



Shiv Chhatrapati Shikshan Sanstha's
Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Department of Microbiology
A) A Summary Report of the Activity

1) Title of Programme:		The two-week certificate course "Biofertilizer technology: Gateway to Entrepreneurship"		
2) Name of Organizing Department/Unit:		Department of Microbiology		
3) Name of the Coordinator(s)/ Convener(s)/ Organizer(s) of the Programme:		Chief Organizer: Dr. Mahadev Gavhane, Principal Convener: Dr. K. G. Maske Organizing Secretary: Dr. D. V. Vedpathak		
4) Date(s) of the Programme:		12 th to 25 th August, 2022		
5) Venue:		Microbiology Lab I and II		
6) Target Group:		Students of UG and PG in Microbiology		
7) Number of Participants:		Male	Female	Total
A separate list with signatures be maintained in the department/Unit)	Teaching	02	05	07
	Non-Teaching	00	00	00
	Students	11	22	33
	Total			40
8) Name(s) and details of Resource Person(s), if any:		Mr. Ameya Ranjekar, MD, Green Vitals Biotech, Pune Prof. Mahendra Ranjekar, Technical Expert, Green Vitals Biotech, Pune Prof. K.G. Maske, Dr D. V. Vedpathak, Ms. P. D. Mane, Mrs. A. B. Dhaigude, Ms. S. S. Patil, Mr. A. S. Kadam, Ms. S. S. Deshpande, Dept. of Microbiology, RSM(A), Latur		
9) Total Expenditure for the Programme:		76,000		
10) Source of Funding:		Through fee collection		

B) Report

i. Title:

Two-week certificate course Biofertilizer technology: Gateway to Entrepreneurship

ii. Introduction:

The two-week certificate course “Biofertilizer technology: Gateway to Entrepreneurship” was jointly organized by Department of Microbiology, Rajarshi Shahu Mahavidyalaya (Auto.) and Green Vitals biotech, Pune under MoU. from 12th to 25th August, 2022. The course is designed for technological and entrepreneurial development at all stages, with an emphasis on growing companies that meet the requirements of entrepreneurs and support a thriving local economy. The aptitude and preparedness to create, plan, and manage a business enterprise along with all of its uncertainties in order to turn a profit is what is meant by entrepreneurship. The creation of new firms is the most visible illustration of entrepreneurship.

iii. Objectives of the Programme / issues addressed:

1. To focus on technological and entrepreneurial development
2. To learn laboratory scale and industrial scale production of Biofertilizer
3. To Learn packaging, storage and viability testing of Biofertilizer
4. To learn application of produced Biofertilizer for plant growth promotion
5. To learn costing and marketing of Biofertilizer

iv. Details of Participants:

40 participants (13 Male and 27 Female) attended the certificate course.

v. Brief Summary of Events/ Sessions

The two week certificate course “Biofertilizer technology: Gateway to Entrepreneurship” was jointly organized by Department of Microbiology, Rajarshi Shahu Mahavidyalaya (Auto.) and Green Vitals biotech, Pune under MoU from 12th to 25th August, 2022.

It was inaugurated with the auspicious hands of respected Principal Dr. Mahadev Gavhane sir in presence of Mr Ameya Ranjekar, Prof. Mahendra Ranjekar, Vice Principal Prof. S. N. Shinde, and Head of the Microbiology Department Prof. K. G. Maske. The theoretical background and up-stream processing protocols like isolation, identification, testing of plant growth promoting potential of soil bacteria was covered in first week. The training related to the industrial scale production of biofertilizer using fermenter,

harvesting the product, mixing with carrier medium, packaging in bottles and in polythene sachets, costing and labeling protocols given by The Green Vitals biotech, Pune.

The participants were also provided with the knowledge of Government regulations about biofertilizer production, its testing standards, its shelf life and applications. The knowledge about basic infrastructural requirements, fund management and human resources required for a small scale startup is also conveyed to the students. After successful completion of the course participants were evaluated by conducting examination. Certificates were distributed to the participants in the valedictory program.

vi. Conclusion, with Feedback on the:

The two-week Certificate course in Biofertilizer Technology Students learned to produce biofertilizer on a pilot scale and its soil application for plant growth promotion. Students also learned pricing and marketing skills of the product. Students acquired the knowledge of Government regulations about biofertilizer production. Students inspired to start small scale startup in biofertilizer production

vii. Any Appendix If Necessary

List of participants attached

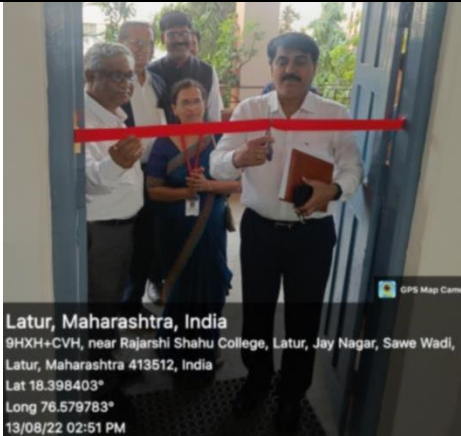



Date: 12th to 25th August, 2022.


Signature of HoD
HEAD
Dept. of Microbiology
Rajarshi Shahu Mahavidyalaya
LATUR – 413 512


Principal
PRINCIPAL
Rajarshi Shahu Mahavidyalaya
(Autonomous), Latur



C) Geotagged Photographs/ Screenshots

 <p>A group of people, including a man in a white shirt and dark trousers, are standing in front of a building. A red ribbon is being cut. The location is Latur, Maharashtra, India, near Rajarshi Shahu College, Latur, Jay Nagar, Sawe Wadi. The coordinates are Lat 18.398403° and Long 76.579783°. The date and time are 13/08/22 02:51 PM.</p>	 <p>Two men in white shirts are standing in a laboratory setting, demonstrating the fermenter loading process. The location is Latur, Maharashtra, India, near Rajarshi Shahu College, Latur, Jay Nagar, Sawe Wadi. The coordinates are Lat 18.398475° and Long 76.576095°. The date and time are 22/08/22 02:50 PM.</p>
<p>Principal Dr Mahadev Gavhane inaugurating the biofertilizer technology course</p>	<p>Mr. Ameya Ranjekar and Prof. Mahendra Ranjekar demonstrating the fermenter loading</p>
 <p>Two images showing the ready-to-market solid and liquid forms of biofertilizer. The left image shows a bag of 'Rajarshi Biofert' Azotobacter, and the right image shows a bottle of 'Rajarshi Biofert' liquid form. Both are produced by Green Vitah Biotech, Pune.</p>	 <p>A group of people, including Dr. K.G. Maske, are standing in a laboratory setting, celebrating the successful production of biofertilizer. The location is Latur, Maharashtra, India, near Rajarshi Shahu College, Latur, Jay Nagar, Sawe Wadi. The coordinates are Lat 18.398475° and Long 76.576095°. The date and time are 22/08/22 02:50 PM.</p>
<p>The ready to market solid and liquid form of biofertilizer</p>	<p>The department staff along with Dr. K.G. Maske celebrating the successful production</p>



Participant students exhibiting the biofertilizer product- 'Rajarshi Biofert' they produced during the course



HoD Dr. K. G. Maske, Mr. Ameya Ranjekar and Prof. Mahendra Ranjekar and the staff of Microbiology department in valedictory function

D) Brochure of the workshop



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 Department of Microbiology
 And
Green Vitals Biotech, Pune
 Jointly Organizes



Objectives of Course

- Objective To encourage organic farming in the area by enhancing all stakeholders' technical capacity
- To introduce the handling, cultivation, and propagation of high-quality microbial inoculants
- To increase the professional competencies, upgrade the knowledge, and develop technical skills of biofertilizer manufacturing in order to prepare students for the workforce as entrepreneurs.

"Biofertilizer Technology: Gateway to Entrepreneurship"

Two-week Certificate Course

12th to 25th August 2022

Credits: 2

Duration:
2 Weeks,
3 Hrs.
Per Day

Course Fees:
2,400










Organizing Committee


 Dr. Mahadev Gavhane
Principal
and
Chief Organizer


 Mr. Amey Ranjekar
Resource Person
Green Vitals Biotech, Pune.


 Dr. M. K. Ranjekar
Technical Expert
Green Vitals Biotech, Pune.


 Dr. K. G. Maske
Mentor and
Head Department of Microbiology


 Dr. D. V. Vedpathak
Course Coordinator


 Mrs. A. B. Dhaigude
Ms. S. S. Patil


 Ms. P. D. Mane
Mr. A. S. Kadam
Ms. S. S. Deshpande

Registration Link:

<https://forms.gle/rqf3m8zWJwcFDPrl7>



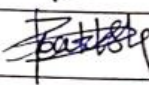
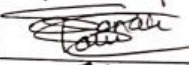

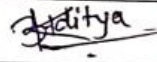
Workshop content
(Theory with industrial Hands-on experience)

- Concept of Fermentation Process
- Types of Biofertilizer and Fermentation Processes
- Biofertilizer Manufacturing step by step: -

1. Microbe isolation, Culture Maintenance, Inoculum Preparation, Media Preparation, Fermentation process, Product harvesting, Bottle filling, Bottle sealing, Packing forwarding and Agriculture farm applications of Biofertilizer
2. Government regulations for manufacturing and sale of Biofertilizer
3. Ideas in Agribusiness

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Department of Microbiology
Bio-fertilizer Technology: Gateway to Entrepreneurship
Two-week Certificate Course
Teachers List

Date: 12th to 25th August 2022

Sr. No.	Name Of Teacher	Gender	Sign
1.	Dr. K. G. Maske	Female	
2.	Dr. D. V. Vedpathak	Male	
3.	Mrs. A. B. Dhaigude	Female	Amruta
4.	Ms. P. D. Mane	Female	
5.	Ms. S. S. Patil	Female	
6.	Ms. S. S. Deshpande	Female	
7.	Mr. A. S. Kadam	Male	

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And

Green Vital Biotech, Pune

Jointly Organizes

"Bio-fertilizer Technology: Gateway to Entrepreneurship"

Two week Certificate Course

Batch A: Attendance Sheet

Sr.No.	Name of Participant	Class	13/08/22	14/08/22	15/08/22	16/08/22
1.	Patil Shagun Balbhim	B.Sc.III	<u>Shagun</u>	<u>Shagun</u>		<u>Shagun</u>
2.	Dhondevv Rucha Ratnakar	B.Sc.III	<u>Rucha</u>	<u>Rucha</u>	<u>Rucha</u>	<u>Rucha</u>
3.	Kadam Aditya Anil	B.Sc.III	<u>Aditya</u>	<u>Aditya</u>	<u>Aditya</u>	<u>Aditya</u>
4.	Joshi Akanksha Anand	B.Sc.III	<u>Akanksha</u>	<u>Akanksha</u>	<u>Akanksha</u>	<u>Akanksha</u>
5.	Borgaonkar Dhairyshila Pravin	B.Sc. II	<u>D.P.Borgaonkar</u>	<u>D.P.Borgaonkar</u>	<u>D.P.Borgaonkar</u>	<u>D.P.Borgaonkar</u>
6.	Sarole Pranav Vitthal	B.Sc.III	<u>Pranav</u>	<u>Pranav</u>	<u>Pranav</u>	<u>Pranav</u>
7.	Zambre Vaishnavi Daya	B.Sc.III	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>
8.	Rathod Abhishek Baliram	B.Sc.III	<u>Abhishek</u>	<u>Abhishek</u>	<u>Abhishek</u>	<u>Abhishek</u>
9.	Kalme Mahesh Dhanraj	B.Sc. II	<u>Mahesh</u>	<u>Mahesh</u>	<u>Mahesh</u>	<u>Mahesh</u>
10.	Deshmukh Priti Satish	B.Sc. II	<u>Priti</u>	<u>Priti</u>	<u>Priti</u>	<u>Priti</u>
11.	Pathan Sadiya Rasal	B.Sc. II	<u>Sadiya</u>	<u>Sadiya</u>	<u>Sadiya</u>	<u>Sadiya</u>
12.	Biradar Neha Vijay	B.Sc.III		<u>Biradar</u>	<u>Biradar</u>	<u>Biradar</u>
13.	Tidke Suhasini Kamalakar	B.Sc.III			<u>Suhasini</u>	<u>Suhasini</u>
14.	More Prapti Manikrao	B.Sc.III		<u>Prapti</u>	<u>Prapti</u>	<u>Prapti</u>
15.	Shaikh Bushra Tajoddin	B.Sc.III	<u>Bushra</u>	<u>Bushra</u>	<u>Bushra</u>	<u>Bushra</u>
16.	Shinde Shailja Anand	B.Sc. II	<u>Shailja</u>	<u>Shailja</u>	<u>Shailja</u>	<u>Shailja</u>
17.	Nalbole Priyanka Rajkumar	B.Sc.III	<u>Priyanka</u>	<u>Priyanka</u>	<u>Priyanka</u>	<u>Priyanka</u>

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"Bio-fertilizer Technology :Gateway to Entrepreneurship"
Two week Certificate Course

Batch B Attendance Sheet

Sr.No.	Name of Participant	Class	13/08/22	14/08/22	15/08/22	16/08/22
1.	Salunke Amar Singh Murlidhar	B.Sc.III	Amar	Amar	Amar	Amar
2.	Kale Trupti Bhaskar	B.Sc.III	Kale	Trupti	Trupti	Trupti
3.	Kale Anuja Bhaskar	B.Sc.III	Anuja	Anuja	Anuja	Anuja
4.	Barge Pratiksha Suryakant	M.Sc. II	Pratiksha	Pratiksha	Pratiksha	Pratiksha
5.	Landge Sneha Pandurang	M.Sc. II	Sneha	Sneha	Sneha	Sneha
6.	Hodge Asawari Sainath	M.Sc. II	Asawari	Asawari	Asawari	Asawari
7.	Yemekar Akanksha A	M.Sc. II	Akanksha	Akanksha	Akanksha	Akanksha
8.	Kadkanje Mamta M	M.Sc. II	Mamta	Mamta	Mamta	Mamta
9.	Mane Anjali Balasaheb	M.Sc. II	Anane	Anane	Anane	Anane
10.	Kalme Gitashree Ramdas	M.Sc. II	Kalme	Kalme	Kalme	Kalme
11.	Kamble Dhodutatya Laxman	M.Sc. II	Damble	Damble	Damble	Damble
12.	Parale Gahininath Tukaram	M.Sc. II	Parale	Parale	Parale	Parale
13.	Shinde Swapnpriya Vasant	M.Sc. II	Shinde	Shinde	Shinde	Shinde
14.	Hunde Somnath Madhavrao	M.Sc. II	Hunde	Hunde	Hunde	Hunde
15.	Deshatwar Rahul Ram	M.Sc. II	Rahul	Rahul	Rahul	Rahul
16.	Harne Shivam Subhash	M.Sc. II	Shivam	Shivam	Shivam	Shivam

Signature of HoD

HEAD
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LATUR - 413 512

Principal
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(Autonomous), Latur

