

**UNIVERSITY OF HORTICULTURAL SCIENCES,
BAGALKOT, KARNATAKA.**



**SELF STUDY REPORT FOR THE
B.Sc. DEGREE PROGRAMME
KRCCH, ARABHAVI, 2014-15 to 2018-19**

SUBMITTED TO
Indian Council of Agricultural Research,
Krishi Bhavan, New Delhi.

SUBMITTED BY
University of Horticultural Sciences,
Udyanagiri, Bagalkot – 587 104
Karnataka

PREFACE

India faced the challenge of providing food security to millions of its people soon after independence. The Research and Development initiatives taken by the Government of India resulted in the 'Green revolution' in the late 60s and early 70s. As a result of 'Green revolution', India has made significant achievement through production of 228 million tonnes of food grains and gained self-sufficiency. But considering the nutritional security, economic sustainability and high generation of employment, Horticulture sector plays an important role. Hence, it was only in mid-80s that the Government of India recognized the importance of Horticulture sector and thus greater emphasis was given on this. It is a means of diversification for making agriculture more profitable through efficient land use, optimum utilization of natural resources and creating skilled employment for rural masses. Horticulture has invariably improved the economic status of our farmers. It has also played a significant role in improving floriculture, plantation, spices, medicinal, aromatic industry, fruit and vegetable production and processing, production of quality seed and planting materials, encouraging hi-tech horticulture, contract farming, cooperative farming, participatory approach of production and marketing, etc. Thus, there is a growing awareness about the advantages of the horticultural crop production and this is bound to go up with the increase in socio-economic status of the people.

The R & D programmes in horticulture have received an impressive support from the Eighth Five Year Plan onwards. As a result, the research infrastructure has increased manifold with the setting up of a number of new institutes, national research centres in several crops, important both from domestic as well as export point of view. The establishment of educational institutions in the field of horticulture plays a pivotal role in developing human resource, which would cater to the needs of horticulture industry.


To cater the horticulture needs of the farmers of northern Karnataka and to develop the quality human resource in the field of horticulture, the **Kittur Rani Channamma College of Horticulture, Arabhavi** was established at Arabhavi on **31.08.1994** under the University of Agricultural Sciences, Dharwad, and is presently functioning under the University of Horticultural Sciences, Bagalkot. The college offers undergraduate, postgraduate and Ph.D. courses and has the admission capacity

of 50 students for undergraduate, 30 students for Masters and 8 students for Ph.D. degree programme annually excluding ICAR quota students. Students of this college have excelled not only in curriculum but also in extracurricular activities and national level competitive examinations and the college is making continuous efforts to improve the quality of education offered here. The ICAR has introduced the procedure of accreditation, which help in assessing facilities available to impart the quality education offered by the college. The college was accredited by ICAR Peer Review committee for a period of **five years**. After accreditation, the financial support of ICAR and State Government has greatly facilitated the growth and developmental activities of the college to a greater extent, as a result the quality of education has improved. Since the college is due for further accreditation, the present report provides all the necessary information about the college activities performed during **last eight years**.

The University Level Task Force and Steering Committee has been gratefully acknowledged for their help, guidance and suggestions given in preparing the report.

The college level Steering Committee and Task Force have done a great job in compiling information and bringing out this report to be submitted to Accreditation Board of ICAR. My heartfelt thanks to all those who are involved in preparation of this report.

**K.R.C. College of Horticulture, Arabhavi
September-2018**


Dear
(Nagesh H. Naik)

ABOUT THE COLLEGE

The Kittur Rani Channamma College of Horticulture, now under the University of Horticultural Sciences, Bagalkot was established during 1994 at Arabhavi of Gokak taluk in Belagavi district of Karnataka under the administration of the University of Agricultural Sciences, Dharwad. The college is located 9 kilo-meters away from Gokak on Gokak-Bijapur road. This is a premier institution in the state for imparting education, conduct of research, extension of developed technologies as well as the manpower development in the field of horticulture.

PARTICULARS OF THE COLLEGE

Head of the college and address

- 1) Dr. N.C. Hulamani (31.08.1994 to 31.05.2001)
- 2) Dr. B.S. Reddy (01.06.2001 to 10.02.2011)
- 3) Dr. J. Venkatesha (14.02.2011 to 04.05.2011)
- 4) Dr. M.S. Kulkarni (05.05.2011 to 30.11.2011)
- 5) Dr. S.I. Hanamashetti (01.12.2011 to 31.05.2013)
- 6) Dr. M.S. Kulkarni (01.06.2013 to 13.04.2017)
- 7) Dr. Chaya P. Patil (13.04.2017 to 07.8.2018)
- 8) Dr. Nagesh H. Naik (08.8.2018 to till date)

Dean

K.R.C. College of Horticulture, Arabhavi-591 218 (University of Horticultural Sciences, Bagalkot-587 104) Taluk Gokak, Dist. Belagavi, Karnataka State

Telephone No.: 91-8332-220701

Mobile: 91 9449872860 Email : deankrcch2@gmail.com

			
Dr. N. C. Hulamani	Dr. B. S. Reddy	Dr. J. Venkatesha	Dr. S. I. Hanamashetti
			
Dr. M. S. Kulkarni	Dr. Chaya P. Patil	Dr. Nagesh H. Naik	

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6.4. SELF STUDY REPORT FOR THE PROGRAMME B.SC. (HONS.) HORTICULTURE

Kittur Rani Channamma College of Horticulture (KRCCH), Arabhavi was established during the year 1994 under the administration of University of Agricultural Sciences, Dharwad at Arabhavi (Tq. Gokak, Dist. Belagavi). The college is the second oldest of the state after College of Horticulture, Mudigere. During the year 2008, after establishment of UHS Bagalkot, affiliation of the college was shifted from UAS, Dharwad to UHS, Bagalkot.

The college is situated at a distance of 10 km from Gokak, and 75 km from Belagavi. Nearest Railway Station is located at Ghataprabha which is 8 km away from Arabhavi and nearest air port is located at Belagavi. The college is a premier institution in the state for imparting education and conducting research in horticulture. Prime objective of this college is the development of qualified and trained manpower in horticulture sector .

The college is offering the following degree programmes as per the recommendation of 5th Deans' committee.

Degree Programmes

The college is offering following degree programme under semester system

- B.Sc. (Hons.) Horticulture of 4 years duration,
- M.Sc. (Horticulture) of 2 years duration and
- Ph.D. in Horticulture disciplines of 3 years duration

6.4.1. Brief History of the Degree Programme

Under graduate degree programme B.Sc. (Hons.) Horticulture was started at KRC College of Horticulture, Arabhavi during the academic year 1994-95 with an intake 25 students under the guidance and administration of Director of Instruction using the prevailing land and infrastructure facilities like NATP building (for college building), staff quarters and other buildings of state departments. The courses were offered by the faculty from College of Agriculture, Dharwad, College of Agriculture, Bijapur, ARS Kalloli and ARS Arabhavi. The nomenclature of B.Sc. (Hons.) Horticulture has been changed to B.Sc. (Hons.) Horticulture as per the recommendation of V Deans' committee.

The graduates from this college have spread across the country and even overseas as they proved themselves as fine human resource by securing better rankings in JRF's, SRF's, ASRB, KPSC, UPSC, IBPS, GATE, GRE, TOFFEL and CAT apart from making the backbone of State department of Horticulture. They are also absorbed by banking sector, private firms and MNCs. Above all, many of our graduates have made themselves good entrepreneurs

involved in commercial horticulture, landscape design/build and maintenance companies, nurseries, greenhouses and garden centers, turmeric and zinger processing units.

Undergraduate Programme offered at KRC College of Horticulture, Arabhavi

Programme	Discipline	Duration
Undergraduate	B.Sc. (Hons.) Horticulture	8 Semesters

This institute follows course curriculum and courses recommended by 5th Deans' Committee as accepted by ICAR for the undergraduate programme. Good and adequate facilities have been established in the college for imparting quality education.

Statistics of students profile for undergraduate degree programme at KRCCH, Arabhavi from 2013-14 to 2017-18

Year of Admission	Admitted			Dropped			Passed			Degree awarded	Remarks
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2010-11	30	27	57	4	1	5	26	26	52	2013-14	
2011-12	29	40	69	3	1	4	26	39	65	2014-15	
2012-13	34	35	69	3		3	29	35	64	2015-16	
2013-14	37	22	59	5		5	32	22	54	2016-17	
2014-15	36	23	59	0	0	0	36	22	58	2017-18	
Total	166	147	133	15	2	17	149	144	293		
2015-16	30	29	59	1	2	3	-	-	-	-	Yet to complete
2016-17	26	35	61	3	0	3	-	-	-	-	Yet to complete
2017-18	32	28	60	2	0	2	-	-	-	-	Yet to complete
Grand Total	254	239	493	21	4	25	149	144	293	-	-

Gold Medals received by the undergraduate students of K.R.C. College of Horticulture, Arabhavi

Year	No.
2013-14	4
2014-15	4
2015-16	4
2016-17	4
2017-18	4

Award of UHS Bagalkot, GOI and BCM authorities Scholarships 2013-14

Scholarship Type	B.Sc. (Hons.) Horticulture				
	I year	II year	III year	IV year	Total
Merit Scholarship	3	3	3	3	12
General Scholarship	3	4	4	3	14
Students Aid fund	3	3	3	3	12
Category I EBL Scholarship	1	1	2	3	7
GOI Scholarship (SC+ST)	7+4=11	7+1=8	9+3=12	-	31
Vidyasiri food & Accommodation	6	10	15	16	47
Muslim Minority	1	0	0	0	1

Other Minority	-	-	-	-	-
Total	28	29	39	28	124

2014-15

Scholarship Type	B.Sc. (Hons.) Horticulture				
	I year	II year	III year	IV year	Total
Merit Scholarship	3	3	3	3	12
General Scholarship	3	3	4	4	14
Students Aid fund	3	3	3	3	12
Category I EBLScholarship	-	1	2	2	5
GOI Scholarship (SC+ST)	5+3=8	5+1=6	9+1=10	10+0=10	34
Vidyasiri food & Accommodation	29	25	22	33	109
Muslim Minority	1	1	-	-	2
Other Minority	1	-	-	-	1
Total	48	42	44	55	189

2015-16

Scholarship Type	B.Sc. (Hons.) Horticulture				
	I year	II year	III year	IV year	Total
Merit Scholarship	3	3	3	3	12
General Scholarship	3	3	3	3	12
Students Aid fund	3	3	3	3	12
GOI Scholarship (SC+ST)	7+1=8	7+1=8	6+1=7	7+0=7	30
Vidyasiri food & Accommodation	29	22	27	27	105
Muslim Minority	-	2	-	-	2
Other Minority	-	1	-	-	1
Total	46	42	43	43	174

2016-17

Scholarship Type	B.Sc. (Hons.) Horticulture				
	I year	II year	III year	IV year	Total
Merit Scholarship	3	3	3	3	12
General Scholarship	3	3	4	3	13
Students Aid fund	3	3	1	3	10
GOI Scholarship (SC+ST)	6+3=9	9+1=10	6+2=8	6+0=6	33
Vidyasiri food & Accommodation	26	27	27	30	110
Muslim Minority	1	2	1	-	4
Other Minority	-	-	1	-	1
Total	45	48	45	45	183

2017-18

Scholarship Type	B.Sc. (Hons.) Horticulture				
	I year	II year	III year	IV year	Total
Merit Scholarship	3	3	3	3	12

General Scholarship	3	3	3	3	12
Students Aid fund	3	3	1	3	10
GOI Scholarship (SC+ST)	6+2=8	6+3=9	8+1=9	7+1=8	34
Vidyasiri food & Accommodation	34	28	30	33	125
Muslim Minority	1	1	2	-	4
Other Minority	2	2	1	-	5
Total	54	49	49	50	202

Details of Fellowships / Scholarships to undergraduate students (2013- 14 to 2017-18)

Year	Programme	GOI Scholarship		Vidyasiri Fellowship	TOTAL
		SC	ST	OBC	
2013-14	B.Sc.	23	08	47	78
2014-15	B.Sc.	29	05	109	143
2015-16	B.Sc.	27	03	105	135
2016-17	B.Sc.	27	06	110	143
2017-18	B.Sc.	27	07	125	159

6.4.2. FACULTY STRENGTH

Faculty Strength (Cadre-wise)

Designation / Cadre	2014			2015			2016			2017			2018		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
Dean	1	1	0	1	1	0	1	1	0	1	1	0	1	1*	0
Professor	8	5	3	8	6	2	8	5	3	8	4	4	5	4	1
Associate Professor	11	4	7	11	5	6	11	4	7	12	4	8	7	4	3
Assistant Professor	45	29	16	45	29	16	45	29	16	47	30	17	36	29	7
Total	65	39	26	65	41	24	65	39	26	68	39	29	48	37	11
Contractual		2			1						2		-	2+3	-

S-Sanctioned F-Filled V- Vacant, * In-charge arrangement

Faculty Strength (Department wise - 2017-18)

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR			Deviation from ICAR recommendation		
	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.
Fruit Science	1	1	2	1	0	2	0	1	0	1	1	2	0	1	0
Vegetable Science	1	1	2	1	0	2	0	1	0	1	1	2	0	1	0
Floriculture and Landscape Architecture	1	1	2	1	1	3	0	0	-1	1	1	2	0	0	-1
Plantation, Spices, Medicinal and Aromatic Crops	1	1	2	0	0	3	1	1	-1	1	1	2	1	1	-1
Post-harvest Technology	1	1	2	1	0	2	0	1	0	1	1	2	0	1	0
Biotechnology	0	0	2	0	0	2	0	0	0			1	0	0	-1

Department	Sanctioned Faculty			Faculty in place			Vacant position			Recommended by ICAR			Deviation from ICAR recommendation		
	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.	Professor	Assoc. Prof.	Asst. Prof.
Genetics and Plant Breeding	0	0	1	0	0	2	0	0	-1			1	0	0	-1
Horticultural Plant Pathology	0	1	2	0	1	1	0	0	1		1	2	0	0	1
Horticultural Entomology	0	1	2	0	1	1	0	0	1		1	2	0	0	1
Soil Science and Agril. Chemistry	0	0	1	0	0	1	0	0	0			1	0	0	0
Seed Science & Technology	0	0	1	0	0	1	0	0	0			1	0	0	0
Agril. Microbiology	0	0	1	0	0	0	0	0	1			1	0	0	1
Agronomy	0	0	1	0	0	1	0	0	0			1	0	0	0
Agril. Economics	0	0	1	0	0	1	0	0	0			1	0	0	0
Crop Physiology	0	0	1	0	0	0	0	0	1			1	0	0	1
Agril. Extension	0	0	1	0	0	0	0	0	1			1	0	0	1
Agril. Engineering	0	0	1	0	0	0	0	0	1			1	0	0	1
Agro-Meteorology / Agril Statistics	0	0	1	0	0	0	0	0	1			1	0	0	1
Forestry	0	0	1	0	0	0	0	0	1			1	0	0	1
Physical Education	0	0	1	0	0	1	0	0	0			1	0	0	0
Animal Husbandry	0	0	0	0	0	0	0	0	0			0	0	0	0
Assistant Librarian	0	0	1	0	0	1	0	0	0			1	0	0	0
English	0	0	1	0	0	1	0	0	0			1	0	0	0
Computer Science	0	0	1	0	0	1	0	0	0			1	0	0	0
Kannada	0	0	1	0	0	0	0	0	1			0	0	0	0
Biochemistry	0	0	0	0	0	0	0	0	0			1	0	0	1
Apiculture	0	0	0	0	0	0	0	0	0			0	0	0	0
AICRP (F)	0	0	2	0	1	2	0	-1	0			1	0	-1	-1
HEEU	0	0	2	0	0	1	0	0	1			0	0	0	-1
Total	5	7	36	4	4	29	1	3	7	5	7	32	1	3	3
			48			37			11			44			7

Negative Value in Deviation from ICAR=Excess staff, Vacant positions in Asst. Professor are filled on Contractual service/Adjunct/Working arrangement

6.4.3. TECHNICAL AND SUPPORTING STAFF

SL NO	Post	2018				
		Sanctioned	Filled	Vacant	Recommended by UHS	Deviation from recommendation (Sanctioned)
1	Assistant Registrar	1	1	0	1	0
2	Assistant Administrative Officer	1	0	1	1	1
3	Assistant Comptroller	1	1	0	1	0
4	Assistant Executive Engineer (civil)	1	0	1	1	1
5	Asst. Medical Officer	1	0	1	1	1
6	Superintendent (accounts)	1	0	1	1	1

SL NO	Post	2018				
		Sanctioned	Filled	Vacant	Recommended by UHS	Deviation from recommendation (Sanctioned)
7	Superintendent (general)	1	0	1	1	1
8	Personal Secretary	1	0	1	0	0
9	Asst. Engineer (civil)	1	1	0	0	-1
10	Library Assistant	1	0	1	1	1
11	Senior Assistant	6	2	4	4	2
12	Stenographer	1	1	0	1	0
13	Junior Engineer (civil)	1	0	1	0	0
14	Assistant cum Computer Operator	11	9	2	14	5
15	Pharmacist	1	0	1	1	1
16	Shelf Assistant	1	0	1	1	1
17	Field Assistant	4	4	0	6	2
18	Lab Assistant	11	7	4	11	4
19	Cook cum Caretaker	1	0	1	1	1
20	Junior Technician (electrical)	1	1	0	1	0
21	Junior Technician	1	0	1	1	1
22	Tractor Driver	1	1	0	1	0
23	Driver (HV)	2	2	0	2	0
24	Driver (LV)	2	1	1	3	2
25	Attender	1	1	0	1	0
26	Lab Attender	1	1	0	1	0
27	Assistant Cook cum Caretaker	1	0	1	2	2
28	Wardboy	1	0	1	1	1
29	Apairyman	1	0	1	0	0
30	Messenger	17	4	13	9	5
31	Pump Attender	1	0	1	1	1
32	Plumber	1	0	1	1	1
33	Helper	3	0	3	3	3
34	Gardener	1	0	1	3	3
35	Janitor	2	1	1	1	0
36	Watchman	7	2	5	6	4
37	Farm Labour	5	5	0	6	1
38	Deputy Registrar	0	1	-1	0	-1
39	Telephone Operator	0	1	-1	1	0
	College Sub - total	96	47	49	91	44
AICRP (FRUITS) SERVICE PERSONNEL						
1	Clark cum Typist					
2	Assistant cum Computer Operator	1	1	0		
3	Field Assistant	4	4	0		
4	Lab. attender	1	1	0		
5	Gardener / Malies	2	2	0		
	AICRP total	8	8	0	0	0
HEEU SERVICE PERSONNEL						
1	Assistant cum Computer Operator	1	0	1		
	HEEU total	1	0	1		
	Gross college total	105	55	50	91	44

* Shortfall Posts/Essential posts are filled on Contractual basis 44-31=13

6.4.4. CLASSROOMS AND LABORATORIES

College has sufficient number of classrooms and laboratories to carry out the undergraduate degree programme.

Information accorded in respect to the classrooms available for the students is detailed in the table below.

- The Classrooms available at KRCCH, Arabhavi are designated as UG and PG classrooms.
- Three classrooms are designated for UG and equipped with computers, LCD projectors with internet facility.
- Final year students will be engaged for practical exposure in laboratories, field works, poly houses.
- All the departments have well equipped laboratories with the required equipments as indicated in the tables below.

Classrooms

Sl. No.	Class room No.	Area (m ²)	Seating capacity	Other facilities (LCD, Projectors, Computers, Smart board etc.)
1.	I	109.80	75	LCD, Projectors, Computers
2.	II	116.10	75	LCD, Projectors, Computers
3.	III	104.40	75	LCD, Projectors, Computers

Laboratory

Sl. No.	Name of the laboratory	Area (m ²)	Seating capacity
1	Floriculture and Landscape Architecture	120.00	50
2	Fruit Science	120.00	50
3	Plantation, Medicinal and Aromatic Crops	120.00	50
4	Post Harvest Technology	120.00	50
5	Vegetable Science	120.00	50
6	Soil Science & Agril. Chemistry and Agronomy	112.50	45
7	Biochemistry	257.25	50
8	Crop physiology and Seed Technology	112.50	30
9	Genetics and Plant Breeding	105.30	45
10	Biotechnology	108.00	50
11	Central Lab	80.00	15
12	Plant Pathology	99.00	30
13	Entomology	104.04	50
14	Agricultural Microbiology	257.25	50
15	Agricultural Extension	83.25	45
16	Computer Science	108.00	45
17	Digital English Laboratory	72.80	30

Major Functional Equipments

Sl. No.	Name of the equipment	Quantity
Fruit Science		
1.	Digital conductivity meter	1
2.	Digital Balance keroy	1
3.	Sony Handy Camera	1
4.	Godrej Refrigerator single Door	1
5.	Godrej Refrigerator Double Door	1
6.	Aqua sure water purifier	1
7.	Self – propelled rotary weeder	1
8.	Refractometer	1
9.	Thermometer	1
10.	Chain saw	1
11.	Digital Hygrometer	1
12.	Light meter Digital	1
13.	Seed scrapper	1
14.	Pro – tray dribbler	1
15.	HTP Power sprayer	1
16.	Honda weed cutter	1
17.	Earth Auger	1
18.	Chaff Cutter	1
Floriculture and Landscape Architecture		
1.	Water still (4lit/hr)	1
2.	Samsung Refrigerator	1
3.	Aqua Sure water purifier	1
4.	Blue star deep freezer	1
5.	Lawn mover	1
6.	Portable power sprayer	1
7.	Petrol power sprayer	1
8.	Portable autoclave (Cos Lab)	1
9.	Water bath	1
10.	Vertex shaker	1
11.	Incubator	1
12.	Clevenger apparatus	1
13.	Digital conductivity meter	1
14.	Electrophoresis unit	1
15.	Electrophoresis power supply unit	1
16.	Bajaj cooler	1
17.	Sony cyber shot	1
18.	Chaff cutter (5hp)	1
19.	LG refrigerator	1
20.	Drawing boards	10
21.	Hedge trimmer	1

Sl. No.	Name of the equipment	Quantity
Vegetable Science		
1.	Kjeldhal distillation heating unit	1
2.	Penetrometer MAC-MSW-532	1
3.	Weswox trianacular research microscope. Model: TRHA-66H, 4x10x40 DL 100xSL oil immersion eye pieces HVY6xwide field	1
4.	Refrigerator 310 L, Whirlpool with voltage stabiliser stand	1
5.	Godrej Refrigerator 215 liter with Stabilizer	1
6.	Hot air oven. Make: Toshniwal, 600 x 600 x 600 mm	1
7.	LUX meter (digital), Make: Taiwan	1
8.	Electronic table top scale JPF-10	1
9.	PH meter	1
10.	Seed germintor	1
11.	Deep freezer (vest frost) 344 lit	1
12.	Spectrophotometer	1
13.	Digital electronic balance	1
14.	Hand Refractrometer (0-32)	1
15.	Vernier calliper Digital	1
16.	Penectrometer	1
17.	LCD Projector	1
18.	Smart Board	1
19.	Digital camara	1
20.	UV Spectrophotometer Modal: 7315	1
21.	Electronic balance 150kg Capacity	1
22.	Waring Blender 60w (Grander)	1
23.	Seedling machine/ Entry level seeder	1
Plantation, Spices, Medicinal and Aromatic Crops		
1.	Gas chromatography	1
2.	Essential oil Distillation Unit (SS) 10 kg cap	1
3.	Essential oil Distillation Unit (SS) 1 ton cap	1
4.	Soxhlet's extraction apparatus	1
5.	Sox-rap solvent extractor	1
6.	Abbe's bench refractometer	1
7.	Polarimeter	1
8.	High speed homogenizer	1
9.	Research microscope	1
10.	Rotary flash evaporator with vacuum pump	1
11.	Seed germinator	1
12.	Water bath	2
13.	Sand bath	1
14.	Deep freezer	1
15.	Clevenger's apparatus	6
16.	Magnetic stirrer	2
17.	Water double distillation unit glass (4lph)	1
18.	Water single distillation unit glass (6lph)	1
19.	Willey mill	1
20.	Turmeric polisher	2
21.	High precision weighing balance	1

Sl. No.	Name of the equipment	Quantity
22.	Hot air oven	3
23.	Table top centrifuge	1
Post Harvest Technology		
1.	RO. 25 LPH membrane T sgpd	1
2.	Fruit and vegetable Drier	1
3.	Mixer Grinder fruit mixer	1
4.	Vacuum cleaner	1
Biotechnology and Crop Improvement		
1.	PCR machine SC 300 G	1
2.	Digital vernier caliper 150mm	1
3.	Sukam Battery	1
4.	Chemical racks with plugs	2
5.	Deep freezer blue star	1
6.	Krishimitra trolley	1
7.	Horizontal Electrophoresis maxi	1
8.	Horizontal Electrophoresis mini	1
9.	All glasses double distillation unit	1
10.	Power supply for double distillation unit	1
11.	Binocular microscope	2
Entomology		
1.	Cooling water Bath	1
2.	Vortex orbital shaker	1
3.	Magnetic stirrer	1
4.	Water Bath	1
5.	Digital dry Bath	1
6.	Hot Air Oven	1
7.	Vacuum pump	1
8.	Upright Deep freezer	1
9.	1. Mini sub system 2. Dual/Electrophoresis unit mini Vertical gel 3. Electrophoresis	1 1 1
10.	Photomicrography system, with camera with coupler suitable	1
11.	Centrifuge 5418 incl of Rotor 50-60HZ	1
12.	1) 3.20.000. 909 Research plus. 3pack, option ico.5-10ul/10-100ul/100-1000ul 2)Eppendof pipette Hlper 4423000-10	1
13.	Laboratory working tables	1
Plant Pathology		
1.	Laminar air flow cabinet	2
2.	Trinocular microscope with digital photography	1
3.	Compound microscope with inbuilt light	2
4.	Sterobinocular microscope	1
5.	BOD incubator	1
6.	Shaker incubator	1
7.	Thermal cyler	1
8.	Gel Documentation Unit, Model Alpha Imagar Mini system (CINO:210652)	1
9.	Refrigerators	3

Sl. No.	Name of the equipment	Quantity
10	Deep freez	1
11	Micropipettes	1 Set
12	Autoclaves	2
Natural Resource Management		
1.	Spectrophotometer	1
2.	Professional Bench top Instruments	1
3.	Flame photometer	1
4.	End to end shaker	1
5.	Electronic Balance	1
6.	Nitrogen Analyser	1
7.	Electrical conductivity meter	1
8.	P ^H meter	1
9.	Double Distillation Unit	1
10.	Water Bath	1
11.	Dell Desktop	1
12.	GPS system	1
13.	Bench top centrifuge	1
14.	Rotary Flak shaker	1
15.	Sieve shaker	1
16.	Refrigerated water waling system	1
17.	Digital burette Titration system	1
18.	Scrubber unit	1
Social and Allied Science		
1	Television	1
2	Handy Cam	1
3	Camera	1
4	Speaker	1 set
5	Dell Desktop	1
6	Laptop	1
Central Laboratory		
1.	Electronic Balance	1
2.	Stereo Zoom Microscope make symbiont moxlis-450	1
3.	Vacuum pump model chemva-30	1
4.	Laboratory working table	1
5.	Digital gel Documentation system (Biobee TM economy)	1
6.	PCR Machine	1
7.	SMF Battery	1 set
AICRP on Tropical Fruits		
1.	Luminous tubular battery	1
2.	Su-Kam /kva pure sine wave UPS	1
3.	Colony counter	1
4.	Water bath	1
5.	Reciprocal shake	1
6.	Research plus 3 pack, option (0.5-10 ul)/10-100 ul/100-1000ul)	1
7.	Konika Minolta/Digital Multifunctional Copier Machine (Size A-3) Photocopier	1
8.	Incubator cum shaker	1
9.	Binocular Research Microscope with digital microphotography	1

Sl. No.	Name of the equipment	Quantity
	attachment (Binocular digital Microscope with Camera	
10.	Digital Flame photometer (CL-410)	1
11.	Vertical Autoclave (18X24)	1
12.	Nitrogen Analyzer	1
13.	Key Plus Automatic Macro (250) Block Digestion System	1
14.	Key Plus Automatic Scrubber System	1
15.	Leaf Area Measurement System	1

Farm facilities

The college has total area of 50.40 hectares, out of which 28.82 hectares are available for cultivation, which is distributed among different departments. All the fields are well connected with approach roads and internal roads. Entire farm is irrigated by Ghataprabha left bank canal apart from number of open wells. Most of the perennial crops are irrigated through drip irrigation, while the landscapes are watered by sprinkler irrigation. The details of all the farm facilities are given below.

Department wise area distribution

Sl. No.	Name of the Department	Farm Area (ha)	Irrigated / Non-irrigated (ha)	Crops grown
1.	Fruit Science	5.10	5.10	Mango, Guava, Sapota, Jamun, Amla etc.,
2.	Vegetable Science	4.67	4.67	Brinjal, Drumstick, Cucurbits, Pumpkin, Tomato etc.,
3.	Floriculture and Landscape Architecture	3.22	3.22	China Aster, Rose. Tuberose, Gladiolus
4.	Plantation, Spices and Medicinal Crops	4.15	4.15	Guggal, Aromatic Plants, Coconut, Areca nut, Tamarind, Curry Leaf etc.,
5.	AICRP (F)	6.10	6.10	Banana and Sapota
6.	Farm Section	2.58	2.58	Maize, Sorghum, Fodder grass etc.,
7.	Biotechnology and Crop Improvement	3.00	3.00	Onion, chilli, tomato amaranthus, methi, garlic, turmeric, cluster bean brinjal, banana, chrysanthemum
	Total	28.82		

Poly house and Shade nets

Sl. No	Particulars	No.	Area (m ²)	Details	Remarks
1	Fruit Science				
	Poly houses	4	960.00	Nursery for Mango, Guava, Sapota Jamun, seedling	
	Shade nets	5	2616.00	Seedling of fruits crop	
2	Vegetable Science				

Sl. No	Particulars	No.	Area (m ²)	Details	Remarks
	Poly houses	3	4552.00	Tomato Capsicum, cucumber	
	Shade nets	4	1720.00	Tomato, Capsicum, Bitter gourd	
3	Floriculture and Landscape Architecture				
	Poly houses	5	2500.00	Chrysanthemum, Orchids Rose	
	Shade nets	5	1251.00	Nursery managment	
	Mist house	1	100.00	Ornamental nursery	
4	Plantation, Spices and Medicinal Crops				
	Shade nets	3	752.00	Medicinal and aromatic plant nursery	
	Poly tunnel	1	22.94	Medicinal and aromatic plant nursery	
5	Biotechnology and crop improvement				
	Poly houses	3	580.00	Hardening of tissue culture plants	
	Shade nets	3	668.00	Population development and maintenance of gemplasm	
6	AICRP on tropical fruits				
	Poly houses	1	324.00	Nursery	
	Shade nets	1	500.00	Nursery	
7	Plant pathology				
	Net house	1	10.00	Disease screening	
8	Entomology				
	Glass house	1	10.00	Pest screening	
9	Natural Resource Management				
	Mushroom cultivation unit	1	15.00	Mushroom cultivation	

Instructional farms

Sl. No	Particulars	Area (ha)	Details	Remarks
1	Fruit Science	2.18	Mango, Guava, Sapota	
2	Vegetable Science	1.40	Brinjal, Drumstick, Cucurbits, Pumpkin, Tomato	
3	Floriculture and Landscape Architecture	1.10	China Aster, Rose. Tuberoses, Gladiolus	
4	Plantation, Spices & Medicinal Crops	1.25	Guggal, Aromatic Plants, Coconut, Areca nut, Tamarind, Curry Leaf etc.,	
5	AICRP	1.00	Banana and Sapota	
6	Farm Section	0.50	Maize, Sorghum, Fodder grass	
7	ELP	4.00	Tomato, Capsicum, Cabbage, Onion, China Aster, Marigold, Tuberoses, chrysanthemum, etc.,	
8	Nurseries	1.00	Vegetable, flower crops, fruit crops	

Diary Plant, water storage ponds, Farm equipments and Meteorological units

Sl. No.	Particulars	Details	Area/No	Remark
1	Diary plant	6 cow + 4 calves 6 buffalos + 5 calf Bullocks 5 pair + 1	32 No	50lit milk /day (@Rs. 30) Rs. 45000/month
2		Vermicompost unit	10 unit	5 ton per month
3	IFS	Cow – 01, Calf – 02, Goat – 04,	7 No	
		Vermicompost Unit	04	2 ton /month
		Fish Pond	01	9m x 4.5 m x 2.4m
4	Farm equipment	Tractor (45 hp)	1	
		Tractor (18hp)	1	
		Trailer	2	
		Rotavator	2	
		Double mould board reversible plough	2	
		Single mould board reversible plough	3	
		Rigid tyne cultivator	1	
		Flexible tyne cultivator	2	
		Blade harrow	3	
		Disc plough	1	
		Plough	2	
		Blade harrow cum leveller	2	
		Farward and reverse blade	1	
		Boomer	1	
		Weed cutter	5	
		Telescopic tree pruner	1	
		Chain saw	2	
		Battery operated knapsack sprayer	5	
		Milking machine	1	
Pressure washer	1			
Papaya/vegetable seed drillers	1			
Water lifting device	1			
5	Ponds/open well			
	Fruit Science	Open well	2	50ft x 45 ft
	Vegetable Science	Open well	1	40 ft x 20ft
	Floriculture and Landscape Architecture	Open well	1	40 x 20 ft
	Plantation, Spices and Medicinal Crops	Open well	2	50ft x 20 ft 60ft x 45ft
	AICRP	Open well	1	30 ft x 15 ft
	IFS	Open well	1	16 ft x 15 ft
	Farm Section	Farm pond	1	67m X 60m X 1.2m
6	Meteorological	Sun shine Recorder	1 each	

Sl. No.	Particulars	Details	Area/No	Remark
	units	Wind vane Wet bulb thermometer Dry bulb thermometer Rain Gauge Soil thermometer Hygrometer Anemometer Thermometer Digital Observatory	2 unit	

Farm Workshop cum Vehicle shed

Sl. No.	Name of the workshop	Area	Major equipments (> 1 lakh)
1.	Farm work shop cum vehicle shed	300 m ²	-

Adequate number of class rooms, laboratories and farm/field facilities have been established in the college that are facilitating to carry out undergraduate degree programme most effectively.

Average Number of Students in Theory and Practical Classes

Each undergraduate batch has been grouped as one batch for theory and two batches for conducting practicals as detailed below.

Sl. No.	Name of the degree programme	Batch of the student in theory class	No. of student in each batch in practical
		UG	UG
1.	Undergraduate (Horticulture)	Full strength	2 batches of equal strength

6.4.5. CONDUCT OF PRACTICAL AND HANDS-ON-TRAINING

B.Sc. (Hons.) Horticulture is a professional degree aimed to develop skilled and professionally sound human resource to serve the booming Horticulture sector of India. As the quote says, “I hear I forget, I see I remember and I do I understand”, the students who are practicing what they learnt in class room through hands on training, are more likely to have retention of the learnt skills, which is helping them to graduate with a better understanding and better field knowledge and skills.

The B.Sc. (Hons.) Horticulture degree programme is designed to undergo courses on horticultural sciences, allied sciences, humanities and further a special course on student READY (Horticultural experiential learning and Rural Horticulture work experience) programme is incorporated in the course curriculum to impart special entrepreneurial skills among the graduates. The courses are taught with theory and practical sessions separately as mentioned below.

Practical Credit details

Sl. No.	Discipline	Number of credits for practical	Per cent of time spent	
			In laboratory	In field*
1	Fruit Science	5	20	80
2.	Vegetable science	5	20	80
3.	Floriculture and landscape architecture	5	30	70
4.	Plantation, spices, medicinal and aromatic crops	5	40	60
5.	Post-harvest technology	3	70	30
6.	Horticulture Entomology	4	40	60
7.	Horticulture Plant pathology	3	50	50
8.	Biotechnology and crop improvement	7	50	50
9.	Natural resource management	13	40	60
10.	Social and allied sciences (Agril. Economics, Ag. Ext. & Computer Science)	7	70	30
11.	Animal sciences	1	50	50
12	Physical education, language and tour programme	6	30	70
13.	HEL and RHWE	40	20	80

- Field/Nursery/Protected structures

Out of total 172 credit hours, 103 credit hours are prescribed for practicals and hands on training. Regular practical for the students are conducted in the respective courses and individual student is given an opportunity to handle and learn the skills. Lab and field assistants take care of practical and hands-on trainings under the guidance of course teachers. The laboratory work comprises of training on handling of laboratory equipment, learning various methods for estimation of nutrients, soil and plant elements, growth regulators *etc.* practical classes with field assignment dominate the programme with average 60 percent of time devoted to it under various courses. Practical knowledge gained by the student is assessed through a practical exam at the end of each course.

Glimpses of Practical and hands-on training

Sl.No.	Department	Hands on Training and Methodology
1.	Fruit Science	Training, pruning techniques, crop geometry and canopy management Practicing different propagation techniques like cutting, layering, grafting and budding High density planting and management techniques Field preparation, pits, sowing/ planting, bed preparation and planting methods. Visit to commercial precision and protected cultivation farms. Visit to commercial fruit orchards and research centers.
2.	Vegetable Science	Layout of nutrition garden Preparation of nursery beds for sowing of vegetable seeds Varietal and Hybrids development techniques

Sl.No.	Department	Hands on Training and Methodology
		Precision and high-tech vegetable farming Visit to R & D units involved in vegetable breeding and seed production. Visit to model vegetable crop fields.
3.	Floriculture and Landscape Architecture	Commercial flower production: Preparation of beds, planting methods and cultural operations. Landscape and garden designing: Designing gardens using Auto-CAD. Flower arrangement and dry flowering Exposure visits to established gardens and parks. Visit to Ornamental crop fields.
4.	Plantation, Spices, Medicinal and Aromatic crops	Distillation of essential oils and demonstration of extraction of oils Quality analysis of MAP crops Visit to commercial plantation and spice crop fields and research stations. Visit aromatic crop fields distillation units and research stations. Visit to research station in relation to breeding activities of plantation and spice crops Exposure about the traditional medicinal wealth(ITKs)
5.	Post -Harvest Technology	Processing and Value addition techniques Production of processed products from fruits and vegetable Visit to markets, packing houses and cold storage units Visit to processing industries.
6.	Biotechnology and Crop Improvement	Emasculation and crossing techniques in different horticultural crops Floral biology of horticultural crops Varietal and Hybrid development techniques Field layout and maintenance of experimental records in self and cross pollinated crops. Mitosis and Meiotic slide preparation and observation Micro propagation of important crops Exposure to Marker assisted breeding techniques Bimolecular analysis- nutrient analysis Seed viability test, vigor test, seed dormancy and breaking methods, seed priming methods Visit to the certified seed production plots, processing unit, storage unit, KSSC, KSSOCA, STL and private seed company. Visit to tissue culture and seed production units. Visit to horticultural research stations.
7.	Horticultural Crop Protection	Pest and Disease diagnosis and their management Dissection of grasshopper/cockroach and caterpillar for study of internal anatomy. Visit to apiary, sericulture unit, Preparation of fungicidal solutions, slurries, pastes and their applications, bio-consortia production Field visits for acquaintance with diseases and management.
8.	Natural Resource Management	Nutrient analysis and bio-consortia production: Determination of pH, EC, Chloride, carbonates Determination of N, P, K, Ca, Mg, S and micronutrients in plant samples. Visit to fertilizer testing laboratory. Visit to social forestry plantations Layout of contour bund, water ways, farm ponds. Calculation of field capacity and field efficiency of different types of primary and secondary tillage equipment. Weed management and use of weedicides Measurement of irrigation water by using water measuring devices,

Sl.No.	Department	Hands on Training and Methodology
		Visit to Meteorological observation station Visit to organic farming farms. Microscopic techniques, media preparation preparation of culture broths, agar slants, pure-culture techniques. Mushroom cultivation and exposure visits
9.	Social Sciences	Visit to markets, visual basic-concepts, ICT use in horticulture. Preparation of farm budgets, project evaluation techniques, Preparation of Bankable projects, Visit to financial institutions/ NABARD. Preparation of Village Agricultural production plan. Use of English digital laboratory Physical fitness and Yoga camps

Horticulture Experiential Learning Programme (HEL)

An exclusive hands on training programme i.e. HEL programme is being implemented as per 5th Dean's Committee where the students are guided, assigned and trained to be commercial entrepreneurs with high self-confidence. Special infra-structure has been established in the form of green-houses, poly-houses, nursery facility, post-harvest handling, processing and packing facility. Special emphasis is given to encourage students to plan and execute new business models in the identified HEL programmes and are assessed based on their economic returns /profits realized during the programme.

Horticulture Experiential Learning programme modules offered

Sl. No	Module	No. of students	Activities
2013-14 (HEL 401, 0+20)			
1.	Commercial Horticulture	36	Nursery production of Fruit plants Protected cultivation of vegetables and flower crops Nursery production of ornamental plants
a	Fruit Science		
b	Vegetable Science		
c	Floriculture and Landscape Architecture		
2.	Processing of fruits and vegetables for value addition	16	Value addition to horticulture produce
2014-15 (HEL 401, 0+20)			
1	Commercial Horticulture		
a	Fruit Science	16	Nursery production of Fruit plants
b	Vegetable Science	16	Protected cultivation of vegetables and flower crops
c	Floriculture and Landscape Architecture	16	Nursery production of ornamental plants
2.	Processing of fruits and vegetables for value addition	17	Value addition to horticulture produce
2015-16 (ELP 401, 0+20)			
1.	Commercial Horticulture		
a	Fruit Science	16	Nursery production of Fruit plants
b	Vegetable Science	16	Protected cultivation of vegetables and

Sl. No	Module	No. of students	Activities
			flower crops
c	Floriculture and Landscape Architecture	16	Nursery production of ornamental plants
2.	Processing of fruits and vegetables for value addition	16	Value addition to horticulture produce
2016-17 (ELP 401, 0+20)			
1	Commercial Horticulture		
a	Fruit Science	9	Nursery production of Fruit plants
b	Vegetable Science	9	Protected cultivation of high value horticulture crops
c	Floriculture and Landscape Architecture	9	Nursery production of ornamental plants
2	Processing of fruits and vegetables for value addition	9	Value addition to horticulture produce
3	Production of Bioagents	9	Bioformulation production
4	Seed production in Horticulture crops	9	Quality seed production of horticultural crops
2017-18 (HEL 401, 0+20)			
1.	Commercial Horticulture		
a	Fruit Science	10	Nursery production of Fruit plants
b	Vegetable Science	10	Protected cultivation of high value horticulture crops
c	Floriculture and Landscape Architecture	10	Nursery production of ornamental plants
2.	Processing of fruits and vegetables for value addition	10	Value addition to horticulture produce
3.	Production of Bioagents	10	Bioformulation production
4.	Seed production in Horticulture crops	8	Quality seed production of horticultural crops

Rural Horticultural Work Experience Programme (RHWEP)

Rural horticultural work experience programme (RHWEP) now included under students READY (Rural Entrepreneurship Awareness Development Yojana) is allotted with 20 credit hours under which the students are placed in rural environment for 12 weeks to get first-hand experience and understanding of farming systems and rural life. The prime objective of this programme is to provide an understanding of rural community, insight into socio-economic conditions of rural families, work experience in crop production, to develop communication skills, inculcate required confidence and competence in solving problems related to horticulture and allied activities. It also provides an opportunity to work with individuals, groups and communities comprising of farm men, women and youth including local leaders, local institutions and grass root level functionaries of various development

departments. Precisely, it is an opportunity to practice in rural areas what has been learnt by the students in the college for a period of three and half years.

After village stay, the students are also deputed for three weeks in different commercial/ business hubs related to horti-business activities like seed production industries, commercial nurseries, processing industries etc. to understand the commercial environment of horti-business enterprise.

Impact of RHWE

During the last five years (2013-14 to 2017-18), **293** students have successfully completed the undergraduate programme. In the process of conducting various educational activities by involving farming community, they were able to create awareness, motivate and facilitate adoption of wide range of technologies in almost all the contact villages. In addition, the students assisted in establishment of nutritional gardens, tree plantation in individual and community holdings, soil testing and interpretation of test results, improved plant propagation techniques, top working in fruit crops, preparation of nursery beds, plant protection, organic farming, processing and value addition, rodent control campaign, improved methods of storage of grains and other relevant technologies.

The students gained enough experience by organizing various educational activities such as group meetings, method demonstrations, and initiation of result demonstrations, training programmes, campaigns, exhibitions, preparation and use of relevant teaching aids. The exposure of students to various developmental programmes undertaken by different departments of the Government has enriched their knowledge in rural development. The feedback analysis revealed that the farmers benefit from such programmes. The students are guided and supervised at all stages by the experienced faculty members. On the whole, the programme was able to inculcate in the students the required confidence and competence to work independently with farm families and acquire practical experience / skills.

In addition to the above activities, the students are also taken to exposure visits to course related research centers and progressive farmers' field, state study tour for 10 days and all India study tour for 15 days. This is effective in enriching their knowledge on current research, happenings and farmers' adoptions.



Students involved in various practical activities

6.4.6. SUPERVISION OF STUDENTS IN PG PROGRAMMES

Every student shall have Advisory Committee with a Major Advisor and at least four members among whom two members shall be from outside the major field of specialization. Programme of Research proposed by the Advisory Committee and approved by the Dean (Post Graduate Studies) will be carried out by the student under the supervision of Advisory Committee. Research work was carried out by students on the major crops which are grown in this area

Fruit Science

Supervision of students in PG Programme

Sl. No.	Year	No. of PG recognized teachers			Intake of students	teacher to Student ratio
		KRCCH, Arabhavi	Off Campus	Total	M.Sc.	
1.	2013-14	2	2	4	6	1: 1.5
2.	2014-15	3	1	4	8	1 : 2
3.	2015-16	3	0	3	5	1 : 1.66
4.	2016-17	4	0	4	5	1 : 1.25
5.	2017-18	4	0	4	6	1 : 1.5

Student intake and attrition in the programme for last five years

Year	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2014-15	4	8	0	0
2015-16	4	5	0	0
2016-17	4	5	0	0
2017-18	4	6	0	0
2018-19	5	5	0	0

Vegetable Science

Supervision of students in PG Programme

Sl. No.	Year	No. of PG recognized teachers			Intake of students M.Sc.	Total (PG students)	Student to teacher ratio
		KRCCH, Arabhavi	Off Campus	Total			
1	2013-14	04	01	05	06	06	1: 1.2
2	2014-15	04	00	04	04	04	1: 1
3	2015-16	03	02	05	07	07	1: 1.8
4	2016-17	03	02	05	08	08	1: 1.8
5	2017-18	02	06	08	08	08	1: 1.25

Student intake and attrition in the programme for last five years

Year	Sanctioned seats	Actual intake	Attrition	% Attrition
2014-15	4	5	3	60.0
2015-16	4	7	1	14.80
2016-17	4	8	0	0
2017-18	5	9	1	0
2018-19	4	8	0	0

Floriculture & Landscape Architecture Supervision of students in PG Programme

Sl. No.	Year	Department	No. of PG recognized teachers			Intake of students		Student to teacher ratio
			KRCCH, Arabhavi	Off Campus	Total	M.Sc.	Total (PG students)	
1.	2013-14	Floriculture & Landscape Architecture	04	02	06	05	05	1:1
2.	2014-15		04	00	04	06	06	1:1.75
3.	2015-16		06	00	06	05	05	1:1
4.	2016-17		05	00	05	03	03	1:1.4
5.	2017-18		05	00	05	05	05	1:1

Student intake and attrition in the programme for last five years

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2014-15	Floriculture & Landscape Architecture	4	6	0	0
2015-16		4	5	0	0
2016-17		4	4	1	25
2017-18		4	5	0	0
2018-19		6	7	0	0

Plantation, Spices, Medicinal & Aromatic Crops Supervision of students in PG programmes

Sl. No.	No. of PG recognized teachers	Academic year	Intake of Students	Teachers to students
			M.Sc.	
1.	04+2*	2013-14	6	1:1
2.	3+1*	2014-15	5	1:1.25
3.	4+2*	2015-16	5	1:0.83
4.	2+3*	2016-17	5	1:1
5.	3+4*	2017-18	5	1:0.71

Student intake and attrition

Academic year	Sanctioned seats	Actual intake	Attrition (No)	Attrition Percentage
2013-14	04	06	00	-
2014-15	04	06	00	-
2015-16	04	05	01	20
2016-17	04	05	00	-
2017-18	03	05	00	-
2018-19	04	05	00	-

Post Harvest Technology Supervision of students in PG Programme

Sl. No.	Year	Department	No. of PG recognized teachers			Student to teacher ratio		
			KRCCH, Arabhavi	Off Campus	Total	M.Sc.	Total (PG students)	
1.	2013-14	Post Harvest Technology	02	01	03	03	03	1:1
2.	2014-15		02	01	03	05	5	1:2
3.	2015-16		03	02	05	05	05	1:1
4.	2016-17		02	02	04	03	03	1:1.25
5.	2017-18		02	01	03	03	03	1:1.33

Student intake and attrition in the programme for last five years

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2014-15	Post Harvest Technology	4	5	0	0
2015-16		4	5	1	20.0
2016-17		2	3	0	0
2017-18		2	3	0	0
2018-19		5	6	0	0

Plant Pathology Supervision of students in M. Sc. Programme

Sl. No.	Year	No. of PG recognized teachers			Intake of students	Student to teacher ratio
		KRCCH, Arabhavi	Off Campus	Total		
1.	2012-13	04	00	04	6	1:0.67
2.	2013-14	04	00	04	-	-
3.	2014-15	03	00	03	3	1:1
4.	2015-16	04	00	04	3	1:1.3
5.	2016-17	04	00	04	4	1:1
6.	2017-18	03	00	03	4	1:0.75

Student intake and attrition in the programme for last five years

Year	Sanctioned seats	Actual intake	Attrition	% Attrition
2013-14	-	-	0	0.00
2014-15	3	3	2	66.66
2015-16	3	3	0	0.00
2016-17	4	4	2	50.00
2017-18	4	4	0	0.00

Entomology Supervision of students in PG programme

Sl. No.	No. of PG recognized teachers	Academic year	Intake of Students	Students Teachers
			M.Sc.	
1.	2	2013-14		
2.	2	2014-15	2*	1;1
3.	2	2015-16	-	
4.	2	2016-17	1**+2*	1;1
5.	1	2017-18	1**	1:1

*Admission of the students and course work at COH Bagalkot, research at KRCCH Arabhavi.

** Admission of the students and research work at KRCCH Arabhavi, however course work at COH Bagalkot.

Student intake and attrition

Academic year	Sanctioned seats	Actual intake	Attrition (No)	Attrition Percentage
		M.Sc.		
2013-14	-	-	-	-
2014-15	-	-		
2015-16	-	-		
2016-17	-	1*		
2017-18	-	1*		

* Admission of the students and research work at KRCCH Arabhavi, however course work at COH Bagalkot.

Crop Improvement and Biotechnology Supervision of students in PG/PhD Programme

Sl No.	Year	No. of PG recognized teachers			Intake of students			Student to teacher ratio
		KRCCH, Arabhavi	Off Campus	Total	M.Sc.	Ph.D	Total (PG students)	
1.	2013-14	02	01	03	03	02	03	1:1
2.	2014-15	04	00	04	04	00	04	1:1
3.	2015-16	00	03	03	04	00	04	1:1
4.	2016-17	03	01	04	04	01	05	1:1
5.	2017-18	05	01	06	00	00	00	1:0

Students intake and attrition in the programme for the last five years

Sl No	Year	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
1.	2012-13	5	5	0	0
2.	2013-14	3	3	0	0
3.	2014-15	4	4	0	0
4.	2015-16	4	4	0	0
5.	2016-17	5	5	1	20
6.	2017-18	-	-	-	-

Supervision of students in Ph.D. programmes Fruit Science

Sl. No.	Year	No. of PG recognized teachers			Intake of students	Student to Teacher ratio
		KRCCH, Arabhavi	Off Campus	Total	Ph.D.	
1.	2013-14	2	2	4	0	-
2.	2014-15*	3	1	4	2	2 : 1
3.	2015-16	3	0	3	0	-
4.	2016-17	4	0	4	1	4 : 1
5.	2017-18	4	0	4	0	-

* Admitted under General Horticulture discipline but, specialized in Fruit Science subject

Student intake and attrition in the Ph.D. programme for last five years

Year	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2014-15*	2	2	1	50
2015-16	-	-	-	-
2016-17	1	1	0	0
2017-18	-	-	-	-
2018-19	2	2	0	0

* Admitted under General Horticulture discipline but, specialized in Fruit Science subject

Supervision of students Ph.D. in Vegetable Science

Sl. No.	Year	Depart.	No. of PG recognized teachers			Intake of students		Student to teacher ratio
			KRCCH Arabhavi	Off Campus	Total	Ph.D	Total (Ph.D students)	
1.	2013-14	Vegetable Science	04	01	05	00	00	1: 1.2
2.	2014-15	Vegetable Science	04	00	04	04	04	1: 1
3.	2015-16	Vegetable Science	03	02	05	02	02	1: 1.8
4.	2016-17	Vegetable Science	03	02	05	01	01	1: 1.8
5.	2017-18	Vegetable Science	02	06	08	02	02	1: 1.25

Student intake and attrition in the programme

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2016-17	Ph.D.	2	1	0	0
2017-18	Ph.D.	2	2	0	0
2018-19	Ph.D.	2	4	0	0

Supervision of students in PhD Programme in Floriculture and Landscape Architecture

Sl. No.	Year	No. of PG recognized teachers			Intake of students		Student to teacher ratio
		KRCCH, Arabhavi	Off Campus	Total	Ph.D.	Total (PG students)	
1.	2013-14	04	02	06	01	01	1:1
2.	2014-15	04	00	04	01	01	1:1
3.	2015-16	06	00	06	01	01	1:1
4.	2016-17	05	00	05	04	04	1:1
5.	2017-18	05	00	05	00	00	0

Student intake and attrition in the programme for last five years

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
Ph.D- programme					
2014-15	Horticulture	1	1	0	0
2015-16	Horticulture	1	1	1	100

Year	Departments	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2016-17	Floriculture &	2	4	0	0
2017-18	Landscape	1	1	0	0
2018-19	Architecture	1	3	0	0

Supervision of students in Ph.D. Programmes in Plantation, Spices, Medicinal and Aromatic crops

Sl. No.	No. of PG recognized teachers	Academic year	Intake of Students	students to Teachers
			Ph.D	
1.	04+2*	2013-14	1**	1:4
2.	3+1*	2014-15	4**	1.3:1
3.	4+2*	2015-16	3**	1:1.3
4.	2+3*	2016-17	3	1:1
5.	3+4*	2017-18	1	1:3

** Admitted under General Horticulture discipline but, specialized in Plantation, Spices, Medicinal and Aromatic Crop subject *Faculty working in nearest stations available to guide the students

Student intake and attrition

Academic year	Sanctioned seats	Actual intake	Attrition (No)	Attrition Percentage
2013-14	-	-	-	-
2014-15	-	-	-	-
2015-16	-	-	-	-
2016-17	3	2	-	-
2017-18	2	1	-	-
2018-19	2	2	-	-

Post Harvest Technology

Supervision of students in PhD Programme

Sl. No.	Year	No. of PG recognized teachers			Student to teacher ratio		
		KRCCH, Arabhavi	Off Campus	Total	Ph.D	Total (PG students)	
1.	2013-14	02	01	03	00	00	-
2.	2014-15	02	01	03	01	1	1:1.5
3.	2015-16	-	-	-	-	-	-
4.	2016-17	02	02	04	02	02	1:2
5.	2017-18	02	01	03	01	01	1:1.5

Student intake and attrition in the programme for last five years

Year	Department	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
Ph.D programme					
2014-15	Horticulture	10	9	3	33.33
2015-16	Horticulture	10	12	7	58.33
2016-17	Post Harvest Technology	1	2	0	0
2017-18	Post Harvest Technology	1	1	0	0
2018-19	Post Harvest Technology	1	1	0	0

6.4.7 FEEDBACK OF STAKEHOLDERS**(STUDENTS, PARENTS, INDUSTRIES, EMPLOYERS, FARMERS ETC.)**

Sl. No.	Feed back	Action taken
2013-14		
Farmers :		
1.	Exposure visit to Graduate students to progressive/awardee farmers fields to enrich the practical knowledge on implementation of SAU's/ICAR Institutes/farmers innovative technologies.	Exposure visits for Graduate students are being made to the following progressive/awardee farmers fields: Sri. Mahadev Jodatti, Savasuddi, Rayabagh, Sri. Raju Bhairugol, Rajapura, Gokak(Tq), Sri.Sannayamunappa Rajapure, Pamaladinni, Gokak (Tq), Smt. PremaGanigar, Gokak (Tq) Sri. Dareppa Kittur, Terald, Jamakhandi (Tq) Bagalkot (Dist.) in practical classes of different courses
2014-15		
Pvt. Entrepreneur Dr. Jayathirta Kulkarni, Managing Director, Veg Fresh Pvt. Ltd., Bailahongal, Belagavi		
2.	Exposure visit to Graduate students to different industries to become entrepreneurs after the completion of degree programme.	Graduate students have visited the following industries/different entrepreneur units during their degree programme. Veg Fresh Pvt. Ltd, Bailahongal, Belagavi – with respect to commercial mushroom production and exporting of vegetables. Commercial vegetable nurseries, Ghataprabha, Gokak (Tq), Belagavi. Commercial Floriculture polyhouse units, Jaisinghpur, Maharashtra. Reco Winery, Vijayapura and Dada winery, Chikkodi, Karnataka
Students and Parents		
3.	Establishment of Women Grievances Cell	Established Women Grievances Cell was established on 19.05.2015 to protect women from sexual harassment at their place of work as per Sexual Harassment of Women act, GOI, 2013

Sl. No.	Feed back	Action taken
4.	Put suggestion box in the college	Suggestion box was installed in the college during 2014-15
2015-16		
Employer Hon. Vice-Chancellor, UHS, Bagalkot		
5.	Implementation of "Green Graduation", a novel concept, One student - One tree concept at different colleges of UHS, Bagalkot	"Green Graduation": one student – one tree concept has been implemented in KRCCH, Arabhavi under UHS, Bagalkot from 2015-16 batch Graduate students. Each enrolled student was assigned to plant a sapling to create environment consciousness and love for nature. At the end of their graduation, they will be awarded with green graduation certificate along with the photo of the plant species number, which will be cherished by the students as a memory of their student life. At KRCCH, Arabhavi, so far 250 plants belonging to different families have been planted by the students of our college.
2016-17		
Students and Parents		
6.	Personality development programmes to students	The personality development programmes conducted for Graduate students are as follows : Organized workshop on preparation to competitive examination on 16.02.2016. Mr. P.C. Srinivas, IAS, Personal Secretary of President, GOI. Mr. Shivasanker, E, IFS, Bengaluru, DyamappaIrani, IRS, Belagavi delivered series of lectures. Sri. Nirbayanand Saraswathi Swamiji, Ramakrishnashrama, Gadag delivered guest lecture on Role of youths for retaining Indian Culture on 20.03.2017. Professional skill development, interview skills and preparation of mock exams of ICAR and banking was held on 12.04.2017 by Mr. Rohit Tiwari, Academic counselor, Agri. And Food Management Institute, Mysore (organized by placement cell of KRCCH, Arabhavi)
2017-18		
Students		
7.	Conduct Yoga classes to students	Under NSS programme, from 2015-16 onwards, one week in a year, yoga classes are being conducted to Graduate students of KRCCH, Arabhavi
8.	Dress code for Graduate students	Dress Code for Graduate students has been implemented from 2017-18
9.	Increase the hostel accommodation facility for girls because of increased	Hostel accommodation facility for girls has been made in the guest house of the college to accommodate 40 students

Sl. No.	Feed back	Action taken
	girls strength in the college	
Employer	Hon. Vice-Chancellor, UHS, Bagalkot	
10.	Establishment of Digitalization of library e-sources in library, CAB Abstracts, Krishikosh and CeRA Digital English language laboratory.	Digitalization of library, e-sources in library, CAB Abstracts, Krishikosh and CeRA were established in the library from 2015-16 onwards. English digital language laboratory is an audio visual installation used in modern teaching methods to learn English language. Modest lab offers an exclusive result oriented teaching and efficient to enrich the language learning process. It is developed on the methodology of LSRW skills.

6.4.8 STUDENT INTAKE AND ATTRITION IN THE PROGRAMME FOR LAST FIVE YEARS

Year wise information on sanctioned strength, actual intake and attrition during the last five years of the Degree Programme are furnished in the tabular form. This attrition is due to shifting of students to some other degree programme like medical sciences and veterinary sciences etc.

Year	Sanctioned seats	Actual intake	Attrition	Attrition Percentage
2014-15	64	58	0	0.00
2015-16	67	59	4	2.36
2016-17	75	61	3	1.83
2017-18	79	60	2	1.20
2018-19	77	72	0	0.00

6.4.9 ICT APPLICATION IN CURRICULA DELIVERY

ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the quality and efficiency of the teaching-learning process. There are a variety of options available to the teacher and students to utilize various ICT tools at KRCCH Arabhavi for effective teaching and learning. Teachers participate in selection and critical evaluation of digital content and resources. They are also encouraged to develop their own digital resources, sharing them with colleagues and students through the digital repositories. For this each individual staff allotted with high configured computer system and connected with high speed Internet facilities for sharing digital contents.

Internet and Wi-fi facility

The college and library is provided with separate internet link. Wi-fi is available in the college and library premises. One can have net facility in the main campus through IP based network through which students and faculty members can browse CeRA and e-resources of the library in hostels and departments, respectively.

Below Mentioned ICT facilities are well established in the college during the period of 2013-14 to 2017-18. Detailed ICT Lab facilities available for undergraduate students at KRCCH Arabhavi are listed below

S.No.	Name of Lab	Equipment	Usage
1	ICT Enabled Class Rooms	3 UG Class rooms with Computer System and LCD Projector	For educational video, PPT, conferencing, teaching and learning
2	UG -Computer Lab	SOPHOS Cyberoam CRI-0015iNG UTM Firewall Appliances Netgear AC1900 or TP-Link AC3200 Dual Band WiFi Router 5GHz 300Mbps 13dBi Outdoor CPE510 N- computing System 2 IBM Xeon 2.4 Servers with 40 terminals With Internet connectivity facilities	Training of ICT, browsing Internet and Statistical data analysis
3	English Digital Laboratory	16 HP P-IV Computer Systems	English Learning

General

S.No.	Name of Lab	Equipment	Usage
1	ICT Enabled Conference Hall	High Definition CISCO Camera System with High Speed Internet of 4 Mbps lease Line connectivity	For online interaction with University key officials by students and staff, online interaction with different subject experts in different streams

Different ICT Software's Used at KRCCH Arabhavi

S. No	ICT Application	Usage
1	Academic Management System Software	Online UG Student Admission, POW , POR, Thesis Submission, Qualifying Examination etc. Complete activities of Student, Staff, Academic section activities, automated in this software
2	Horti App	Provide information about the horticulture trends, technologies and methods being used. HortiApp is a useful app in cultivation of all kinds of crops, where it gives detailed information of each crop.
3	SYSTAT	Statistical Software for analysis of Statistical Data
4	Window STAT	Statistical Software for analysis of Statistical Data
5	AutoCAD	Landscape and Gardening designs using software
6	HERBIQ	Windows Form Application that stores data in encrypted XML files to track the progress of plants, nutrient levels, environment, smoke effects, strain characteristics for breeding, etc. Output to single file with embedded images like a pdf file or some open format to show others

6.4.12.

CERTIFICATE

I the Dean, Kitturu Rani Channamma College of Horticulture, Arabhavi hereby certify that the information contained in the Section 6.4.1 to 6.4.9 are furnished as per the records available in the college and degree awarding university.

Date: March 2019



Dean
K.R.C. College of Horticulture
Arabhavi-591218. Tq:Gokak