

RESEARCH FACILITIES:

Post graduate Laboratories and Equipments:

Sr. No.	Year	PG laboratory / Research Unit	List of Equipment housed
		One P.G. lab	<p>Kjel plus Nitrogen analyzer, Ultra visible Spectro photometer, Flame Photo meter, Pressure plate and pressure membrane apparatus, Digital pH meter and EC meter, leaf area meter, Soxhlet extraction apparatus</p> <p>Global position system (GPS), Time Domain Reflectometer, Neutron probe, Double ring infiltrometer, Polari meter, Lux meter, Porometer,</p> <p>Hand refracto meter, Brix saccharometer, Anemometer, Seed Counter machine, Hot air oven, Mini rotary flask shaker, Rotary shaker, single and double distillation apparatus, Soil moisture meter, Hygrometer, soil thermometer, Infrared Thermometer. Hot air oven, Water measuring devices, Soil auger (post hole), Screw auger, weirs and notches</p>
		Experimental farm	<p>Tractor drawn all types of primary and secondary tillage implements, Chisel plough, Disc plough, special purpose seed bed preparing implements, BBF Planter, Bund former, Auto dibbler, Weed slasher, pest control equipments, solar operated boom sprayer (bullock drawn), tractor operated Boom sprayer, Cycle hoe, 2 Open wells and 2 bore wells all equipped with irrigation facility including (sprinkler and drip). 1 farm pond for water harvesting. Top pan balance, Weight balance,</p>

A) EDUCATION:

1) UNDER GRADUATE PROGRAMME :

a. Course curriculum:

The Under Graduate Programme in Agronomy Department was initiated during the year 1956 as offered by College of Agriculture, Parbhani. Under Graduate syllabus is modified as per fifth

Dean's Committee Report from the Academic year 2017-18. The Agronomy Department offers 33 credits for B.Sc. (Hons.) Agriculture, 8 credits for B.Sc. (Hons.) Horticulture, 2 credits for B.Tech. (Agril. Engineering) and 6 credits for B.Sc. (Agril. Biotechnology).

As per Vth Dean's Committee Report syllabus attempts have made to distribute the courses in the following form to inculcate the Basics, Principles and Skills in a systematic way.

Ist year – Basic and fundamental courses (Traditional)

IInd Year – Principles (Technology)

IIIrd Year – Production system (For improving Talent)

IVth Year – Skill and entrepreneurship development (For federating Trading)

Total courses offered for B.Sc.(Agri.) as per Vth Deans Committee Syllabus

Sr No	Sem	Course No.	Course Title	Credits
B.Sc. (Hons.) Agri.				
1	I	AGRO 111 (New)	Fundamentals of Agronomy-I	1+1=2
2	I	AGRO 112 (New)	Introductory Agro-Meteorology and climate change	1+1=2
3	I	AGH-111 (New)	Agricultural Heritage	1+0=1
4	II	AGRO 123 (New)	Fundamentals of Agronomy –II	1+1=2
5	III	AGRO 234 (New)	Crop production Technology-I	1+1=2
6	III	AGRO 235 (New)	Rainfed Agriculture and Watershed Management	1+1=2
7	IV	AGRO 246 (New)	Crop Production Technology –II (Rabi Crops)	1+1=2
8	IV	AGRO 247 (New)	Farming System and Sustainable Agriculture	1+0=1
9	IV	AGRO 248 (New)	Principles of Organic Farming	1+1=2
10	V	AGRO 359 (New)	Practical crop production- I (Kharif crops)	0+1=1
11	V	ELE AGRO 3510 (New)	Weed Management	2+1=3
12	VI	AGRO 3611 (New)	Practical Crop Production- II (Rabi Crops)	0+1=1
13	VI	AGRO 3612 (New)	Geo- informatics ,Nano-technology and Precision Farming	1+1=2
14	VIII	ELM AGRO 4813	Organic Farming Production Technology	10 (0+10)
15	VIII	ELM-AGRO 4814 (New)	Commercial Production of Organic Inputs	10 (0+10)

b. CROP CAFETERIA:

The *Kharif* and *Rabi* crop cafeteria is maintained for UG and PG students with major objectives,

1. Identification of major and minor crops grown in Marathwada region
2. Identification of VNMKV, Parbhani released crop genotypes.
3. To exhibit different growth stages of crops to UG and PG students.

The crops grown in crop cafeteria are useful to educate UG and PG students of this department and they will assist to identify the crops, their varieties, growth stages of the crop and various intercultural operation from sowing to harvesting in various crops. The crop cafeteria is taken on 1.0 ha. area. In *kharif* season, 25 crops and their genotypes and in *rabi* season 14 crops and their genotypes are sown in crop cafeteria.



Rabi Crop Cafeteria



Kharif crop cafeteria



RAWE AND AIA, STUDENT READY PROGRAMME:

This program is undertaken by B. Sc. (Hons.) Agri. degree programme to the students of VII semester for a total duration of 20 weeks with a weightage of 0+20 credit hours. This program is in two parts, namely, RAWE and AIA. After general orientation and on-campus training by different faculties students are undergo village attachment to develop an understanding about rural community life and different situations prevailing in villages with special reference to agriculture during this component, followed by unit attachment in university/ college/ KVK or a research station. The students would also be attached with the Agro-Industries to get an experience of the industrial environment and working. The students would be required to record their observations in field and agro-industries on daily basis and will prepare their project report based on these observations. At the end of RAWE/AIA, the students are given one week for project report preparation, presentation and evaluation.

EXPERIENTIAL LEARNING MODULE:

ELP is for building skills in project development and execution, decision making, individual and team coordination, approach to problem solving, accounting, marketing and resolving conflicts, etc. an innovative concept of Experiential Learning Module in Commercial Production of Organic Inputs (i.e. Module-I) is offered at Department of Agronomy as a course curriculum of B.Sc. (Hons.) Agriculture for VIIIth semester student with the 0+10 credits to built up the skilled, technical persons for production of organic inputs and product marketing, confidence

among the students about Commercial Production of organic inputs and their marketing. Students are provided with hands on training and facilities for commercial production of organic inputs like organic manures *viz.* vermicompost, Jiwamrut, Bijamrut, Dashparni ark and their practical use in field as well as its packing and marketing. A group of 30 under graduate students are allotted for this module and given such type of hands on training through Experiential Learning Module . The programme has end to end approach. Carefully calibrated activities move students to explore and discover their own potential. Both activities and facilitation play a critical role in enhancing team performance.

Objectives

- To promote professional skills and knowledge through meaningful hands on experience.
- To build confidence and to work in project mode.
- To acquire enterprise management capabilities



B.Sc.(Hons.) Agri. VIII sem students (ELP) preparing vermicompost & Dashparni ark



2) **POST GRADUATE PROGRAMME**

The post graduate educational programme leading to M.Sc. (Agri.) in Agronomy with specialization in crop husbandry and soil and water management was started with the establishment of the department in the year 1972 with initial intake capacity of four students. The intake capacity was increased from 04 to 12 students from year 1985. PG programme was started at College of Agriculture, Latur in 2002 with intake capacity of 6 students. Now it has been increased up to 12 students per year from 2009 looking to the need of the region and

increase in private and constituent colleges. Similarly the P.G. programme started at College of Agriculture, Badnapur during the year 2012 with the intake capacity 6. The M.Sc. (Agri.) Agronomy educational programme is implemented through course work (35 credits) and research work (15 credits). The course work is grouped under i) Major course (22 credits) ii) Minor courses (9 credits) iii) Supporting courses (6 credits) and iv) Non credit compulsory courses (6 credits).

The M.Sc. (Agri.) research programme of the students is guided by academic staff of the department and research schemes. During last 52 years 596 students have successfully completed their M.Sc. (Agri.) programme in this department.

Post graduate instructional programme leading to Ph.D. degree in Agronomy started in the year 1973 initially by research work and from 1978-79 onwards partly by course and partly by research project. This programme was implemented through 35 credits of course work and 35 credits of research. The admission capacity for Ph.D. degree is three students per academic year. So far 130 students have successfully completed their Ph.D. degree in this department. Ph.D. Agronomy educational programme is implemented through course work (40 credits) and research work (45 credits). As per the PG course work schedule decided in the 4th Dean's committee meeting, in Ph.D. degree also the course work is grouped under :

- i. Major courses – 20 credits
- ii. Minor courses – 08 credits
- iii. Supporting courses – 06 credits
- iv. Non credits compulsory courses – 06 credits
- v. Research work – 45