

EVALUATIVE REPORT OF THE DEPARTMENT OF HORTICULTURE

1. Name of the Department **HORTICULTURE**
2. Year of establishment **1971**
3. Is the Department part of a School/Faculty of the university?
4. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters: Integrated Ph.D., etc.)

DEPARTMENT OF HORTICULTURE

List of Courses

Courses	Courses title	Credit Hours (Theory + Practical)
B.Sc. (Ag.) Courses		
HOR-111	Production Technology of Fruit Crops	3 (2+1)
HOR-212	Production Technology of Vegetables and Flowers	3 (2+1)
HOR-211	Production Technology of Spices, Aromatic, Medicinal and Plantation crops	3 (2+1)
HOR-311	Post Harvest Management and Value Addition of Fruits and Vegetables	2(1+1)
M.Sc. (Ag.) Courses		
Core Courses		
HOR-501	Tropical and Dry-land Fruit Production	3 (2+1)
HOR-502	Production Technology of Warm Season Vegetable Crops	3 (2+1)
HOR-503	Landscaping and Ornamental Gardening	3 (2+1)
HOR-504	Breeding of Horticultural Crops	3 (2+1)
Optional Courses		
HOR-505	Production Technology of Cool Season Vegetable Crops	3 (2+1)
HOR-506	Sub-tropical and Temperate Fruit Production	3 (2+1)
HOR-507	Post harvest Management of Horticultural Crops	3 (2+1)
HOR-508	Growth and Development of Horticultural Crops	3 (2+1)
HOR-509	Protected Floriculture	3 (2+1)
HOR-510	Canopy Management in Fruit Crops	3 (2+1)
HOR-512	Production Technology of Cut Flowers	3 (2+1)
HOR-513	Production Technology of Medicinal and Aromatic plants	3 (2+1)
Master Seminar and Research		
HOR-550	Master's Seminar (Course Seminar)	1 (1+0)
HOR-560	Master's Research	20
Ph. D. Courses		
Core Courses		
HOR-601	Advances in Breeding of Fruit and Plantation Crops	3 (2+1)

HOR-602	Advances in Breeding of Vegetable Crops	3 (2+1)
HOR-606	Advances in Breeding of Flower Crops	3 (2+1)
Optional Courses		
HOR-603	Advances in Production of Fruit Crops	3 (2+1)
HOR-604	Advances in Production of Vegetable Crops	3 (2+1)
HOR-605	Advances in Flower Production Technology	3 (2+1)
HOR-607	Biotic and Abiotic Stress Management in Horticultural Crops	3 (2+1)
Doctoral Research and Seminar		
HOR-650	Research plan proposal seminar	0
HOR-651	Doctoral seminar	1(1+0)
HOR-652	Pre-submission Ph. D. thesis Seminar	0
HOR-660	Doctoral research	45

5. Interdisciplinary courses and departments involved

Department is actively involved in interdisciplinary courses of

i) **CENTRE OF FOOD SCIENCE & TECHNOLOGY**

ii) MABM (Department of Ag. Economics)

iii) Fruit Preservation (Farm Engineering)

iv) Agriculture and Rural Development (Integrated Rural Development Programme, Faculty of Social Science)

6. Courses in collaboration with other universities, industries, foreign institutions, etc.

7. Details of programmes / courses discontinued, if any, with reasons

8. Annual/ Semester/Choice Based Credit System

9. Participation of the department in the courses offered by other departments

i) **DEPARTMENT OF FARM ENGINEERING**

ii) Department of Ag. Economics

iii) Food Science and Technology

iv) Integrated Rural Development Programme, Faculty of Social Science

10. Number of teaching posts sanctioned and filled (Professors/Associate Professors/Asst. Professors)

	Sanctioned	Filled
Professor	1	5
Associate Professors	1	1
Asst. Professors	4	1

11. Faculty profile with name, qualification, designation and specialisation (D.Sc./D.Litt./ Ph.D./M.Phil., etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. students guided for the last 4 years
Dr. S. P. SINGH	Ph.D.	Professor	Pomology	30	02
Dr. M. M. Syamal	Ph. D	Professor	Horticulture	33	02
Dr. J. N. Singh	Ph. D	Professor	Horticulture	30	02
Dr. Anil Kumar Singh	Ph. D	Professor & Head	Floriculture & Landscaping	19	01
Dr. Binod Kumar Singh	Ph. D	Professor	Vegetable Production	25	Nil
Dr. Anand Kumar Singh	Ph. D	Associate Professor	Vegetable Breeding and Production	12	02
Dr. A. K. Pal	Ph. D	Assistant Professor	Vegetable Breeding and Production	07	Nil

12. List of senior Visiting Fellows, faculty, adjunct faculty, emeritus professors

13. Percentage of classes taken by temporary faculty – programme-wise information

14. Programme-wise Student Teacher Ratio: M. Sc. (Ag.) Horticulture **1: 2.51**

15. Number of academic support staff (technical) and administrative staff: sanctioned and filled

	Technical		
	Sanctioned	Filled	Vacant
STA/TA	1	1	Nil
JLA	2	1	1
Lab Attendant	1	1	Nil

Non-Teaching

Senior Assistant	1	1	Nil
Peon	1	1	Nil

16. Research thrust areas recognized by funding agencies **NOT APPLICABLE**

- i) Development of human resource of capability for excelling in global competitiveness through quality education.
- ii) Enhancement in quality of horticultural produce through value addition.
- iii) Augmentation in the income of the farmers of the region through providing elite planting materials of horticultural crops and disseminating proven technology of growing horticultural crops through firm liaisoning.

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies and grants received project-wise. **NOT APPLICABLE**

18. Inter-institutional collaborative projects and grants received

- d) All India collaboration
- b) International

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, etc.; total grants received.

1. Technology Demonstration for flower and seed production of marigold and production of Vermicompost from floral offering of temples for the welfare of SC/ST population of U.P. A project was sanctioned by Department of Bio-Technology, New Delhi under the supervision of Prof. Anil Kumar Singh (2012 to 2015).
2. Experiential Learning on Commercial Horticulture by Indian Council of Agricultural Research, New Delhi (2011 to continue).
3. A project was sanctioned by SHM-UPCAR entitled "Establishment of Seed Processing Infrastructure Facilities for Vegetable Crops" under supervision of Dr. Anand Kumar Singh with a grant of Rs. 11.53 lac.

20. Research facility / centre with

- state recognition
- national recognition
- international recognition

21. Special research laboratories sponsored by/created by industry or corporate bodies

22. Publications:

- * Number of papers published in peer reviewed journals (national / international) **01**
INTERNATIONAL*, 55 NATIONAL
 - * Monographs **NIL**
 - * Chapters in Books **14**
 - * Edited Books **Production Technology of Medicinal and Aromatic plants**
(International Book Publisher, Lucknow)
 - * Books with ISBN with details of publishers **NIL**
 - * Number listed in International Database (For *e.g.* Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
 - * Citation Index – range / average
 - * SNIP
 - * SJR
 - * Impact Factor - range / average **2.1-3.7 (9.6)**
 - * h-index **09***
23. Details of patents and income generated
24. Areas of consultancy and income generated
25. Faculty selected nationally/ internationally to visit other laboratories in India and abroad
26. Faculty serving in
a) National committees b) International committees c) Editorial Boards d) any other
(please specify) **N.A.**
27. Faculty recharging strategies
28. Student projects **N.A.**
- percentage of students who have done in-house projects including inter-departmental projects
 - 20 per cent students of B. Sc. (Ag) 4th year have completed in house project under Experiential Learning Course
 - percentage of students doing projects in collaboration with other universities / industry / institute
29. Awards / recognitions received at the national and international level by
- Faculty
 - Doctoral / post doctoral fellows
 - Students

30. Seminars/ Conferences/Workshops organized and the source of funding (national / international) with details of outstanding participants, if any.

31. Code of ethics for research followed by the departments

32. Student profile course-wise: (2011-12)

Name of the Course (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
HOR-501 - Tropical and Dry-land Fruit Production	19			100%	
HOR-502 -Production Technology of Warm Season Vegetable Crops	89			96.63%	
HOR-503 - Landscaping and Ornamental Gardening	13			100%	
HOR-504 - Breeding of Horticultural Crops	13			100%	
HOR-505 - Production Technology of Cool Season Vegetable Crops	89			97.75%	
HOR-506 - Sub-tropical and Temperate Fruit Production	13			100%	
HOR-508 - Growth and Development of Horticultural Crops	13			100%	
HOR-601 Advances in Breeding of Fruit and Plantation Crops	15			100%	
HOR-605 Advances in Breeding of Vegetable Crops	16			100%	
HOR-605 - Advances in Flower Production Technology	3			100%	
HOR-606 - Advances in Breeding of Flower Crops	6			100%	

33. Diversity of students

Name of the Course (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
Horticulture				

Name of the Course (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

- Annapurna- NET (GEN.)
- Chandan Kumar- NET (OBC)
- Priyanka Sharma (ICAR, NET)
- Sanjay Vishwakarma (ICAR, NET)
- Anil Kumar (ICAR, SRF)
- Raghvendra Singh (CIVIL SERVICES)
- Raghvendra Singh (ICAR, NET)
- Vartika Srivastava (ICAR, NET)
- Sunil Kumar M. (ICAR, NET)

35. Student progression

Student progression	Percentage against enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	6 in Horticulture
Ph.D. to Post-Doctoral	
Employed	
• Campus selection	50%
• Other than campus recruitment	10%
Entrepreneurs	

36. Diversity of staff

Percentage of faculty who are graduates	100%
of the same university	50 %
from other universities within the State	50 %
from universities from other States	
from universities outside the country	

37. Number of faculty who were awarded Ph.D., D.Sc. and D.Litt. during the assessment

period

38. Present details of infrastructural facilities with regard to
 - a) Library
 - b) Internet facilities for staff and students
 - c) Total number of class rooms
 - d) Class rooms with ICT facility
 - e) Students' laboratories
 - f) Research laboratories
39. List of doctoral, post-doctoral students and Research Associates
 - a) From the host university
 - b) From other universities
40. Number of post graduate students getting financial assistance from the university.
41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.
42. Does the department obtain feedback from
 - g. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?
 - h. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?
 - i. Alumni and employers on the programmes offered and how does the department utilize the feedback?
43. List the distinguished alumni of the department (maximum 10)
 - i) **Dr. M.L. Choudhary, Vice-Chancellor, Bihar Agriculture University**
 - ii) **Dr. Gorakh Singh, Horticulture Commissioner, Government of India**
44. Give details of student enrichment programmes (special lectures/workshops/seminar) involving external experts.
45. List the teaching methods adopted by the faculty for different programmes.
46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?
47. Highlight the participation of students and faculty in extension activities. The Faculty and the students of the department have been actively participating in the different on-going extension activities viz., Farmers Fair, Farmers Training, Radio Talks, TV Talks etc.
48. Give details of "beyond syllabus scholarly activities" of the department.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.
50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.
51. Future plans of the department.
52. Detail any five Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Post-accreditation Initiatives

If the university has already undergone the accreditation process by NAAC, please highlight the significant quality sustenance and enhancement measures undertaken during the last four years. The narrative may not exceed ten pages.

2.1.6 Number of students admitted in university departments in the last four academic years: (M.Sc. Ag.)

Categories	Year 1		Year 2		Year 3		Year 4		Year 4		Total	
	(2008-09)		(2009-10)		(2010-11)		(2011-12)		(2012-13)			
	Male	Female										
SC	2	0	1	1	1	1	2	0	2	1	8	3
SI	-	-	1	0	1	0	2	0	0	1	4	1
OBC	-	-	-	-	7	0	5	1	5	1	17	2
General	4	1	6	1	7	1	7	2	4	5	28	10
Others	5	0	5	0	2	1	3	0	1	0	16	1
Total	11	1	13	2	18	3	19	3	12	8	73	17
Total	12		15		21		22		20		90	

(Ph. D.)

Categories	Year 1		Year 2		Year 3		Year 4		Year 4		Total
	(2008-09)		(2009-10)		(2010-11)		(2011-12)		(2012-13)		
	Male	Female									

	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SC	-	-	0	0	0	0	0	1	3	0	3	1
ST	-	-	0	0	0	0	0	0	0	0	0	0
OBC	-	-	0	1	2	0	4	1	2	0	8	2
General	-	-	1	1	0	1	1	0	3	1	5	3
Others	-	-	0	0	0	0	0	0	0	0	0	0
Total	-	-	1	2	2	1	5	2	8	1	16	6
Total	-	-	3	3	3	3	7	9	9	9	22	6

2.1.7 Has the university conducted any analysis of demand ratio for the various programmes of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase/decrease.

Programme	Number of applications	Number of students admitted	Demand Ratio
UG			
PG	Institute level	90	Institute level
Integrated Masters			
M. Phil.			
Ph. D.		22	7 seat / Annum
Integrated Ph.D.			
Certificate			
Diploma			
PG Diploma			