

NUTAN MAHAVIDYALAYA SAILU, DIST. PARBHANI

DEPARTMENT OF BOTANY PROFILE



INTRODUCTION

The Botany department of the college was established in the **Year 1968**. For the first two years this department functioned in Nutan Vidyalaya, then the department was shifted to hall No.16 of main building of the college. In 1976 the department was finally shifted to the present place.

Department was established under the leadership of **Dr. V.K. Kothekar**, in 1970. Shri P.G. Pathak joined this department. He resigned the post then Dr. S.N. Sandikar worked in this department for 27 years. He has left this college and joined as a Principal at Jalna. Dr. V.H. Panchal worked in this department for 21 years. Since, 2020 Dr. P.R. Kanthale is working as head of Botany department. Shri Vishnu Kakde in 2021 and Miss Jyoti Joshi in 2023 has joined as assistant professor (CHB) in this department.

Department is having one Laboratory Assistant and two Laboratory attendants. Laboratory assistant is assigned the work of maintenance of stock register, yearly stock verification, preparation work of practical etc.



AIMS AND OBJECTIVES

AIMS

To create interest among the students in Botany and make them aware of the economic importance of green plants needed for pollution free environment.

To achieve academic excellence in basic and applied aspects of plant sciences.

To impart basic and advanced education to students through teaching, learning, research and evaluation.

To motivate the students to undertake research in basic and applied thrust areas of plant sciences.

To inculcate scientific awareness towards protecting diversity and eco-environmental management of plant resources for sustainable development.

To create awareness among the students regarding self employment and generation of other sources of the income through modern farming.

To promote and create interest among the students for higher education and research aptitude.

To create sense of ethical moral values and social department among the students for good citizens.

To conduct Group discussion, Seminars, Symposia, Science exhibition and Interview technique.

OBJECTIVES

To develop a strong foundation in fundamental science for scientific understanding

To develop and promote scientific literacy among students
To question, hypothesize and make informed conclusions
To have the experimental approaches in Skill based evaluation
To develop the proper knowledge of scientific materials and instruments
To create knowledge acquired to be applied for socio-economic growth and benefit
To promote research culture for self and to benefit the society in large
To empower them with life skills through effective guidance and counselling

VISION AND MISSION

Our vision is to conduct innovative research, teaching and outreach on the patterns and processes of life with a focus on plants and their environment.

Our mission is to foster an environment of excellence by attracting and supporting the outstanding students, faculty and staff needed to sustain our vision. We focus on the patterns and processes that enable predictive understanding of plants and their environment at local, regional, leading to strength in the areas of ecology, evolution, and systematics.

FACILITIES

Well equipped laboratory.

Spacious classroom.

Botany department library.

Guidance and support for higher education.

Techno savvy environment.

Innovative approach in teaching.

LABORATORIES

The department is now having a spacious building-constructed under financial assistance by UGC. Departmental building is having two laboratories, a museum, a preparation room, a store room, sitting room for Head of the department and staff. Each Laboratory is 40'×22' dimension which provide sufficient space to 24 students working in a practical batch. The Laboratories are provided with all facilities like running water, electric supply etc. A museum of 40'×22' dimension is also a part of this department which provides adequate space for preservation of plant material, sufficient glass cupboards are also available in museum.

Plant material collected during plant collection tours and procured from scientific suppliers is properly preserved in the museum. Collection of plant material from different areas and also fossil specimens is treasure of our department.

EQUIPMENTS

Department is having almost all equipments required for U.G. Practicals, Major equipments like Soxhlet Apparatus, Laminar Airflow, BOD incubator, Hot air oven Autoclave, Centrifuge, Inoculation chamber, Water distillation plant, Bacterial colony counter, Colorimeter, Water bath, Magnetic Stirrer, Digital Balance, PH meter, Microtome, Air Sampler, etc. which are purchased under U.G.C. scheme of financial assistance. Department is also having multiple copies of compound microscope, dissecting microscope, required glass ware, charts, models, chemicals etc. Purchase of equipments, glass ware, chemicals, class work material is from the budget allotted to the department every year. A part of the departmental budget is utilized for the maintenance of instruments. All purchases are as per government norms such as calling quotations, making comparative statements, placing order to the supplier etc.

LIBRARY

Books in our subject are stacked in central library. Total number of books in Botany is which include Reference books and Text Books. The reference library is having some classic books like

Sr. No.	Name of Book	Author
1	Anatomy of monocotyledons	Metcalf
2	Fundamental principle of bacteriology	Salle
3	Introductory mycology	Alexopouls
4	Taxonomy of vascular plants	Lawrence
5	Morphology of angiosperms	Eames
6	Families of flowering plants	Hutchinson
7	Plant anatomy	Essau
8	The evolution of land plants	Campbell

FACULTY POSITION

Sr.No.	Name	Qualification	Experience
1	Dr. P. R. Kanthale	M.Sc., Ph.D., B.Ed.	12
2	Vishnu S. Kakde	M.Sc., B.Ed. SET.	03

RESEARCH CONTRIBUTION

Participation in Conferences/ Seminars/ Works Shops.

Sr. No	Faculty	Conferences/Seminars			Workshop	Refresher/Orientation Courses
		International	National	state		
1.	Dr.P.R. Kanthale	09	19	03	13	04
02	Vishnu S. Kakde	01	02	02	Nil	Nil

Research Paper Published in Journal

Sr. No.	Faculty	No of Papers Published
1.	Dr. P. R. Kanthale	45
2.	Vishnu S. Kakde	01

WORKING

All teachers in the department plan their teaching schedule at the beginning of the academic year. This teaching plan is submitted to the Principal through H.O.D. All the teachers in the department maintain teacher's diary in which details about the periods engaged by them such as date, time and unit taught are arranged. At the end of each term teachers submit syllabus completion report. At the closing of academic year, each teacher submits self appraisal report to the Principal with the observations of H.O.D.

TEACHING METHODS AND EVALUATION

PPT, MODELS AND CHARTS

SEMINARS

TEST AND TUTORIAL

GROUP DISCUSSION

BOTANY – CURRICULUM

Year-2018-19

Class & Semester	Paper No. & Title	Period /practical	MARKS		
			External ESE	Internal CA	Credits (Marks)
B.Sc. I Year Semester-I	Theory Paper-I: Diversity of Microbes CCB-I Section-A	45	40	10	Credits2(Marks50)
	Theory Paper-II: Cell and Molecular Biology CCB-I Section-B	45	40	10	Credits2(Marks50)
B.Sc. I Year Semester-II	Theory Paper-III: Diversity of Cryptogams CCB-II Section-A	45	40	10	Credits2(Marks50)
	Theory Paper-IV: Genetics and Plant Breeding CCB-II Section-B	45	40	10	Credits2(Marks50)
B.Sc. I Year Annual pattern	Practical Paper-V: Practical based on theory papers of semester-I&II CCB-I&II	24	80	20	Credits4(Marks100)
B.Sc. II Year Semester-III	Theory Paper-VI: Morphology and Taxonomy of Angiosperms CCB-III Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-VII: Histology, Anatomy and Embryology of Angiosperms CCB-III Section-B	45	40	10	Credits2(Marks-50)
Semester-IV Theory	Theory Paper-VIII: Gymnosperms and Palaeobotany CCB-IV Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IX: Ecology and Environmental Biology CCB-III Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Annual pattern Practical Paper-X: Based on Theory Paper-VI&VIII CCBP-II Section-A	16	40	10	Credits2(Marks-50)
	SEC-I SKILL Section-A	03/Week	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XI: Based on Theory Paper-VII&IX	16	40	10	Credits2(Marks-50)
	SEC-II SKILL Section-A	03/Week	25	25	Credits2(Marks-50)
B.Sc. III Year Semester-V	Theory Paper-XII: : Plant Physiology DSEB-V Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XIII: Optional- any one of the following 1. Plant pathology-I DSEB-V Section-B	45	40	10	Credits2(Marks-50)

Semester-VI	Theory Paper-XIV Plant Metabolism, Biochemistry and Biotechnology DSEB-VI Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XV: Optional- any one of the following Plant pathology-II DSEB-VI Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Practical Paper-XVI: Based on Theory Paper-XII&XIV DSEBP-I Section-A	16	40	10	Credits2(Marks-50)
	SECB III SEC- III A Or B	03week	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XVII: Based on Theory Paper-XIII&XV DSEBP-II Section-B	16	40	10	Credits2(Marks-50)
	SECB IV SEC- IV A OR B	03week	25	25	Credits2(Marks-50)

Year-2019-20

Class & Semester	Paper No. & Title	Period /practical	MARKS		
			External ESE	Internal CA	Credits (Marks)
B.Sc. I Year Semester-I	Theory Paper-I: Viruses, Bacteria Algae ,Fungi , Lichens and Mycorrhiza CCB-I Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-II: Plant Ecology , Phytogeography and Environmental Biology CCB-I Section-B	45	40	10	Credits2(Marks-50)
B.Sc. I Year Semester-II	Theory Paper-III: Bryophytes, Pteridophytes Gymnosperms and paleobotanyCCB-II Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IV: Taxonomy of Angiosperms CCB-II Section-B	45	40	10	Credits2(Marks-50)
B.Sc. I Year Annual pattern	Practical Paper-V: Practical based on theory papers of semester-I&II CCB-I&II	24	80	20	Credits4(Marks-100)
B.Sc. II Year Semester-III	Theory Paper-VI: Morphology and Taxonomy of Angiosperms CCB-III Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-VII: Histology, Anatomy and Embryology of Angiosperms CCB-III Section-B	45	40	10	Credits2(Marks-50)
Semester-IV Theory	Theory Paper-VIII: Gymnosperms and Palaeobotany CCB-IV Section-A	45	40	10	Credits2(Marks-50)

	Theory Paper-IX: Ecology and Environmental Biology CCB-III Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Practical Paper-X: Based on Theory Paper-VI&VIII CCBP-II Section-A	16	40	10	Credits2(Marks-50)
	SEC-I SKILL Section-A	03/Week	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XI: Based on Theory Paper-VII&IX	16	40	10	Credits2(Marks-50)
	SEC-II SKILL Section-A	03/Week	25	25	Credits2(Marks-50)
B.Sc. III Year Semester-V	Theory Paper-XII: : Plant Physiology DSEB-I Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XIII: Optional- any one of the following 1. Plant pathology-I DSEB-I Section-B	45	40	10	Credits2(Marks-50)
Semester-VI	Theory Paper-XIV Plant Metabolism, Biochemistry and Biotechnology DSEB-II Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XV: Optional- any one of the following Plant pathology-II DSEB-II Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Practical Paper-XVI: Based on Theory Paper-XII&XIV DSEBP-I Section-A	16	40	10	Credits2(Marks-50)
	SECB III SEC –III A OR B	03week	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XVII: Based on Theory Paper-XIII&XV DSEBP-II Section-B	16	40	10	Credits2(Marks-50)
	SECB IV SEC –IV A OR B	03week	25	25	Credits2(Marks-50)

Year-2020-21

Class & Semester	Paper No. & Title	Period /practical	MARKS		
			External	Internal	Credits (Marks)
B.Sc. I Year Semester-I	Theory Paper-I: Viruses, Bacteria Algae ,Fungi , Lichens and Mycorrhiza CCB-I Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-II: Plant Ecology , Phytogeography and Environmental Biology CCB-I Section-B	45	40	10	Credits2(Marks-50)

B.Sc. I Year Semester-II	Theory Paper-III: Bryophytes, Pteridophytes Gymnosperms and paleobotany CCB-II Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IV: Taxonomy of Angiosperms CCB-II Section-B	45	40	10	Credits2(Marks-50)
B.Sc. I Year Annual pattern	Practical Paper-V: Practical based on theory papers of semester-I&II CCB-I&II	24	80	20	Credits4(Marks-100)
B.Sc. II Year Semester-III	Theory Paper-VI Plant Anatomy CCB-III Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-VII: Plant Physiology and Biochemistry CCB-III Section-B	45	40	10	Credits2(Marks-50)
Semester-IV Theory	Theory Paper-VIII: Plant Embryology CCB-IV Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IX: Plant Metabolism and Biotechnology CCB-III Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Annual pattern Practical Paper-X: Based on Theory Paper-VI&VIII CCBP-II Section-A	16	40	10	Credits2(Marks-50)
	SECB- I SEC- I A Fruit &Vegetable processing OR SEC-I B Bioinstrumentation	45	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XI: Based on Theory Paper-VII&IX Section-B	16	40	10	Credits2(Marks-50)
	SECB-II SEC- II A Nursery & Gardening OR SEC-II B Biofertilizer.	45	25	25	Credits2(Marks-50)
B.Sc. III Year Semester-V	Theory Paper-XII: : Plant Physiology DSEB-V Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XIII: Optional- any one of the following 1. Plant pathology-I DSEB-V Section-B	45	40	10	Credits2(Marks-50)
Semester-VI	Theory Paper-XIV Plant Metabolism, Biochemistry and Biotechnology DSEB-VI Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-XV: Optional- any one of the following Plant pathology-II DSEB-VI Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Practical Paper-XVI: Based on Theory Paper-XII&XIV DSEBP-I Section-A	16	40	10	Credits2(Marks-50)
	SECB III SEC –III A Or B	03week	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XVII: Based on Theory Paper-XIII&XV DSEBP-II Section-A	16	40	10	Credits2(Marks-50)

	SECB IV SEC- IV A OR B	03week	25	25	Credits2(Marks-50)
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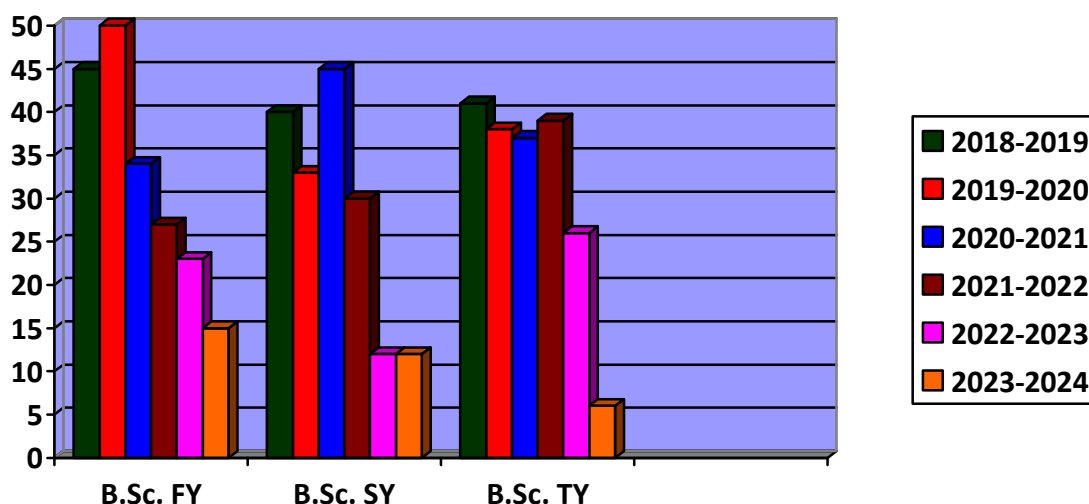
Year-2021-22, 2022-2023 and 2023-2024

Class & Semester	Paper No. & Title	Period /practical	MARKS		
			External	Internal	Credits (Marks)
B.Sc. I Year Semester-I	Theory Paper-I: Viruses, Bacteria Algae ,Fungi , Lichens andMycorrhiza CCB-I Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-II: Plant Ecology , Phytogeography and Environmental Biology CCB-I Section-B	45	40	10	Credits2(Marks-50)
B.Sc. I Year Semester-II	Theory Paper-III: Bryophytes, Pteridophytes Gymnosperms and paleobotanyCCB-II Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IV: Taxonomy of Angiosperms CCB-II Section-B	45	40	10	Credits2(Marks-50)
B.Sc. I Year Annual pattern	Practical Paper-V: Practical based on theory papers of semester-I&II CCB-I&II	24	80	20	Credits4(Marks-100)
B.Sc. II Year Semester-III	Theory Paper-VI Plant Anatomy CCB-III Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-VII: Plant Physiology and Biochemistry CCB-III Section-B	45	40	10	Credits2(Marks-50)
Semester-IV Theory	Theory Paper-VIII: Plant Embryology CCB-IV Section-A	45	40	10	Credits2(Marks-50)
	Theory Paper-IX: Plant Metabolism and Biotechnology CCB-III Section-B	45	40	10	Credits2(Marks-50)
Annual pattern	Annual pattern Practical Paper-X: Based on Theory Paper-VI&VIII CCB- II Section-A	16	40	10	Credits2(Marks-50)
	SECB- I SEC- I A Fruit &Vegetable processing OR SEC-I B Bioinstrumentation	45	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XI: Based on Theory Paper-VII&IX Section-B	16	40	10	Credits2(Marks-50)
	SECB-II SEC- II A Nursery & Gardening OR SEC-IIB Biofertilizer.	45	25	25	Credits2(Marks-50)

B.Sc. III Year Semester-V	Theory Paper-XII: : DSCB-I: Cell and Molecular biology	45	40	10	Credits2(Marks-50)
	Theory Paper-XIII: DECB-I: Plant Pathology-I(Theory Paper-XIII)	45	40	10	Credits2(Marks-50)
Semester-VI	Theory Paper-XIV DSCB-II: Genetics and Plant Breeding	45	40	10	Credits2(Marks-50)
	Theory Paper-XV: Optional- any one of the following DECB-II: Plant Pathology-II	45	40	10	Credits2(Marks-50)
Annual pattern	Practical Paper-XVI: DSCBP-I: Practicals based on DSCB-I & II	16	40	10	Credits2(Marks-50)
	SECB-III SECB-III: Trichoderma Cultivation Technology OR SEC-III: Medicinal Plant Product Preparation Skill	45	25	25	Credits2(Marks-50)
Annual pattern	Practical Paper-XVII: DECBP-I: Practicals based on DECB-I & II	16	40	10	Credits2(Marks-50)
	SECB-IV: Mushroom Cultivation OR SECB-IV: Herbal Drug Processing	45	25	25	Credits2(Marks-50)

STUDENTS STRENGTH

SR.NO	YEAR	B.Sc.FY	B.Sc.SY	B.Sc.TY
1	2018-2019	45	40	41
2	2019-2020	50	33	38
3	2020-2021	34	45	37
4	2021-2022	27	30	39
5	2022-2023	23	12	26
6	2023-2024	15	12	06



STUDENTS STRENGTH

EXAMINATION RESULT

Department has good tradition of results. Our B.Sc. final results are better than University average. To encourage meritorious students, faculty of department has sponsored a cash prize to B.Sc. final students securing highest marks in the subject. The prize is made available through contribution from teachers in the department. Class wise results of all papers in the subjects are discussed and efforts are taken for improvement.

Year	Name of the Course / Programme	No of Students Appeared	No of Students Passed	No of Students Fail	Result in %
2018-19	B.Sc.F.Y.	45	40	05	88.8%
	B.Sc.S.Y.	40	35	05	95%
	B.Sc.T.Y.	41	40	01	97%
2019-20	B.Sc.F.Y.	50	44	06	88%
	B.Sc.S.Y.	33	33	00	100%
	B.Sc.T.Y.	38	38	00	100%
2020-21	B.Sc.F.Y.	34	30	04	88%
	B.Sc.S.Y.	45	41	04	91.1%
	B.Sc.T.Y.	37	37	00	100%
2021-22	B.Sc.F.Y.	27	22	05	81.4%
	B.Sc.S.Y.	30	24	06	80%
	B.Sc.T.Y.	39	34	05	87.8%
2022-23	B.Sc.F.Y.	23	19	04	82.6%
	B.Sc.S.Y.	12	10	02	83.3%
	B.Sc.T.Y.	26	25	01	96.1%

Examination Result

UNIVERSITY RANK HOLDER STUDENT (SRTMUN)

Name of student	Name of the Award	Name of Sponsored	Cash prize	Year
Miss Burkhunde Vandana Bhagwan	Prof Dr D.S. Mukadam award	Dr. Ashok Chavan C.O.E. Dr. B.A.M.U. Aurangabad	Cash prize(Secured Highest Mark in Botany)	2017

Miss Burkhunde Vandana Bhagwan is awarded cash prize instituted by Dr Ashok chavan COE, Dr BAMUniversity Aurangabad in honour of Pof. Dr. D.S. Mukadam for having secured highest marks in Botany at B.Sc. Final examination held in summer 2017.

Students Progression to Higher Education(2018-2024)

Year	Progression	No of Students
2018-19	UG to PG	13
2019-20	UG to PG	10
2020-21	UG to PG	09
2021-22	UG to PG	06
2022-23	UG to PG	05
2023-24	UG to PG	02

Achievements

Sr.No.	Event	Year	Achievement	Organizer
<u>01</u>	Poster Competition	<u>2019-20</u> January 28, 2020	First Prize: Limbaji Musle Second Prize: Geeta Take	Venktesh Mahavidyalaya, Devulgaon Raja
<u>02</u>	Online National Level Poster Competition	<u>2020-21</u> June 5, 2020	Third Prize- Shaikh Afshem Shaikh Munir	Dr. P.R. Ghogre Science College, Dhule
<u>03</u>	Online National Level Wild Plant Flower Photography Competition	2020-21 October 7, 2020	Second Prize: Pawan Babashaib Lipne Third Prize: Santosh Garde	Shri Vijay Singh Yadav Mahavidyalaya, Peth Vadgaon
<u>04</u>	Online State Level Virtual Science Expo-2021 Competition	2020-21 February 28, 2021	Second Prize: Shaikh Afshem Shaikh Munir	Digamber Bindu Mahavidyalaya, Bhokar, District Nanded
<u>05</u>	Avishkar Festival 2024 - Poster Competition	2023-24 January 22, 2024	District Level First Prize-Rutuja Solanke(Topic: Antimicrobial Activities of Balanites aegyptica L.)	<u>D.S.M. College Parbhani (SRTMUN)</u>

PLACEMENT OF ALUMNI

SR.NO	NAME OF THE STUDENT	POSITION
1	Shri Rameshwar Rodge	Dy. Collector
2	Dr. D.A. Dhale	Associate Professor
3	Dr. Anil Kulkarni	Head, Deptt Of Botany
4	Dr. Mrs. Padamwar	Assistant Professor
5	Shri. Bhagure	Assistant Professor
6	Dr. Ashok Narladkar	Scientist, Hyderabad
7	Vasant Chavan	Range forest officer
8	Mansi J. Naik	Laboratory Scientific officer
09	Mr. Kishor Joshi	Officer Q.C. (Lupin Nagpur)
10	Mr. Mule Laximikanat	Sr.Officer
11	Yogesh Tathe	Officer Q.C.(IPCA)

CO-CURRICULAR ACTIVITIES

To supplement classroom teaching department organizes following co-curricular activities.

a) Guest Lecturers: - Lectures by University professors, Associate Professor and also Assistant Professors of affiliated colleges are arranged for our U.G. students. Such lectures in different branches of botany help our students to update their knowledge by way of getting recent development in different areas of specialization in the subject.

b) Subject Seminars by Students:- Department regularly organizes subject seminars by the students, mostly of Senior classes. Students of all classes participate in this activity. Students select the topic of seminar, they prepare their notes and give lecture on that topic for all students, and lecture is followed by discussion. All teachers are also present for the seminar. At the end of the seminar, subject teachers give their observation about the performance of the participants.

c) Study Tours: - To learn the plants at their habitat and to collect some samples of it, our department regularly organize study tours. Short tours of one day duration are organized on Sunday and other public holidays. In such tours, teachers of this department take students of all classes to nearby area to collect plant material. After collection the material brought to the laboratory, it is identified, classified, studied and preserved. At least one long tour to the area of different vegetation, is organized every year, during which students observe vegetation of that area and also collect some samples for detail study of it.

d) Botanical Garden: - Department has also developed a Botanical Garden in the premises of the college. Besides ornamental plants the garden is also having many plants of botanical interest. Such plants are collected from different localities and they are cultivated in this garden. Plant material needed for practical is also available from the garden.

e) Medicinal Plants Garden:- Department has also developed a Medicinal Plants Garden in the premises of the college. In this Garden rare as well as common Medicinal plants are planted.

Medicinal Plants are collected from different localities and they are planted in this garden. The garden is develops the awareness about Medicinal plants in the students, society and parents. Plant material needed for practical is also available from the garden.

TEAK PLANTATION

Department has actively participated in Teak plantation in the college premises. Nearly 1000 plants were planted with the help of Teak stumps procured form nursery of social forestry department and planted with required distance. Irrigation facilities, inter cultivation, protection from diseases and pests are regularly practiced which has resulted in the standing plants of Teak in the college premises.

SOLID WASTE MANAGEMENT PROJECT

COMPOST FERTILIZER

Department has also developed a compost fertilizer unit. Compost fertilizer is prepared form plant litter of the college

campus. This compost is used as fertilizer for plants of college garden. Compost is a key ingredient in organic farming. At the simplest level, the process of composting simply requires making a heap of wet organic matter and waiting for the materials to break down into humus after a period of three months.

Compost is rich in nutrients. The compost itself is beneficial for the land in many ways, including as a soil conditioner, a fertilizer, addition of vital humus or humic acids, and as a natural pesticide for soil. In ecosystem, compost is useful for erosion control, land and stream reclamation, wetland construction, and as landfill cover

The decomposition process is aided by shredding the plant matter, adding water and ensuring proper aeration by regularly turning the mixture. Worms and fungi further break up the material. Aerobic bacteria manage the chemical process by converting the inputs into heat, carbon dioxide and ammonium. The ammonium is further converted by bacteria into plant-nourishing nitrites and nitrates through the process of nitrification.

BIOLOGICAL WASTE DISPOSAL PROJECT

VERMICOMPOST

Department has also developed a Vermicompost unit. Vermicompost is prepared from plant litter of the college. This compost is used as fertilizer in college garden. Vermicompost is the excreta of Earthworms, usually red wigglers (*Eisenia fetida*) earthworms are used for the production of vermicompost. Vermicompost is rich in essential elements required for the growth and development of plants. Vermicompost improve fertility, physical structure of soil and reduce use of chemical fertilizers. Due to that reason vermicompost is used as fertilizer in garden.

SOIL TESTING WOKSHOP AND CAMP

Botany department has organized free soil testing workshop with the collaboration of IFFCO and **Shri AjayN. Wadhe** (District Manager, IFFCO Industry) have given speech on the importance about soil testing. Farmers representative **Shri Santosh Solanke, Anant Mogal, Chandrashaker Navale, Haribhau Manmode, Ashok**

Lipne, Tukaram Lahane, Mauli Tathe and Deepak Joshi has expressed, her experience about modern agriculture and soil testing

FARMERS CAMP

Botany department has organized farmers camp. Farmers camp is an ideal place where farmers can gather together to learn more about farming and management. In this camp expert farmers share his experience about modern farming and different crop varieties to farmers.

WATER HARVESTING

Energy sources are limited. Individual needs to be aware of Natural sources and its careful use. Responsibility should be accepted by everyone. The college is always taking responsibilities of all social and natural factors of this area. The appreciable example of its **“Water harvesting plant of college”** which we are running successfully since last two years.

Benefit of this plant is water level is increasing in the area of college campus as well as neighboring societies.

SWOC ANALYSIS

Strengths:

Faculty is well qualified and Research oriented
Engaged in Extension activities
The laboratory of Department has well equipped with modern facilities like smart board and computers with printer
Highly qualified and experience faculty members and energetic and encomiastic supporting staff
Departmental activities has been taken to enhance knowledge abased programme.
Research publications in international / national journals.
Students exposure to industry through-field trips and study tours
Medicinal garden
Botanical garden
Department organized farmers camp and soil testing camp.
Herbarium

Weakness:

No Postgraduate programme
Poor communication skill among the students
We have no separate class and laboratory.
Lack of separate and sufficient laboratories for UG students.
Lack of advanced equipments to carry out experiments in molecular biology of plants.

Opportunities

To start P.G. in Botany
Development of Botanical Garden
To start certificate and diploma course
Students are motivated and guided by able faculty members to get higher degree and appear in NET, SET, UPSC MPSC, and other competitive exams.
Confidence building through seminars, group discussions and personality development through interactive sessions
Improving the optimum usage of ICT in teaching learning

Challenges:

- To increase student's progression
- To enhance self-reliance among the students
- To teach and conduct practical classes of the students with poor foundation.
- Generation of resources for research facilities in the department

Future plans of the department:

- To apply for add-on/certificate courses.
- Add new specimens to the departmental museum.
- To upgrade the existing laboratory facilities
- To promote research activities.
- Cultivation of rare endangered and threatened plant species.
- Establishment of information and guidance centre for botany in Agriculture, IFS, MPSC etc.
- To promote students for competitive examinations
- To adopt e-learning methods.

- To start skill based certificate and diploma courses.

- To extend the knowledge of subject and its application to the society

PHOTO GALLERY

DEPARTMENT



LABORATORIES



GUEST LECTURES



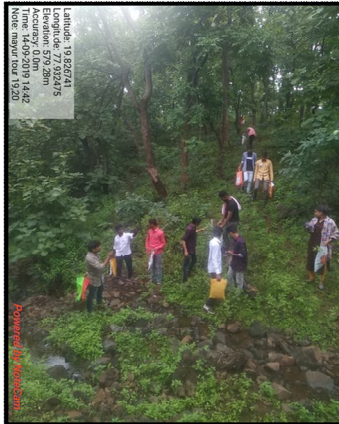
SUBJECT SEMINAR BY STUDENTS



EXCURSION TOUR







AGROINDUSTRIAL VISIT



FARMERS CAMP

नूतन महाविद्यालय सेलू जिल्हा परभणी
वनस्पतीशास्त्र विभाग व भारतीय किसान संघ, महाराष्ट्र प्रदेश यांच्या
संयुक्त विद्यमाने आयोजित शेतकऱ्यांसाठी चर्चा सत्र

विषय :- कापूस आणि तूर लागवड सुधारित तंत्रज्ञान

श्री दादा नाड (भारतीय किसान संघ) यांनी त्यांच्या अनुभवातून काही खरीप आणि रब्बी पिकांची लागवड आणि संगोपनाचे एक वेगळे तंत्र विकसित केले आहे. गेल्या काही वर्षांत देशभरातील अनेक शेतकऱ्यांनी त्यांनी शिफारस केलेल्या लागवड पध्दतीचा अवलंब केलेला आहे. प्रत्यक्ष अनुभव घेतलेले शेतकरी आणि त्यांच्या शेतांना भेटी देऊन आलेले अन्य शेतकरी यांचे मत या पध्दती बाबत अनुकूल असल्याची चर्चा सर्वत्र ऐकण्यात येत आहे.

या पाश्चिमीवर **श्री दादा नाड** यांचे शेतकऱ्यांना प्रत्यक्ष मार्गदर्शन लाभवे या उद्देशाने आपणांसह अन्य शेतकऱ्यांनीही उपस्थित राहून चर्चेत सहभागी व्हावे ही विनंती.

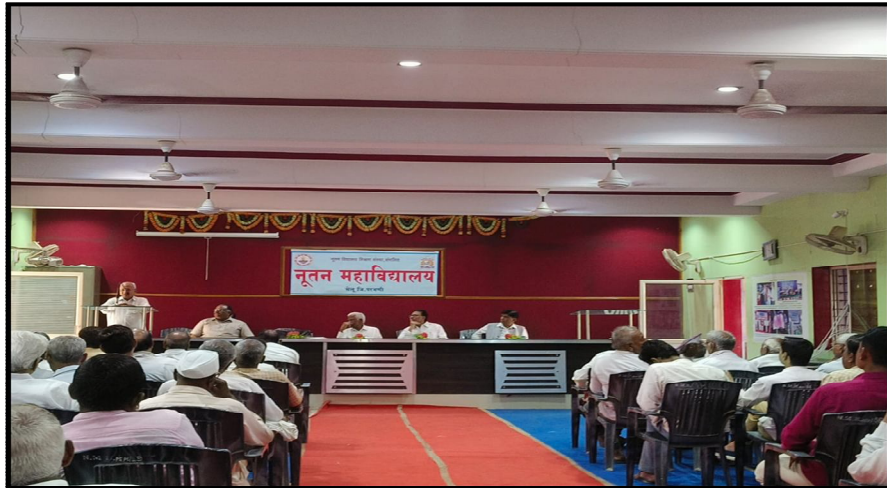
आपणास आग्रहाचे निमंत्रण!

कार्यक्रमाचे अध्यक्ष : श्री डॉ. व्ही. के. कोटेकर
(सचिव नू. वि. शि. सं. सेलू)

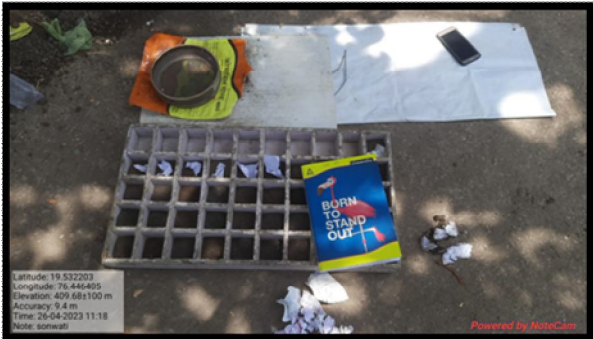
प्रमुख उपस्थिती : श्री गोविंदभाऊ जोशी (शेतकरी संघटना)
प्राचार्य डॉ. महेंद्रकुमार शिंदे (नूतन महाविद्यालय सेलू)

दिनांक ३० एप्रिल २०२३(शुक्रवार)
वेळ: दुपारी १२-०० वाजता
स्थळ: नूतन महाविद्यालय संगमण्डळ

विनीत :
वनस्पती शास्त्र विभाग, नूतन महाविद्यालय सेलू



SOIL TESTING CAMP



POSTER PRESENTATION

TOPIC – MILLETS

(INTERNATIONAL YEAR OF MILLETS 2023)



PLANTATION



VRAKSHA RAKSHA BANDHAN



WINNER OF POSTER COMPETITION



शेख अफशाईरम शेख मुनीर भिक्तीपत्रक स्पर्धेत देशात तिसरी

शेख, मा. ६ (काश्मीर) : जगतिक पातिलाय दिवांगितले फेव्हात आलेल्या अहमदाबाद विश्वविद्यालयाच्या शेख मुनीर या मुलीने को विजेतली. शेख मुनीर या मुलीने को विजेतली विजा प्रत्येक संस्था (के.) को विजेत डॉ. पी. आर. धोरे सारख्या को विजेत मुली यांच्या मधील जगतिक पातिलाय दिवांगितले आशीर्वाद देण्यात आले. शेख अफशाईरम या मुलीने या विश्वविद्यालयात को विजेतली जगतिक पातिलाय दिवांगितले आशीर्वाद देण्यात आले. शेख अफशाईरम या मुलीने या विश्वविद्यालयात को विजेतली जगतिक पातिलाय दिवांगितले आशीर्वाद देण्यात आले. शेख अफशाईरम या मुलीने या विश्वविद्यालयात को विजेतली जगतिक पातिलाय दिवांगितले आशीर्वाद देण्यात आले.



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COMPOST FERTILIZER



VERMICOMPOST



WATER HARVESTING

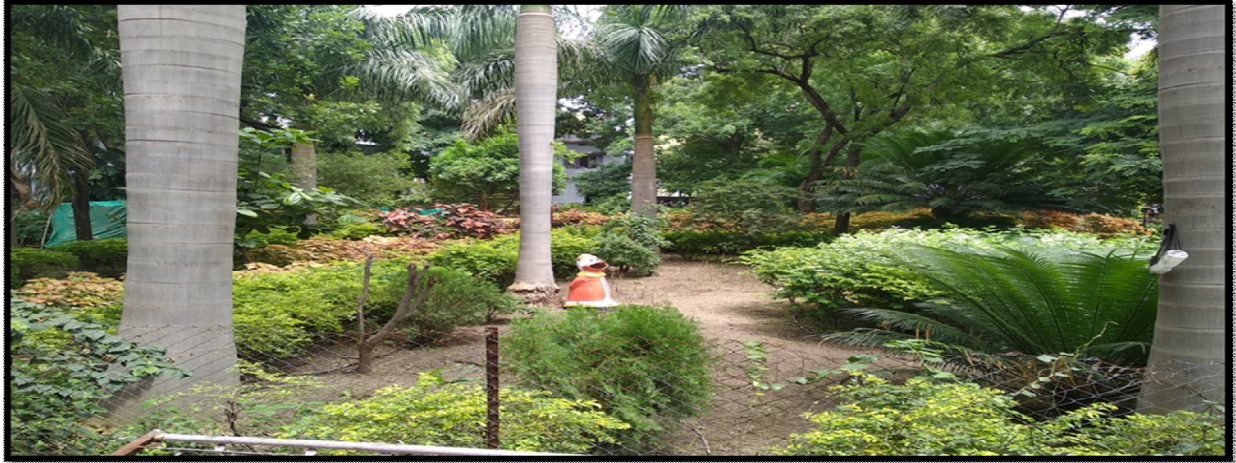


TEAK PLANTATION



BOTANICAL GARDEN





MEDICINAL PLANTS GARDEN



