horticulture crops	13-08-2016	Farmers	90
70	Improved cultivation practices for Horticulture crops	20-08-2016	Farmers	40
71	Improved cultivation practices for Horticulture crops	01-10-2016	Farmers	53
72	Improved cultivation practices for Horticulture crops	07-10-2016	Farmers	64
73	Improved cultivation practices in watermelon	03-11-2016	Farmers	50
74	Improved cultivation practices in watermelon	11-11-2016	Farmers	45
75	Production and enrichment of vermicompost to farm women	23-11-2016	Farmers	35
76	Improved cultivation practices in chilli	23-12-2016	Farmers	150
77	Improved cultivation practices in chilli	03-01-2017	Farmers	120
78	Improved cultivation practices in chilli, garlic, coriander and methi	06-01-2017	Farmers	105
79		07-01-2017	Farmers	105
80	Improved cultivation practices for Fruit crops	19-01-2017	Farmers	72

81	Improved cultivation practices in mango	20-01-2017	Farmers	50
82	Improved cultivation practices in chilli	21-01-2017	Farmers	102
83	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	27-01-2017 to 29-01-2017	Farmers	30
84		02-02-2017 to 04-02-2017	Farmers	30
85	Improved cultivation practices in Tamarind, coriander and curry leaf.	04-02-2017	Farmers	105
86	Quality seed production in chilli	08-02-2017	Farmers	75
<b>HEEU, Arasikere</b>				
87	Integrated Pest and disease management in coconut	20-08-2016	Farmers	56
88	Benefits of Modern Technologies and adaption in Coconut Cultivation	05-10-2016	Farmers	52
89	Modern Technologies in coconut cultivation	07-11-2016	Farmers	50
90		29-12-2016	Farmers	25
91	Modern Technologies adaption in Ginger & Coconut Crop Cultivation	04-01-2017	Farmers	61
92	Farming system in coconut	05-01-2017	Farmers	25
93	Moisture conservation and pest management in coconut	06-01-2017	Farmers	43
94	Integrated pest and disease management in tomato	20-01-2017	Farmers	60
95	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	08-02-2017 to 10-02-2017	Farmers	30
96		15-02-2017 to 17-02-2017	Farmers	30
<b>HEEU, Bengaluru</b>				
97	Processing and Value addition in horticulture crops	18-07-2016	Farmers	23
98	Protected Cultivation of flower crops	25-07-2016	Farmers	15
99	Production and Protection of vegetables	26-07-2016	Farmers	65
100	Fruits and Vegetables processing and storage	28-10-2016	Farmers	30
101	Flower cultivation	29-11-2016	Farmers	30
102	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	19-01-2017 to 21-01-2017	Farmers	30
103		23-01-2017 to 25-01-2017	Farmers	30

104		30-01-2017 to 01-02-2017	Farmers	30
<b>HEEU, Bidar</b>				
105	Banana Cultivation	27-04-2016	Farmers	50
106	Integrated Farming system	08-08-2016	Farmers	30
107	Skill development in Horticulture	01-09-2016 to 30-09-2016	Farm Youths	35
108	Processing and value addition in custard apple	22-10-2016	Farmers	25
109	Processing and value addition in custard apple	24-10-2016	Farmers	30
110	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	30-01-2017 to 01-02-2017	Farmers	30
111	Harvesting and storage of ginger	08-02-2017	Farmers	
112	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	13-02-2017 to 15-02-2017	Farmers	30
113	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	09-03-2017 to 11-03-2017	Farmers	30
114	Cashew varieties suitable for plains	16-03-2017 to 17-03-2017	Farmers	50
<b>HEEU, Mysuru</b>				
115	Training, demonstration and interaction program on Turmeric	24-06-2016	Farmers	86
116	Training, demonstration and interaction program on Cucurbits	29-07-2016	Farmers	172
117	Training, demonstration and interaction program on Tomato	24-08-2016	Farmers	201
118	Training, demonstration and interaction program on Coconut	28-10-2016	Farmers	120
119	Training, demonstration and interaction program on Chilli	07-12-2016	Farmers	81
120	Dry land Horticulture	24-03-2017	Farmers	162
121	Training program cum demonstration on Cluster Onion	21-10-2016	Farmers	71
122	Training program cum demonstration on Cole crops	24-11-2016	Farmers	75
123	Training program cum demonstration on Tomato	27-12-2016	Farmers	58
124	Training program cum demonstration on Watermelon	20-01-2017	Farmers	58
125	Training program cum demonstration on Banana	10-03-2017	Farmers	80

126	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	31-01-2017 to 02-02-2017	Farmers	30
<b>HEEU, Vijayapur</b>				
127	Integrated pest and disease management in pomegranate and grape	19-07-2016	Farmers	66
128	Organic method of pest and disease management in lime and Bordeaux mixture preparation	20-07-2016,	Farmers	27
129	Good Management Practices in grape and Bordeaux mixture preparation	27-10-2016	Farmers	30
130	Interaction meeting on grape cultivation and marketing	31-03-2017	Farmers	162
131	Good Management Practices in Pomegranate	17-03-2017	Farmers	25
<b>HEEU, Yadagiri</b>				
132	Pre sowing operations in Horticulture crops	12-07-2016	Farmers	26
133	Good Management Practices in Marigold, Chrysanthemum and Gaillardia	21-07-2016	Farmers	26
134	Organic Horticulture for Wealth	30-08-2016	Farmers	25
135	GMP on Lime cultivation	10-09-2016	Farmers	27
136	GMP on Banana cultivation	16-09-2016	Farmers	21
137	Nutritional Gardening	23-09-2016	Farmers	29
138	GMP on Cole crops	19-10-2016	Farmers	20
139	Kitchen and Terrace Gardening	11-11-2016	Farmers	39
140	Protected cultivation of Vegetables and Flowers	26-11-2016	Farmers	34
141	GMP on Onion, Drumstick and watermelon	06-01-2017	Farmers	28
142	Bee keeping	13-01-2017	Farmers	31
143	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	19-01-2017 to 21-01-2017	Farmers	30
144		23-01-2017 to 25-01-2017	Farmers	30
145		30-01-2017 to 01-02-2017	Farmers	30
146		16-02-2017 to 18-02-2017	Farmers	30
147		27-02-2017 to 01-03-2017	Farmers	30

**Annual Report 2016-17**

148		06-03-2017 to 08-03-2017	Farmers	25
149	Papaya Production Technology	23-02-2017	Farmers	85
<b>HEEU, Sirsi</b>				
150	Integrated Farming system in Coconut	04-08-2016	Farmers	150
151	Value addition in horticulture crops.	29-09-2016	Farmers	74
152	Pesticide effect on Ginger	18-01-2017	Farmers	100
153		04-03-2017	Farmers	36
154	Exotic Vegetables	16-03-2017	Farmers	90
155	Transferring Technologies of Awardee Farmers to other Farmers (FTF)	23-01-2017 to 25-01-2017	Farmers	30
156		26-01-2017 to 28-01-2017	Farmers	30
157		29-01-2017 to 31-01-2017	Farmers	30
158		13-03-2017 to 15-03-2017	Farmers	30
159		16-03-2017 to 18-03-2017	Farmers	30
160		20-03-2017 to 22-03-2017	Farmers	30
<b>Total</b>				<b>8371</b>

## Scientists as Resource Persons

Centers		Number of Guest lectures
1	HEEU, Bagalkot	61
2	HEEU, Kumbapur	16
3	HEEU, Arabhavi	50
4	HEEU, Munirabad	74
5	HEEU, Haveri	14
6	HEEU, Arasikere	33
7	HEEU, Bengaluru	32
8	HEEU, Bidar	36
9	HEEU, Mysuru	14
10	HEEU, Vijayapur	22
11	HEEU, Yadagiri	57
12	HEEU, Sirsi	13
<b>Total</b>		<b>422</b>

## Diagnostic field visits by the Scientists

Date	Farmer's Name & place	Problem	Solution
<b>Dharwad</b>			
1	16-07-2016 Shivanagoud Patil, Mangalgatti	Pea's steam fly Problem	Profenophos @ 2 ml-l+ carbaryl @ 4g-l spray
2	02-10-2016 Rudrappa Kotur, Narendra	Tomato fruit borer	Helilure traps @ 2-acre. Profenophos @ 2 ml-l+ carbaryl @ 4g-l spray
3	16-10-2016 Mr. Shrikanth Hosamani, Mangalgatti	Bitter gourd fly	Methyleuginol traps @ 2- per acre. Carbaryl spray
4	15-11-2016 Narayan Yaligar, Kurbagatti	Papaya root rot	Bavistin Drenching
5	18-11-2016 Shri Rajendra S. Mutalik, Dharwad	Cotton leaf reddening leafhoppers	Spraying of Fifronil@1 ml- mgso4 (1%)
6	29-11-2016 Shridhar Guddadamat Mulmuttal Dharwad	Drying of leaves in potato due to late blight	Spraying of Nustar @ 1 ml-1lit to manage 7late blight of potato
7	04-12-2016 S.L Patil Garag, Dharwad	Gall midge on young plants of mango orchard	Spraying of profanphos 50EC @2.5 ml-1lit + Bio- 20@ 4 ml-lit
8	8-12-2016 Subhash Morab, Mugad Dharwad	Waste land management	Growing Teak and hardy fruit crops such as Tamarind
9	12-12-2016 Shashidar Desai Hubli	Aged Mango trees with low yield	Rejuvenation of old mango trees with new scions by grafting technology
10	24-12-2016 Basavaraj Walikar , Narendra	Pest in Mango	Spraying schedule was given
11	03-01-2017 Manjunath Hebballi, Dharwad	Nutrition in Banana	Split application of NPK
<b>Haveri</b>			
12	05-05-2016 Dept. of Horticulture farm Haveri	Non bearing in Sapota	Integrated nutrient and water management practices
13	20-05-2016 Dept. of Horticulture farm Hangal	Non bearing in Mango	Integrated nutrient and water management practices
14	04-06-2016 Ashok Yedigouda Byadgi	Chilli leaf curl	IPDM practices
15	15-06-2016 Prakash Devihosur	Rose black spot and thrips	Tilt and Regent @ 0.1%
16	16-06-2016 Korishetter, Alkatti	Chilli murda	IPDM practices

17	22-07-2016	Timmanna Giddappalavar Andagi Hirekerur	Betel vine wilt	IDM practices
18	17-08-2016	Mahadevappa Pujar Havnur	Banana wilt	IDM practices
19	22-08-2016	Shivana Gouda Devgiri Yellapur	Coriander plot visit	ICM Practices
20	24-08-2016	Naytra K Adalgiri Byadgi	Chilli plot visit	IPDM practices
21	25-08-2016	Mallesappa Bisirotti Kudgol Dharwad	Chilli plot visit	KSSDB Project
22	19-09-2016	Shivana Gouda Devgiri Yellapur	Coriander plot visit	plot visit
23	20-09-2016	Nandihalli Ranebinnur	IFS farmer selection	IFS farmer selection
24	27-10-2016	Dept. of Horticulture farm Karjigi	Non bearing in Sapota	Integrated nutrient and water management practices
25	27-10-2016	Dept. of Horticulture farm Chawdedanapur Ranebennur	Non bearing in Sapota	Integrated nutrient and water management practices
26	27-10-2016	Dept. of Horticulture farm Hangal	Non bearing in Mango	Integrated nutrient and water management practices
27	02-11-2016	Shivapujarappa Akki Hosallai, Gadag	Chilli plot visit	KSSDB Project
28	02-11-2016	Gurappa Adivappa Haupavannaver Hosallai Hulkoti Gadag	Chilli plot visit	KSSDB Project
29	03-11-2016	Erappa Dasappa Talvar Baradi, Haveri	Pomegranate Plot visit	ICM Practices
30	03-11-2016	Yellappa Shivappa Hullati Baradi, Haveri	Watermelon Plot visit	IPDM practices
31	03-11-2016	Kalappa Yellappa Hullati Baradi, Haveri	Pomegranate Plot visit	ICM Practices
32	11-11-2016	Devappa Dasappa Havnur Mara bid Hangal	Watermelon wilt	Use of Trichoderma and IDM practices
33	11-11-2016	Mahesh Chaglamnavar Mara bid	Downey mildew in watermelon	Use of Trichoderma and IDM practices
34	23-12-2016	Cubical, Kudgol, Dharwad	Chilli plot visit	IPDM practices

35	29-12-2016	Yetinahallai Horticulture Farm, Shigaon	Coconut	INM and IPM practices
36	29-12-2016	Horticulture farm, Hangal	Mango and coconut	INM and IPM practices
37	03-01-2017	Hiregunjal, Kudgol, Dharwad	Chilli plot visit	ICM in Chilli
38	18-01-2017	Kolur and Ganjur	Guava field visit	ICM practices
39	10-02-2017	Shiva yogi Halehullihalli Ranebennur	Mango	ICM Practices
40	10-02-2017	Parsuram Halehullihalli Ranebennur	Mango, guava and drumstick	ICM Practices
41	20-02-2017	Prakash Virupannavar Akkealur, Hangal	Yellow leaf disease and Koleroga in Areca nut	IDM Practices
42	23-03-2017	Imbramhisab At:Masanakatti	Betel vine wilt	IDM practices
<b>Arasikere</b>				
43	06-04-2016 To 18-04-2016	Ramenahalli Shanmukappa	Slug caterpillar problem	Installation of light traps
44	07-04-2016	Aggunda Rajkumar	Stem rot	Field sanitation, application of Neem cake and Trichoderma. Root feeding of Hexaconazole.
45	21-04-2016	Gijihalli Rajesh	Bacterial Blight in pomegranate	Integrated disease management
46	11-05-2016	Mandy Madhu	Intercropping	Suggested for planting of cocoa and lime as intercrop in coconut garden
47	28-05-2016	Chandrashekar	Planting and maintenance of drumstick	Provided information on drumstick crop production.
48	15-06-2016	Honnammanahalli Mr. Chetan	Leaf blight disease in coconut seedlings	Propiconazole 2 ml-liter
49	20-06-2016	Aggunda Lingegouda	Basal stem rot disease in Coconut	Hexaconazole 3 ml-100 ml of water for every three months.
50	11-07-2016	Ramesh Gijihalli	Stem rot	Field sanitation, application of Neemcake and Trichoderma. Root feeding of Hexaconazole.
51	13-07-2016	Rajkumar Aggunda	Bacterial Blight in pomegranate	Integrated nutrient management

52	21-07-2016	Ambrutesh Borankoppalu	Coconut Eryophid mite	Integrated nutrient management + root feeding with Azadirachtin 5%
53	15-07-2016	Chandrappa Gijjhalli	Coconut Eryophid mite	Integrated nutrient management + root feeding with Azadirachtin 5%
54	04-08-2016	Sannathimmappa Tiptoe	Low yield in coconut	Information provided on different high and hybrids coconut varieties and its cultivation
55	16-08-2016	Beerappa Haranahalli	Suitable Areca nut varieties	Provided information on available Areca nut varieties
56	20.08.2016	Narasaiah Boranakoppallu	Low yield in coconut	Information provided on different high and hybrids coconut varieties and its cultivation
57	22-08-2016	Prabhudev Gandasi	Tender coconut varieties	Information provided on different Tender coconut varieties
58	15-09-2016	Chandrappa Gijjhalli	Coconut Eryophid mite	Integrated nutrient management + root feeding with Azadirachtin 5%
59	05-10-2016	Yathish Hullenahalli	Stem rot in coconut	Field sanitation, application of Neemcake and Trichoderma. Root feeding of Hexaconazole.
60	07-10-2016	Devaraj Kargunda	Banana as intercrop in coconut	Information about Banana as intercrop in coconut
61	13-10-2016	Shivamurthy. A.M Annanayakanhalli	Selection of tender coconut varieties	Information about MOD,MYD,COD, ECT are tender coconut varieties
62	18-10-2016	Dharmegouda Vitalapura	Mother palm selection in coconut	Provided information on Mother palm selection in coconut
63	19-10-2016	Somegouda Borankoppalu	Red head caterpillar in coconut	Installation of pheromone trap
64	08-11-2016	Chennabasappa Kasabha	Coconut cultivation and pest and disease problems	Provided information about Coconut cultivation and pest and disease management
65	10-11-2016	Nataraju Pannasamugra	Pomegranate cultivation	Provided information about pomegranate cultivation and their varieties

66	11-11-2016	Janyantamurthi Timlapura	Disease problems in pomegranate crop	Provided information about pomegranate disease management techniques
67	23-11-2016	Miss. Lalithamma Channarayapattana	Red headed caterpillar infestation in coconut crop	Installation of pheromone trap
68	28-11-2016	Dayananda Karagunda	Areca nut cultivation	Provided information about Areca nut cultivation
69	01-12-2016	Jayashankrappa Javgal	Stem rot disease in coconut palms	Field sanitation, application of Neem cake and Trichoderma. Root feeding of Hexaconazole.
70	15-12-2016	Veeresh Karagunda	Coconut Etyrophid mite	Integrated nutrient management + root feeding with Azadirachtin 5%
71	21-12-2016	Nagaraj Borankoppalu	Integrated farming system in coconut	Provided the information about benefits in integrated farming system in coconut
72	12-12-2016	Nagaraju Javgal	Selection of tender coconut varieties	Information about MOD,MYD,COD varieties as tender coconut varieties
73	28-12-2016	Narasaiah Boranakoppallu	Low yield in coconut	Information provided on different high and hybrids coconut varieties and its cultivation
74	03-01-2017	Basavaraju S/o Jayana, Kyathanahalli	Varieties selection in drumstick	Information provided on different high and hybrids drumstick varieties and its cultivation
75	06-01-2017	Neelakantappa. S/o Shivanna. Rampura	Ganoderma in coconut	Information provided about Ganoderma diseases in coconut
76	10-01-2017	Mallikarjunaswamy Aggunda	Coconut Cultivation	Information provided on coconut cultivation
77	19-01-2017	Suresh S/oRudrappa. Melenahalli	Coconut leafs are looks like cutting and BHC	Information provided on Coconut leafs are cut and BHC
78	01-02-2017	Rajashekar S/o Thimegowda, Beluvalli	Maintenance of coconut nurseries	Information provided on maintenance of coconut nurseries
79	03-02-2017	Somashekara S/o Ningappa	BHC and Rhinoceros	Information provided on BHC and Rhinoceros Beetle in coconut

80	06-02-2017	Suresh S/o Marulappa	Ganoderma	Information provided on Ganoderma
81	13-02-2017	Suresh S/o Rudrappa	About cultivation	Information provided on cultivation of coconut
82	16-02-2017	Sadashivappa, Ganesh,K. Hemanth, H.K.Manjunath	Exposure visits	Information provided on IFS. Water management etc.
<b>Bengaluru</b>				
83	01-04-2016	Dibburhalli (V) Chikkaballapura	Visited Pomegranate field of one-year-old	Advised to proper training and tying of branches
84	01-04-2016	Kambadahalli, Melur Siddlagatta	Visited cashew plots	In cashew advised manuring & spraying 1.5 kg Urea, 1 kg Super, 0.5 kg potash Three sprays for T-mosquito with 2 % urea Removal of branches
85	01-04-2016	Kambadahalli, Melur Siddlagatta	Visited cashew plots	In cashew advised manuring & spraying 1.5 kg Urea, 1 kg Super, 0.5 kg potash Three sprays for T-mosquito with 2 % urea Removal of branches
86	01-04-2016	Chowdasandra Near Melur, Siddlagatta	Visited cashew plots	1.5 kg Urea, 1 kg Super, 0.5 kg potash Advised trenching for every two rows
87	01-04-2016	Chowdasandra Near Melur, Siddlagatta	Visited cashew plots	Advised on manure application (1.5 kg urea, 0.5 kg SSP & 0.5 kg potash) and spray for Tea mosquito
88	01-04-2016	Chowdasandra Near Melur, Siddlagatta	Cashew plots	Advised removal of side branches and water conservation measures
89	01-04-2016	Chowdasandra Near Melur, Siddlagatta	Visited 4-year-old cashew plots	Advised for Providing irrigation During summer season once in 20 days 0.5 kg Urea, 1 kg Super, 0.5 kg potash per plant Spray for Tea-mosquito
90	01-04-2016	Chowdasandra Near Melur, Siddlagatta	Visited cashew (Ullal -3)	Advised manuring and spraying
91	01-04-2016	Kammasandra Near Vijayapur, Devanahalli	Visited 8 years old\Ullal -1 cashew block grown in 10 acres.	Advised 0.5 kg Urea, 0.5 kg Super, 0.5 kg potash per plant Spray for Tea-mosquito
92	01-04-2016	Kammasandra Near Vijayapur, Devanahalli	Visited 13 years old Ullal -2 cashew block	Advised to have water conservation and manuring

93	11-06-2016	(Rtd. High Court Judge) Dommasandra, Near Sarjapur	Mango and Sapota plot	To study the suitability of location for cashew planting
94	23-09-2016	Kadabydarahalli, Doddaballapura Taluk, Bengaluru rural district	Gerbera: Drying of lower buds, poor growth, flowering and suspected Fusarium wilt (Sample brought & given to pathology lab for confirmation)	Suggested for drenching with COC-Carbendizim-Vitavax power
95	13-10-2016	Gopalpura near Hesaraghatta, Bengaluru	Visited mango plots – 6 year age	Advised nutrition 1 kg urea, 1 kg SSP, 0.75 kg MOP + FYM 25 to 30 kg. Advised to go for border planting of Jack, Jamun at 22 feet distance leaving 10 feet from border
96	26-11-2016	Siddegowda Hosahalli, Hassan	Cabbage- DBM & Aphids  Papaya- Black spot-	Suggested to spray Cartap hydrochloride, Bt, Indoxacarb or Coragen Suggested to spray hexaconazole (Contaf) or propiconazole (tilt)
97	29-11-2016	Mellekotte Nandi Hills, Bengaluru Rural district	mango and Jamun	Demonstrated pruning techniques and nutrient management in mango and Jamun
98	06-01-2017	Honnava Doddaballapura	Citrus stem borer  Death of coconut palms (3-15 yr olds 8 palms) and few more with various degree of damage due to bud rot	Demonstrated treating citrus stems with dichlorofoxes using syringe for stem borer management Suggested to avoid excess watering with cleaning of central whorl and treating with Bordeaux mixture
99	13-01-2017	Mallohalli, Doddaballapura	Banana leaf spot	Collect & destroy the severely affected leaves, drench & spray with COC (3g)-Bavistin (2g) alternatively. Apply Neem cake, Trichoderma enriched cow dung

100	13-01-2017	Mallohalli Doddaballapura tq	Guava- TMB	Provided to follow the acephate (1g)- profenophos (2 ml) – lambda cyhalothrin (0.5 ml) spay sequence at 15-20 days interval
101	13-01-2017	Mallohalli Doddaballapura tq	Mango –Powdery mildew	Wettable Sulphur (2 g) or Tilt (1 ml)
102	13-01-2017	Mallohalli Doddaballapura tq	Citrus-Lime	Stem borer: Dichlorovas stem injection using syringe.
103	13.01.17	Mallohalli Doddaballapura tq	Banana leaf spot	Collect & destroy the severely affected leaves, drench & spray with COC (3g)-Bavistin (2g) alternatively. Apply Neem cake, Trichoderma enriched cow dung.
104	13-01-2017	Mallohalli Doddaballapura tq	Guava – Mealy bug & Spiraling whitefly –	Suggested with Neem oil spray at 10-15 days' intervals on Nov 7th 2016. Visited the farm on farmer request to see the impact on pest level and plant health. Suggested to provide good irrigation, intercrop in b-w rows to ensure better microclimate in summer. Showed pruning of unnecessary branches to give a right canopy.
105	03-03-2017	Chikka Amani Kere, Devanahalli	Charishma Rose- Thrips –severe damage	Suggested for spraying with acetamiprid- thiometham – fipronil –difenthiuron sequential spray coupled with Neem oil & shampoo at 10-15 days interval, good irrigation, pruning excessively damaged shoots & damaged buds.
106	03-03-2017	Chikka Amani Kere, Devanahalli	Areca coconut (Anabe roga),	Hexaconazole drenching + Neem cake application, avoiding water and soil movement from disease trees
<b>Mysuru</b>				
107	11-05-2016	Prathibha, Kalasthawadi, Mysuru	New crop plan for 1 ½ acre area	Scented Geranium, Aloe Vera, Marigold & Banana

108	16-06-2016	Krishnaiah, K Kenkere, Kunigal Tq.	Mango	Mixture of local varieties Identified local types among the Mallika-Pairi-Alphonso and marked the same for behending. In-situ grafts advised after 2 months
109	15-07-2016	Krishnaprasad Mysuru	Watermelon	Powdery mildew, WBNV, Alternaria, Anthracnose. Spraying of Trifloxystrobin + Tebuconazole O blight.
<b>Yadagiri</b>				
110	02-06-2016	K Hosalli, tq &Dist. Yadagiri	Sodic and saline soils	Opening of Drainage facility, adding Gypsum to soil followed by growing of crops like Sun hemp, diancha, cowpea etc
111	07-06-2016	Bhimanalli, tq &Dist. Yadagiri	Cultivation of Drumstick and Marigold	Complete information regarding Cultivation of Drumstick and Marigold are given.
112	08-06-2016	Naikal, Shahpur, Yadagiri	Sodic and saline soils,	Opening of Drainage facility, adding Gypsum to soil followed by growing of crops like Sun hemp, diancha, cowpea etc
113	10-06-2016	Wada era, Shahpur, Yadagiri	Termite attacks to Mango	Drenching of Chloropyriphos 4ml-lit of water.
114	14-06-2016	Hattikuni, Yadagiri Tq and Dist	Cultivation of vegetables and making vermicompost unit	Visited field and given information regarding cultivation of vegetables and vermicompost unit.
115	14-06-2016	Hattikuni, Yadagiri Tq and Dist	Cultivation of marigold and watermelon	Visited field and recommended for cultivation of marigold and watermelon
116	24-06-2016	Gogi, Shahpur, Yadagiri	Powdery mildew in okra, and nutrient deficiency in ridge gourd	Spraying of Diphenconazole 1ml-lit of water for Bhendi and foliar application of 3 gm of 19:19:19 to ridge gourd
117	24-06-2016	Kodamnahalli, Shahpur, Yadagiri	Stem borer problem in mango	Application of 4-5 ml of Dichlorovas directly in to the whole

118	02-07-2016	Bhankur Tq and Dist. Gulbarga	Tomato leaf curl and Bhendi mosaic	Installation of Yellow sticky traps and spraying of Triazophos 1ml-lit
119	02-07-2016	Bhankur Tq and Dist. Gulbarga	Ridge gourd Leaf miner, Tomato leaf curl	For ridge gourd Spraying of Acephate 1gm-lit and installing the staking. For tomato leaf curl spraying of Triazophos 1ml-lit
120	09-07-2016	Underage, tq &Dist. Yadagiri	Sodic and stunted growth of Sapota, curry leaf	Opening of Drainage facility, adding Gypsum to soil followed by growing of crops like Sun hemp, diancha, cowpea etc adding sufficient quantity of FYM and RDF
121	19-07-2016	Killankera, tq &Dist. Yadagiri	Marigold seedling raising in flatbed	Suggested and explained raising marigold seedlings under raised bed
122	19-07-2016	Killankera, tq &Dist. Yadagiri	Brinjal shoot and fruit borer and Onion seedling raising	Recommended IPM practices and explained raising Onion seedlings under raised bed
123	19-07-2016	Killankera, tq &Dist. Yadagiri	Marigold leaf miner and bud borer	Recommended spraying of monocrotophos 1.5ml-lit or
124	19-07-2016	Killankera, tq &Dist. Yadagiri	Tomato	Raised bed preparation and spraying of 2gm Mannose for Damping off
125	19-07-2016	Killankera, tq &Dist. Yadagiri	Marigold pinching and polyhouse vegetable cultivation	Explained and demonstrated pinching operation in marigold and explained polyhouse cultivation flowers and vegetables
126	19-07-2016	Killankera, tq &Dist. Yadagiri	Improper fertigation, heavy weeds in Banana	Recommended complete weeding of banana orchard and fertigation schedule
127	19-07-2016	Killankera, tq &Dist. Yadagiri	Pinching and marketing of Flowers	Explained pinching operations in Marigold and marketing of flowers
128	19-07-2016	Saidapur tq &Dist. Yadagiri	Mango Stem borer	Scraping and keeping dichlorovas dipped cotton in hole
129	27-07-2016	Balched, tq &Dist. Yadagiri	Leaf curl in Tomato	Spraying of Phosphomidan 0.5ml or Triazophos 2ml-lit
130	27-07-2016	Saurastrahalli, tq &Dist. Yadagiri	Leaf curl and Papaya Ring spot virus	Recommended GMP practices

131	08-08-2016	Horuncha Thanda Tq and Dist. Yadagiri	Tomato root grub and Murda complex in Chilli	Drenching of Chloropyriphos 10ml-lit for root grub and Acephate-Imidachloropid 1gm-lit for Chilli and application of 19:19:19 5gm-lit
132	08-08-2016	Horuncha Tq and Dist. Yadagiri	Marigold thrips	Spraying of Imidachloropid 0.5ml-lit
133	08-08-2016	Horuncha Tq and Dist. Yadagiri	Lime leaf spot and Canker	Spraying of Streptocyclin 0.5gm +COC 2gm-lit and Mancozeb 1gm-lit
134	08-08-2016	Horuncha Tq and Dist. Yadagiri	Bhendi mosaic	Spraying of Dimethoate 1.7 ml-lit or Imidachloropid 0.25 ml-lit of Water
135	18-08-2016	Hattikuni Tq and Dist. Yadagiri	Tomato Muturu roga and brinjal shoot and fruit borer	Spraying of Carbendizim +Mancozeb 2gm-lit for tomato and Emamectin benzoate 0.25gm-lit for brinjal
136	18-08-2016	Hattikuni Tq and Dist. Yadagiri	Aphids in bitter gourd	Recommended spraying of Methyl parathion 1ml-lit and 5gm of 19:19:19
137	18-08-2016	Katagi Shahpur, tq &Dist. Yadagiri	Marigold leaf miner and Tomato under shade net	Spraying of Triazophos 1ml-lit and explained cultivation of Tomato under shade net
138	19-08-2016	Jayalaxmi W/o Rachanagouda tq &Dist. Yadagiri	Rose flower eating caterpillar and Jasmine pruning	Spraying of Monocrotophos 1ml or melathion 2ml-lit and pruning of jasmine every year to 60cm will give more no of flowers
139	19-08-2016	Abbetumakur tq &Dist. Yadagiri	Bhendi mosaic	Spraying of Dimethoate 1.7 ml-lit or Imidachloropid 0.25 ml-lit of Water
140	19-08-2016	Mudnal tq &Dist. Yadagiri	Chilli murda, Bhendi white fly and tomato whitefly	Imidachloropid 0.25ml-lit for Chilli and Triazophos 1ml for whitefly
141	20-08-2016	Yaddalli tq &Dist. Yadagiri	Drumstick cultivation and tomato lf miner	Given complete information of drumstick cultivation and for tomato leaf miner spraying of 1ml Triazophos
142	27-08-2016	Tangadagi, Shahpur tq, Dist. Yadagiri	Shade net tomato and capsicum cultivation	Visited field and given information of capsicum and tomato cultivation

143	02-09-2016	Gogi, Shahpur tq,	cutworm: Spodoptera litura affected Chilli plot	Visited Chilli plot and given control measures Set up pheromone trap @15-ha, and spray Emamectin benzoate 4g-10 lit water
144	03-09-2016	Nadiyal, Shahpur tq,	Ridge gourd and bitter gourd plot downy mildew infected	Visited plot and control measures recommended, Spray with Mancozeb 0.2 % or Chlorothalonil 0.2% or Difolaton 0.2% or Ridomil MZ 72 0.1%
145	03-09-2016	Nadiyal, Shahpur	Tomato Early blight affected plot	Practicing crop rotation helps to minimize the disease incidence. Spray the crop with Mancozeb 0.2 % for effective disease control
146	09-09-2016	Chamnal, Shahpur	Visited farm integrated farming system it includes marigold, okra, Brinjal, Chilli mango, Sapota plot	Given information about management of IPM, IDM, INM in marigold, okra, Brinjal, Chilli mango, Sapota plot
147	16-09-2016	Ramsamudra, Yadagiri	Chilli murda	Imidachloropid 0.25ml-lit for Chilli and Dicofol 1ml for Mites
148	16-09-2016	Ramsamudra, Yadagiri	Bhendi mosaic	Spraying of Dimethoate 1.7 ml-lit or Imidachloropid 0.25 ml-lit of Water
149	20-09-2016	Kotgere, Yadagiri	Chilli fruit fall,	Foliar spray of borax@0.2% .
150	20-09-2016	Kotgere, Yadagiri	Marginal leaf Chlorosis – Blossom end rot of Chilli fruit	Foliar spray of CaSO <sub>4</sub> 1% or soil application of gypsum @ 25 kg-ha
151	21-09-2016	K. Hosalli, Yadagiri	Tomato early blight	Removal and destruction of crop debris, crop rotation, Spray the crop with Mancozeb 0.2 % for effective disease control.
152	21-09-2016	Gajarkot, Yadagiri	Tomato early blight under shade net	Removal and destruction of crop debris, crop rotation, Spray the crop with Mancozeb 0.2 % for effective disease control.

153	22-09-2016	Balched, Yadagiri	Tomato blight, Chilli murda and brinjal shoot borer infestation	Chilli - Imidachloropid 0.25ml-lit for Chilli and Dicofol 1ml for mites Tomato blight- Spray the crop with Mancozeb 0.2 % for effective disease control Brinjal shoot borer- Install pheromone trap@12-ha and spray Emamectin benzoate 5 % SG 4g-10 lit
154	22-09-2016	Balched, Yadagiri	Tomato blight	Removal and destruction of crop debris, crop rotation, Spray the crop with Mancozeb 0.2 % for effective disease control.
155	22-09-2016	Balched, Yadagiri,	cutworm: Spodoptera litura affected Chilli plot	Visited Chilli plot and given control measures Set up pheromone trap @15-ha, and spray Emamectin benzoate 4g-10 lit water
156	22-09-2016	Balched, Yadagiri,	Tomato Early blight affected plot	Practicing crop rotation helps to minimize the disease incidence. Spray the crop with Mancozeb 0.2 % for effective disease control
157	24-09-2016	Badepalli, Yadagiri	Chilli murda and tomato fruit borer	Imidachloropid 0.25ml-lit for Chilli and Dicofol 1ml for Mites Spray Bacillus thuringiensis 2g-lit or any one of the following insecticide Emamectin benzoate 4g-10 lit
158	26-10-2016	Hedagimudra, Dist. Yadagiri	Leaf miner on Marigold	Spray Triazophos@ 2ml-l
159	26-10-2016	Hedagimudra, Dist. Yadagiri	Citrus butterfly and Canker	Spray Monocrotophos @ 2ml-l and Streptocyclin 100ppm
160	26-10-2016	Bommshettihalli, Dist. Yadagiri	Mites on citrus and Canker	Spray Dicofol 2.5ml-l and Streptocyclin 100ppm
161	26-10-2016	Bommshettihalli, Dist. Yadagiri	Silkworm rearing	Information provided

162	02-11-2016	Chandlapur, Shorapur Tq, and Yadagiri Dist.	Pomegranate nutritional problem	Gave the information of nutritional schedule under drip and micronutrient application
163	02-11-2016	Hasnapur Camp Shorapur and Yadagiri Dist.	Pomegranate nutritional problem	Gave the information of nutritional schedule under drip and micronutrient application
164	04-11-2016	Gundalli Tanda, Shahpur and Yadagiri Dist.	Guava Fruit fly, Mango Stem borer, Lime Canker	Given information about management of Guava fruitfully, Mango stem borer
165	04-11-2016	Chamnal Tanda, Shahpur and Yadagiri Dist.	Ridge gourd fruitfully, Tomato whitefly infestation	Installation of Pheromone traps @6-8-acre and Yellow sticky trap
166	04-11-2016	Chamnal Tanda, Shahpur and Yadagiri Dist.	Ridge gourd fruit fly infestation	Installation of Pheromone traps @6-8-acre
167	04-11-2016	Chamnal Tanda, Shahpur and Yadagiri Dist.	Marigold leaf miner, Chilli Murda	Spray Triazophos@1ml-l in Marigold, Install Yellow sticky traps 8-10-acre in Tomato
168	13-11-2016	Mundergi, and Dist. Yadagiri	Mango Stem borer	Apply paste of 40gm COC+10ml DDVP + 2kg Lime to Stems
169	13-11-2016	Mundergi, and Dist. Yadagiri	Mango Stem borer, Gummosis and Sapota leaf webber	Apply paste of 40gm COC+10ml DDVP + 2kg Lime to Stems
170	21-11-2016	Bilhar, Shahpur and Yadagiri Dist.	Mango Gummosis, Short hole borer and Mango stem borer	Apply paste of 40gm COC+10ml DDVP + 2kg Lime to Stems
171	23-11-2016	Killankera, and Dist. Yadagiri	Scales in Capsicum Polyhouse	Spray Dimethoate @1.7ml-l
172	23-11-2016	Killankera, and Dist. Yadagiri	Marigold botrytis	Spray Mancozeb@2ml-l
173	28-11-2016	Chamnal, Shahpur and Dist. Yadagiri	Tomato leaf curl virus	Spray Acephate@1gm-l and removal and destruction of Infested plant
174	28-11-2016	Chamnal, Shahpur and Dist. Yadagiri	Tomato fruit borer and Leafhoppers	Install pheromone traps @5-6traps-acre, install Yellow sticky trap @ 8-10-acre, Spray Thiamethoxam@0.3gm-l
175	28-11-2016	Chamnal, Shahpur and Dist. Yadagiri	Tomato fruit borer and Leafhoppers	Install pheromone traps @5-6traps-acre, install Yellow sticky trap @ 8-10-acre, Spray Thiamethoxam@0.3gm-l

176	02-12-2016	Agni, Shorapur Tq, and Yadagiri Dist.	Papaya	Gave the information of nutritional schedule under drip and micronutrient application
177	02-12-2016	Arakera, Shorapur and Yadagiri Dist.	Papaya Ring spot Virus	Gave the integrated disease management information
178	02-12-2016	Isampur, Shorapur and Yadagiri Dist.	Pomegranate and Papaya	Gave the information of nutritional schedule under drip and micronutrient application
179	02-12-2016	Agastal, Shahpur and Yadagiri Dist.	Papaya Ring spot Virus	Gave the integrated disease management information
180	05-12-2016	Munderga, and Yadagiri Dist.	Citrus and Curry leaf Sucking pests problem	Spray Thiamethoxam@0.3gm-l and Keep Yellow sticky trap@5-6-acre
181	05-12-2016	Hattikuni, and Yadagiri Dist.	Infestation of Tomato Leaf miner in Shade net	Installation of Pheromone traps @6-8-acre or light traps
182	05-12-2016	Yaddalli, and Yadagiri Dist.	Infestation of Bagworm on Tamarind	Spray chlorpyriphos@2ml-l
183	04-01-2017	Timmareddy Madhavar Tq, and Dist.Yadagiri	Mango hoppers	Spray Imidachloropid 0.3ml -lit or 4gm carbaryl-lit
184	04-01-2017	Shivukumar Hugar, Madhavar Tq, and Dist.Yadagiri	Marigold leaf miner	Spray 0.3ml Thiamethoxam or 1.5mlmonocrotophos
185	04-01-2017	Sharanappa Hugar, Madhavar Tq, and Dist.Yadagiri	Marigold pinching, jasmine pruning and lime citrus butterfly	Gave the information on pinching of marigold, jasmine pruning and spray 4gm carbaryl-lit or 2ml Quinalphos
186	04-01-2017	Veerendra Yelasatti, Tq, and Dist.Yadagiri	Papaya whitefly	Gave the integrated pest management information
187	09-01-2017	Basavaraj Chintanalli, and Dist. Yadagiri	Mango hoppers and improper management of orchard	Advised GMP of mango and Spray imidachloropid 0.3ml -lit or 4gm carbaryl-lit
188	04-02-2017	Shri. Venkatesh Sahebgouda Allipur, & Dist. Yadagiri	PRSV	Install yellow sticky traps @10-acre and Spray imidachloropid 0.3ml -lit
189	04-02-2017	Shri. Gurunath S/oSuresh Rathod at Allipur, & Dist. Yadagiri	PRSV and Nutritional requirements	Install yellow sticky traps @10-acre and Spray imidachloropid 0.3ml -lit Spray MgSo4 and Boron
190	04-02-2017	Shri. Raju Rupla Naik, Horuncha Tanda, & Dist. Yadagiri	PRSV and Nutritional requirements	Install yellow sticky traps @10-acre and Spray imidachloropid 0.3ml -lit Spray MgSo4 and Boron

**Annual Report 2016-17**

191	04-02-2017	Horticulture Farm at Hattikuni & Dist. Yadagiri	Mango stem borer infestation and gummosis	Apply paste of 40gm COC+10ml DDVP +2Kg CaCo <sub>3</sub>
192	23-02-2017	Shri. Raju Rupla Naik, Horuncha Tanda, &Dist. Yadagiri	PRSV and Nutritional requirements	Install yellow sticky traps @10-acre and Spray imidachloropid 0.3ml -lit Spray MgSo <sub>4</sub> @ 1gm-l and Boron @ 1gm-l
193	22-03-2017	Mallamma W/o Kupendra Reddy, Abbetumakur, Tq &Dist. Yadagiri	Nutritional requirements of Papaya	Spray MgSo <sub>4</sub> @ 1gm-lit and Boron @ 1gm-lit
<b>Sirsi</b>				
194	25-05-2016	Ankola	Crop loss estimation in horticulture crops due to industrial effluents.	Estimated loss and submitted report
195	16-06-2016	Smt. Manjula Bhat Maralmane, Kolagibeas	banana skipper problem.	Suitable measures suggested
196	16-06-2016	Mr. Vishwanath Mulakund Kolagibeas	Areca nut dropping.	Boron application recommended
197	12-08-2016	Siddapura	Dropping of Areca nut (Green Nut)	Boron and manure application recommended
198	22-09-2016	Bisalakoppa and Ullala	Areca nut Root Grub infestation.	Metarrhizium application
199	23-11-2016	Mr. Basavaraj Gouda Chigatoor, Banavasi	Areca nut Root Grub.	Metarrhizium application
200	23-11-2016	Mr. Manjunath, Kanchikayi	Honeybees thaisac brood virus disease.	Suitable management practices suggested
201	07-01-2017	Mr. Gadigayya swamy Keregadde, Bidalkoppa, Bachagao, Sirsi	Nutrient Management	INM in areca nut suggested

## Demonstrations &amp; Trials

## Method Demonstrations

	Method	Date	Place	Number of beneficiary
1	Techniques of pruning in Grapes and Pomegranate	05-05-2016	Bagalkot	23
2	Advanced techniques in Raisin making	12-04-2016	Bagalkot	59
3	On farm production of organic inputs composting and vermi composting	07-07- 2016	Bagalkot	24
4	Bordeaux mixture preparation	10-11- 2016	Bagalkot	26
5	Demonstration of Potting, sowing and transplanting	17-08-2016	Directorate of Extension, UHS, Bagalkot	32
6	NSKE preparations	26-09-2016		32
7	Liquid organic manure preparation	26-09-2016		32
8	Liquid organic manure preparation	27-09-2016		32
9	Cycle weeder field Demonstration	22-08-2016	Dharwad	36
10	Chilli seed Treatment	03-09-2016	Dharwad	45
11	High quality vermibeds Demonstration	27-09-2016	Dharwad	51
12	Fruit fly traps in bitter gourd	29-10-2016	Dharwad	19
13	Bee keeping Method Demonstration	05-12-2016	Dharwad	32
14	Bio-digester Method Demonstration	21-12-2016	Dharwad	38
15	Inter crop Banana and Drumstick	06-01-2016	Dharwad	39
16	Seed treatment in Potato	06-06-2016	KRCCH, Arabhavi	68
17	Seed treatment in Turmeric	06-08-2016	Kalloli- Gokak- Belagavi	168
18	OOZE test in Turmeric	06-08-2016	Kalloli- Gokak- Belagavi	168
19	Enrichment of FYM with Trichoderma	13-06-2016	KRCCH, Arabhavi	34
20	Use of different types of pheromone traps	13-06-2016	KRCCH, Arabhavi	34
21	Enrichment of FYM with Trichoderma	20-06-2016	DATC, Arabhavi	30
22	Seed treatment in Turmeric	21-06-2016	P G Mallapur, Ghataprabha- Belagavi	51
23	OOZE test in Turmeric	21-06-2016	P G Mallapur, Ghataprabha- Belagavi	51
24	Enrichment of FYM with Trichoderma	24-06-2016	KRCCH, Arabhavi	30
25	Enrichment of FYM with Trichoderma	01-07-2016	KRCCH, Arabhavi	58
26	Use of cue lure traps in cucurbits (ridge gourd)	14-07-2106	Sindikurbet-Gokak- Belagavi	20

27	Farm level Mass production of Metarrhizium	20-07-2016	Biological control laboratory, Dept. of Entomology KRCCHA	50
28	Method of mycorrhiza application in ginger	20-07-2016	Kalloli- Gokak- Belagavi	16
29	OOZE test in Ginger	20-07-2016	Kalloli- Gokak- Belagavi	16
30	Method of mycorrhiza application in Chilli	20-07-2016	Mydalagii- Gokak- Belagavi	25
31	Use of lure traps in cucurbits (ridge gourd)	22-07-2016	KRCCH, Arabhavi	30
32	Enrichment of FYM with Trichoderma	23-07-2016	KRCCH, Arabhavi	53
33	Vegetable crops nursery raising techniques	02-08-2016	KRCCH, Arabhavi	40
34	Fruits crops nursery raising techniques	04-08-2016	KRCCH, Arabhavi	40
35	Grafting and budding in fruit crops	05-08-2016	KRCCH, Arabhavi	40
36	Flower crops nursery raising techniques	06-08-2016	KRCCH, Arabhavi	40
37	Vermicompost production	07-08-2016	KRCCH, Arabhavi	40
38	Nipping in marigold	08-08-2016	KRCCH, Arabhavi	40
39	Flower bouquet arrangement	09-08-2016	KRCCH, Arabhavi	40
40	Method of application of VAM	10-08-2016	KRCCH, Arabhavi	40
41	Mushroom Production	10-08-2016	KRCCH, Arabhavi	40
42	OOZE test	16-08-2016	KRCCH, Arabhavi	40
43	Enrichment of FYM with Trichoderma spp	16-08-2016	KRCCH, Arabhavi	40
44	Identification of predators and parasitoids	17-08-2016	KRCCH, Arabhavi	40
45	Banana rhizome treatment with insecticides	18-08-2016	KRCCH, Arabhavi	40
46	Safe use of Pesticides	18-08-2016	KRCCH, Arabhavi	40
47	Honey bee rearing	19-08-2016	KRCCH, Arabhavi	40
48	Seed treatment with Bio- fertilizers and Bio- fungicides	27-08-2016	KRCCH, Arabhavi	40
49	Seed germination test	27-08-2016	KRCCH, Arabhavi	40
50	Preparation of value added products	30-08-2016	KRCCH, Arabhavi	40
51	Wine preparation	30-08-2016	KRCCH, Arabhavi	40
52	Soil sampling technique	29-07-2016	COH, Munirabad	32
53	Tomato jam preparation	06-08-2016	COH, Munirabad	26
54	Soil & Water Sampling techniques	03-08-2016	COH, Munirabad	35
55	Grafting methods in fruit crops	18-08-2016	COH, Munirabad	32
56	Soil sampling	05-12-2016	Manhalli, Bidar	57
57	IPM in Brinjal	06-12-2016	Manhalli, Bidar	51
58	Preparation and application of mango special and Arka Sanjeevani in mango	31-12-2016	COH, Bidar	46

59	Grafting in Cucurbits	29-07-2016	COH, Mysuru	156
60	Tomato varietal wealth	24-08-2016	COH, Mysuru	201
61	Neera tapping	28-10-2016	COH, Mysuru	120
62	Chilli nutrient disorders and varietal wealth	07-12-2017	COH, Mysuru	81
63	Grafting in Cucurbits	29-07-2016	COH, Mysuru	172
64	Selection of quality seed rhizomes for planting in Turmeric	24-06-2016	COH, Mysuru	86
65	Rhizome treatment methods before planting and during storage of seed rhizomes in Turmeric	24-06-2016	COH, Mysuru	86
66	Potray method of raising Turmeric seedlings	24-06-2016	COH, Mysuru	86
67	Demonstration of Bordeaux mixture preparation	20-07-2016	HREC, Vijayapur	30
68	Demonstration of Bordeaux mixture preparation	27-10-2016	HREC, Vijayapur	36
69	Demonstration of Bordeaux mixture preparation	17-03-2017	HREC, Vijayapur	25
70	Training and Pruning in Mango	27-07-2016	Baddepalli, Tq and Dist Yadagiri	60
71	Preparation of Bordeaux Mixture and Bordeaux paste	27-07-2016	Baddepalli, Tq and Dist Yadagiri	60
72	Pheromone traps	28-11-2016	Chamnal, Tq Shahpur Dist Yadagiri	55
73	Preparation of Amritpani and Panchagavya, Jeevamrutha	28-11-2016	Chamnal, Tq Shahpur Dist Yadagiri	55
74	Metarrhizium application for Areca nut root grub infestation	21-09-2016	Bisalakoppa, Sirsi	10
75	Areca nut husk decomposition through microbial consortia.	29-09-2016	Honnavara, Sirsi	74
76	Ginger seed treatment	10-01-2017	Kolagi, Sirsi	18
77	Ripening of banana using Ethylene	14-01-2017	Veerapura, Sirsi	14
<b>Total</b>				<b>3886</b>

**Result Demonstrations**

Title		Season	Place	Number of Beneficiaries
1	Demonstration of Mango Special for increased fruit setting in Mango.	Rabi 2016-17	Bagalkot	5
2	Promotion of Drumstick – KDM -01 (Nugge – Bhagya) under drip irrigation system.			5
3	In situ vermi composting using <i>Eudrillus eugenia</i>			5
4	Management of onion thrips in onion.			5
<b>Total</b>				<b>20</b>

Farm Trials

Title		Place
1	Evaluation of Fipronil 5 % SC against Grape thrips.	UHS, Bagalkot
2	Evaluation of Chlorantraniliprole 18.5 SC Pomegranate fruit borer.	
3	Management of Sapota Bark eating Caterpillar – Inderbela quadrinotata	
4	Management of thrips in pomegranate	UAS, Dharwad
5	Integrated Management of tomato pin worm, Tuta absoluta	Dharwad
6	Evaluation on new insecticides against Helicoverpa armigera Hubner in Tomato	
7	Management of Sapota bark eating caterpillar, Inderbela quadrinotata	
8	Bio-efficacy of Thiamethoxam 25WG against Mango hoppers	
9	IPM of brinjal shoot and fruit borer	
10	Management of tea mosquito bug in cashew	
11	ICM in Avare	
12	ICM in Avare	Geejihalli, Arasikere
13	Performance of watermelon hybrid Arka Akash	Mysuru
14	Performance of Garden Pea varieties Arka Promod & Arka Ajit	
15	Performance of vegetable Dolichos	
16	Performance of Arka Ashwagandha	
17	Evaluation of Chlorantraniliprole 18.5 SC against pomegranate fruit borer	HREC, Vijayapur
18	Evaluation of Fipronil 5 % SC against grape thrips	
19	Collection and evaluation of fenugreek genotypes for seed yield	
20	Evaluation of coriander varieties	
21	Farm trail on Fenugreek Varieties	COH, Bidar
22	Farm trail on Ashwagandha Varieties	
23	Management of mango bark eating caterpillar, Inderbela quadrinotata.	
24	Screening of Banana germplasm (Grand naine & Hoobale) against burrowing nematode.	

## Field Days Organized

	Title	Date	Place	Number of Beneficiaries
1	Field Day on Vegetables	08-01-2017	At Main campus, UHS-Bagalkot	45
2	Field Day on Grapes	06-02-2017	70 sector, UHS, Bagalkot	130
3	Field Day on Chrysanthemum	22-11-2016	Farmers field, Guledagudda	75
4	Field Day on Fruits and Vegetables recipes	02-01-2017	Main Campus UHS, Bagalkot	126
5	Field day cum Workshop on Export Oriented Production of Grapes	15-04-2016	Kengalgutti	248
6	IFS Programme	28-12-2016	Neeralkatti village Dharwad	60
7	Water melon and Capsicum	16-09-2016	Raju Bairugol At: Rajapur Gokak, Belagavi	53
8	Watermelon	24-01-2017	Honnakuppi, Gokak and Belagavi	34
9	Turmeric	25-01-2017	Tukkanatti, Gokak and Belagavi	36
10	Field day on Banana	17-03-2017	Budagumpa Cross, Bilebhavi, Village Munirabad	50
11	Field day on Mango	27-03-2017	Kadirampur Village Munirabad	36
12	Field day on Chilli	23-12-2017	Shri. Lokesh Redder At.: Kubihal, Dist: Dharwad	180
13	Field day seed production in Chilli	09-12-2017	At.: Kamadalli Dist: Dharwad	180
14	Field day on Potato	27-08-2016	Hassan	250
15	Field day on spice crops	27-01-2017	COH, Bengaluru	80
16	Field day on onion	23-02-2017	Allipur Tanda, & Dist. Yadagiri	59
<b>Total</b>				<b>1642</b>

Workshops Organised

Title		Date	Place	Number of Beneficiaries
1	Krishi Abhiyan – District and Hobli level programme planning	07-06-2016	ADA office, Bagalkot	123
2	Interactive workshop on Exportable Grapes at	19-08-2016	Directorate of Extension, UHS, Bagalkot	42
3	Organic methods of managing insect pests in fruits and vegetables	31-08-2016		71
4	Consultative meet on inventive system of media and communication.	07-09-2016		27
5	Annual Action Plan of KVKs of Karnataka and Goa – 3 Days Workshop	02-03-2016 to 04-03-2016		34
6	Importance of medicinal plants	09-08-2016		25
7	National level grape growers seminar	24-09-2016 to 26-09-2016	Vijayapur	600
8	Prospects and challenges in mango production	08-10-2016	Bagalkot	500
9	Honey bee rearing	14-11-2016	Madhuvana, Haliyal, Dharwad	125
10	Black rot disease of cabbage	08-07-2016	Arabhavi, Gokak	27
11	Mycorrhiza application in ginger	20-07-2016	Kalloli, Gokak	26
12	Tri-monthly work shop on Horticulture	27-09-2016	COH, Munirabad	80
13	Tri-monthly work shop on Horticulture	28-10-2016	COH, Munirabad	70
14	Tri-monthly work shop on Horticulture	23-02-2017	COH, Munirabad	70
15	Value add Products in coconut	05-08-2016	HRES, Arasikere	25
16	Water and pest management in coconut	06-09-2016		30
17	Value added Products in coconut	20-09-2016		37
18	Water & pest management in coconut crop	06-02-2017		43
19	Summer season water management in coconut	14-02-2017		22
20	Mango post harvest management and ripening	30-05-2016	COH, Bidar	62
21	Paramparik Krishi Padhati	02-07-2016		112
22	Tri monthly Horticulture workshop	25-11-2016		35
23	Trimonthly Horticulture workshop	23-09-2016	COH, Mysuru	73
24	Workshop on Animal Health	10-03-2017	Chanmao, Sirsi	34
<b>Total</b>				<b>2293</b>

## Participation in Exhibitions

Exhibition		Date	Place	Number of Farmers visited
1	Exhibition of Publications of UHS and other technologies	15-08-2016	Chikkasangam, Bagalkot	86
2	Exhibition of Publications of UHS, Bagalkot	25-08-2016	Jamakhandi	2800
3	Organic methods of controlling fruits and vegetables pests	31-08-2016	Directorate of Extension, UHS, BAGALKOT	71
4	UHS publications and Technology	24-09-2016 to 27-09-2016	UAS, Dharwad	2021
5	UHS Publications	17-12-2016 to 19-12-2016	UHS Main Campus Bagalkot	1623
6	UHS Publications and Technologies	24-01-2017		83
7	Exhibition of 26 Grapes varieties	06-02-2017	Sector 70, UHS, Bagalkot	78
8	Mango and Jack Exhibition	01-06-2016 to 02-06-2016	Directorate of Extension, UHS, BAGALKOT	317
9	Exhibition of Publications of UHS and other technologies	15-11-2016 to 08-11-2016	UAS, Raichur	1423
10	Krishimela, UAS Raichur	05-11-2016 to 08-11-2016		23000
11	Krishimela (Krusha Bhagya Yamane)	29-08-2016	Koppal	6000
12	Agriculture Technology Week	01-12-2016	KVK, Kandali, Hassan.	80
13	Siridhanya Mela	19-11-2016 to 20-11-2016	Municipal Ground, Hassan.	500
14	Regional Horticulture Fair	15-01-2017 to 17-01-2017	IIHR, Bengaluru.	1200
15	Flower show-2017	26-01-2017 to 28-01-2017	Silver jubilee park, Hassan.	800
16	8th Agriculture science congress Exhibition	21-02-2017 to 24-02-2017	GKVK, Bengaluru	513
17	Exhibition in KVK, Bidar	05-04-2016	KVK, Janawada	600
18	Krishi Mela 2016	20-04-2016 to 22-04-2016	Bhalki Hiremath Samsthana, Bhalki	475

**Annual Report 2016-17**

19	National exhibition on Fruit wealth	27-04-2016 to 29-04-2016	IIHR, Bengaluru	500
20	Mango & Jack Exhibition at UHS, Bagalkot	01-06-2016 to 02-06-2016	UHS, Bagalkot	200
21	Exhibition cum sale of Jack fruit value added products	28-09-2016 to 29-09-2016	COH, Kolar	369
22	RHWE Exhibition	02-02-2016		163
23	Sutturu Krishi Mela	24-01-2017 to 31-01-2017	Sutturu, Mysuru	2600
24	Exotic vegetable exhibition.	16-11-2016	COH, Sirsi	200
25	Vidya Santhe	10-06-2016 to 12-06-2016	Kadamba Marketing Society, Sirsi	2426
26	Sasya Santhe	12-07-2016 to 21-07-2016		2612
<b>Total</b>				<b>50740</b>

## Radio Talks &amp; T.V. Programmes

## Radio Talks

	Talk	Date	station	Scientist.
1.	Nutrient management in banana and papaya	25-8-2016	AIR, Bengaluru Krishi Ranga	Dr. Anil Kumar, S.
2.	Jamun cultivation	3-10-2016	AIR, Bengaluru	Dr. T. R. Guruprasad
3.	Nutrient deficiency in fruit crops	20-3-2017	AIR, Bengaluru	Dr. Anil Kumar, S.
4.	Sucking pest management in Vegetables	13-3-2017	AIR Bengaluru	Dr. G. K. Ramegowda
5.	Problem and solution in Pomegranate	-	Akashvani Kendra, Hassan	Dr. Manjunath Hubballi
6.	Mist or dew problem in agriculture	5-12-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash
7.	Modern technologies in ginger crop production	-	Akashvani Kendra, Hassan	Mr. Siddappa
8.	Method in development of varieties and hybrids in coconut	12-11-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash
9.	Pest and disease management in pomegranate, coconut and other vegetables	15-02-2017	Holalkere Hobli, Akashvani Hassan	Dr.G.S. Chandrashekar
10.	ICM in Sapota	02-07-2016	AIR, Dharwad	Mr. A.M. Shirol
11.	ICM in banana	06-07-2016	AIR, Dharwad	Ms. Suhasini Jalawadi
12.	IDM in banana	02-08-2016	AIR, Dharwad	Dr. Kantharju, V.
13.	Problem and solution in Pomegranate	-	Akashvani Kendra, Hassan	Dr. Manjunath Hubballi
14.	Mist or dew problem in agriculture	5-12-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash
15.	Modern technologies in ginger crop production	-	Akashvani Kendra, Hassan	Mr. Siddappa
16.	Method in development of varieties and hybrids in coconut	12-11-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash
17.	Pest and disease management in pomegranate, coconut and other vegetables	15-02-2017	Holalkere Hobli, by Akashvani Hassan	Dr.G.S. Chandrashekar
18.	Nutrient management in banana and papaya	25-8-2016	AIR, Bengaluru Krishi Ranga	Dr. Anil Kumar, S.
19.	Jamun cultivation	03-10-2016	AIR, Bengaluru	Dr. T. R. Guruprasad
20.	Nutrient deficiency in fruit crops	20-03-2017	AIR, Bengaluru	Dr. Anil Kumar, S.
21.	Sucking pest management in Vegetables	13-03-2017	AIR Bengaluru	Dr. G. K. Ramegowda
22.	Problem and solution in Pomegranate	-	Akashvani Kendra, Hassan	Dr. Manjunath Hubballi
23.	Mist or dew problem in agriculture	05-12-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash
24.	Modern technologies in ginger crop production	-	Akashvani Kendra, Hassan	Mr. Siddappa
25.	Method in development of varieties and hybrids in coconut	12-11-2016	Akashvani Kendra, Hassan	Dr. B.G.Prakash

26.	Pest and disease management in pomegranate, coconut and other vegetables	15-02-2017	Holalkere Hobli, by Akashavani Hassan	Dr.G.S. Chandrashekar
27.	About Totagarike Mela	11-12-2016	AIR, Dharwad	Dr. Y.K. Kotikal
28.	Farmer Producer Organisations – Pramukhyate	06-01-2016	Community Radio Station, UAS, Dharwad	Dr. Shashikumar S
29.	Totagarika Vigyanagala Vistarana Karyakramagalu	10-12-2016	Community Radio Station, UAS, Dharwad	Dr. Shashikumar S
30.	100 Advisories given to AIR for daily advisories in the Morning under Raitarige Salahegalu (Hints To Farmers) between 6.35 AM to 6.40 AM in Aakashwani	07-02-2017 to 17-05-2017	Community Radio Station, UAS, Dharwad	Dr. Shashikumar S
31.	IDM in turmeric	01-07-2016	AIR, Dharwad	Dr. M.S. Kulkarni
32.	ICM in Sapota	02-07-2016	AIR, Dharwad	Mr. A.M. Shirol
33.	ICM in banana	06-07-2016	AIR, Dharwad	MS Suhasini Jalawadi
34.	Turmeric	08-09-2016	AIR, Dharwad	Dr. Srikanthaprasad
35.	Coleus	08-09-2016	AIR, Dharwad	Dr. Pushpa T. N.
36.	Organic farming practices and IFS in agriculture and horticulture crops	05-05-2016	AIR, Hospet	Dr. Jagdeesha N
37.	Problem and solution in Pomegranate	26-10-2016	AIR, Hassan	Dr.Manjunath H
38.	Mist or dew problem in agriculture	26-10-2016	AIR, Hassan	Dr. B.G.Prakash
39.	Modern technologies in ginger crop production	26-10-2016	AIR, Hassan	Mr. Siddappa
40.	Method in development of varieties and hybrids in coconut	12-11-2016	AIR, Hassan	Dr. B.G.Prakash
41.	Grafting technology for vegetable crops	29-09-2016	AIR, Mysuru	Mr. Harish B S
42.	Production technology of Cole crops	21-10-2016	AIR, Mysuru	Mr. Harish B S
43.	Production technology of Cucurbits	11-11-2016	AIR, Mysuru	Mr. Harish B S
44.	Mobile Apps for Horticulture farmers (Phone-in)	09-12-2016	AIR, Mysuru	Mr. Harish B S
45.	Production technology of aggregate onion (Phone-in)	13-01-2017	AIR, Mysuru	Mr. Harish B S
46.	Production technology of Solanaceous vegetables	10-02-2017	AIR, Mysuru	Mr. Harish B S
47.	Drip irrigation and fertigation for Horticulture crops	03-03-2017	AIR, Mysuru	Mr. Harish B S
48.	Importance of Soil Health production for Horticulture crops	14-10-2017	AIR, Mysuru	Dr. Dhananjaya B.N.
49.	Integrated diseases Management for Cucurbits	25-11-2017	AIR, Mysuru	Mr. Sudharshan G.K.

50.	Integrated Pest and Disease Management for Mango crop	23-12-2016	AIR, Mysuru	Mr. Sudharshan G.K. & Dr. Muthuraju G.P.
51.	Integrated Pest and Disease Management for Tomato, Chilli & Brinjal crop	17-02-2017	AIR, Mysuru	Mr. Sudharshan G.K. & Dr. Muthuraju G.P.
52.	Role of Banana in human nutrition.	05-05-2016	Air Karwar	Dr. N Basavaraj
53.	Role of women in agriculture.	14-04-2016	Air Karwar	Dr.Pushpa.P
54.	Improved cultivation practices of papaya.	23-06-2016	Air Karwar	Dr.Manukumar H R
55.	Plant variety protection and farmers right.	26-05-2016	Air Karwar	Dr Ratnakar M Shet
56.	Water management in horticulture crops.	16-06-2016	Air Karwar	Dr.Shivakumar K M
57.	Intercropping of flower crops.	10-05-2016	Air Karwar	Dr. Harshavardhan M
58.	Importance of plant growth regulators in horticultural crops.	02-06-2016	Air Karwar	Mr. Ashok
59.	Importance and maintenance of terrace gardening.	03-05-2016	Air Karwar	Dr. Shivanand Hongal
60.	Export performance of black pepper.	05-05-2016	Air Karwar	Mr. C.G.Yadava
61.	Seed production techniques in cucurbitaceous vegetables.	09-06-2016	Air Karwar	Dr.Shanthappa T
62.	Integrated pest management of areca nut root grubs.	19-05-2016	Air Karwar	Mr.Raghunath R
63.	Management of Ginger soft Rot disease.	19-05-2016	Air Karwar	Mr.Prashantha A

#### T.V. Programmes

	Title	Date	Station	Scientist
1	About Totagarike Mela	14-12-2016	DD Chandana,	Dr. Y.K. Kotikal
2	Impact of Climate Change on Horticulture crops	10-01-2017	DD Chandana,	Dr. Y.K. Kotikal
3	Advanced Onion Production technology with seedling transplanted in raised bed with drip irrigation system	10-06-2016	E TV Annadata	Dr. Shashikumar S
4	Onion Storage structures for storage of onions	12-11-2016	E TV Annadata	Dr. Shashikumar S
5	Sigatoka leaf spot disease in Banana	27-05-2016	DD Chandana	Dr. Kantharaju, V
6	Information of Sapota	01-06-2016	DD Chandana	Mr. A. M. Shirol
7	Rhizome rot disease in Banana	03-06-2016	DD Chandana	Dr. Kantharaju, V
8	New Production Technologies in Banana	01-06-2016	DD Chandana	Ms. Suhasini Jalawadi
9	Seed Treatment in Turmeric	29-06-2016	DD Chandana	Dr. Kantharaju, V
10	Seed treatment campaign-Turmeric	01-07-2016	DD Chandana	Dr. M. S. Kulkarni, Dr. Kantharaju, V., Dr. Gangadharappa, Dr. Ramanagouda SH.

11	Control of Root grub and Sucking pest	06-07-2016	DD Chandana	Dr. Ramanagouda SH.
12	Burrowing Nematode disease management -Banana	08-07-2016	DD Chandana	Dr. Kantharaju, V
13	Disease management in Sapota	20-07-2016	DD Chandana	Dr. M. S. Kulkarni
14	New Production Technologies in Cabbage	27-07-2016	DD Chandana	Dr. Ravindra Mulge
15	Mass multiplication of Metarrhizium	29-07-2016	DD Chandana	Dr. Ramanagouda SH.
16	New farming technology for bottle guard	29-07-2017	DD Chandana	Dr. Shashikanth Evoor
17	Integrated Farming in Banana	03-08-2016	DD Chandana	Dr. Kantharaju, V
18	New farming technology for turmeric	05-08-2016	DD Chandana	Mr. Shrikanthaprasad
19	Management of flat limb disease of Sapota	05-08-2016	DD Chandana	Dr. M. S. Kulkarni
20	Raton crop cultivation in Banana	23-11-2016	DD Chandana	Dr. D. P. Prakash
21	Maintenance of early flowering in mango	30-11-2016	DD Chandana	Dr. D. P. Prakash
22	Cashew Cultivation	16-04-2016	ETV Annadata	Dr. T. R. Guruprasad
23	Cashew cultivation	16-04-2016	DD Chandana	Dr. T. R. Guruprasad
24	Management of Horticultural Crops in Drought situation	19-04-2016	DD Chandana	Dr. T. R. Guruprasad
25	Jamun cultivation aspects	29-06-2016	ETV Annadata	Dr. T. R. Guruprasad
26	Jamun cultivation aspects	29-06-2016	DD Chandana	Dr. T. R. Guruprasad
27	Jamun & cashew cultivation	14-10-2016	DD Chandana	Dr. T. R. Guruprasad
28	Importance of foliar application of citrus special on lime	25-11-2016	ETV Annadata	Dr. Anil Kumar, S.
29	Importance of foliar application of vegetable special on vegetable crops	25-11-2016	ETV Annadata	Dr. Anil Kumar, S.
30	Jasmine cultivation practices	04-05-2016	Gulbarga, DD	Dr Vijayalaxmi P
31	IPM in Major Fruit crops	13-04-2016	Gulbarga, DD	Shashikala B A
32	PHT in Mango	18-05-2016	Gulbarga, DD	Shashikala B A
33	Scientific Vegetable Nursery development	Broadcasted on 10-08-2016	Gulbarga, DD	Dr. Ravindra Mulge
34	Cabbage cultivation	Broadcasted on 21-09-2016	Gulbarga, DD	Dr. Ravindra Mulge

## Institutional Advisory SMS Services

ಮಾಹಿತಿ ಕಳುಹಿಸಿದ ದಿನಾಂಕ	ಸಂದೇಶ- ಮಾಹಿತಿ	ಒಟ್ಟು ಫಲಾನುಭವಿಗಳ ವಿವರ
1. 4-21-2016	ಬಲಿತಮಾವಿನ ಕಾಯಿಗಳನ್ನು ಕೊಯ್ಲು ಮಾಡುವಾಗ ಸುಮಾರು 1 ಸೆ.ಮೀ. ಉದ್ದದ ತೊಟ್ಟನ್ನು ಬಿಟ್ಟು ಕೊಯ್ಲು ಮಾಡಬೇಕು. ಈ ರೀತಿ ಕೊಯ್ಲು ಮಾಡುವುದರಿಂದ ಕಾಯಿಗಳಿಂದ ಒಸರುವ ರಸ ಹಣ್ಣಿಗೆ ತಾಗಿ ಗಾಯಗಳಾಗಿ ಹಾಳಾಗುವುದನ್ನು ತಡೆಯಬಹುದು-ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	7434
2. 4-27-2016	ಮಾವಿನ ಬೆಳೆಯ ಹಣ್ಣಿನ ನೊಣದ ನಿಯಂತ್ರಣಕ್ಕಾಗಿ ಮೋಹಕ ಬಲೆಗಳನ್ನು ತೂಗು ಹಾಕಬೇಕು. ಈ ಬಲೆಗಳಲ್ಲಿ ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ 1 ಮಿ.ಲೀ. ಮೀಥೈಲ್ ಯುಜಿನಾಲ್ ಮತ್ತು 1 ಮಿ.ಲೀ. ಮೆಲಾಥಿಯಾನ್ ಬೆರೆಸಿದ ದ್ರಾವಣ ಬಳಸಬೇಕು-ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8531
3. 5-5-2016	ಮಾವಿನ ಕಾಯಿಯನ್ನು ಸೂಕ್ತ ಪಕ್ವತೆಯ ಹಂತದಲ್ಲಿ ಅಂದರೆ ಕಾಯಿಯ ಸಿಪ್ಪೆ ಸ್ವಲ್ಪ ಹಳದಿ ಬಣ್ಣಕ್ಕೆ ತಿರುಗಿದಾಗ ಮತ್ತು ಕಾಯಿಗಳನ್ನು ಕೊಯ್ಲು ಮಾಡುವಾಗ ಹಾಲು ಒಸರುವುದು ಕಡಿಮೆಯಾಗಿ ಬೇಗ ಒಣಗುವ ಹಂತದಲ್ಲಿ ಕೊಯ್ಲು ಮಾಡಬೇಕು-ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8514
4. 5-21-2016	ಕೊನೆಯ ಅಂಗಮಾರಿ ರೋಗ ಕಾಣಿಸಿಕೊಂಡಿರುವ ಟೊಮ್ಯಾಟೋ ತಾಕುಗಳಲ್ಲಿ 1 ಗ್ರಾಂ ಡೈಮಿಥೊಮಾರ್ಫ್ ಅಥವಾ 3 ಗ್ರಾಂ ಫಿನಾಮಿಡಾನ್+ಮಾಂಕೊಫೇಬ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಲು ಸೂಚಿಸಲಾಗಿದೆ-ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8514
5. 5-28-2016	ಭಾರತ ಸರ್ಕಾರವು ಕೃತಕವಾಗಿ ಮಾವಿನ ಹಣ್ಣುಗಳನ್ನು ಮಾಗಿಸುವಿಕೆಗೆ ಹೃದಯ ಸಂಬಂಧಿ ಕ್ಯಾನ್ಸರ್ ತರುವ ಕ್ಯಾನ್ಸಿಯಂ ಕಾರ್ಬೈಡ್ ಬಳಕೆಯನ್ನು ನಿಷೇಧಿಸಿದೆ. ಪರ್ಯಾಯವಾಗಿ ಇಥೈಲ್ ಅಥವಾ ಇಥೋಫಾನ್ ಅನ್ನು ಮಾವಿನ ಹಣ್ಣುಗಳನ್ನು ಮಾಗಿಸಲು ಬಳಸಲು ಸೂಚಿಸಲಾಗಿದೆ- ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8514
6. 6-3-2016	ಬಲಿತ ಮಾವಿನ ಕಾಯಿಯನ್ನು, ಒಂದು ಉದ್ದವಾದ ಕೋಲಿನ ತುದಿಗೆ ಕಬ್ಬಿಣದ ಸರಳನ್ನು ಅಳವಡಿಸಿ ಚೀಲವನ್ನು ಕಟ್ಟಿರುವ ಸಾಧನವನ್ನು (ಮ್ಯಾಂಗೊ ಹಾರ್ವೆಸ್ಟರ್- Mango Harvester) ಉಪಯೋಗಿಸಿ ಕೊಯ್ಲು ಮಾಡಬೇಕು ಮತ್ತು ಕೊಯ್ಲು ಮಾಡಿದ ಮಾವಿನ ಕಾಯಿಯನ್ನು ನೆರಳಿನಲ್ಲಿ ಶೇಖರಿಸಿ ಇಡಬೇಕು. ಕೃ.ವಿ.ಕೆ.ಕೋಲಾರ	8514
7. 6-11-2016	ಬಿತ್ತನೆಗೆ ಮುಂಚೆ ಪ್ರತಿ ಎಕರೆಗೆ ಬೇಕಾದ ತೊಗರಿ ಬಿತ್ತನೆ ಬೀಜಕ್ಕೆ ಜೈವಿಕ ಗೊಬ್ಬರ - ರೈಜೋಬಿಯಂ 200 ಗ್ರಾಂ ಮತ್ತು ರಂಜಕ ಕರಗಿಸುವ ಜೀವಾಣು 200 ಗ್ರಾಂ ನಿಂದ ಬೀಜೋಪಚಾರ ಮಾಡಬೇಕು. ಕೆ. ವಿ.ಕೆ- ಕೋಲಾರ.	8514

8.	6-14-2016	ಹಿಪ್ಪುನೇರಳೆಯನ್ನು ಮಳೆಯಾಶ್ರಿತ ಪದ್ಧತಿಯಲ್ಲಿ ಮರಗಳಾಗಿ ಬೆಳೆಸಲು ಹೊಸದಾಗಿ ನಾಟಿಮಾಡಲು ರೈತರು 10 X 10 ಅಡಿ ಅಥವಾ 12 X 12 ಅಡಿ ಅಂತರದಲ್ಲಿ ಗುಣಿಗಳನ್ನು(4 ಅಡಿ ಉದ್ದ X 4 ಅಡಿ ಅಗಲ X 4 ಅಡಿ ಆಳ) ತೆಗೆದು ಮುಂಗಾರಿನ ಪ್ರಾರಂಭದಲ್ಲಿ ನಾಟಿ ಮಾಡಬೇಕು - ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8514
9.	6-24-2016	ಟೊಮ್ಯಾಟೋ ಬೆಳೆಯ ಬೀಜಗಳನ್ನು ನರ್ಸರಿಯಲ್ಲಿ 40 ಮೆಶ್ ನೈಲಾನ್ ಪರದೆಯಲ್ಲಿ ಕೊಕೋಪೀಟ್ ಹೊಂದಿರುವ ಫ್ರೋಟ್ರಿ ಗಳಲ್ಲಿ ಬಿತ್ತುವುದರಿಂದ ನಂಜೂರೋಗದ ಬಾಧೆ ಕಡಿಮೆಯಾಗುವುದು.	8528
10.	6-29-2016	ಮಾವಿನಲ್ಲಿ ರೆಂಬೆಗಳು ಒತ್ತೊತ್ತಾಗಿ ಬೆಳೆದಾಗ ಅವುಗಳಲ್ಲಿ ಕೆಲವೊಂದು ರೆಂಬೆಗಳನ್ನು ಕತ್ತರಿಸಿ (ಚಾಟನಿ) ವಿರಳಗೊಳಿಸಿದರೆ ಸೂರ್ಯನ ಬೆಳಕು ಒಳಭಾಗದಲ್ಲಿ ಬೀಳುವಂತಾಗಿ ಹಣ್ಣಿನ ಇಳುವರಿ ಮತ್ತು ಗುಣಮಟ್ಟ ಹೆಚ್ಚಾಗುತ್ತದೆ. ಹಣ್ಣಿನ ಕೊಯ್ಲು ಆದನಂತರ, ಜುಲೈ ತಿಂಗಳು ಚಾಟನಿ ಮಾಡಲು ಸೂಕ್ತ ಸಮಯ - ಕೆ.ವಿ.ಕೆ. ಕೋಲಾರ.	8518
11.	7-1-2016	ಹಿಪ್ಪುನೇರಳೆಯಲ್ಲಿ ಎಲೆ ಮತ್ತು ರೆಂಬೆಗಳ ಒಣಗುವಿಕೆ, ಬೇರಿನ ತೊಗಟೆ ಕೊಳೆತು ಬೇರ್ಪಡುವಿಕೆ ಚಿಹ್ನೆ ಕಂಡು ಬರುವ ಬೇರು ಕೊಳೆರೋಗದ ನಿಯಂತ್ರಣಕ್ಕೆ ರೇಷ್ಮೆ ಬೆಳೆಗಾರರು ಒಂದು ತಿಂಗಳ ಅಂತರದಲ್ಲಿ ಎರಡು ಬಾರಿ 5 ಗ್ರಾಂ ಡೈಥೇನ್ ಎಮ್-45 ಶಿಲೀಂಧ್ರ ನಾಶಕವನ್ನು ಪ್ರತಿ ಗಿಡದ ಬೇರಿನ ಸುತ್ತ ನೀಡಬೇಕು. ಕೆ.ವಿ.ಕೆ. ಕೋಲಾರ.	8521
12.	7-5-2016	ನುಗ್ಗೆಯ ಭಾಗ್ಯ ತಳಿಯು ಮೂಲವಾಗಿ ಗಿಡ್ಡ ಜಾತಿಯದಾಗಿದ್ದು 2-4 ಮೀ. ಎತ್ತರ ಬೆಳೆಯುತ್ತದೆ. ಪ್ರತಿ ಕಾಯಿಯು 60-70 ಸೆಂ. ಮೀ. ಉದ್ದವಿದ್ದು, ಪ್ರಥಮ ವರ್ಷದಿಂದ 350-400 ಕಾಯಿಗಳು ಹಾಗೂ ಎರಡನೇ ವರ್ಷದಲ್ಲಿ 750-800 ಕಾಯಿಗಳ ಉತ್ತಮ ಫಸಲನ್ನು ಪ್ರತಿ ಗಿಡದಿಂದ ಪಡೆಯಬಹುದು. ಕೆ.ವಿ.ಕೆ. ಕೋಲಾರ.	8518
13.	7-8-2016	ದಾಳಿಂಬೆಯಲ್ಲಿ ಬುಡದಿಂದ ಬರುವ ಮುಖ್ಯ ರೆಂಬೆಗಳೊಂದಿಗೆ ಪೊದೆ ಆಕಾರದಲ್ಲಿ ಬೆಳೆಸುವ ಪದ್ಧತಿಯು ರೂಢಿಯಲ್ಲಿದೆ. ಆದರೆ ಒಂದೇ ಮುಖ್ಯ ರೆಂಬೆಯ ಮೇಲೆ ಎಲ್ಲಾ ದಿಕ್ಕುಗಳಲ್ಲಿ ಪಸರಿಸಿದ ಉಪ ರೆಂಬೆಗಳು ಬರುವಂತೆ ಆಕಾರ ಕೊಟ್ಟು ಬೆಳೆಸುವ ವಿಧಾನ ಉತ್ತಮವಾಗಿರುತ್ತದೆ. ಕೆ. ವಿ. ಕೆ. ಕೋಲಾರ	8518
14.	7-9-2016	ಡ್ರಿಫ್ಟ್ ಕೀಟದ ಹಾವಳಿ ಹೆಚ್ಚಾಗಿದ್ದು ರೇಷ್ಮೆ ಬೆಳೆಗಾರರು ಈ ಕೀಟದ ನಿಯಂತ್ರಣಕ್ಕೆ ಹಿಪ್ಪುನೇರಳೆ ತೋಟಗಳಿಗೆ ಸಾಮೂಹಿಕವಾಗಿ ಶೇ.0.076 ಡಿಡಿವಿಪಿ (1 ಮಿಲಿ.) ಕೀಟನಾಶಕವನ್ನು 1 ಲೀ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಹತ್ತು ದಿನಗಳ ಅಂತರದಲ್ಲಿ 2 ಬಾರಿ ಸಿಂಪಡಿಸಬೇಕು. 15 ದಿನಗಳ ನಂತರ ಸೊಪ್ಪನ್ನು ನೀಡುವುದು. ಕೆ. ವಿ. ಕೆ.ಕೋಲಾರ.	8518

15.	7-12-2016	ನೀರಿನಲ್ಲಿ ಸುಲಭವಾಗಿ ಕರಗುವ ರಸಗೊಬ್ಬರಗಳನ್ನು ಅಥವಾ ದ್ರವರೂಪದ ಗೊಬ್ಬರಗಳನ್ನು ಹನಿ ನೀರಾವರಿ ವ್ಯವಸ್ಥೆಯನ್ನು ಬಳಸಿ ಬೆಳೆಗಳಿಗೆ ಕೊಡುವುದರಿಂದ, ಬೆಳೆಗೆ ಫೋಷಕಾಂಶಗಳ ದೊರೆಯುವಿಕೆ ಹೆಚ್ಚಾಗಿ ಉತ್ತಮ ಇಳುವರಿಯನ್ನು ಪಡೆಯಬಹುದಲ್ಲದೆ, ಕೂಲಿ ಆಳಿನ ಉಳಿತಾಯವಾಗುತ್ತದೆ. ಕೆ. ವಿ. ಕೆ. ಕೋಲಾರ.	8518
16.	7-16-2016	ಒಣ ಬೇಸಾಯದಲ್ಲಿ ತೋಟಗಾರಿಕೆಯನ್ನು ಯಶಸ್ವಿಯಾಗಿ ಮಾಡಬೇಕಾದರೆ, ಬಿದ್ದ ನೀರನ್ನು ಕ್ಷೇತ್ರ ಹೊಂಡದಲ್ಲಿ ಸಂರಕ್ಷಿಸುವುದು, ನೆಲ ಹೊದಿಕೆ ಮಾಡುವುದು, ಕಂದಕಗಳನ್ನು ತೆಗೆಯುವುದು, ಒಡ್ಡುಗಳನ್ನು ಹಾಕುವುದರ ಮುಖಾಂತರ ಮಣ್ಣು ಮತ್ತು ನೀರನ್ನು ವೃಥಾವಾಗಿ ಹೋಗದಂತೆ ಸಂರಕ್ಷಿಸುವುದು ಅತ್ಯಗತ್ಯ. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8518
17.	7-18-2016	ಟೊಮ್ಯಾಟೋ ಬೆಳೆಯ ಪಿನ್ ವರ್ಮ್ (ರೈತರು ಉಜಿ ಎಂದು ಕರೆಯಲ್ಪಡುವ) ಕೀಟದ ನಿಯಂತ್ರಣಕ್ಕೆ ಹಳದಿ ಬಣ್ಣದ ಅಂಟಿನ ಹಾಳೆಯ ಮೇಲೆ ಮೋಹಕ ಪದಾರ್ಥ ಹೊಂದಿರುವ ರಬ್ಬರನ್ನು ಅಂಟಿಸಿ, ಪ್ರತಿ ಎಕರೆಗೆ 15 ರಂತೆ ಹಾಗೂ ಬೆಳೆಯ ಎತ್ತರಕ್ಕೆ ಬರುವಂತೆ ಜಮೀನಿನ ವಿವಿಧ ಭಾಗಗಳಲ್ಲಿ ಕಟ್ಟಬೇಕು. ಕೆ. ವಿ. ಕೆ. ಕೋಲಾರ.	8518
18.	7-23-2016	ಜಮೀನಿನಲ್ಲಿ ಹಾಗೂ ಕೊಟ್ಟಿಗೆಯಲ್ಲಿ ದೊರಕುವ ತ್ಯಾಜ್ಯ ವಸ್ತುಗಳನ್ನು ಬಳಸಿಕೊಂಡು ಕಾಂಪೋಸ್ಟ್-ಎರೆ ಹುಳು ಗೊಬ್ಬರ ತಯಾರಿಸಿ ಬೆಳೆಗಳಿಗೆ ನೀಡುವುದರಿಂದ ಉತ್ತಮ ಗುಣಮಟ್ಟದ ಕೃಷಿ ಉತ್ಪನ್ನಗಳನ್ನು ಪಡೆಯುವುದರ ಜೊತೆಗೆ ಮಣ್ಣಿನ ಆರೋಗ್ಯವನ್ನು ಕಾಪಾಡಿಕೊಂಡು ಅದರ ಉತ್ಪಾದಕ ಶಕ್ತಿಯನ್ನು ಹೆಚ್ಚಿಸಬಹುದು. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8518
19.	7-25-2016	ಪ್ರಧಾನ ಮಂತ್ರಿ ಪಸಲ್ ಭೀಮಾ ಯೋಜನೆಯಡಿ ನೋಂದಣಿ ಮಾಡಿಸಲು 30.7.2016 ಕೊನೆಯ ದಿನವಾಗಿದ್ದು ರೈತರು ಪಹಣಿ, ಬ್ಯಾಂಕ್ ಖಾತೆ ಪುಸ್ತಕ, ಆಧಾರ ಚುನಾವಣೆ ಗುರುತಿನ ಚೀಟಿಯೊಂದಿಗೆ ಹತ್ತಿರದ ರೈತ ಸಂಪರ್ಕ ಕೇಂದ್ರಕ್ಕೆ ಭೇಟಿನೀಡುವುದು.	8544
20.	7-30-2016	ಸವಳು ಮತ್ತು ಜವಳು ಭೂಮಿಯಲ್ಲಿ ಚಿಕ್ಕು ಬೆಳೆಯಲು ಸಾಧ್ಯವೆಂದು ಕಂಡುಬಂದಿದೆ. ಇದಲ್ಲದೇ ಈ ಮರಗಳನ್ನು ಬೆಳೆಯುವುದರಿಂದ ಮುಂದೆ ಭೂಮಿ ಸವಳಾಗುವುದನ್ನು ನಿಯಂತ್ರಿಸಬಹುದು. ಖಿರನಿ ಸಸಿಗಳ ಮೇಲೆ ಕಸಿ ಮಾಡಿದ ಕಸಿ ಸಸಿಗಳನ್ನು ನಟಿಗಾಗಿ ಬಳಸಬೇಕು. ಕೆ. ವಿ.ಕೆ. ಕೋಲಾರ.	8518
21.	8-3-2016	ಹಿಪ್ಪುನೇರಳೆಗೆ ಕೆಂಪು ಎಲೆ ಚುಕ್ಕೆ ರೋಗವು ಆಗಸ್ಟ್ ತಿಂಗಳಿನಿಂದ ಅಕ್ಟೋಬರ್ ವರೆಗೆ ಹೆಚ್ಚಾಗಿ ಕಂಡು ಬರುವುದರಿಂದ ರೇಷ್ಮೆ ಬೆಳೆಗಾರರು ಇದರ ನಿಯಂತ್ರಣಕ್ಕೆ ರೋಗ ಪೀಡಿತ ಎಲೆಗಳನ್ನು ಸಂಗ್ರಹಿಸಿ ಸುಟ್ಟುಹಾಕುವುದರ ಜೊತೆಗೆ ಶೇ. 0.1 ರ ಕಾರ್ಬೆಂಡೇಜಿಯಂ (1 ಗ್ರಾಂ-ಲೀಟರ್ ನೀರಿಗೆ) ಅನ್ನು ಸಿಂಪಡಿಸಬೇಕು. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	12053

22.	8-6-2016	ಕೀಟನಾಶಕಗಳು ಮತ್ತು ಕಳೆನಾಶಕಗಳು ವಿಷಪೂರಿತವಾಗಿರುವುದರಿಂದ ಮನುಷ್ಯರಿಗೆ ಮತ್ತು ಪ್ರಾಣಿಗಳಿಗೆ ಅಪಾಯಕಾರಿ, ಆದ್ದರಿಂದ ಅವುಗಳ ಸಿಂಪರಣೆ ಮಾಡುವಾಗ ಕೀಟ ಮತ್ತು ಕಳೆನಾಶಕಗಳಿಂದ ಕೂಡಿದ ಗಾಳಿಯನ್ನು ಉಸಿರಾಡಬಾರದು, ಸಿಂಪರಣೆಯ ನಂತರ ಕೈ ಮತ್ತು ಮುಖವನ್ನು ಸ್ವಚ್ಛವಾಗಿ ತೊಳೆದು ಬಟ್ಟೆಯನ್ನು ಬದಲಾಯಿಸಬೇಕು.ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	8518
23.	8-11-2016	ಕ್ಷಾರಯುಕ್ತ (ಅತಿ ಹೆಚ್ಚು ಉಪ್ಪು ಇರುವ) ನೀರನ್ನು ನೀರಾವರಿಗೆ ಉಪಯೋಗಿಸುವ ಮುನ್ನ ಮಣ್ಣಿಗೆ ಜಿಪ್ಸಮ್ ಸೇರಿಸುವುದು ಉತ್ತಮ. ಮಣ್ಣಿಗೆ ಜಿಪ್ಸಮ್ ಸೇರಿಸುವುದರಿಂದ ಕ್ಷಾರ ನೀರಿನಿಂದ ಕೆಡಬಹುದಾದ ಮಣ್ಣಿನ ಗುಣಲಕ್ಷಣಗಳನ್ನು ರಕ್ಷಿಸಿ ಉತ್ತಮ ಬೆಳೆಯನ್ನು ಪಡೆಯಬಹುದು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
24.	8-12-2016	ತೊಗರಿಯನ್ನು ಬಿತ್ತನೆ ಮಾಡಿದ 50 ದಿನಗಳ ನಂತರ ಬೆಳೆಮೇಲ್ಬಾಗದ ಕುಡಿಯನ್ನು 5 - 6 ಸೆ. ಮೀ. (2 ಇಂಚು) ದಷ್ಟು ಕುಡಿ ಚೆವುಟುವುದರಿಂದ ಹೆಚ್ಚಿನ ಸಂಖ್ಯೆಯಲ್ಲಿ ಹೊಸ ಕವಲೊಡೆದು, ಕಾಯಿಗಳ ಸಂಖ್ಯೆ ಹೆಚ್ಚಾಗಿ ಇಳುವರಿ ಹೆಚ್ಚಾಗುತ್ತದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
25.	8-18-2016	ದಾಳಿಬೆ, ಅಲಸಂದೆ, ಸೌತೆ, ಕೋಸು, ಹುರುಳಿ, ಬಟಾಣಿ, ಈರುಳ್ಳಿ ಬೆಳೆಗಳನ್ನು ನಾಟಿ ಮಾಡಿದ 5-6 ವರ್ಷಗಳ ತನಕ ಅಂತರ ಬೆಳೆಯಾಗಿ ಬೆಳೆಯಬಹುದು. ಹಸಿರು ಎಲೆ ಗೊಬ್ಬರಗಳಾದ ಸೆಣಬು ಮುಂತಾದವುಗಳನ್ನು ಮುಂಗಾರಿನಲ್ಲಿ ಬೆಳೆದು ಮಣ್ಣಿಗೆ ಸೇರಿಸುವುದರಿಂದ ಮಣ್ಣಿನ ಫಲವತ್ತತೆ ಹೆಚ್ಚಿಸುವುದಲ್ಲದೆ, ಇಳುವರಿ ಹೆಚ್ಚಾಗುತ್ತದೆ.	8539
26.	8-19-2016	ದಿನನಿತ್ಯ ಖಾಲಿ ಹೊಟ್ಟೆಯಲ್ಲಿ ನೆಲೆಕಾಯನ್ನು ತಿನ್ನುವುದರಿಂದ ರೋಗನಿರೋಧಕ ಶಕ್ತಿ ಮತ್ತು ಚರ್ಮದ ಕಾಂತಿಯನ್ನು ಹೆಚ್ಚಿಸಬಹುದು. ಇದರಿಂದ ಸ್ವರ್ಣ ಶೀತ ಮತ್ತು ಕೆಮ್ಮು, ಮುಂತಾದ ಕಾಯಿಗಳನ್ನು ತಡೆಯಬಹುದು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8543
27.	8-23-2016	ಸಸ್ಯಾವಶೇಷಗಳನ್ನು ನೇರವಾಗಿ- ಕಾಂಪೋಸ್ಟ್ ಮಾಡಿ ಭೂಮಿಗೆ ಸೇರಿಸುವುದರಿಂದ ಮಣ್ಣಿನಲ್ಲಿ ನೀರು ಇಂಗುವಿಕೆ, ಬಸಿಯುವಿಕೆ, ನೀರು ಹಿಡಿದಿಟ್ಟುಕೊಳ್ಳುವ ಸಾಮರ್ಥ್ಯ ಹೆಚ್ಚಾಗುತ್ತದೆ ಹಾಗೂ ಮುಖ್ಯ ಪೋಷಕಾಂಶಗಳಲ್ಲದೆ ಲಘುಪೋಷಕಾಂಶಗಳನ್ನು ಪುನರಾವರ್ತಿಸಿ ಭೂಮಿಯ ಫಲವತ್ತತೆಯನ್ನು ಹೆಚ್ಚಿಸುತ್ತದೆ-ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518

28.	8-30-2016	ಅಣಬೆಯು ಒಂದು ಶಿಲೀಂಧ್ರ ಜಾತಿಗೆ ಸೇರಿದ ಪೌಷ್ಟಿಕ ಆಹಾರವಾಗಿದ್ದು, ಇದನ್ನು ಅನೇಕ ಆಹಾರ ಪದಾರ್ಥಗಳನ್ನು ತಯಾರಿಸುವಲ್ಲಿ ಉಪಯೋಗಿಸಲಾಗುತ್ತದೆ. ಅಣಬೆ ಕೃಷಿ ಒಂದು ಸರಳ ತಾಂತ್ರಿಕತೆ ಮತ್ತು ವಿಧಾನವಾಗಿದ್ದು ಸಣ್ಣ ಹಾಗೂ ಅತಿ ಸಣ್ಣ ರೈತರು ಕಡಿಮೆ ವೆಚ್ಚದಲ್ಲಿ ಅಣಬೆ ಉತ್ಪಾದನೆ ಮಾಡಬಹುದು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
29.	9-2-2016	ಕ್ಯಾರ್ಟ್ ಬೆಳೆಯನ್ನು ವರ್ಷದ ಮೂರು ಕಾಲದಲ್ಲಿಯೂ ಬೆಳೆಯಬಹುದು ಆದರೆ ಹೆಚ್ಚಿನ ಇಳುವರಿ ಪಡೆಯಲು ಅಕ್ಟೋಬರ್ - ನವೆಂಬರ್ ತಿಂಗಳು ಅತಿ ಸೂಕ್ತ. ಜನವರಿ- ಫೆಬ್ರವರಿ, ಜೂನ್- ಜುಲೈ ತಿಂಗಳುಗಳು ಸಹ ಬಿತ್ತನೆಗೆ ಯೋಗ್ಯ. ಕೆ. ವಿ. ಕೆ. ಕೋಲಾರ.	8518
30.	9-9-2016	ತೆಂಗಿನ ಗರಿ ತಿನ್ನುವ ಕಪ್ಪು ತಲೆ ಹುಳುಗಳ ನಿಯಂತ್ರಣಕ್ಕೆ ಮರದಿಂದ 1 ಮೀ. ದೂರದಲ್ಲಿ ಪೆನ್ಸಿಲ್ ಗಾತ್ರದ ಬೇರನ್ನು ಅಗೆದು ತೆಗೆದು ಅದರ ತುದಿಯನ್ನು 10 ಮಿ.ಲೀ. ಮಾನೋಕ್ರೋಟೊಫಾಸ್ ಮತ್ತು 10 ಮಿ.ಲೀ. ನೀರನ್ನು ಹೊಂದಿರುವ ಪ್ಲಾಸ್ಟಿಕ್ ಚೀಲದಲ್ಲಿ ಮುಳುಗಿಸಿ, ಚೀಲದ ಬಾಯಿಯನ್ನು ದಾರದಿಂದ ಕಟ್ಟಬೇಕು. ಕೃ.ವಿ.ಕೆ., ಕೋಲಾರ.	8518
31.	9-14-2016	ಊಜಿ ನೊಣದ ಹಾವಳಿಯನ್ನು ತಡೆಗಟ್ಟಲು ರೇಷ್ಮೆ ಬೆಳೆಗಾರರು ಪರಿಸರ ಸ್ನೇಹಿಯಾದ ಹಳದಿಬಣ್ಣದ ಅಂಟು ಬಲೆಯನ್ನು ಹುಳು ಸಾಕಾಣಿಕೆ ಮನೆಯ ಕಿಟಕಿ ಮತ್ತು ಬಾಗಿಲು ಬಳಿ ಕಟ್ಟುವುದರಿಂದ ಹಳದಿಬಣ್ಣಕ್ಕೆ ಊಜಿ ನೊಣಗಳು ಆಕರ್ಷಿತಗೊಂಡು ಬಲೆಗೆ ಅಂಟಿಕೊಂಡು ಸಾಯುತ್ತವೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	12073
32.	9-16-2016	ತೋಟಗಾರಿಕಾ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟೆಯು ಶುಲ್ಕರಹಿತ ಉದ್ಯಾನ ಸಹಾಯವಾಣಿ- 1800 4257910 ಆರಂಭಿಸಿದ್ದು ರೈತರು ತೋಟಗಾರಿಕೆ ಬೆಳೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ತಾಂತ್ರಿಕ ಮಾಹಿತಿಯನ್ನು ದೂರವಾಣಿ ಮೂಲಕ ಪಡೆಯಬಹುದಾಗಿದೆ (ಸಮಯ ಬೆ.9- ಸಂಜೆ 5 ಮತ್ತು ಶನಿವಾರ ಬೆ.9- ಮಧ್ಯಾಹ್ನ 1 ಗಂಟೆ). ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ	8518
33.	9-17-2016	ತೋಟಗಾರಿಕಾ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟೆಯು ಶುಲ್ಕರಹಿತ ಉದ್ಯಾನ ಸಹಾಯವಾಣಿ - 1800 4257910 ಆರಂಭಿಸಿದ್ದು, ರೈತರು ತೋಟಗಾರಿಕೆ ಬೆಳೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ತಾಂತ್ರಿಕ ಮಾಹಿತಿಯನ್ನು ದೂರವಾಣಿ ಮೂಲಕ ಪಡೆಯಬಹುದಾಗಿದೆ (ಸಮಯ ಬೆ.9- ಸಂಜೆ 5 ಮತ್ತು ಶನಿವಾರ ಬೆ.9- ಮಧ್ಯಾಹ್ನ 1 ಗಂಟೆ). ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
34.	9-19-2016	ಹೂಕೋಸಿನಲ್ಲಿ, ಕಂದು ಬಣ್ಣದ ಮಚ್ಚೆಗಳನ್ನು ತಡೆಗಟ್ಟಲು ಮತ್ತು ಗುಣಮಟ್ಟದ ಹೂ ಪಡೆಯಲು 3 ಗ್ರಾಂ ಬೋರಿಕ್ ಆಸಿಡ್ ಮತ್ತು 0.2 ಗ್ರಾಂ ಅವೋನಿಯಮ್ ಮೊಲಿಬ್ಡೇಟ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ನಾಟಿ ಮಾಡಿದ 15 ದಿನಗಳ	8518

		ನಂತರ 15 ದಿನಗಳ ಅಂತರದಲ್ಲಿ 3 ಬಾರಿ ಸಿಂಪರಣೆ ಮಾಡಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	
35.	9-23-2016	ಎಲೆಕ್ಟೋಸುವಿನಲ್ಲಿ, ಎಲೆಗಳ ಮೇಲಿನ ಹಸಿರು ಪದಾರ್ಥವನ್ನು ಕೆರೆದು ತಿನ್ನುವ ಹಸಿರು ಹುಳು ಕಂಡು ಬಂದಲ್ಲಿ ಇಂಡಾಕ್ಸಾಕಾರ್ಬ್ 0.75 ಮಿ.ಲೀ ಅಥವಾ ಎಮಾಮೆಕ್ವಿನ್ ಬೆನ್ಜೋಯೇಟ್ 0.2 ಗ್ರಾಂ ಅಥವಾ ನೋವಾಲ್ಯೂರಾನ್ 0.75 ಮಿ.ಲೀ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
36.	9-26-2016	ತೋಟಗಾರಿಕಾ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟೆಯು ಶುಲ್ಕರಹಿತ ಉದ್ಯಾನ ಸಹಾಯವಾಣಿ- 1800 4257910 ಆರಂಭಿಸಿದ್ದು ರೈತರು ತೋಟಗಾರಿಕೆ ಬೆಳೆಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ತಾಂತ್ರಿಕ ಮಾಹಿತಿಯನ್ನು ದೂರವಾಣಿ ಮೂಲಕ ಪಡೆಯಬಹುದಾಗಿದೆ (ಸಮಯ ಬೆ.9- ಸಂಜೆ 5 ಮತ್ತು ಶನಿವಾರ ಬೆ.9- ಮಧ್ಯಾಹ್ನ 1 ಗಂಟೆ), ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
37.	9-29-2016	ಮಾವಿನ ಬೆಳೆಯಲ್ಲಿ, ಕಾಂಡ ಕೊರಕದ ಮರಿಹುಳುಗಳು ಕಾಂಡ ಕೊರೆದು ಒಳಗಡೆ ಸೇರಿ ತಿನ್ನುವುದರಿಂದ ಮರಗಳು ಒಣಗುತ್ತವೆ, ಇದರ ನಿರ್ವಹಣೆಗೆ ಹಾನಿಗೊಳಗಾದ ಕಾಂಡದ ಸಿಪ್ಪೆಯನ್ನು ತೆಗೆದು, ಹುಳುಗಳನ್ನು ನಾಶಗೊಳಿಸಿ, ಡೈಕ್ಲೋರ್ ವಾಸ್ ನ ಕೆಲ ಹನಿಗಳನ್ನು ಹುಳುವಿನಿಂದಾದ ರಂಧ್ರದಲ್ಲಿ ಹಾಕಿ ಮಣ್ಣಿನಿಂದ ಮುಚ್ಚಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	12053
38.	10-5-2016	ಹಿಪ್ಪು ನೇರಳೆಗೆ ಬ್ಯಾಕ್ಟೀರಿಯದಿಂದ ಹರಡುವ ಕಪ್ಪುಚುಕ್ಕೆ ರೋಗದಿಂದ ಎಳೆಯ ಮತ್ತು ಮಧ್ಯಮ ವಯಸ್ಸಿನ ಎಲೆಗಳು ವಕ್ರವಾಗಿ ತಿರುಚಿಕೊಂಡು ಒಣಗಿ ಉದುರುತ್ತವೆ. ಇದರ ನಿಯಂತ್ರಣಕ್ಕೆ 0.2 ಗ್ರಾಂ ಸ್ಟ್ರೆಪ್ಟೋಸೈಕ್ಲಿನ್ ಮತ್ತು 2.5 ಗ್ರಾಂ ಕಾರ್ಪರ್ ಸಲ್ಫೇಟ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿಗೆ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ	12098
39.	10-20-2016	ಕೃಷಿಯಲ್ಲಿ ಜಾನುವಾರುಗಳ ಗಂಜಲದ ಬಳಕೆಯಿಂದ ಕಡಿಮೆ ಖರ್ಚಿನಲ್ಲಿ ಅಧಿಕ ಇಳುವರಿ ಪಡೆಯಬಹುದು. ಗಂಜಲದಲ್ಲಿ ಶೇ.95 ರಷ್ಟು ನೀರು, ಶೇ.2.5 ರಷ್ಟು ಯೂರಿಯಾ ಹಾಗೂ ಶೇ.2.5 ರಷ್ಟು ಸತ್ತ, ಕಿಣ್ಣು, ಖನಿಜಗಳಿವೆ. ಗಂಜಲ ಕೇವಲ ಫೋಷಕಾಂಶಗಳನ್ನು ಒದಗಿಸುವುದಲ್ಲದೆ ಶಿಲೀಂಧ್ರ ನಾಶಕವಾಗಿಯೂ ಕೆಲಸಮಾಡುತ್ತದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ	8518
40.	11-5-2016	ಪ್ರಸ್ತುತ ಕೆಲವು ಮಾವಿನ ತೋಟಗಳಲ್ಲಿ ಕಾಲಕ್ಕೆ ಮುಂಚೆ ಹೂ ಕಾಣಿಸಿಕೊಳ್ಳುವುದರ ಜೊತೆಗೆ ಜಿಗಿಹುಳುಗಳ ಬಾಧೆ ಕಂಡುಬರುತ್ತಿದ್ದು, ಇವುಗಳ ನಿಯಂತ್ರಣಕ್ಕೆ 0.25 ಮಿಲೀ. ಇಮೀಡಕ್ಲೋಪ್ರಿಡ್-0.2 ಗ್ರಾಂ ಥಯೊಮೆತ್ಯಾಕ್ಸಾಮ್-0.5 ಮಿಲೀ. ಲ್ಯಾಮ್ಬಿಸಯಲೊಥ್ರಿನ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಿ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518

41.	11-12-2016	ಫಲ ನೀಡುವ ಮಾವಿನ ಮರಗಳಿಗೆ "ಮಾವು ಸೈಷಲ್" (ಲಘು ಪೋಷಕಾಂಶಗಳ ಮಿಶ್ರಣ) ನ್ನು ಸಿಂಪರಣೆ ಮಾಡುವುದರಿಂದ ಕಡಿಮೆ ಸಮಯದಲ್ಲಿ ಪೋಷಕಾಂಶಗಳ ಕೊರತೆಯ ನಿವಾರಣೆ ಮಾಡುವುದರ ಜೊತೆಗೆ ಉತ್ತಮ ಗುಣಮಟ್ಟದ ಇಳುವರಿಯನ್ನು ಪಡೆಯಬಹುದು - ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
42.	11-14-2016	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ "ಮಾವು ಸೈಷಲ್" (ಲಘು ಪೋಷಕಾಂಶಗಳ ಮಿಶ್ರಣ) ಪ್ರತಿ ಕಿಲೋ ಗ್ರಾಂಗೆ 150 ರೂಪಾಯಿ ದರದಲ್ಲಿ ದೊರೆಯುತ್ತದೆ. ಆಸಕ್ತಿಯುಳ್ಳ ರೈತರು 9480696395 ದೂರವಾಣಿ ಸಂಖ್ಯೆಗೆ ಸಂಪರ್ಕಿಸಬೇಕೆಂದು ಕೋರಲಾಗಿದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8518
43.	11-15-2016	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ "ಮಾವು ಸೈಷಲ್" (ಲಘು ಪೋಷಕಾಂಶಗಳ ಮಿಶ್ರಣ) ಪ್ರತಿ ಕಿಲೋ ಗ್ರಾಂಗೆ 150 ರೂಪಾಯಿ ದರದಲ್ಲಿ ದೊರೆಯುತ್ತದೆ. ಆಸಕ್ತಿಯುಳ್ಳ ರೈತರು 9480696395 ದೂರವಾಣಿ ಸಂಖ್ಯೆಗೆ ಸಂಪರ್ಕಿಸಬೇಕೆಂದು ಕೋರಲಾಗಿದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ	12125
44.	11-18-2016	ರೇಷ್ಮೆ ಹುಳು ಸಾಕಾಣಿಕೆಯಲ್ಲಿ (5ನೇ ಹಂತದ 2ನೇ ದಿನದಂದು) ಉಜಿ ನೊಣದ ನಿಯಂತ್ರಣಕ್ಕೆ ಪರಾವಲಂಬಿ ಕೀಟವಾದ ನಿಸೊಲಿಂಕ್ಸ್ ಥೈಮಸ್ (40,000) ಅನ್ನು ಹುಳು ಸಾಕು ಮನೆ, ಚಂದ್ರಿಕೆ ಮನೆ ಮತ್ತು ತಿಪ್ಪೆ ಗುಂಡಿಯ ಬಳಿ ಬಿಡುವುದರಿಂದ ಉಜಿ ಕೋಶಗಳನ್ನು ಪರಿಣಾಮಕಾರಿಯಾಗಿ ನಾಶಪಡಿಸಬಹುದು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	12098
45.	11-25-2016	ಹುಣಸೆಯು ಉಷ್ಣವಲಯದ ಬೆಳೆಯಾಗಿದ್ದು ಕಡಿಮೆ ಮಳೆ ಬೀಳುವ ಪ್ರದೇಶದಿಂದ ಹಿಡಿದು ಬಂಜರು ಭೂಮಿ ಯಲ್ಲಿಯೂ ಸಹ ಬೆಳೆಸಬಹುದು. ಧಾರವಾಡ ದಿಂದ ಆಯ್ಕೆ ಯಾಗಿರುವ ಡಿ. ಟಿ. ಎಸ್. -1 ಮತ್ತು 2 ಬೇಗನೆ ಮತ್ತು ಅತಿ ಹೆಚ್ಚಿನ ಇಳುವರಿ ಕೊಡುವ ತಳಿಗಳಾಗಿವೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8541
46.	11-26-2016	ಮಣ್ಣು, ಹವಾಗುಣ, ತಳಿ ಮತ್ತು ಅಂತರ ಇವುಗಳನ್ನು ಅವಲಂಬಿಸಿ ಬಾಳೆ ಬೆಳೆಯಲ್ಲಿ 2 ರಿಂದ 3 ಕೂಳೆ ಬೆಳೆಗಳನ್ನು ಯಶಸ್ವಿಯಾಗಿ ಬೆಳೆಯಬಹುದಾಗಿದೆ. ರೋಬನ್ಬಾ, ಗಿಡ್ಡ ಕ್ಯಾವೆಂಡಿಷ್ ಇವು ಕೂಳೆ ಬೆಳೆಗೆ ಸೂಕ್ತ ತಳಿಗಳು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8542
47.	12-6-2016	ಗೋಡಂಬಿಯನ್ನು ಹೆಚ್ಚಾಗಿ ಕರ್ನಾಟಕದ ಕರಾವಳಿ ಪ್ರದೇಶಗಳು, ಒಳನಾಡು ಒಣಪ್ರದೇಶಗಳು ಮತ್ತು ಗುಡ್ಡಗಾಡು ಪ್ರದೇಶಗಳಲ್ಲಿ ಬೆಳೆಯಲಾಗುತ್ತಿದೆ. ಕರ್ನಾಟಕಕ್ಕೆ ಶಿಫಾರಸ್ಸು ಮಾಡಿರುವ ಗೋಡಂಬಿ ತಳಿಗಳೆಂದರೆ, ಉಳ್ಳಾಲ-೧, ೨ ಮತ್ತು ೩, ಚಿಂತಾಮಣಿ-೧, ಭಾಸ್ಕರ, ಧನ ಮತ್ತು ವೆಂಗುಲೂ-೪. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8543

48.	12-12-2016	ಕಳೆದ ಎರಡು ದಿನಗಳಿಂದ ಮೋಡಕವಿದ ವಾತಾವರಣ ಇರುವುದರಿಂದ ಆಲೂಗಡ್ಡೆ ಬೆಳೆಯಲ್ಲಿ ಕೊನೆಯ ಅಂಗಮಾರಿ ರೋಗದ ಭಾದೆ ಕಂಡು ಬರುವ ಸಾಧ್ಯತೆ ಇದೆ. ಇದರ ಹತೋಟಿಗಾಗಿ 1 ಗ್ರಾಂ ಡೈಮಿಥೋಮಾರ್ಫ್ + 2 ಗ್ರಾಂ ಮೆಟಿರಾಮ್ ಅಥವಾ 3 ಗ್ರಾಂ ಫೆನಾಮಿಡೊನ್ + ಮ್ಯಾಂಕೋಜೆಬ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ.	8521
49.	12-16-2016	ಆಲೂಗಡ್ಡೆ ಬೆಳೆಗಾರರು ಕತ್ತರಿಸಿದ ಅಥವಾ ಪೂರ್ಣ ಬೀಜದ ಗಡ್ಡೆಯನ್ನು 2.0 ಗ್ರಾಂ ಮ್ಯಾಂಕೋಜೆಬ್ ಅನ್ನು ಪ್ರತಿ 1 ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಕರಗಿಸಿ ತಯಾರಿಸಿದ ದ್ರಾವಣದಲ್ಲಿ 5 ನಿಮಿಷ ಅದ್ದಿ ಉಪಚರಿಸಿದ ನಂತರ ಬಿತ್ತನೆ ಮಾಡುವುದರಿಂದ ಕೊನೆಯ ಅಂಗಮಾರಿ ರೋಗವನ್ನು ಬೆಳೆಯ ಆರಂಭದಿಂದಲೇ ನಿರ್ವಹಣೆ ಮಾಡಬಹುದು - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ.	8521
50.	12-22-2016	ಎಲೆಕೋಸು ಮತ್ತು ಹೂಕೋಸಿನಲ್ಲಿ, ಎಲೆಗಳ ಮೇಲಿನ ಹಸಿರು ಪದಾರ್ಥವನ್ನು ಕೆರೆದು ತಿನ್ನುವ ಹಸಿರು ಹುಳು ಕಂಡು ಬಂದಲ್ಲಿ, 0.75 ಮಿ.ಲೀ ಸ್ಪೈನೊಸಾಡ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	8521
51.	12-28-2016	ಕಲ್ಲಂಗಡಿಯು ನಿಂಬೆಹಣ್ಣಿನ ಗಾತ್ರದಷ್ಟಿರುವಾಗ 20 ಪಿ.ಪಿ.ಎಂ. ಜೆಬ್ಬರ್ಲಿಕ್ ಆಮ್ಲದ ದ್ರಾವಣದಲ್ಲಿ (20 ಮಿ. ಗ್ರಾಂ ಜೆಬ್ಬರ್ಲಿಕ್ ಆಮ್ಲ 1 ಲೀ ನೀರಿಗೆ) ಅದ್ದುವುದರಿಂದ ಹಣ್ಣಿನ ಗಾತ್ರ ಮತ್ತು ಗುಣಮಟ್ಟ ಹೆಚ್ಚುವುದು. - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ	10617
52.	12-29-2016	ಬಾರೆಹಣ್ಣು (ಬೋರೆ ಹಣ್ಣು) ಕರ್ನಾಟಕದ ಎಲ್ಲಾ ಪ್ರದೇಶಗಳಲ್ಲಿ ಬೆಳೆಯ ಬಹುದಾದರೂ, ಬಾರೆಹಣ್ಣಿಗೆ ಹೆಚ್ಚು ಉಷ್ಣಾಂಶವಿರುವ ಹಾಗೂ ಕಡಿಮೆ ಮಳೆ ಬರುವ ಪ್ರದೇಶಗಳು ಸೂಕ್ತ. - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ.	10617
53.	12-30-2016	ನೇರಳೆಯಲ್ಲಿ ಅರಬಾವಿಯಿಂದ ಬಿಡುಗಡೆಯಾದ ಏಜೆಜಿ-85 ತಳಿಯು ದೊಡ್ಡ ಗಾತ್ರದ ಹಣ್ಣುಕೊಡುವ ತಳಿಯಾಗಿದ್ದು ಹೆಚ್ಚಿನ ಆರ್ಥಿಕ ಇಳುವರಿ ಕೊಡುತ್ತದೆ. ಅಲ್ಲದೆ ಶೇಕಡ 88 ರಷ್ಟು ರುಚಿಯಾದ ತಿರುಳನ್ನು ಹೊಂದಿರುತ್ತದೆ. - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ	11047
54.	1-2-2017	ನೇರಳೆಯಲ್ಲಿ ಅರಬಾವಿಯಿಂದ ಬಿಡುಗಡೆಯಾದ ಏಜೆಜಿ-85 ತಳಿಯು ದೊಡ್ಡ ಗಾತ್ರದ ಹಣ್ಣುಕೊಡುವ ತಳಿಯಾಗಿದ್ದು ಹೆಚ್ಚಿನ ಆರ್ಥಿಕ ಇಳುವರಿ ಕೊಡುತ್ತದೆ. ಅಲ್ಲದೆ ಶೇಕಡ 88 ರಷ್ಟು ರುಚಿಯಾದ ತಿರುಳನ್ನು ಹೊಂದಿರುತ್ತದೆ. - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ	10617
55.	1-6-2017	ಟೊಮ್ಯಾಟೋ ಬೆಳೆಯಲ್ಲಿ ಅನಿರೀಕ್ಷಿತವಾಗಿ ಬೆಳೆಯುವ ಸಂಕರಣ ತಳಿಗಳನ್ನು ಪಾಲಿಹೌಸ್ ನಲ್ಲಿ ಬೆಳೆಯಲಾಗುತ್ತದೆ. ಎನ್ ಎಚ್-7711, ಎನ್ ಎಸ್-ಹೈಬ್ರಿಡ್, ಹೋಲೋರೋ-ಆರ್ ಜೆಡ್, ನೋವರ್-ಆರ್ ಜೆಡ್ ತಳಿಗಳನ್ನು ಪಾಲಿಹೌಸ್ ನಲ್ಲಿ ಬೆಳೆಯಲಾಗುತ್ತದೆ. - ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ.	10617
56.	1-11-2017	ಬೆಣ್ಣೆ ಹಣ್ಣು ಬಾಳೆಹಣ್ಣಿಗಿಂತ ಎರಡು ಪಟ್ಟು ಹೆಚ್ಚು ಶಕ್ತಿ ಒದಗಿಸುತ್ತದೆ. ಇದನ್ನು ತಿನ್ನುವುದರಿಂದ ರಕ್ತ ವೃದ್ಧಿ ಹೆಚ್ಚುವುದು ಮತ್ತು ಮಧು ಮೇಹಿ ರೋಗಿಗಳಿಗೆ ಈ ಹಣ್ಣನ್ನು ತಿನ್ನಲು ನಿರ್ದೇಶಿಸುತ್ತಾರೆ. ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ.	10620

57.	1-17-2017	ಮಾವಿನ ಬೆಳೆಯಲ್ಲಿ ಹೂ ಅಂಗಮಾರಿ ರೋಗ ಕಂಡು ಬಂದಲ್ಲಿ, ಹೂ ಗೊಂಚಲುಗಳಲ್ಲಿ ಕಪ್ಪು ಚುಕ್ಕೆ ಕಂಡು ಬಂದು ಹೂಗಳು ಉದುರಲು ಪ್ರಾರಂಭಿಸುತ್ತವೆ. ಈ ರೋಗದ ಹತೋಟಿಗಾಗಿ 1 ಮಿ.ಲೀ. ಹೆಕ್ಟಾಕೊನಜೋಲ್ ಅಥವಾ 1 ಗ್ರಾಂ. ಕಾರ್ಬೆನ್ಡೆಜಿಮ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಹೂ ಗೊಂಚಲುಗಳಿಗೆ ಸಿಂಪರಣೆ ಮಾಡಬೇಕು. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	10596
58.	1-18-2017	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ 23-1-2017 ರಿಂದ 25-1-2017 ರವರೆಗೆ ಪ್ರಗತಿಪರ ರೈತರ ತಾಂತ್ರಿಕ ಆವಿಷ್ಕಾರಗಳನ್ನು ತರಬೇತಿ ಮೂಲಕ ಇತರ ರೈತರಿಗೆ ತಿಳಿಸಲು ರೈತರಿಂದ ರೈತರಿಗೆ ಉಚಿತ 3 ದಿನಗಳ ವಸತಿ ಸಹಿತ ತರಬೇತಿಯನ್ನು ಹಮ್ಮಿಕೊಳ್ಳಲಾಗಿದೆ. ಆಸಕ್ತ ರೈತರು 08152 -243099-9480696395 ಗೆ ಸಂಪರ್ಕಿಸಿ.	10596
59.	1-21-2017	ಪ್ರಸ್ತುತ ತಂಪಾದ ವಾತಾವರಣದ ಜೊತೆಗೆ, ಇಬ್ಬನಿ ಬಿಳುತ್ತಿರುವುದರಿಂದ ಮಾವಿನ ಬೆಳೆಯಲ್ಲಿ ಬೂದಿ ರೋಗ ಕಾಣಿಸಿಕೊಳ್ಳುವ ಸಾಧ್ಯತೆ ಇದ್ದು, ಇದರ ನಿರ್ವಹಣೆಗೆ 1 ಮಿ. ಲೀ. ಮೈಕೋಬ್ಯುಟಾನಿಲ್ ಅಥವಾ ಫ್ಲೂಜಿಲಾಜೋಲ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	10596
60.	1-25-2017	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ 30-1-2017, 31-1-2017 ಹಾಗೂ 1-2-2017 ರಂದು ಪ್ರಗತಿಪರ ರೈತರ ತಾಂತ್ರಿಕ ಆವಿಷ್ಕಾರಗಳನ್ನು ತರಬೇತಿ ಮೂಲಕ ಇತರ ರೈತರಿಗೆ ತಿಳಿಸಲು ರೈತರಿಂದ ರೈತರಿಗೆ ಉಚಿತ 3 ದಿನಗಳ ವಸತಿ ಸಹಿತ ತರಬೇತಿ ಹಮ್ಮಿಕೊಳ್ಳಲಾಗಿದೆ. ಆಸಕ್ತ ರೈತರು ನೊಂದಾಯಿಸಲು 08152243099-9480696395 ಸಂಪರ್ಕಿಸಿ.	12124
61.	1-27-2017	ಕಳೆದ ಒಂದು ದಿನದಿಂದ ಮೋಡಕವಿದ ವಾತಾವರಣ ಇದ್ದು ಹಾಗೂ ತುಂತುರ ಮಳೆ ಬರುತ್ತಿರುವುದರಿಂದ ಆಲೂಗಡ್ಡೆ ಬೆಳೆಯಲ್ಲಿ ಕೊನೆಯ ಅಂಗಮಾರಿ ರೋಗ (ಲೇಟ್ ಬ್ಲೈಟ್) ಬರುವ ಸಾಧ್ಯತೆಯಿದೆ, ಆದ್ದರಿಂದ ಮುಂಜಾಗ್ರತಾ ಕ್ರಮವಾಗಿ 2.0 ಗ್ರಾಂ ಮ್ಯಾಂಕೋಜೆಬ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	10620
62.	1-30-2017	ಎಲೆಕೋಸುವಿನಲ್ಲಿ, ಎಲೆಗಳ ಮೇಲಿನ ಹಸಿರು ಪದಾರ್ಥವನ್ನು ಕರೆದು ತಿನ್ನುವ ಹಸಿರು ಹುಳು ಕಂಡು ಬಂದಲ್ಲಿ ಇಂಡಾಕ್ಸಾಕಾರ್ಬ್ 0.75 ಮಿ.ಲೀ ಅಥವಾ ಎಮಾಮೆಕ್ಸಿನ್ ಬೆನ್ಜೋಯೇಟ್ 0.2 ಗ್ರಾಂ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	10598
63.	2-17-2017	ಟೊಮ್ಯಾಟೋ ಬೆಳೆಯ ಡಿನ್ ವರ್ಮ್ (ರೈತರು ಉಜಿ ಎಂದು ಕರೆಯಲ್ಪಡುವ) ಕೀಟದ ನಿಯಂತ್ರಣಕ್ಕೆ ಇಂಡಾಕ್ಸಾಕಾರ್ಬ್ 0.5 ಮಿ.ಲೀ. ಅಥವಾ ಡೆಲ್ಟಾ ಮೆತ್ರಿನ್ 0.5 ಮಿ.ಲೀ. ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು - ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರ.	10598

64.	3-7-2017	ಮಾವಿನ ಬೆಳೆಯ ಹಣ್ಣಿನ ನೋಡದ ನಿಯಂತ್ರಣಕ್ಕಾಗಿ ಮೋಹಕ ಬಲೆಗಳನ್ನು (Pheromone trap) ತೂಗು ಹಾಕಬೇಕು. ಈ ಬಲೆಗಳಲ್ಲಿ ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ 1 ಮಿ.ಲೀ. ಮೀಥೈಲ್ ಯುಜಿನಾಲ್ ಮತ್ತು 1 ಮಿ.ಲೀ. ಮೆಲಾಥಿಯಾನ್ ಆಧವಾ 1 ಮಿ.ಲೀ. ಡೈಕ್ಲೋರೋವಾನ್ ಬೆರೆಸಿದ ದ್ರಾವಣ ಬಳಸಬೇಕು - ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರ.	10619
65.	3-8-2017	ಪ್ರಸ್ತುತ ಮೋಡಕವಿದ ವಾತಾವರಣವಿದ್ದು, ತುಂತುರು ಮಳೆ ಬಿಳುತ್ತಿರುವುದರಿಂದ ಡೊಣ್ಣೆ ಮೆಣಸಿನಕಾಯಿ ಬೆಳೆಯಲ್ಲಿ ಬೂದಿ ರೋಗ ಕಂಡುಬರುವ ಸಾಧ್ಯತೆ ಇದೆ. ಇದರ ಹತೋಟಿಗಾಗಿ 2 ಮಿ.ಲೀ. ಕ್ಲೋರೋಥ್ಯಾಲೋನಿಲ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರ.	10598
66	3-13-2017	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ "ಮಾವು ಸೈಷಲ್" (ಲಘು ಫೋಷಕಾಂಶಗಳ ಮಿಶ್ರಣ) ಪ್ರತಿ ಕಿಲೋ ಗ್ರಾಂಗೆ 150 ರೂಪಾಯಿ ದರದಲ್ಲಿ ದೊರೆಯುತ್ತದೆ. ಆಸಕ್ತಿಯುಳ್ಳ ರೈತರು 9480696395 ದೂರವಾಣಿ ಸಂಖ್ಯೆಗೆ ಸಂಪರ್ಕಿಸಬೇಕೆಂದು ಕೋರಲಾಗಿದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	10598
67	3-15-2017	ತುಂಡು-ತುಂಡಾಗಿ ಕತ್ತರಿಸಿದ ಒಣ ಮೇವಿಗೆ ಬೆಲ್ಲದ ನೀರಿನ ಉಪಚಾರ ಮಾಡುವುದರಿಂದ ಮೇವಿನ ರುಚಿಯಲ್ಲಿ ಬದಲಾವಣೆಯಾಗಿ ಪಶುಗಳಿಗೆ ಹೆಚ್ಚು ಇಷ್ಟವಾಗುತ್ತದೆ. ಇಲ್ಲಿ 100 ಕೆ.ಜಿ. ತುಂಡರಿಸಿದ ಮೇವಿಗೆ 5 ಕೆ.ಜಿ. ಬೆಲ್ಲವನ್ನು 15 ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಕರಗಿಸಿ ಮೇವಿನ ಜೊತೆ ಮಿಶ್ರಣ ಮಾಡಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರ	10598
68	3-17-2017	ಬಹಳಷ್ಟು ರೈತರು ಇಡೀ ಸೊಪ್ಪೆ ಹುಲ್ಲು ಮೇವನ್ನು ಪಶುಗಳಿಗೆ ಕೊಡುತ್ತಾರೆ. ಪಶುಗಳು ಕೇವಲ ಸುಲಭವಾಗಿ ಜಿಗಿಯುವಂತಹ ಪದಾರ್ಥಗಳನ್ನು ತಿಂದು ಇತರೆ ವಸ್ತುಗಳನ್ನು ಹಾಗೆಯೇ ಬಿಡುತ್ತವೆ. ಮೇವನ್ನು 2-3 ಸೆಂ.ಮೀ. ಉದ್ದದ ತುಂಡು ಮಾಡಿ ಕೊಡುವುದರಿಂದ ಪೂರ್ಣವಾಗಿ ತಿನ್ನಲು ಪಶುಗಳಿಗೆ ಉತ್ತೇಜನ ಕೊಟ್ಟಂತಾಗುತ್ತದೆ. ಕೆ.ವಿ.ಕೆ. ಕೋಲಾರ	10610
69	3-21-2017	ಮಾವಿನ ಬೆಳೆಯಲ್ಲಿ, ಕಾಂಡ ಕೊರಕದ ಮರಿಹುಳುಗಳು ಕಾಂಡ ಕೊರೆದು ಒಳಗಡೆ ಸೇರಿ ತಿನ್ನುವುದರಿಂದ ಮರಗಳು ಒಣಗುತ್ತವೆ, ಇದರ ನಿರ್ವಹಣೆಗೆ ಹಾನಿಗೊಳಗಾದ ಕಾಂಡದ ಸಿಪ್ಪೆಯನ್ನು ತೆಗೆದು, ಹುಳುಗಳನ್ನು ನಾಶಗೊಳಿಸಿ, ಡೈಕ್ಲೋರ್ ವಾಸ್ ನ ಕೆಲಹನಿಗಳನ್ನು ಹುಳುವಿನಿಂದಾದ ರಂಧ್ರದಲ್ಲಿ ಹಾಕಿ ಮಣ್ಣಿನಿಂದ ಮುಚ್ಚಬೇಕು. ಕೆ.ವಿ.ಕೆ.ಕೋಲಾರ.	10598
70	3-25-2017	ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಮಕ, ಕೋಲಾರದಲ್ಲಿ ದಿನಾಂಕ: 27.03.2017 ರಂದು ಬೆಳಿಗ್ಗೆ 10 ಘಂಟೆಗೆ "ಜಿಲ್ಲಾ ಮಟ್ಟದ ಗೇರು ಬೆಳೆಯ ವಿಚಾರ ಸಂಕಿರಣ" ವನ್ನು ಹಮ್ಮಿಕೊಳ್ಳಲಾಗಿದೆ. ಎಲ್ಲಾ	10598

		ರೈತ ವರ್ಗದವರು ಈ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಭಾಗವಹಿಸಿ ಇದರ ಸದುಪಯೋಗ ಪಡೆದುಕೊಳ್ಳಬೇಕಾಗಿ ಕೋರಲಾಗಿದೆ. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಕೋಲಾರ.	
71	3-28-2017	ಇತ್ತೀಚಿನ ದಿನಗಳಲ್ಲಿ ಗುಲಾಬಿ ಬೆಳೆಯಲ್ಲಿ ಎಲೆ ಮತ್ತು ಹೂವಿನ ಮೊಗ್ಗುಗಳಿಂದ ರಸ ಹೀರುವ ಥ್ರಿಪ್ಸ್ ಕೀಟಗಳ ಭಾದೆ ಹೆಚ್ಚಾಗಿ ಕಂಡು ಬರುತ್ತಿದ್ದು ಅವುಗಳ ನಿಯಂತ್ರಣಕ್ಕಾಗಿ 1 ಮಿ. ಲೀ ಫೀಪ್ರೋನಿಲ್ ಅನ್ನು ಪ್ರತಿ ಲೀಟರ್ ನೀರಿನಲ್ಲಿ ಬೆರೆಸಿ ಸಿಂಪಡಿಸಬೇಕು. ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ, ಟಿಪ್ಪಣಿ, ಕೋಲಾರ.	10598
72	4-3-2017	ಲಿಂಬೆಯನ್ನು ತೆಂಗಿನ ತೋಟದಲ್ಲಿ ಅಂತರ ಬೆಳೆಯಾಗಿ ಬೆಳೆಸಬಹುದಾಗಿದೆ. ಎರಡು ತೆಂಗಿನ ಸಾಲುಗಳ ಮಧ್ಯೆ ಬಿಸಿಲು ಸಾಕಷ್ಟು ಬೀಳುವ ಪ್ರದೇಶದಲ್ಲಿ ಲಿಂಬೆಯನ್ನು ಬೆಳೆಸಬಹುದು. ಲಿಂಬೆಯನ್ನು ಕಾಫಿ ಮತ್ತು ಸವೋಟ ತೋಟಗಳಲ್ಲಿ ಅಂತರ ಬೆಳೆಯಾಗಿ ಬೆಳೆಸಬಹುದಾಗಿದೆ. ಕೆ.ವಿ.ಕೆ, ಕೋಲಾರ	10624
73	07-25-2016	29.7.2016 ರ ಶುಕ್ರವಾರ ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ಮಹಾವಿದ್ಯಾಲಯದ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕದಲ್ಲಿ ಕಲ್ಲಂಗಡಿ, ಕರಬೂಜ, ಸೌತೆ, ಹಾಗಲ, ಕುಂಬಳ, ಹೀರೆ ಹಾಗೂ ಮಂಗಳೂರು ಸೌತೆ ಕುರಿತಾದ ತರಬೇತಿ ಮತ್ತು ವಸ್ತು ಪ್ರದರ್ಶನ ಆಯೋಜಿಸಲಾಗಿದೆ. ಆಸಕ್ತರು ನೋಂದಾಯಿಸಲು 7829500130 - 8904790461- 9945832499 - 0821 2970411 ಕರೆಮಾಡಿ	5080
74	12-05-2016	7 .12 .2016 ರ ಬುಧವಾರ ಮೈಸೂರಿನ ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ಮಹಾವಿದ್ಯಾಲಯದಲ್ಲಿ ಮೆಣಸಿನಕಾಯಿ ಕುರಿತಾದ ಒಂದು ದಿನದ ತರಬೇತಿ, ಸಂವಾದ & ಪ್ರಾತ್ಯಕ್ಷಿಕೆ. ನೋಂದಾಯಿಸಲು ಕೂಡಲೇ ಕರೆಮಾಡಿ 7829500130 - 0821 2970411 - 8904790461 - 8277455994 - 9880445913	5221
75	11-26-2016	7 .12 .2016 ರ ಬುಧವಾರ ಮೈಸೂರಿನ ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕದಲ್ಲಿ ಮೆಣಸಿನಕಾಯಿ ಕುರಿತಾದ ಒಂದು ದಿನದ ತರಬೇತಿ, ಸಂವಾದ & ಪ್ರಾತ್ಯಕ್ಷಿಕೆ. ನೋಂದಾಯಿಸಲು ಬೆಳಿಗ್ಗೆ 9 ರಿಂದ ಸಂಜೆ 5 ಗಂಟೆಯೊಳಗೆ 7829500130 - 0821 2970411 - 8904790461 - 8277455994 - 9880445913 ಕರೆ ಮಾಡಿ	5221
76	07-05-2016	ಈರುಳ್ಳಿಯಲ್ಲಿ ಪೀಡೆ ನಿರ್ವಹಣೆಗಾಗಿ ನಾಟಿ ಮಾಡಿದ 30 ದಿನಗಳ ನಂತರ ಮ್ಯಾನ್ಕೋಜೆಬ್ 2.5 ಗ್ರಾಂ+ಇಮಿಡಕ್ಲೋಪ್ರೀಡ್ 0.25 ಮಿ.ಲೀ - ಲೀ. 45 ದಿನಗಳ ನಂತರ ಟ್ರೈಸೈಕ್ಲಾಝೋಲ್ 1 ಮಿ.ಲೀ.+ಕಾರ್ಬೋಸಲ್ಫಾನ್ 2 ಮಿ.ಲೀ.-ಲೀ. & 60 ದಿನಗಳ ನಂತರ ಹೆಕ್ಸಾಕ್ಸೋನಜೋಲ್ 1 ಮಿ.ಲೀ + ಪ್ರೊಥಿನೋಫಾಸ್ 1 ಮಿ.ಲೀ.- ಲೀ. ಅನ್ನು ಸಿಂಪಡಿಸಬೇಕು	3314
77	07-07-2016	ಅಗ್ರಿಕ್ಲಿನಿಕ್ ಅಗ್ರಿಬಿಸಿನೆಸ್ ಸಂದರ್ಶನ 10.07.2016 ರಂದು 10 ಗಂಟೆಗೆ ಹಾಗೂ ಮಧ್ಯಾಹ್ನ 2 ಗಂಟೆಗೆ ತರಬೇತಿ ಪ್ರಾರಂಭವಾಗುವುದು. ಆದ್ದರಿಂದ ಎಲ್ಲಾ	72

		ಅಭ್ಯರ್ಥಿಗಳು 60 ದಿನ ತರಬೇತಿ ಅವಧಿಗಾಗಿ ತಂಗಲು ಎಲ್ಲಾ ವ್ಯವಸ್ಥೆಯೊಂದಿಗೆ ಸಿದ್ಧರಾಗಿ ಬರಲು ತಿಳಿಸಲಾಗಿದೆ.ಸಂಪರ್ಕಿಸಿ.ಡಾ.ಶಶಿಕುಮಾರ್, ಮೊ.ನಂ.9742419012.	
78	10-27-2016	28.10.2016 ರ ಶುಕ್ರವಾರ ಮೈಸೂರಿನ ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ಮಹಾವಿದ್ಯಾಲಯದ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕದಲ್ಲಿ ತೆಂಗು ಬೆಳೆ ಕುರಿತಾದ ತರಬೇತಿ ಮತ್ತು ವಸ್ತು ಪ್ರದರ್ಶನ ಆಯೋಜಿಸಲಾಗಿದೆ. ಆಸಕ್ತಿಯಿದ್ದಲ್ಲಿ ಭಾಗವಹಿಸಬಹುದು. ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗೆ 08212970411 ಕರೆ ಮಾಡಿ	87
79	10-24-2016	ಮೈಸೂರಿನ ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕದಲ್ಲಿ 28.10.2016 ರ ಶುಕ್ರವಾರದಂದು ಬೆಳಿಗ್ಗೆ 10 ಕ್ಕೆ "ತೆಂಗು ಬೆಳೆ ಕುರಿತಾದ ತರಬೇತಿ, ಸಂವಾದ ಮತ್ತು ಪ್ರಾತ್ಯಕ್ಷಿಕೆ" ಆಯೋಜಿಸಲಾಗಿದೆ. ಭಾಗವಹಿಸಲು ಆಸಕ್ತಿ ಇರುವವರು ನೋಂದಾಯಿಸಲು 08212970411- 7829500130 - 9880445913 ಈ ನಂಬರ್ ಗಳಿಗೆ ಕರೆಮಾಡಿ.	5219
80	06-27-2016	ತೋಟಗಾರಿಕಾ ಉತ್ಪನ್ನಗಳ ಮಾರಾಟ ಮಾಹಿತಿಗಾಗಿ ಈ ಕೆಳಗಿನ ವಿಳಾಸವನ್ನು ಸಂಪರ್ಕಿಸಿ: ತೋಟಗಾರಿಕಾ ಉತ್ಪನ್ನಗಳ ಮಾರಾಟ ಮತ್ತು ರಫ್ತು ಮಾಹಿತಿ ಕೇಂದ್ರ. ತೋ. ವಿ. ವಿ. ಬಾಗಲಕೋಟೆ. ಶ್ರೀ ಶ್ರೀಪಾದ ವಿಶ್ವೇಶ್ವರ. 9448344108, ಡಾ. ಸಚಿನ್ ಕುಮಾರ್ ನಂದಿಮಠ್, 9986084405, ಡಾ. ತನ್ವೀರ್ ಅಹಮದ್, 9341997297.	3312
81	05-27-2016	ತೋಟಗಾರಿಕಾ ಉತ್ಪನ್ನಗಳ ಮಾರಾಟ ಮಾಹಿತಿಗಾಗಿ ಈ ಕೆಳಗಿನ ವಿಳಾಸವನ್ನು ಸಂಪರ್ಕಿಸಿ: ತೋಟಗಾರಿಕಾ ಉತ್ಪನ್ನಗಳ ಮಾರಾಟ ಮತ್ತು ರಫ್ತು ಮಾಹಿತಿ ಕೇಂದ್ರ. ತೋ. ವಿ. ವಿ. ಬಾಗಲಕೋಟೆ. ಶ್ರೀ ಶ್ರೀಪಾದ ವಿಶ್ವೇಶ್ವರ. 9448344108, ಡಾ. ಸಚಿನ್ ಕುಮಾರ್ ನಂದಿಮಠ್, 9986084405, ಡಾ. ತನ್ವೀರ್ ಅಹಮದ್, 9341997297.	3313
82	06-22-2016	24.6.16 ರ ಶುಕ್ರವಾರ ನಡೆಯುವ ಅರಿಶಿನ ಕಾರ್ಯಕ್ರಮಕ್ಕೆ ನೋಂದಾಯಿಸಿದ್ದಕ್ಕಾಗಿ ಧನ್ಯವಾದ. ಕಾರ್ಯಕ್ರಮ ಬೆಳಿಗ್ಗೆ 10 ಗಂಟೆಗೆ ಪ್ರಾರಂಭವಾಗುವುದು. ಹುಣಸೂರು ರಸ್ತೆಯಲ್ಲಿ ಬರುವ ಇಲವಾಲದ ಗೊಮ್ಮಟಗಿರಿ ರಸ್ತೆಯಲ್ಲಿ 2 ಕೀಲೋಮೀಟರ್ ಬಂದರೆ ಬಲಕ್ಕೆ ನಮ್ಮ ತೋಟಗಾರಿಕೆ ಮಹಾವಿದ್ಯಾಲಯ ಕಾಣುವುದು. ಸಹಾಯಕ್ಕಾಗಿ 7829500130	68
83	06-20-2016	ದಾಳಿಂಬೆ ದುಂಡಾಣು ಅಂಗಮಾರಿರೋಗ ತಡೆಯಲು, ಹಣ್ಣುಗಳಿರುವ ತೋಟದಲ್ಲಿ ರಾಸಾಯನಿಕಗಳಾದ ಕಾಪರ್ ಹೈಡ್ರಾಕ್ಸೈಡ್ 3ಗ್ರಾಂ+ ಸೈಪ್ರೋಸೈಕ್ಲಿನ್ 0.5ಗ್ರಾಂ+ ಬ್ರೋನೋಪಾಲ್ 0.5ಗ್ರಾಂ ಅನ್ನು ಒಂದು ಲೀಟರ್ ನಂತೆ ಮಿಶ್ರಣ	3312

		ಮಾಡಿ ಸಿಂಪರಣೆ ಮಾಡಬೇಕು,ನಂತರ 6-7 ದಿನಗಳವರೆಗೆ ಮಳೆ ಆದಲ್ಲಿ ಇದೇ ಸಿಂಪರಣೆಯನ್ನು ಪುನರಾವರ್ತಿಸಬೇಕು	
84	06-23-2016	ಉಳ್ಳಗಡ್ಡಿ ಬೀಜ ಬಿತ್ತನೆ ಮಾಡಿದ ದಿನ ಅಥವಾ ಮರು ದಿನ ಕಳೆ ನಿರ್ವಹಣೆ ಮಾಡಲು ಪೆಂಡಿಮಿಥಾಲಿನ್ 30 EC 4 ಮಿ.ಲೀ - ಲೀ ಅಥವಾ ಆಕ್ಸಿಫ್ಲೋರ್ ಫೆನ್ 23.5 EC 6 ಮಿ.ಲೀ-10 ಲೀಟರ್ ಅನ್ನು ಸಿಂಪರಣೆ ಮಾಡಬೇಕು ಹಾಗೂ 30 ದಿನಗಳ ನಂತರ ಕ್ಯುಜಲ್ ಪಾಫ್ ಇಥೈಲ್ 50 EC 1.3 ಮಿ.ಲೀ- ಲೀ ಅನ್ನು ಸಿಂಪರಣೆ ಮಾಡಬೇಕು.	3313
85	06-14-2016	24 .6 .2016 ರ ಶುಕ್ರವಾರದಂದು ಮೈಸೂರಿನ ಇಲವಾಲದ ಬಳಿಯಿರುವ ತೋಟಗಾರಿಕೆ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕವು ಅರಿಶಿನ ಕುರಿತಾದ ಒಂದು ದಿನದ ತರಬೇತಿ ಆಯೋಜಿಸಿದೆ. ಆಸಕ್ತ ರೈತರು ಭಾಗವಹಿಸಲು 7829500130 - 9945832499 -8904790461 ನಂಬರ್ ಗಳಿಗೆ ಕರೆಮಾಡಿ ನೋಂದಾಯಿಸಲು ಕೋರಲಾಗಿದೆ.	494
86	07-14-2016	ಇಲವಾಲದ ತೋಟಗಾರಿಕೆ ಮಹಾವಿದ್ಯಾಲಯ ಮೈಸೂರಿನಲ್ಲಿ ಉತ್ತಮ ಗುಣಮಟ್ಟದ ಟ್ರೈಕೋಡರ್ಮಾ ಮತ್ತು ಸುಡೋಮೋನಾಸ್ ಲಭ್ಯವಿದ್ದು ಪ್ರತಿ ಕಿ. ಗ್ರಾಂ ಗೆ ಕೇವಲ 125 ರೂಗಳು. ಆಸಕ್ತರು ಖರೀದಿಸಲು ಕರೆ ಮಾಡಿ 8105162311 ಹಾಗೂ 9880221196.	2166
87	06-09-2016	ಪಪಾಯ ಬೆಳೆಗಾರರೆ, ತಮಗಾಗಿ ವಾಟ್ಸಪ್ ಗುಂಪೊಂದನ್ನು ನಮ್ಮ ಘಟಕದ ಮಾರ್ಗದರ್ಶನದಲ್ಲಿ ಪ್ರಾರಂಭಿಸಲು ರೈತರೊಬ್ಬರು ಮುಂದೆ ಬಂದಿದ್ದು ನೀವು ವಾಟ್ಸಪ್ ಬಳಕೆದಾರರಾಗಿದ್ದಲ್ಲಿ ನಿಮ್ಮ ಹೆಸರು, ವಿಳಾಸ, ಮೊಬೈಲ್ ಸಂಖ್ಯೆಯನ್ನು 98862 67428 ಈ ನಂಬರಿಗೆ ಎಸ್‌ಎಂಎಸ್ ಮೂಲಕ ತಿಳಿಸಿ. ತಾಂತ್ರಿಕ, ಮಾರುಕಟ್ಟೆ ಮಾಹಿತಿ ಪಡೆಯಿರಿ	170
88	06-07-2016	ಮೋಡಕವಿದ ವಾತಾವರಣವಿದ್ದು ಬೂಜು ತುಪ್ಪಟ ರೋಗ ಬರುವ ಸಾಧ್ಯತೆಯಿದ್ದು ಮುನ್ನೆಚ್ಚರಿಕೆ ಕ್ರಮವಾಗಿ ಮೆಟಾಲಾಕ್ಸಿಲ್ 8 % +ಮ್ಯಾಂಕೋಜೆಬ್ 64 % WP 2 ಗ್ರಾಂ-ಲೀ ಅಥವಾ ಸೈಮಾಕ್ಸಿನಿಲ್ 8 % +ಮ್ಯಾಂಕೋಜೆಬ್ 64% WP 2 ಗ್ರಾಂ-ಲೀ ದ್ರಾವಣವನ್ನು ಸಿಂಪಡಿಸಬೇಕು. ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಾಗಿ ಸಂಪರ್ಕಿಸಿ ಮೋ. ಸಂ. 9448876730	3311
89	06-02-2016	ಶುಂಠಿ ಕೊಳೆರೋಗ ಅಲ್ಲಲ್ಲಿ ಕಂಡುಬಂದಿದ್ದು ನಿರ್ವಹಣೆಗಾಗಿ ಪ್ರತಿ ಲೀಟರ್ ನೀರಿಗೆ 3 ಗ್ರಾಂ ಮೆಟಾಲಾಕ್ಸಿಲ್ ಶಿಲೀಂಧ್ರನಾಶಕವನ್ನು ಬೆರೆಸಿ ಬುಡ ಹಾಗೂ ಮಡಿ ತೋಯಿಸಬೇಕು. ಹೆಚ್ಚಿನ ತಾಂತ್ರಿಕ ಮಾಹಿತಿಗಾಗಿ ಮೈಸೂರಿನ ಇಲವಾಲದ ಬಳಿಯಿರುವ ತೋಟಗಾರಿಕೆ ವಿಸ್ತರಣಾ ಶಿಕ್ಷಣ ಘಟಕಕ್ಕೆ ಭೇಟಿ ನೀಡಲು ಕೋರಲಾಗಿದೆ.	112

90	05-31-2016	ಈರುಳ್ಳಿ ಬೆಳೆಯ ಅರ್ಕ ಕಲ್ಯಾಣ ತಳಿಯ ಬೀಜಗಳು, ಬೀಜ ಘಟಕ, ತೋಟಗಾರಿಕೆ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟದಲ್ಲಿ ಮಾರಣಕ್ಕೆ ಲಭ್ಯವಿರುತ್ತವೆ. ಒಂದು ಕೆ. ಜಿ. ಬೀಜಕ್ಕೆ ರೂ. 1000. ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಾಗಿ ಸಂಪರ್ಕಿಸಿ. ಶ್ರೀ ಶಿವಯೋಗಿ ರಾವಲದ. ಸಹಾಯಕ ಪ್ರಾಧ್ಯಾಪಕರು, ಮೊ. .ಸಂ.8861067360	3310
91	01-19-2016	ನಾಳೆ ಬೆಳೆಗೆ 10 .30 ಕ್ಕೆ ಯಳಂದೂರಿನ ಬಳಿಯಿರುವ ಯರಿಯೂರಿನ ಶ್ರೀ ಮಹೇಶ್ ರವರ ಜಮೀನಿನಲ್ಲಿ ಕಲ್ಲಂಗಡಿ ಕುರಿತಾದ ಕ್ಷೇತ್ರ ಕಾರ್ಯಾಗಾರ ಆಯೋಜಿಸಲಾಗಿದೆ. ಆಸಕ್ತರು ಭಾಗವಹಿಸಬಹುದು. ಹೆಚ್ಚಿನ ವಿವರಗಳಿಗೆ 95917 18952 - 96110 69122 ಕರೆಮಾಡಿ.	5240
ಒಟ್ಟು ಸಂದೇಶಗಳ ಸಂಖ್ಯೆ: 91		ಸಂದೇಶ ಸ್ವೀಕರಿಸಿದ ಫಲಾನುಭವಿಗಳ ಸಂಖ್ಯೆ	7,34,002

## Chemical Testing Trials

Trial		Sanctioned INR
1	Evaluation of Bio-efficacy and phytotoxicity of BAS 450 00 I against fruit borer, shoot borer and thrips in Brinjal for <i>Kharif-2016</i> .	120000
2	Evaluation of Bio-efficacy and phytotoxicity of BAS 440 I against sucking pests (Jassids and white flies) on Brinjal for <i>Kharif 2016</i>	120000
3	Evaluation for Bio-efficacy and phytotoxicity of BAS 450 00 I against Diamond Back Moth and spodopteran pests in Cabbage for <i>Kharif-2016</i>	120000
4	Evaluation of Bio-efficacy and phytotoxicity of BAS 703 01 F against Powdery mildew and Anthracnose diseases in Chilli for <i>Kharif-2016</i>	120000
5	Evaluation fro Bio-efficacy and phytotoxicity of BAS 450 00 I against thrips and lepidopteren pests in Chilli for <i>Kharif-2016</i>	120000
6	Evaluation of Bio-efficacy and phytotoxicity of BAS 703 01 F against Powdery mildew disease in Cucumber for <i>Kharif-2016</i>	120000
7	Evaluation of Bio-efficacy and phytotoxicity of Vivando against Powdery mildew disease in Cucumber for <i>Kharif-2016</i>	120000
8	Evaluation of Bio-efficacy and phytotoxicity of Zampro against downy mildew disease on Cucumber for <i>Kharif 2016</i>	120000
9	Evaluation of Bio-efficacy and phytotoxicity of BAS 440 I against sucking pests (White flies and Jassids) on Cucumber for <i>Kharif 2016</i>	130000
10	Evaluation for Bio-efficacy and phytotoxicity of BAS 440 01 I against white flies and Jassids on Okra for <i>Kharif-2016</i>	150000
11	Evaluation for Bio-efficacy and phytotoxicity of BAS 440 01 I against white flies on Tomato for <i>Kharif-2016</i>	120000
12	Evaluation for Bio-efficacy and phytotoxicity of Pristine against early blight, anthracnose and septoria diseases in Tomato (New) for 2016	120000
13	Evaluation of Bio-efficacy and phytotoxicity of BAS 703 01 F against early, anthracnose and septoria diseases in Tomato for <i>Kharif-2016</i>	120000
14	Evaluation for Bio-efficacy and phytotoxicity of BAS 450 00 I against fruit borer and leaf minor pests in Tomato for <i>Kharif-2016</i>	120000
15	Evaluation for Bio-efficacy and phytotoxicity of Dimethomorph 9% + Metiram 44% WG against late blight diseases on Potato for during <i>Rabi-2016</i>	120000
16	Evaluate Bio-efficacy and phytotoxicity of Tebuconazole 430 SC in Pomegranate against Alternaria, Cercospora, Anthracnose – I season	150000
17	Evaluate Bio-efficacy and phytotoxicity of Flint Pro (Trifloxystrobin 3.5% + Propineb 61.3% WG) in Pomegranate against Leaf and Fruit spot, Colletotrichum – I season	155000
18	Evaluate Bio-efficacy, phytotoxicity and effect on Natural Enemy study of Belt Expert 480 SC (Flubendiamide 240 + Thiacloprid 240 SC) on Cardamom against Panicle-shoot-capsule Borer and Thrips – II <sup>nd</sup> season.	155000
19	Evaluate Bio-efficacy and phytotoxicity of Indaziflam 500 SC against mixed weeds in Oilpalm (For two seasons)	330000
20	Bio-efficacy testing of Calphomil Cucurbits Crop – Downey Mildew	120000
21	Bio-efficacy testing of Calgard Crop: Cabbage – Diamond Back moth.	120000
22	Bio-efficacy testing of CAL-MB on Tomato –Leaf Miner	120000
23	Bio-efficacy testing of Calnova on Leafy Vegetables or Radish - Aphish	120000

24	Evaluation and Bio-efficacy of Carbendazim 50% WP against Powdery on Pea (Two seasons)	240000
25	Structured water to mitigate the heat stress on seed germination and seedling vigor in vegetables	23000
26	Evaluation of Copper Oxychloride 40%+Cymoxanil 8% WP for the management of Grape Downy Mildew ( <i>Plasmopara viticola</i> )	150000
27	Evaluation of Bio-efficacy of Spinetoram 10% w-w + Sulfoxaflor 30% WG against lepidopteran and sucking insect pest complex on grapes (II Season)	155000
28	Evaluation of Bio-efficacy of Haloxyfop 10.8% EC (w-v) for weed control in Onion (II Season) ( <i>Allium cepa</i> )	120000
29	Evaluation of Bio-efficacy, Phytotoxicity and effect on natural enemies of Profenofos 40 + Fenpyroximate 2.5 EC (XCL 425) insecticide on Brinjal-mite, whitefly and S&F borer for <i>Kharif</i> second season 2016	120000
30	Evaluation Bio-efficacy and Phytotoxicity of Tebuconazole 10% + Sulphur 65% WG (XCL 750) fungicide in Mango-powdery mildew for season <i>Kharif</i> 2016	150000
31	Evaluation of Thiophanate Methyl 70% WP against Powdery mildew of Papaya for second season for 2016-17.	150000
32	Evaluation and Bio-efficacy of IKF 309 180SC on Powdery Mildew of Grapes (One season)	155000
33	Evaluation of Bio-efficacy and Phytotoxicity of Sudo ( <i>Pseudomonas fluorescens</i> ) on Pomegranate (II Season)	155000
34	Testing Hydro Enigiser at UHS Campus	120000
35	Evaluation of Bio-efficacy, phytotoxicity trials of MASL 103 (Acaricide with contact action) against Two Spotted Mites ( <i>Tetranychus</i> spp.) of Rose under open field conditions for one Seasons.	120000
36	Bio fungicide Taegro against Downy Mildew in Grapes.	165000
37	Bio fungicide Taegro against Powdery Mildew in Grapes.	165000
38	Bio fungicide Taegro against Downy Mildew in Grapes.	165000
39	Bio fungicide Taegro against Powdery Mildew in Grapes.	165000
40	Testing trial of the Performance of SHAKTIMAAN (A organic bio fertilizer) on Tomato for two season	240000
41	Evaluation of Molecule PII 8007 20% SC on Pomegranate. (Rs. 1,55,000/- for one season)	310000
42	Evaluation and Bio-efficacy of Kresoxim Methyl 44.3% SC against Powdery mildew and Downy mildew on Grapes (One season)	150000
<b>TOTAL</b>		<b>61,28,000</b>

## Seeds and Planting Materials

Planting Material		Unit	Amount in INR	
			Target	Achieved
1	Gratfs (Mango, Sapota, Custard apple etc)	Nos.	66756.00	83246.00
2	Layers (Guava, Pomegranate etc)	Nos.	24474.00	5319.00
3	Rooted Cuttings (Pomegranate, Pepper, Betel vine etc)	Nos.	168734.00	147611.00
4	Seedlings (Coconut, Curry leaf, Tamarind etc)	Nos.	164544.00	122660.00
5	Plants	Nos.	36638.00	20880.00
6	Seed Nuts (Areca nut, Coconut)	Nos.	17210.00	26500.00
	<b>Total Nos.</b>	Nos.	<b>4,78,356</b>	<b>4,06,216</b>
7	Vegetable Seeds (Drumstick, Onion, Chilli etc)	Kg	22610.38	3282.28
8	Bulbs/Rhizomes	Kg	1876.00	1606.00
9	Field Crops (Sorghum, Sun hemp, Soybean etc)	Kg	6316.85	616.85
	<b>Total (kg)</b>	<b>Kg</b>	<b>30803.23</b>	<b>5505.13</b>

**SECTION 4 (1) (B) (xvi) OF THE RTI ACT, 2005 OFFICERS NAME AND DESIGNATION**

Designation and address of the PIO		Subject	Office Address	Phone - Fax - Email Address
1.	DR. A. B. PATIL REGISTRAR	University Human Resources and Students degree admission process and Related to academic	REGISTRAR UDYANAGIRI, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230276 (F) 08354-230300 (M) 9480696389 Email: <a href="mailto:registrar@UHS, Bagalkotagalkot.edu.in">registrar@UHS, Bagalkotagalkot.edu.in</a>
2.	DR. H B LINGAIH DIRECTOR OF EDUCATION	Related to University Academic programmes	DIRECTOR OF EDUCATION, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230326 (F) 08354-230350 (M) 94498 72872 Email: <a href="mailto:doe@UHS, Bagalkotagalkot.edu.in">doe@UHS, Bagalkotagalkot.edu.in</a>
3.	DR. NACHEGOWDA V. DIRECTOR OF RESEARCH	Related to University Research activities and ICAR research projects	DIRECTOR OF RESEARCH, UHS,UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230177 (F) 08354-230200 (M) 94806 96387 Email: <a href="mailto:dr@UHS, Bagalkotagalkot.edu.in">dr@UHS, Bagalkotagalkot.edu.in</a>
4.	DR. Y.K. KOTIKAL DIRECTOR OF EXTENSION	Related to University Extension activities and Extension Education Units	DIRECTOR OF EXTENSION UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354- 230101 (F) 08354-230125 (M) 94806 96381 Email: <a href="mailto:de@UHS, Bagalkotagalkot.edu.in">de@UHS, Bagalkotagalkot.edu.in</a>
5.	DR. N. BASAVARAJ DEAN (PGS)	Related to University Post graduate studies and Diploma courses	DEAN(PGS) UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230301 (F) 08354-230325 (M) 94806 96386 Email: <a href="mailto:deanpgs@UHS, Bagalkotagalkot.edu.in">deanpgs@UHS, Bagalkotagalkot.edu.in</a>
6.	DR. K.N. KATTIMANI DEAN STUDENT WELFARE	Related to University student welfare activities	DEAN STUDENT WELFARE UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354- 230226 (F) 08354-230250 (M) 94498 72868 Email: <a href="mailto:dsw@UHS, Bagalkotagalkot.edu.in">dsw@UHS, Bagalkotagalkot.edu.in</a>
7.	DR. A.B. PATIL ADMINISTRATIVE OFFICER (INCHARGE)	Related to University Administration, staff disciplinary action, etc.	ADMINISTRATIVE OFFICER, UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT	(O)08354-230201 (F) 08354-230225 (M) 9480696389 Email: <a href="mailto:ao@UHS, Bagalkotagalkot.edu.in">ao@UHS, Bagalkotagalkot.edu.in</a>
8.	DR. R. C. JAGADEESHA UNIVERSITY LIBRARIAN	Related to University library	UNIVERSITY LIBRARIAN, UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(M) 9480696386 Email: <a href="mailto:ul@UHS, Bagalkotagalkot.edu.in">ul@UHS, Bagalkotagalkot.edu.in</a>
9.	Sri D.L. SUTAGATTI COMPTROLLER	Related to University financial matters	COMPTROLLER UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230151 (F) 08354-230175 (M) 9449872874 Email: <a href="mailto:comptroller@UHS, Bagalkotagalkot.edu.in">comptroller@UHS, Bagalkotagalkot.edu.in</a>

**Annual Report 2016-17**

10	Sri, VIJAYKUMAR JOTENNAVAR ESTATE OFFICER	Related to University property, civil works, etc.	ESTATE OFFICER UHS, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-230251 (F) 08354-230275 (M) 9480696398 Email: <a href="mailto:eo@UHS, Bagalkotagalkot.edu.in">eo@UHS, Bagalkotagalkot.edu.in</a>
11	DR. M.S. KULKARNI DEAN, KRCCH ARABHAVI	Horticulture colleges Administrative, Academic, Financial, etc., Related Matters	DEAN, KRCCH ARABHAVI TQ: GOKAK DIST.: BELAGAVI- 591218	(O) 08332-293436 (F) 08332-284681 (M) 9449872860 Email: <a href="mailto:dean.coharabhavi@UHS, Bagalkotagalkot.edu.in">dean.coharabhavi@UHS, Bagalkotagalkot.edu.in</a>
12	DR, RAVINDERA MULAGI DEAN, COH BIDAR	-D0-	DEAN. COH HALLADAKERE FARM, HYDARABAD ROAD, BIDAR	O) 08482-225792 (F) 08482-224791 (M) 9480696385 Email: <a href="mailto:dean.cohbidar@UHS, Bagalkotagalkot.edu.in">dean.cohbidar@UHS, Bagalkotagalkot.edu.in</a>
13	DR. H. B. PATIL DEAN,COH, BAGALKOT	-D0-	DEAN COH UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT -587104	(O) 08354-200669-200671 (F) 08354-200664 (M) 9449872875 Email: <a href="mailto:dean.cohBagalkot@UHS, Bagalkotagalkot.edu.in">dean.cohBagalkot@UHS, Bagalkotagalkot.edu.in</a>
14	DR. SREENIVAS K. N. COH KOLAR	-D0-	COH, NH-4, TAMAKA, KOLAR-563101	(O) 08152-243208 (M) 9480696384 Email: <a href="mailto:dean.cohkolar@UHS, Bagalkotagalkot.edu.in">dean.cohkolar@UHS, Bagalkotagalkot.edu.in</a>
15	DR. INDIRESH. K.M DEAN,COH,MYSURU	-D0-	DEAN COH Yalachen Halli Totagarike Farm, Yalaval Hobali, MYSURU-570025	(O) 08221-223570 - 223571 (M) 94498 72870 Email: <a href="mailto:dean.cohMysuru@UHS, Bagalkotagalkot.edu.in">dean.cohMysuru@UHS, Bagalkotagalkot.edu.in</a>
16	DR. S.I.ATHANI DEAN,COH,SIRSI	-D0-	DEAN COH BANAVASI ROAD, SIRSI- 581401	(O) 08384-226797 (M) 9449872866 Email: <a href="mailto:dean.cohsirsi@UHS, Bagalkotagalkot.edu.in">dean.cohsirsi@UHS, Bagalkotagalkot.edu.in</a>
17	DR. UMESH. K DEAN,COH BENGALURU	-D0-	DEAN COH GKVK, POST, BENGALURU-560065	(O) 080-23628075 (F) 080-23627975 (M) 9449872875 - 9900145711 Email: <a href="mailto:so.pgcb@UHS, Bagalkotagalkot.edu.in">so.pgcb@UHS, Bagalkotagalkot.edu.in</a>
18	DR. P. M. GANGADHARAPPA DEAN,COH MUNIRABAD	-D0-	DEAN COH NH-13, MUNIRABAD, MUNIRABAD-583233	O) 08539-270453 (F) 08539-270453 (M) 9844153425 Email: <a href="mailto:dean.cohkoppal@UHS, Bagalkotagalkot.edu.in">dean.cohkoppal@UHS, Bagalkotagalkot.edu.in</a>
19	DR. D.R. PATIL HEAD, MHREC,	Research & Extension Centre, Administrative, Financial, Research Related Matters	HEAD, MHREC, UHS, BAGALKOT - 587104	O) 08354-201253 (M) 9449872861 Email: <a href="mailto:adre.UHS, Bagalkotagalkot@gmail.com">adre.UHS, Bagalkotagalkot@gmail.com</a>
20	DR, REVANAPPA HEAD ZHREC	-D0-	HEAD ZHREC,	(O) 0836-2113619 (M) 9449872863 - 9481060077

**Annual Report 2016-17**

			KUMBAPUR, DHARAWA D (KUMBAPUR) - 580005	Email: specialofficerzhrec@yahoo.in
21	DR. T.R. GURUPRASAD HEAD ZHREC	-D0-	HEAD ZHREC, COH CAMPUS, GKVK POST, BENGALURU	(O) 080-29720521 (M) 9480696382 Email: pgcgkvk@gmail.com
22	DR. M. H. TATAGAR, HEAD, HRES, DEVIHOSUR, HAVERI	-D0-	HEAD HREC, DEVIHOSUR-581110 HAVERI	((O) 08375 290101 (M) 94806 96392 Email: <a href="mailto:hrs_devihosur@rediffmail.com">hrs_devihosur@rediffmail.com</a>
23	MR. NAVEEN M. PUTTASWAMY, HEAD, HRES, KANABARGI	-D0-	HEAD HREC, KANABARGI – 590015 DIST.:BELAGAVI	(O) 0831-2930530 (M) 94806 96397 Email: hrskanabargi@gmail.com
24	DR. LAXMINARAYANA HEGDE HEAD, HRES, SIRSI	-D0-	HEAD HREC, BANAVASI ROAD, SHIRASI-581401, DIST.:UTTAR KANNAD.	(O) 08384-247787 (M) 9480696391 Email: ars_sirsipepper@rediffmail.com
25	DR. RAVEENDRA S. JAWADAGI, HEAD, HRES, VIJAYAPUR (TIDAGUNDI),	-D0-	HEAD HREC, TIDAGUNDI, DIST.:VIJAYAPUR- 586119	(O) 08352 – 209783 (M) 9480696390 Email: rsjawadagi@gmail.com <a href="mailto:patil.hb@UHS">patil.hb@UHS</a> , <a href="http://Bagalkotagalkot.edu.in">Bagalkotagalkot.edu.in</a>
26	DR. B. G. PRAKASH, HEAD, HREC, ARASIKERI	-D0-	HEAD HREC, ARASIKERE-573103 DIST.: HASAN	(M) 9449872865 Email: hrsarsikere2009@gmail.com
27	DR. IRANAGOUDA B. BIRADAR, HEAD, HREC, HIDAKAL	-D0-	HEAD HREC, HIDAKAL DAM, DIST.:BELAGAVI	(M) 9449872867 Email: hrshidkaldam2010@gmail.com
29	DR. AMARANANJUNDESHW ARA, HEAD,HRES, SOMANHALLIKAVAL, HASSAN	-D0-	HEAD HREC, SOMANAHALLI KAVAL, HASAN	(M) 9449872867 Email: hrshassan1@gmail.com
30	MR. K. TULASIRAM, HEAD, KVK, KOLAR	Krishi Vigyan Kendra, Related matters	SENIOR SCIENTIST & HEAD KVK, KOLAR	(M) 9448633234 Email: thulasiram_1968@yahoo.co.in
<b>First Appellate Authority</b>				
31	DR. D. L. MAHESHWAR HON'BLE VICE- CHANCELLOR	First Appellate Authority	HON'BLE VICE-CHANCELLOR, UNIVERSITY OF HORTICULTURAL SCIENCES, UDYANAGIRI, NEAR SIMIKERI CROSS, BAGALKOT - 587104	(O) 08354-230351 (F) 08354-230375 (M) 094489 99201 Email: vc@UHS, Bagalkotagalkot.edu. in

## Important Visits of the Hon'ble Vice-Chancellor

Date		Institutions/ Place Visited	Purpose
1.	04-04-2016	Bengaluru	Accreditation PRT Team visited College of Horticulture, Bengaluru, Presented the University presentation, Interaction with faculties, Visited Field and Laboratories and Interaction with students.
2.	05-04-2016	Mysuru	Inspected the College of Horticulture, Mysuru, with Accreditation PRT team, Presented COH, Mysuru presentation, Interaction with students, faculties and visited Fields, Laboratories and hostels.
3.	06-04-2016	Sirsi	Inspected the College of Horticulture, Sirsi, with Accreditation PRT team, Presented COH, Sirsi presentation, Interaction with students, faculties and visited Fields, Laboratories and hostels.
4.	08-04-2016	Bengaluru	Presented College of Horticulture Presentation at Bengaluru, Kolar and Bidar
5.	13-04-2016	Bengaluru	Participated in BRAIN STORMING session scheduled on Sustainable Solutions for Providing Remunerative Prices & Stable Market for Agricultural and Horticultural Crops of the Karnataka State on 13th April 2016 at, Directorate of Extension, UAS, Bengaluru.
6.	19-04-2016	Hyderabad	Visited NAARM, Hyderabad, discussion and consultation with installation and functioning of virtual classrooms facilities. Discussion on organization of short term off campus courses. Visited leading Unique trees Nursery for planting and procurement of planting materials to UHS, Bagalkot.
7.	20-04-2016	Bengaluru	Visited FRLHT discussion with Vice-Chancellor regarding collaboration research programs. Discussion with Director Mahindra & Mahindra Company regarding collaborations with UHS, Bagalkot.
8.	21-04-2016	Bengaluru	Participated in the PG Research collaboration meeting at IIHR and Meeting with Director, IIHR, Dean PGS, Dean, DR, Special Officer for finalized the PG, UG and Research requirements including an organization of Biodiversity Mela function at UHS, Bagalkot and Kolar.
9.	22-04-2016	Kolar	Participated in National Seminar on "Management of Jack Under Adverse Climatic Condition, Value Addition & Marketing at College of Horticulture, Kolar.
10.	23-04-2016	Kolar	Participated and Chaired valedictory function of National Seminar on "Management of Jack Under Adverse Climatic Condition, Value Addition & Marketing.
11.	27-04-2016	Bengaluru	Participated in the One day workshop on rating of Universities organized by Karnataka State Higher Education Council, Bengaluru
12.	28-04-2016	Bengaluru	Participated in the Legislative Assembly Audit Meeting organized by Secretary, regarding CAG audit until 2013 of Para 2.4 of installation of RKVY plan. Met Hon'ble Horticulture Minister of Horticulture regarding administrative issues and met Secretary, Social Welfare Department regarding budget issues.
13.	29-04-2016	Bengaluru	Participated as a Chairman for the session VI: Interactive session on Post Graduate Education in Horticulture on 29-04-2016 during the National Conference on Fruit Breeding in Tropics & Sub-Tropics: An Indian Perspective held at IIHR, Hesargatta, Bengaluru

14.	03-05-2016	Bengaluru	Chaired and addressed the Regional Horticulture Research, Extension Advisory and Project Formulation (RHREA & PF) Workshop for Southern Region at COH, Bengaluru
15.	04-05-2016	Bengaluru	Chaired and addressed valedictory function of Regional Horticulture Research, Extension Advisory and Project Formulation (RHREA & PF) Workshop for Southern Region at COH, Bengaluru
16.	05-05-2016	Sirsi/ Devihosur	Participated and Chaired the Opening ceremony of Tissue Culture Laboratory at COH, Sirsi. Inspected CHEFT and HRES Devihosur and gave suggestions regarding academic regulations.
17.	10-05-2016	Bengaluru	Visited Indian Institute of Plantation Management (IIPM-B), Bengaluru and held a meeting with the Director, IIPM-B regarding formation of Arecanut Board in Karnataka.
18.	13-05-2016	Bengaluru	Met IIHR, Director & Participated in the meeting of GRSV with Dr. CLL Gouda regarding Vision Plan & Strategy Exercise of the University
19.	20-05-2016	Bengaluru	Participated in the inaugural function and College Day at COH, Bengaluru under the Chairmanship of Hon'ble Chief Minister of Karnataka and Farewell function to all the Members of the BOM, UHS, Bagalkot.
20.	21-05-2016	Delhi	Participated in Women Economic Forum-2016 at Pullman, Hotel Aerocity, New Delhi as a speaker topic name: In Conversation with "Iconic Innovative Women Leaders on What Drives Them" and received award " <u>Iconic Innovative Leaders of the Decade</u> " from Women Economic Forum at Delhi.
21.	22-05-2016	Delhi	Discussed with NASA regarding Polyhouse designing & Renovation and discussed about interior Museum development at IARI, New Delhi.
22.	23-05-2016	Delhi	Met Dr. Ashok Dalawai, Additional Secretary, Department of Agriculture and Cooperation (DAC) Krishi Bhavan, regarding new project proposals and briefed about the University progress. Discussed regarding new project proposals with Dr. B.L.Sarswat, Executive Director, National Bee Board, Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture, Govt. of India and Met DDG (Education) & (Horticulture), ICAR regarding project proposals and progress of the University.
23.	26-05-2016	Dharwad	Participated as chief guest in Inaugural function of Post Graduate Research Conference – 2016 and participated in Selection Committee as Member for the post of Director of Education & Dean, Forestry, UAS, Dharwad
24.	28-05-2016	Chennai	Participated in the IAUA Sponsored 11th National Symposium at Madras Veterinary College, Chennai. From 28-29 <sup>th</sup> May 2016
25.	29-05-2016	Chennai	Participated as a panelist for the Sub theme entitled "Orienting Agricultural Research for Vocational Education" at Madras Veterinary College, Chennai
26.	04-06-2016	Bengaluru	Discussed with Foretell Business Solutions Private Limited, Bengaluru and wine board association Managing Director and plan for distribution activities, Consulted with Forest Officer regarding land transfer issues and apiculture training programme.
27.	06-06-2016	Bengaluru	Participated in the Expert Committee Meeting regarding CHEFT college approval on 06-06-2016 under the chairmanship of Additional chief Secretary and Development Commissioner, GOK @ Vidhan Soudha, Bengaluru, Consulted and had meeting with Arecanut Board formation with IIPM-B, and had meeting with Arecanut Board preparation at Lalbagh

28.	18-06-2016	Bengaluru	Participated in FVCK Seminar on Entrepreneurship and Innovation in Agri. Technology Business & Farming at FVCK Seminar Hall, Old Law College Building, Palace Road, Bengaluru
29.	01-7-2016	Bengaluru	Participated in "ICAR Summer School on exploring Genomics resources for the improvement of horticultural crops" program organized at COH, Bengaluru.
30.	12-7-2016	New Delhi	Participated in one day National Seminar on "Doubling of Farmers Income by 2022" organized by the NABARD on the occasion of its 35 <sup>th</sup> Foundation Day at Vigyan Bhavan, New Delhi.
31.	27-8-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in 3<sup>rd</sup> International Agri Business Congress-2016 organized at Bangalore International Exhibition Centre (BIEC) Bangalore.</li> <li>• Conducted students' session to address all horticultural graduates.</li> </ul>
32.	12-9-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Discussed and signed MOU with IIPM, Bengaluru</li> </ul>
33.	24-9-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in one-day Conference on "Horticulture Education: Present Status and Future Prospectus" organized by IIHR, Bengaluru.</li> </ul>
34.	25-9-2016	Vijayapur	<ul style="list-style-type: none"> <li>• Proceeded to Vijayapur and participated in National Level Grape Seminar-2016 and Exhibition.</li> </ul>
35.	03-10-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Met Hon'ble Chief Minister of Karnataka and submitted Arecanut and Onion Report and handed over invitation letter for Horticulture Mela-2016.</li> </ul>
36.	17-10-2016	Mysuru	<ul style="list-style-type: none"> <li>• Participated in 3<sup>rd</sup> International STEM Fest University Vice-Chancellors Forum organized by Mysore University in their Campus during 17th to 20th October 2016.</li> </ul>
37.	18-10-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in Doordarshan Program at Bengaluru regarding UHS activity and Horticulture Fair-2016.</li> </ul>
38.	20-10-2016	TNAU, Coimbatore	<ul style="list-style-type: none"> <li>• Met the Vice-Chancellor of TNAU, Coimbatore and their staff. Discussed and identified the developmental activities and thrust areas of TNAU and collected useful information on the university initiatives in the area of academic, research and extension, along with Registrar and SO, PPMC.</li> <li>• Visited fields and research stations of TNAU, Coimbatore.</li> </ul>
39.	21-10-2016	TNAU, Coimbatore	<ul style="list-style-type: none"> <li>• Visited the TNAU, Coimbatore farms and laboratories and observed the developmental initiatives of TNAU.</li> </ul>
40.	25-10-2016	Dharwad	<ul style="list-style-type: none"> <li>• Proceeded to UAS, Dharwad along with Director of Extension and participated in Climate Change Conference and Global Water Meet Technical Session and delivered the lecture.</li> <li>• Visited Prasar Bharathi Radio station, Dharwad and participated in program in relation to Totagarike Mela-2016.</li> </ul>
41.	03-11-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in Indo American Hybrid Seeds Program at IAHS Corporate Office, Bengaluru</li> </ul>
42.	04-11-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in Indo American Hybrid Seeds Program at St. Mark's Cathedral, M.G. Road, Bengaluru</li> </ul>
43.	05-11-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in Career Path Finder organized by UHS, Bagalkot.</li> </ul>
44.	11-11-2016	TNAU Coimbatore	<ul style="list-style-type: none"> <li>• Met the Vice-Chancellor of TNAU Coimbatore and other officers of the University and Participated in 24<sup>th</sup> Meeting of ICAR Regional Committee No. VIII.</li> <li>• Visited the research, extension and academic sections of the TNAU University along with Director of Extension and studied the development activities initiated by TNAU.</li> </ul>

45.	12-11-2016	TNAU, Coimbatore	<ul style="list-style-type: none"> <li>• Participated in second day of 24<sup>th</sup> Meeting of ICAR Regional Committee No. VIII.</li> <li>• Met the Vice-Chancellor of TNAU and discussed the developmental activities initiated by the university.</li> <li>• Conducted field visit and laboratories of TNAU and studied the development activities of TNAU.</li> </ul>
46.	10-12-2016	Bengaluru	<ul style="list-style-type: none"> <li>• Participated in Opening Ceremony of Youth Festival-2016 organized at COH, Bengaluru and addressed the program.</li> </ul>
47.	30-12-2016	Arabhavi	<ul style="list-style-type: none"> <li>• Accompanied with the ICAR South Zone Monitoring Team and proceeded to KRCCH Arabhavi along with UHS Officers for college inspection.</li> <li>• Participated in Japanese Mint Filed Day Program organized by KRCCH, Arabhavi.</li> </ul>
48.	01-2-2017	Hyderabad	<ul style="list-style-type: none"> <li>• Visited local horticultural institutions, ANGRU University and PJTSAU University at Hyderabad and discussed the developmental activities.</li> </ul>
49.	07-2-2017	Bengaluru	<ul style="list-style-type: none"> <li>• Participated as Chairperson of panel member to handle forenoon session along with Coconut Expert on “Major Issues of Coconut Industry in India and Its Strategic Approaches”</li> <li>• Met the Hon’ble Horticulture Minister at Vidhana Soudha and discussed about the journey to Washington DC.</li> <li>• Met the ADC at Hon’ble Governor Office and discussed about the Singapore tour.</li> </ul>
50.	09-2-2017	Bengaluru/ Singapore	<ul style="list-style-type: none"> <li>• Participated in 3<sup>rd</sup> World Cashew Convention scheduled to be held during 9-11 February, 2017 at Hotel Grand Copthorne, Singapore as a panelist and exploring the institutional collaboration at Singapore.</li> </ul>
51.	10-2-2017	Singapore	<ul style="list-style-type: none"> <li>• Participated in 3<sup>rd</sup> World Cashew Convention at Hotel Grand Copthorne, Singapore.</li> </ul>
52.	11-2-2017		
53.	12-2-2017		
54.	14-2-2017	New Delhi	<ul style="list-style-type: none"> <li>• Departure to New Delhi in the early morning and participated in Annual Vice-Chancellors’ (VCs) of AUs and Directors of ICAR Institutes Conference scheduled to be held at NASC Complex, New Delhi.</li> </ul>
55.	15-2-2017	New Delhi	<ul style="list-style-type: none"> <li>• Participated in Annual Vice-Chancellors’ (VCs) of AUs and Directors of ICAR Institutes Conference.</li> </ul>
56.	17-2-2017	Dharwad	<ul style="list-style-type: none"> <li>• Visited UAS, Dharwad and participated in a meeting “Protected cultivation to meet future challenges”.</li> <li>• Proceeded to Rani Channamma University, Belagavi and participated in ICSSR sponsored National Seminar on “Inclusive Agriculture Growth in India: Issues and Challenges”.</li> </ul>
57.	04-03-2017	Shivamogga	<ul style="list-style-type: none"> <li>• Proceeded to Shivamogga and participated in a Program organized by Bio-Centre, Department of Horticulture, Shivamogga.</li> </ul>

## ABBREVIATIONS

1.	AAC	Arabhavi Aster Collection
2.	AAUHSB	Alumni Association of UHS, Bagalkot
3.	ADH	Assistant Director of Horticulture.
4.	AHO	Assistant Horticulture Officer
5.	AICRP	All India Coordinated Research Project
6.	AIEEA	All India Entrance Examination for Admission
7.	AIIAU	All India Inter Agri. University
8.	ANGRAU	Acharya N G Ranga Agricultural University
9.	ARS	Agricultural Research Station
10.	ASRB	Agricultural Scientist Recruitment Board
11.	B:C	Benefit to Cost Ratio
12.	BCI	Biotechnology & Crop Improvement
13.	BOM	Board of Management
14.	BOS	Board of Studies
15.	BP	Blood Pressure
16.	CDB	Coconut Development Board
17.	CeRA	Consortium of e Resources in agriculture
18.	CFTRI	Central Food Technological Research Institute
19.	CHEFT	College of Horticulture Engineering & Food Technology
20.	CIAE	Central Institute for Agricultural Engineering
21.	CIPHET	Central Institute for Post-Harvest Engineering and Technology
22.	COH	College of Horticulture
23.	CPCRI	Central Plantation Crops Research Institute
24.	CRIDA	Central Research Institute for Dryland Agriculture
25.	CSSRI	Central Soil Salinity Research Institute
26.	DAC	Department of Agriculture and Co-operation
27.	DAG	Days After Grafting
28.	DAP	Days After Planting
29.	DAS	Days After Sowing
30.	DAT	Days After Transplanting
31.	DBT	Department of Biotechnology
32.	DCCB	District Central Cooperative Bank
33.	DDG	Deputy Director General
34.	DFRL	Defence Food Research Laboratory
35.	DM	Integrated Disease Management
36.	DOGR	Directorate of Onion & Garlic Research
37.	DST	Department of Science & Technology
38.	DSW	Dean Student Welfare
39.	DYES	Department of Youth Empowerment & Sports
40.	ELP	Experiential Learning Programme
41.	FLA	Floriculture and Landscape Agriculture
42.	FVCK	Former Vice Chancellors of Karnataka
43.	FYM	Farm Yard Manure
44.	GIS	Geographic Information System
45.	GOI	Government of India
46.	GOK	Government of Karnataka

47.	GP/TP/ZP	Gram Panchayat/Taluk Panchayat/Zilla Panchayat
48.	GPB	Genetics & Plant Breeding
49.	HC & RI	Horticulture College & Research Institute
50.	HDP	High Density Planting
51.	HEEU	Horticulture Extension Education Unit
52.	HOD	Head of the Department
53.	HOPCOMS	Horticulture Produce Growers Co-Operative, Marketing Society.
54.	HRD	Human Resource Development
55.	HRES	Horticulture Research & Extension Station
56.	IARI	Indian Agricultural Research Institution
57.	ICAR	Indian Council of Agricultural Research
58.	ICM	Integrated Crop Management
59.	ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
60.	ICSSR	Indian Council of Social Science Research
61.	ICT	Information Communication Technology
62.	IFS	Integrated Farming System
63.	IIHR	Indian Institute of Horticultural Research
64.	IIOPR	Indian Institute of Oil Palm Research
65.	IISS	Indian Institute of Strategic Studies
66.	INM	Integrated Nutrient Management
67.	IPM	Integrated Pest Management
68.	IRR	Internal Rate of Returns
69.	ITBT	Information Technology & Biotechnology
70.	IVR	Interactive Voice Response
71.	JISL	Jain Irrigation Systems Limited
72.	JRF	Junior Research Fellowship
73.	K- FIST	Karnataka Fund for Infrastructure strengthening in Science and Technology
74.	KAPPEC	Karnataka State Agricultural Produce Processing and Export Corporation
75.	KAU	Kerala Agricultural University
76.	KCDC	Karnataka Compost Development Corporation
77.	KRCCH	Kittur Rani Chennamma College of Horticulture
78.	KSHEC	Karnataka State Higher Education Council
79.	KVK	Krishi Vigyan Kendra
80.	MANAGE	National Institute Agricultural Extension Management
81.	MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
82.	MHREC	Main Horticulture & Extension Centre
83.	MOU	Memorandum of Understanding
84.	NAARM	National Academy of Agricultural Research Management
85.	NAAS	National Academy of Agricultural Sciences
86.	NABARD	National Bank for agriculture & Rural Development
87.	NAEAB	National agricultural education Accreditation Board
88.	NAIP	National Agricultural Innovation Project
89.	NDRI	National Dairy Research Institution
90.	NDUAT	Narendra Deva University of Agriculture & Technology
91.	NHB	National Horticulture Board.
92.	NHM	National Horticulture Mission,

93.	NIC	National Integration Camp
94.	NIPHM	National Institute of Plant Health Management
95.	NIRD	National Institute of Rural Development
96.	NPK	Nitrogen Phosphorus Potassium
97.	NPV	Net Present Value
98.	NRC	National Research Centre
99.	NRM	Natural Resource Management
100.	NSS	National Service Scheme
101.	NTS	National Teaching Service
102.	PBP	Pay Back Period
103.	PG	Post Graduate
104.	PGS	Post Graduate Studies
105.	Ph.D.	Doctor of Philosophy
106.	PHT	Post-Harvest Technology
107.	PIO	Public Information Officer
108.	POP	Package of Practice
109.	PPMC	Project Planning & Monetary Control
110.	PSMA	Plantation, Spice, Medicinal & Aromatic crops
111.	RDF	Recommended Dose of Fertilizer
112.	RHREC	Regional Horticultural Research & Extension Centre
113.	RHWEF	Rural Horticultural Work Experience Program
114.	RIDF	Rural Infrastructure Development Fund
115.	RKVY	Rashtriya Krishi Vikas Yojana
116.	RSK	Raitha Samparka Kendra
117.	RTI	Right To Information
118.	SAD	Summary of Audit Differences
119.	SADH	Senior Assistant Director of Horticulture
120.	SAS	Social & Allied Sciences
121.	SAU	State Agricultural University
122.	SC/ST	Scheduled Caste / Scheduled Tribe
123.	SERB	Science & Engineering Research Board
124.	SHG	Self Help Group
125.	SRF	Senior Research Fellowship
126.	SS&AC	Soil Science & Agriculture Chemistry
127.	SST	Seed Science Technology
128.	STSP/TSP	Scheduled Caste Sub Plan/ Tribe Sub Plan
129.	TNAU	Tamil Nadu Agricultural University
130.	UAHSS	University of Agricultural & Horticultural Sciences, Shivamogga
131.	UASB	University of Agricultural Sciences, Bengaluru
132.	UASD	University of Agricultural Sciences Dharwad
133.	UGC	University Grants Committee
134.	UHS-B	University of Horticultural Sciences, Bagalkot
135.	URC	University Review Committee
136.	VGST	Vision Group on Science & Technology



**Golden Girl Delna Rose  
at VI Convocation-2016**

**Pradhan Mantri Fasal  
Bima Yojana**



**Inauguration of Career  
Path Finder-I**

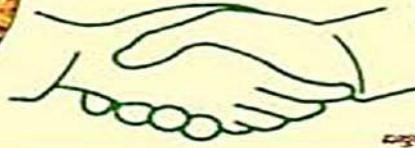




ತೋಟಗಾರಿಕಾ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟೆ

ಉದ್ಯಾನ ಸಹಾಯವಾಣಿ-ಶುಲ್ಕ ರಹಿತ

1800 425 7910



ಬಹುಮಾನ ಸೇವೆಯನ್ನು, ಕೊಡುವ, ವಾಗ್ದರವಾಣಿ

ತೋಟಗಾರಿಕೆ ವಿಜ್ಞಾನಗಳ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಬಾಗಲಕೋಟೆ



ಉದ್ಯಾನ ಮಿತ್ರ



UHSB HORTI APP



University of Horticultural Sciences

Udyanagiri, Navanagar, Bagalkot – 587 104, Karnataka

Phone : 08354-230279, 230278, 230276, Fax : 230300

www.uhsbagalkot.edu.in