

Department of Agricultural Botany

Shri G. A. Thakare

M.Sc Agri (Genetics & Plant Breeding),
NET.





Course Taught & Work Load

Sr. No.	Course No.	Course Title	Credits	Work load
1	H/BOT-111	Principles of Genetics and Cytogenetics	2+1=3	10
2	H/BOT-122	Principles of Plant Breeding	1+1=2	09
3	H/BOT-123	Introductory Plant Physiology	1+1=2	10
4	H/FS-245	Breeding of Fruits and Plantation Crops	2+1=3	10
5	H/VS-353	Breeding of Vegetable Crops	2+1=3	10
6	H/BIOT-361	Fundamentals of Biotechnology	1+1=2	09
7	H/PHY- 471/3	Plant Physiology	0+1=1	04



Academic Result of the Department

Sr. No.	Course No.	Percentage of Result			Average (%)
		2014-15	2015-16	2016-17	
1	H/BOT-111	89.96	82.55	86.63	47.70
2	H/BOT-122	73.68	75.58	77.38	75.54
3	H/BOT-123	66.03	62.00	80.89	69.64
4	H/FS-245	95.55	95.00	91.66	94.07
5	H/VS-353	84.44	81.25	79.59	81.76
6	H/BIOT-361	91.22	100	100	97.07
7	H/PP-471	100	100	100	100



Teaching Aids Prepared for Teaching Learning Process

- CDs
- Practical Manuals as per MCAER Syllabus
- Teaching Notes on theory syllabus
- Floral Biology Mounting & Display box
- Folder on Use of Growth Hormones in Horticultural Crops



Research Activities

Sr.No.	Particular	Remarks
1	Research Papers Published	19
2	Abstract Published in Souvenir/ Symposiums	15
3	Popular / Technical Articles	40
5	Conference attended	10
6	Paper presented	10
7	Work shop attended	01
9	Trainings attended	01



Research Activities of the Students

Sr. No.	Title of Paper	Authors Name	Conference/ Symposium Details
1	Effect of Physical And Chemical Mutagens In Groundnut (<i>Arachis hypogaea</i> L.)	S. K. Burghate, M. N. Mishra, S. A. Maity, U. A. Raut and R.S. Rongre	100 th Indian Science Congress, Kolkatta (WB) (3-7 th January, 2012.) 101
2	Frequency And Spectrum of Induced Mutations In Groundnut (<i>Arachis hypogaea</i> L.)	S. K. Burghate, M. N. Mishra, C. R.Tarpe, U. A. Raut and S. A. Maity	100 th Indian Science Congress, Kolkatta (WB) (3-7 th January, 2012) : 113
3	Impact of mutagens its efficiency and effectiveness in <i>Arachis hypogaea</i> L.	S.K.Burghate, M.N.Mishra, U.A.Raut, A.M.Deshmukh and C.R.Tarpe	UGC Sponsored State Level Seminar on Improved Crop Plants: Role of Genetics, at Science College,Pulgaon, Wardha. 28 th February 2013.
4	Studies on seed protein identification of GMS based <i>Deshi</i> cotton hybrids and their parental lines using SDS PAGE.	S. V. Koshatwar, S.P.Patil, S. K. Burghate, C.R.Tarpe and G.N.Ghormade	UGC Sponsored State Level Seminar on Improved Crop Plants: Role of Genetics, at Science College,Pulgaon, Wardha. 28 th February 2013.



Additional Responsibilities

- In charge for organizing Seminar/Conference
- In charge Tissue Culture Laboratory (Proposed)
- Teacher Counselor of Diploma in Agricultural Foundation of YCMOU, Nashik (MS)
- Project Guide of YCMOU, Nashik (MS)
- Program Officer of NSS



Best Practices

- Electrophoresis for cultivar identification through protein & Isozyme banding pattern
- Genetic and Physical purity analysis
- Consulting farmers for commercial seed production



Retrospection

2007-08	2011-12
Laboratory was not well equipped as per norms	Laboratory is well equipped
There was no tissue culture laboratory	Proposal for the grant is submitted to State government



Proposed Plans

- Establishment of Commercial Tissue Culture Laboratory in new college building

Project Title	Development of Tissue Culture Laboratory for the Production of true to type disease free Banana Plants through Micro-propagation and their Field Evaluation under Farmers' Conditions
Funding agency	Rajiv Gandhi Science and Technology Commission Government of Maharashtra
Duration of the Project	Three Year
Approximate Cost of the Project	Rs.45.00 Lakhs



The setting up of laboratory and other facilities and standardization of the tissue-culture protocol may take about one year. However, 15,000 TCPs may be produced in the 1st year for distribution as free samples. Therefore, no income has been projected in the 1st year and from second year the income is used to conduct training programmes and maintaining the laboratory and multiplication of plant propogules to fulfill the future demand, which will be definitely increasing day by day Thus the benefit is projected as under

Year wise Economics of the Project		
Year	Targeted production (no. of Plants)	Income through sale of Plants @ Rs. 10 - per plant
1	15000	NIL
2	50000	500000
3	100000	1000000