

DEPARTMENT OF BOTANY

ANNUAL REPORT 2020-2021

1. ABOUT THE DEPARTMENT

Date of Establishment :-	July 1988
Built up area :	1700 sq. ft.
Phone No. :	07178-258328
Programme :	Batchler of Science(U.G. level)
Student strength :	197 (2020-2021)

S.No	Class	No. of Students
1	B. Sc. I	61
2	B. Sc. II	68
3	B. Sc. III	68

Teacher- Permanent :	Dr. Mrs. V.K. Rewatkar.
C.H.B. :	Miss. S. S. Doijod Miss. Harsha Mankar Miss. Priya Raut
Laboratory Attendent :	Shri. A. J. Butale (from- 11/02/2019)

2. UNIVERSITY RESPONSIBILITIES

- BoS Member
- Subject Expert Committee Member
- Gondwana University Teacher Association Member
- Gond. Uni. Botany Teacher Association- Member

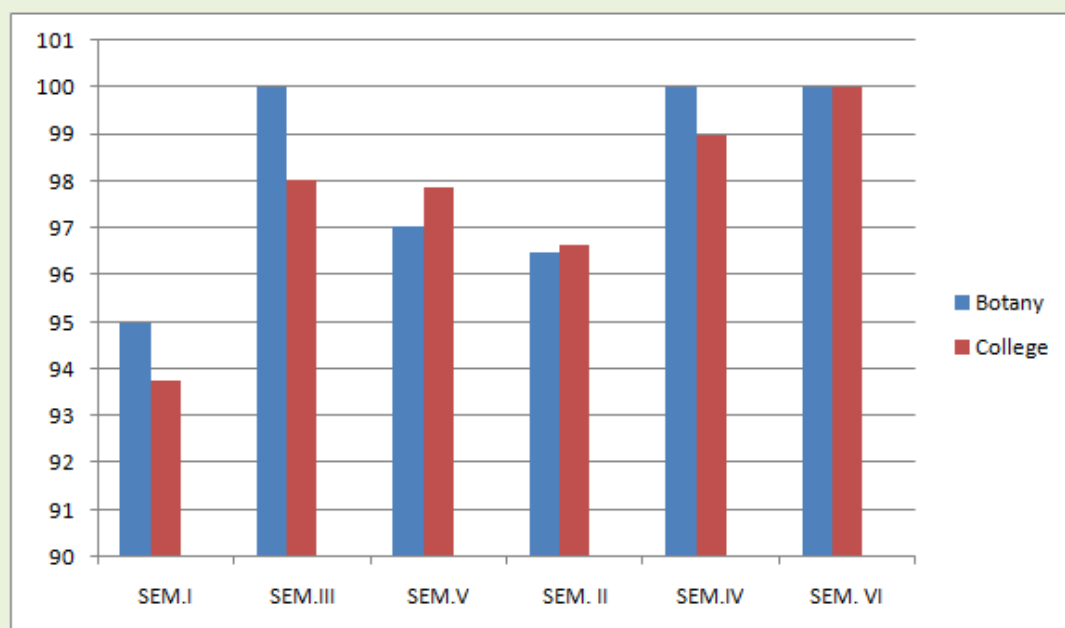
3. INSTITUTIONAL RESPONSIBILITIES

- IQAC - Member
- Internal Complaint Committee- Presiding Officer
- College Development Committee Member
- Green Audit committee Coordinator
- Sexual Harassment Committee Chairperson
- Ladies Hostel
- Students Greivences
- Traffic Discipline
- Women's Studies and Service Center- Member

4. DEPARTMENT RESULTS

Result Analysis (B.Sc all) for the Session 2020-2021

Winter 2020 (Sem. I, III, V) and Summer 2021 (Sem. II, IV, VI)



ONLINE TEACHING

Due to pandemic, as per the direction of the govt., the lectures were conducted on virtual mode by using ZOOM Meetings, Google meet, YouTube, Google classroom, Webex meet, WhatsApp, etc

WORK FROM HOME 22/09/2020 TO 11/11/2020

a. Online Classes were conducted on ZOOM Meeting

- b. Class work materials (notes) were provided with the help of
- WhatsApp Groups**



- Google classroom**

V. K. REWATKAR	
Class/ Semester	Links
	https://classroom.google.com/c/MzA3MDQ1NTIyMDYw
	https://classroom.google.com/c/MTI3ODg2NDkxMjgw
	https://classroom.google.com/c/MTQzNDg4MjE4NzUy

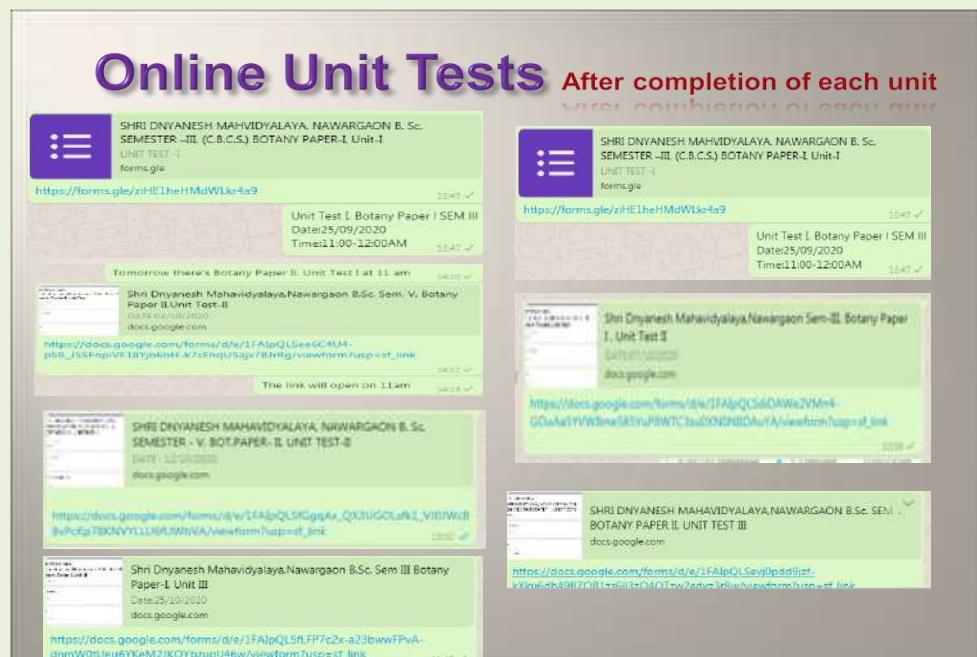
c. Recorded videos were provided with You Tube Channel

You Tube Channel Link:

https://www.youtube.com/results?search_query=vasanti+rewatkar



d. Unit Tests



DIWALI VACATIONS from 13/11/2020 – 22/11/2020

5. ANNUAL PRACTICAL WINTER EXAMINATION 2020

Annual Practical Examinations were conducted on online mode by preparing Google forms

GONDAWANA UNIVERSITY, GADCHIROLI PRACTICAL EXAMINATION WINTER-2020 CENTER-333 SHRI DNYANESH MAHAVIDYALAYA, NAWARGAON DIST-CHANDRAPUR						
SUBJECT	SEM	BATCH	DATE	TIME	DAY	INTERNAL EXAMINER
BOTANY	SEM-V	B ₁ , B ₂ , B ₃ (68 students)	23.02.2021	9.00AM-02.00 PM	TUESDAY	DR. SAU V.K REVATKAR
	SEM-III	B ₁ , B ₂ , B ₃ (68 students)	24.02.2021	9.00AM-02.00 PM	WEDNESDAY	
	SEM-I	B ₁ , B ₂ (61 students)	25.02.2021	9.00AM-02.00 PM	THURSDAY	

6. ANNUAL THEORY WINTER EXAMINATION 2020

Annual Theory Examinations were conducted by GUG from 10/03/2021 to 25/03/21

END SEMESTER VACATIONS FROM 27/03/2021 TO 04/04/2021

7. LOCKDOWN II STARTED FROM 10/04/2021

8. WORK FROM HOME STARTED FROM 11/04/2021 TO 09/07/2020 FOR SEMESTER II, IV and VI

9. ANNUAL PRACTICAL SUMMER EXAMINATION 2021

Annual Practical Examinations were conducted on online mode by preparing Google forms

GONDWANA UNIVERSITY, GADCHIROLI
ANNUAL PRACTICAL EXAMINATION SUMMER- 2021

Time Table

SUBJECT: BOTANY

SUBJECT	CLASS	DATE	TIME	INTERNAL EXAMINER
BOTANY	SEM. II	27/07/21	11:00- 1:00PM	Miss Harsha Mankar
	SEM. IV	28/07/21	11:00- 1:00PM	Miss Harsha Mankar
	SEM. VI	29/07/21	11:00- 1:00PM	Dr. Mrs. Rewtkar
	SEM. VI SEC- Ethnobotany	30/07/21	11:00- 12:00PM	Dr. Mrs. Rewtkar

HoD Botany

10. NAAC PEER TEAM VISIT
02/08/2021 TO 04/08/2021



11. COCURRICULAR ACTIVITIES

- Botanical society
- Nature Club
- Tree plantation

12. CERTIFICATE COURSE

Department of Botany has started “Certificate Course in Mushroom Production” from the session 2020-21

13. EXTRA CURRICULAR ACTIVITIES

- International Yoga Day (Online)
- Celebration of Yuva Din and Jijamata Jayanti on 13th January 2021



- 74th Independence Day

Independence Day was celebrated in the institution on 15th August 2020,

On this occasion, the Academic Excellence Awards were distributed to the topper students of the institution by the hands of the guest.

The guest was Shri Sadanand Borkar , Secretary of Bhartiya Shikshan Sanstha, Nawargaon

- Republic Day-72nd Republic Day was celebrated in the institution.

Awards were distributed to the students of all the classes and two meritorious students

1. Mr Vaibhav Mohurley secured “Gold medal” as he stood first in BA Final and also he scored highest marks in Political Science

2. Ms Shalu Gharat stood first in B Sc. Final (among Scheduled Tribes) in Gondwana University, Gadchiroli, by the hands of the guest.



This year, the principal of the institution Dr Bakare Sir was honored as „The Best Principal“ by Gondwana University, Gadchiroli

Felicitation of Principal Dr. S. S. Bakare Sir on 26th Jan 21



14. RESEARCH CONTRIBUTION

- Research paper published -02

S.N .	Title with Page nos.	Journal	ISSN	Whether peer reviewed /Impact Factor/UGC listed
1	INDIA AS MEGA BIODIVERSITY NATION: A FANTASTIC “ETHNOBOTANICAL MUSEUM” VK Rewatkar	Multidisciplinary International E-Research Journal	ISSN 2348-7143	Impact Factor 5.365 Peer reviewed Journal
2.	ORGANIC FARMING: OPENING NEW DOORS FOR BETTER FUTURE VK Rewatkar	'Journal of Research & Development' A Multidisciplinary International Level Referred and Peer Reviewed Journal, , August-2021, Volume-12, Issue-4	ISSN: 2230-9578, 20	Impact Factor- 7.265

- Patent Filed

Name	Title of Patent	Patent Number/ Status
Prof. V K Rewatkar	Method & synthesis of supermagnetic nanoparticles for killing cancer cells in human body	Examination completed

Application Details	
APPLICATION NUMBER	202121007430
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	22/02/2021
APPLICANT NAME	1 . Dr. Kishor Govindrao Rewatkar 2 . Dr. Vasanti Kishor Rewatkar 3 . Dr. Amar Keshao Nandanwar 4 . Dr. Dhanashree Mohan Borikar
TITLE OF INVENTION	METHOD AND SYNTHESIS OF SUPERPARAMAGNETIC NANOPARTICLES FOR KILLING CANCER CELLS IN HUMAN BODY
FIELD OF INVENTION	CHEMICAL
E-MAIL (As Per Record)	intellectualcoolie@gmail.com
ADDITIONAL-EMAIL (As Per Record)	megha@intellectualcoolie.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	25/02/2021
PUBLICATION DATE (U/S 11A)	26/02/2021

• **Book published – 01**

A text book of Botany for B. Sc. CBCS Semester VI As per Gondwana university syllabus



15. **BEST PRACTICES**

BEST PRACTICE – 01

Brief Report on Activity
Academic year 2020-21



Name of Activity	SEED BALL PREPARATION: A Best Practice of The Department
Day, Date and Venue	March 2021, Botany Laboratory and Botanical Garden
Organizing Department	Department of Botany
Objective	<ul style="list-style-type: none"> To protect seeds from wild insects & animals To germinate maximum no. of seeds and grow into plants To save our mother Earth by creating forest.
Nature of the Activity	Practical Demonstration and Preparation of Seed Balls
Brief Report	Every Year Department of Botany prepares Seed Balls in the month of

March- April. Students and faculties collect seeds of different plants eg. *Bauhinia purpuria*, *Nyctanthus arbor-tritis*, *Acacia*, *Tamarindus* etc. and prepare seed balls

WHAT IS SEED BALL?

A seed ball is a seed that has been wrapped in soil materials, usually a mixture of clay and compost, and then dried. Essentially, the seed is 'pre-planted' and can be sown by depositing the seed ball anywhere suitable for the species, keeping the seed safely until the proper germination. They contain a combination of mineral soil, humus and three types of compost for all the nutritional requirements of the plants.. These are placed around the seeds, at the center of the ball, to provide microbial inoculants



HISTORY:

In the Carolinas in the 1700's, West African slaves, predominantly women, were brought in to cultivate rice using a seed ball technique that was used in Africa. Rice seeds were coated in clay, dried, and pressed into the mud flats with the heel of the foot. This served two purposes, protecting the seed from the birds, and also preventing it from floating off when the fields were flooded. Seed balls were also experimentally used in aerial seeding in Kenya in 2016. More recently, Japanese agricultural renegade, Masanobu Fukuoka, began exploring the use of seed balls (nendo dango in Japanese) to help improve food production in post WWII Japan. His research and outreach efforts has brought the seed ball back into the public eye.

Today, seed balls are fun for green-minded kids and adults, and are also an important tool. Since the idea is to grow healthy plants, we use enough seed to ensure good likelihood of germination, but not so many that the seedlings are stressed from crowding and fail to thrive.



WHY SEED BALLS? - SEED BALLS FOR SAVE EARTH

Species with highly palatable seeds have little prospect of success because wildlife eat the seed before it has a chance to germinate unless it is pelletized. Also, small seeds and lightweight, chaffy seeds are more likely to drift in the wind, so they are harder to target during the drop. Small seeds, however, fall into crevices and are then more likely to get covered with soil, thereby enhancing their chances of survival. Aerial seeding may prove to work best with "pioneer" species, which germinate rapidly on open sites, are adapted for growth on bare or disturbed areas, and grow well in direct sunlight.

1. SEED BALLS ARE EASY TO MAKE

All you need is soil or compost, clay, and seeds that are native to the region you will be working in. (Non-native species could throw off the local balance and lead to the introduction of invasive species.) Amounts will vary, but a ratio of five parts soil to three parts clay to one part seeds is a good rule of thumb. Balls should be about the size of a quarter to make for easy throwing. To maximize your seeds' chances of sprouting roots, spring and summer are the best times to deploy your seed balls.

2. SEED BALLS GO WHERE NO ONE ELSE CAN

Seed balls are amazingly versatile. They can be tossed over fences into abandoned lots, or out the windows of cars and buses onto median dividers and roadside wasteland. They can be left alongside parking lots and bike paths, in unused planters and gardens that have fallen on hard times. In short, anywhere there is land to grow them – provided that the soil isn't too dry, compact, or dense with other vegetation.

3. SEED BALLS ARE DIVERSE

There are many types of seeds you can use in your seed balls. You can try wildflower seeds, necessary for the survival of pollinators (such as bees) on which our ecosystem depends. You can use seeds for herbs or edible crops. Or you can put together a combination of seeds. Such [‘companion’ plants](#) are chosen because they grow well together, assisting in pollination, pest deterrence, and soil conditioning.

4. SEED BALLS GET PEOPLE INVOLVED

Planting is satisfying but hard work. You have to dig holes, weed, water and prune – and most importantly, you need permission to cultivate the land. But with seed balls, all you have to do is make (or buy) and throw! It's a great way to get people of all ages and backgrounds involved in the greening process, including those who might never have considered themselves gardeners.

	<div data-bbox="537 191 946 432" data-label="Image"> </div> <div data-bbox="946 191 1508 432" data-label="Image"> </div> <div data-bbox="673 432 984 485" data-label="Caption"> <p>Germinating Seed Ball</p> </div>
No. of Beneficiaries	137, Students of B.Sc. (All Semesters)
Attachments	<div data-bbox="537 548 1073 1163" data-label="Image"> </div> <div data-bbox="1073 548 1468 1163" data-label="Image"> </div> <div data-bbox="537 1163 1468 1734" data-label="Image"> </div> <div data-bbox="1154 1839 1500 1913" data-label="Text"> <p>Dr. Mrs. V. K. Rewatkar Professor & HOD Botany</p> </div>

BEST PRACTICE – 02

Brief Report on Activity

Academic year 2020-21



Name of Activity	GROW NATIVE PLANTS		
Day, Date and Venue	March 2021, Botany Laboratory and Botanical Garden		
Organizing Department	Department of Botany		
Objective	<ul style="list-style-type: none"> To grow plants which survive better in our regional climate and environment. To save our mother Earth by creating forest. 		
Nature of the Activity	Practical Demonstration		
Brief Report	GROW NATIVES- plants which grow well in our climate with zero maintenance. Some of them are listed here.		
No. of Beneficiaries	146		
Attachments	S.No	Name of Plants	Family
	1.	<i>Aegle marmelos</i> L बेल	Rutaceae
	2	<i>Acacia nilotica</i> syn. <i>Vachellia nilotica</i> बबूल	Mimosaceae
	3	<i>Phyllanthus emblica</i> आवळा	Euphorbiaceae
	4	<i>Terminalia bellirica</i> बेहडा	Combretaceae
	5	<i>Terminalia chebula</i> हिरडा	Combretaceae
	6	<i>Limonia acidissima</i> -कवठ	Rutaceae
	7	<i>Azadirachta indica</i> कडुलिंब -	Meliaceae
	8	<i>Carissa congesta</i> करवंद	Apocynaceae
	9	<i>Madhuca longifolia</i> मोह -	Sapotaceae
	10	<i>Dalbergia sissoo</i> -शिसम	Fabaceae
	11	<i>Tectona grandis</i> साग -	Lamiaceae
	12	<i>Syzygium cuminum</i> जांभले	Myrtaceae
	13	<i>Ficus benghalensis</i> वड-	Moraceae
	14	<i>Ficus religiosa</i> - पियल	Moraceae

**Achievements /
Outcome**

15.	<i>Semecarpus ancardium</i> - ब्लिब्बा	<i>Anacardaceae</i>
16	<i>Sapindus mukorossi</i> - रिठा	<i>Sapindaceae</i>
17	<i>Albizia lebbeck</i> - शिरीष	<i>Mimosaceae</i>
18	<i>Abrus precatorius</i> - गुंज	<i>Papillionaceae</i>
19	<i>Acorus calamus</i> - वेखंड - Vekhand	<i>Acoraceae</i>
20	<i>Bombax insigne</i> - देव सावर – सावरकांदा	<i>Malvaceae</i>
21	<i>Butea monosperma</i> - पळस	<i>Papillionaceae</i>
22	<i>Cassia fistula</i> - बहावा	<i>Caesalpinaceae</i>

The outcome of this activity is, Ku. Mrunali Vitthal Dodke secured 2nd rank in the competition 'NATIVE TREE PLANTING' organized by Anand Niketan College, Anandwan on 5th to 15th June 2021.





Dr. Mrs. V. K. Rewatkar
Professor & HOD Botany

BEST PRACTICE – 03

Brief Report on Activity

Academic year 2020-21



Name of Activity	Preparation of Q R Codes for plants
Day, Date and Venue	June 2021, Botany Laboratory and Botanical Garden
Organizing Department	Department of Botany
Objective	<ul style="list-style-type: none">• To prepare Q R Code for availability of information within no time• Information at fingertips• Sustainable and digital platform of information for all stakeholders.
Nature of the Activity	Practical Demonstration
Brief Report	Students and faculty members of BOTANY Deptt. Prepared QR Codes for 27 plants of the institution campus.
No. of Beneficiaries	28
Attachments	 



V. K. Rewatkar
Professor & HOD Botany

16. INTERNATIONAL WEB SYMPOSIUM and INTERNATIONAL E- CONFERENCE

- i. **International Web Symposium** was held on 26th -27th June 2020, at Mohta Sci. College, Nagpur, where functioned as member of Organizing Committee.



- ii. **INTERNATIONAL E-CONFERENCE** was organized on 20th August 2021 at Shri Dnyanesh Mahavidyalaya, Nawargaon in association with Gondwana University Gadchiroli

PLENARY SESSION –II

Introduction to Resource Person and Chairperson

RESOURCE PERSON

Dr. Ravindra Gahininath Jaybhaye
Professor & Head Dept of Geography
Savitribai Phule Pune University, Pune

Topic: *Impact of Climate Change on Agriculture*

Time- 01.00 pm to 01.55 pm IST

Chairperson:

Dr. A.M. Mulajkar,
Head, Dept. of English,
M.M. Nilanga (5Mnts)

Time-01.55 pm to 02.00 pm IST

Vote of thanks: *Dr Vasanti Rewatkar*



END SEMESTER VACATIONS FROM 22/08/2021 TO 29/08/2021

Vasanti K. Rewatkar
Professor & Head, BOTANY
SHRI DNYANESH M.V. NAWARGAON
