



RAYAT SHIKSHAN SANSTHA'S
S.S.G.M.COLLEGE, COLLEGE, KOPARGAON
DIST. - AHMEDNAGAR, 423601 (M.S.)

CERTIFICATE COURSE IN VERMICOMPOSTING

Academic Year 2020-21

Duration:-90 days

Credit:-3

Coordinator: - Mr. Vilas R. Jiwatode

Faculty Members

- 1) Mr. R. K. Bhusnale
- 2) Mr. S. B. Bhadange
- 3) Miss. A. B. Gore

Aim of Course:-

- 1) Students are expected to understand the principle of Vermicomposting.
- 2) They are expected to understand morphology, physiology and composting mechanism of the animal.
- 3) The practicals are implemented to understand the concepts and it would help in the development of practical skills of the students.
- 4) It is expected to inspire and boost the interest of students towards the subject, which will be helpful to avoid the use of chemical fertilizers and more and more application of organic fertilizers.
- 5) It will enable to develop interdisciplinary approach of the subject.

Skills and opportunities:-

Faculty of Zoology, Vermicomposting course is a professional course targeted to train the students to start their own Vermicomposting Unit, as there is a demand for vermicompost and organic farming. The information, guidance, practical training and completion certificate will provide to the participants with not one but many opportunities in the Vermicomposting Industry. This would come true in form of job roles and positions like that of Vermicompost Producer Farmers.



Rayat Shikshan Santha's
Shri Sadguru Gangageer Maharaj Science , Gautam Arts & Sanjivani Commerce College,
Kopargaon – 423601,
Dist.- Ahmednagar, M. S. – India

**Internal Quality Assurance Cell
(IQAC)**

Syllabus Approval Letter

The IQAC committee has approved the submitted syllabus of short term/Certificate course planned to be conducted by the Department of Zoology.

Sr.No.	Name of Course	Type of Course
01	Vermiculture	Short term course/Certificate course



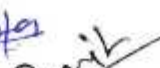

HOD of Zoology Department may proceed accordingly.

Date: 15/12/2021

Place: Kopargaon


IQAC Coordinator
S.S.G.M.College,Kopargaon


Principal

co-ordinator - Mr. V.R. Jiwatode - 
Member - Mr. R. K. Bhushale - 
member - Mrs. A.B. Gore - 
member - Mr. S.B. Bhadange - 


Head
Department Of Zoology
S.S.G.M. College, Kopargaon



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology

SHORT TERM COURSE : 2020-21
A CERTIFICATE COURSE IN VERMICULTURE

Date : 15 /02 /2021

Notice

All students of Science faculty are hereby informed that Department of Zoology is going to commence the short term course A Certificate Course in Vermiculture in academic year 2020-21. Those who are interested, can register their names in the Department of Zoology for same course.

Information regarding course :


Name : Vermiculture assistant.

Duration : 3 months.

Job profile : The trained person will be able to work in Vermiculture farm independently.


Co-ordinator




Head
Department of Zoology,
Head
Department Of Zoology
S.S.G.M. College, Kopergaon

Admission Form

Rayat Shikshan Sanstha's
S.S.G.M.College Kopargaon
Department of Zoology
Short Term Course on Vermiculture
2020-21
Admission form

* Required

1. Email *

2. Name of Student: *

3. Roll Number: *

4. Class: *

5. Date of Birth: *

Example: January 7, 2019

6. Aadhar card No: *

7. Permanent Adress: *

8. Contact No: *

9. Photo of students *

Files submitted:

10. 1. Are You completed same course before this

Mark only one oval.

Yes

No

11. 2. Any general information you have about this course before start this.

Mark only one oval.

- Yes
- No
- Maybe

12. 3. What are your expectations from us after completion of this course.

13. 4. Are You from Zoology department or other department wish to joined this course.

Mark only one oval.

- Zoology department
- Other department

14. Signature Head of department

15. Signature of Course Coordinator

16. Signature of Student *

Files submitted:

This content is neither created nor endorsed by Google.

Google Forms

Name of Student:

10 responses

Chine priyanka bhaurao

Renuka kurhade vitthal

Wakchaure Riddhishwari Rajendra

Gunjal vaishali babasaheb

Jaware anjali Ramkrushna

Abhale madhuri nivrutti

Gunde vrushali bhausahab

Shirse swapnali bhimraj

Bargal Swati Sudhakar

SHINDE ASHWINI SURESH



Admission Form

Rayat Shikshan Sanstha's
S.S.G.M.College Kopargaon
Department of Zoology
Short Term Course on Vermiculture
2020-21

Admission form

* Required

Email*

riddhishwari2000@gmail.com

Name of Student:*

/

0

Wakchaure Riddhishwari Rajendra

Add individual feedback

Roll Number:*

/

0

8312

Add individual feedback

Class:*

/

0

Ty bsc

Add individual feedback

Date of Birth:*

/
0

MM

09

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02

/

YYYY

2000

Add individual feedback

Aadhar card No:*

/
0

5598 3206 4592

Add individual feedback

Permanent Address:*

/
0

Sanvatsar (kasali road)

Add individual feedback

Contact No:*

/
0

8329700529

Add individual feedback

Photo of students*

/

0



1604914465260. - Riddhishwari Wakchaure.jpg

Add individual feedback

1. Are You completed same course before this

/

0

Yes
No

Add individual feedback

2. Any general information you have about this course before start this.

/

0

Yes
No
Maybe

Add individual feedback

3. What are your expectations from us after completion of this course.

/

0

Get knowledge and job

Add individual feedback

4. Are You from Zoology department or other department wish to joined this course.

/
0

Zoology department
Other department

Add individual feedback

Signature Head of department

/
0

Add individual feedback

Signature of Course Coordinator

/
0

Add individual feedback

Signature of Student*

/
0



1604915349743. - Riddhishwari Wakchaure.jpg

Add individual feedback

Submitted 11/9/20, 3:38 PM



RAYAT SHIKSHAN SANSTHA'S

S.S.G.M.COLLEGE, COLLEGE, KOPARGAON

DIST. - AHMEDNAGAR, 423601 (M.S.)

CERTIFICATE COURSE IN VERMICOMPOSTING

Academic Year 2020-21

Certificate course in Vermicomposting

3 Credits

Syllabus

Section : I- Theory

15 lecture

- 1) Introduction
- 2) Vermicompost
- 3) Earthworm :
 - a) Habit and habitat
 - b) Different species of Earthworm, Indigenous and Exotic species
 - c) Life cycle of Earthworm
 - d) Digestive system
 - e) Reproductive system
- 4) Role of Earthworm in Vermicomposting
- 5) Uses of Earthworm
- 6) Methods of Vermicomposting
 - a) Surface Bed method (farm)
 - b) Vermicomposting at home
 - c) Vermicomposting in plastic tub or wooden box

- 7) Methods for Preparation of Vermiwash
 - a) Cot method
 - b) Barrel Method
- 8) Enemies of Earthworm
- 9) Importance & Composition of Vermicompost

Section : II Practicals

14 lecture

- 1) Preparation of bed- selection of site, collection of cow dung, soil, garbage and making water available. Mixing all the above material and making into hump.
- 2) Release of Earthworm into the bed
- 3) Regular watering of bed so as to keep proper humidity
- 4) Regular addition of garbage and dry leaves into the bed.

Section : III Field work

06 lecture

- 1) Harvesting of cocoon and Earthworms
- 2) Separation of Vermicompost from the bed

References

- 1) Gupta, R., Mutiyar, P.K, Rawat, N.K., Saini, M.S., and Garg, V.K. 2007. **Development of a water hyacinth based vermireactor using an epigeic earthworm *Eisenia foetida*. *Bioresource Technology* 98(13):2605-10.**
- 2) Parthasarathi, K., Ranganathan, L.S., Anandi, V., and Zeyer, J. 2007. **Diversity of microflora in the gut and casts of tropical composting earthworms reared on different substrates. *Journal of Environmental Biology* 28(1):87-97.**
- 3) Pramanik, P., Ghosh, G.K., Ghosal, P.K., and Banik, P. 2007. **Changes in organic – C, N, P and K and enzyme activities in vermicompost of biodegradable organic wastes under liming and microbial inoculants. *Bioresource technology* 98(13):2485-94.**
- 4) Roberts, P., Edwards-Jones, G., and Jones, D.L. 2007. **Yield responses of wheat (*Triticum aestivum*) to vermicompost applications. *Compost Science & Utilization* 15(1):6-15.**



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology

SHORT TERM COURSE : 2020-21
A CERTIFICATE COURSE IN VERMICULTURE

List of Students

Sr. No.	Roll No.	Name of the Student
1	41536	Abhale Madhuri Nivrutti
2	41542	Bargal Swati Sudhakar
3	41560	Chine Priyanka bhaurao
4	41565	Dawange Aarati Dnyaneshwar
5	41585	Gore Ashwini Uttam
6	41588	Gunde Vrushali Bhausahab
7	41590	Gunjal vaishali babasaheb
8	41601	Jaware Anjali Ramkrushna
9	41616	Kurhade Renuka Vittal
10		Shide Ashwini Suresh
11	41664	Shirse Swapnali Bhimraj
12	41677	Wakchaure Ridhishweri




Head
Department Of Zoology
S.S.G.M. College, Kopargaon



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology
Short Term Course : 2020-21

A CERTIFICATE COURSE IN VERMICULTURE

Fees collected from students enrolled for Certificate Course in
Vermiculture

Sr. No.	Name of the Students	Fees Deposited
1	Abhale Madhuri Nivrutti	200
2	Bargal Swati Sudhakar	200
3	Chine Priyanka bhaurao	200
4	Dawange Aarati Dnyaneshwar	200
5	Gore Ashwini Uttam	200
6	Gunde Vrushali Bhausahab	200
7	Gunjal vaishali babasaheb	200
8	Jaware Anjali Ramkrushna	200
9	Kurhade Renuka Vittal	200
10	Shide Ashwini Suresh	200
11	Shirse Swapnali Bhimraj	200
12	Wakchaure Ridhishweri	200

Course Coordinator



Head

Department of Zoology,
S.S.G.M. College, Kopargaon
S.S.G.M. College, Kopargaon



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology

**SHORT TERM COURSE : 2020-21
& CERTIFICATE COURSE IN VERMICULTURE**

Date : 19 /02 /2021

Meeting Notice

All the faculty members of Department of Zoology are hereby informed that Department of Zoology is going to conduct a short term course A Certificate Course in Vermiculture in academic year 2020-21. The syllabus and working hours have been discussed and a complete programme has been prepared. Following members are requested to attend the meeting for the implementation of this academic year 2020-21. The meeting will be held in Department of Zoology.


Co-ordinator


Head

Department of Zoology

Head

Department Of Zoology
S.S.G.M. College, Kopargaon

Committee Members

- 1) Mr. R. K. Bhusnale
- 2) Mr. S. B. Bhadange
- 4) Miss. A. B. Gore



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology

SHORT TERM COURSE : 2020-21
A CERTIFICATE COURSE IN VERMICULTURE


Date : 19/02/2021

Minutes of Meeting

The meeting of the Short Term Course Committee has been conducted on 19/02/2021 at Department of Zoology. In meeting the following resolutions and decisions were made:

- 1) It was decided to revise the syllabus of Short term course A Certificate Course in Vermiculture.
- 2) For conducting the course the complete program of Theory and Practicals was designed.
- 3) As per the requirements of completion of the syllabus of short term course the working hours were decided.


Co-ordinator


Head
Department of Zoology
Head
Department Of Zoology
S.S.G.M. College, Kopargaon



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology

SHORT TERM COURSE : 2020-21
A CERTIFICATE COURSE IN VERMICULTURE

Date : 19/02/2021

Notice

All students of T.Y. B.Sc. Zoology who have enrolled for short term course "A Certificate Course in Vermiculture" in academic year 2020-21, is hereby informed that their lectures will start from 20/02/2021 on 10:15 am. at Department of Zoology. The attendance to the lectures is compulsory.


Co-ordinator




Head
Department of Zoology
Department Of Zoology
S.S.G.M. College, Kopargaon



Rayat Shikshan Sanstha's,
S.S.G.M. College, Kopargaon
Department of Zoology
Short Term Course : 2020-21

A CERTIFICATE COURSE IN VERMICULTURE

Attendance T. Y. B. Sc. Zoology

Roll No.	Name of the Student								
1	41536	Abhale Madhuri Nivrutti	P	A	P	P	P	P	P
2	41542	Bargal Swati Sudhakar	A	A	P	P	P	P	.
3	41560	Chine Priyanka bhaurao	A	A	P	P	P	.	P
4	41565	Dawange Aarati Dnyaneshwar	P	A	.	P	P	P	.
5	41585	Gore Ashwini Uttam	P	P	.	P	P	P	P
6	41588	Gunde Vrushali Bhausahab	A	P	P	P	P	.	P
7	41590	Gunjal vaishali babasaheb	P	.	.	P	P	.	.
8	41601	Jaware Anjali Ramkrushna	P	.	P	.	P	P	P
9	41616	Kurhade Renuka Vittal	P	P	P	P	P	P	P
10		Shide Ashwini Suresh	A	P	P	P	.	P	.
11	41664	Shirse Swapnali Bhimraj	A	P	P	P	P	.	P
12	41677	Wakchaure Ridhishweri	A	P	P	P	P	P	P


Co-ordinator




Head
Department of Zoology
S.S.G.M. College, Kopargaon

Rayat Shikshan Sanstha's
Shri Sadguru Gangageer Maharaj Science, Gautam Arts and Sanjivani Commerce
College, Kopargaon, Dist. Ahmednagar 423601 (Maharashtra)
Department of Zoology
2020-21

Name of student: *Abhate Madhuri Nivruti*
Total marks: 30

Date:
Time : 30min

Certificate course in Vermiculture
MCQ TYPE EXAM

Instruction:

- 1) Each question carries equal marks
- 2) Questions may have one option or more than one correct option.

Q.1) Multiple choice questions

- 1) Which of the following chemicals is used for protecting vermi-bed from ants?
 - a) DDT
 - b) Griseotulvin
 - c) Chloramphenicol
 - d) Chlorpyriophosphate
- 2) Which of the following is a commonly used earthworm species for the vermicomposition process?
 - a) Eisenia fetida
 - b) Perionix excavatus
 - c) Both (a) and (b)
 - d) None of above
- 3) The highly composed organic matter rich in minerals like nitrogen , phosphorus and potassium in particular produced from the activity of earthworm is called
 - a) Humus
 - b) Vermicompost
 - c) Worm casting
 - d) Compost bedding
- 4) Vermicompost is used as a biofertilizer because it is rich in
 - a) Calcium
 - b) Nitrogen
 - c) Phosphorus
 - d) All of the above
- 5) The moistur level required for vermicompositing should be between
 - a) Below 30%
 - b) 40% to 50%
 - c) 70% to 80%
 - d) Above 90%
- 6) Which of the following is not raw material required fot preparing compost ?
 - a) Cow dung
 - b) Weed biomass
 - c) Dry straw & leaves

- d) All of the above
- 7) Which of the following products cannot be used for vermicomposting ?
- a) Cow dung
 - b) ~~Plant material~~
 - c) ~~Animal waste~~
 - d) All of the above
- 8) Which of the following used for vermicomposting
- a) ~~Algae~~
 - b) ~~Nitrating bacteria~~
 - c) Earthworm
 - d) Fungus
- 9) Vermicompost is a / an
- a) ~~Toxic material~~
 - b) ~~Organic biofertilizer~~
 - c) Inorganic fertilizer
 - d) Synthetic fertilizer
- 10) Which of the following nutrients is abundantly found in worm casting ?
- a) Phosphorus
 - b) Nitrogen
 - c) ~~Calcium & other minerals~~
 - d) ~~All of these~~
- 11) The maximum temperature to be maintained for Vermicomposting is
- a) 20 °C
 - b) 25 °C
 - c) ~~30 °C~~
 - d) 35 °C
- 12) Which type of earthworms are majorly required for Vermicomposting?
- a) ~~Anecic~~
 - b) ~~Epigeic~~
 - c) Endogenic
 - d) All of the above
- 13) Vermicompost is in colour
- a) ~~Red~~
 - b) ~~Black~~
 - c) White
 - d) Brown
- 14) What is Vermicomposting?
- a) ~~Composting using rats~~
 - b) ~~Composting using birds~~
 - c) ~~Composting using worms~~
 - d) A name for landfill
- 15) What's best worms for composting?
- a) ~~Red wigglers~~
 - b) Maggots
 - c) ~~Pink worms~~ d) All of the above

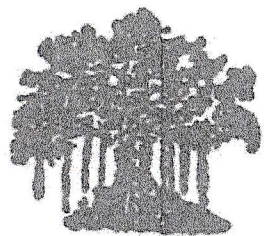
Rayat Shikshan Sanstha's
**Shri Sadguru Gangageer Maharaj Science, Gautam Arts and Sanjivani
Commerce College, Kopargaon, Dist. Ahmednagar 423601
(Maharashtra)
Short Term Course: 2020-21**

RESULT OF CERTIFICATE COURSE IN VERMICULTURE

Sr. No.	Roll No.	Name of the Student	Marks / 30	Result
1	8301	Abhale Madhuri Nivrutti	22	Pass
2	8302	Bargal Swati Sudhakar	30	Pass
3	8303	Chine Priyanka bhaurao	24	Pass
4	8304	Dawange Aarati Dnyaneshwar	22	Pass
5	8305	Gore Ashwini Uttam	22	Pass
6	8306	Gunde Vrushali Bhausahab	24	Pass
7	8307	Gunjal vaishali babasaheb	24	Pass
8	8308	Jaware Anjali Ramkrushna	18	Pass
9	8309	Kurhade Renuka Vittal	20	Pass
10	8310	Shide Ashwini Suresh	22	Pass
11	8311	Shirse Swapnali Bhimraj	20	Pass
12	8312	Wakchaure Riddhishwari R.	22	Pass



[Signature]
Head
Department Of Zoology
S.S.G.M. College, Kopargaon



“Education Through Self - Help is our Motto” - Karmaveer

Rayat Shikshan Sanstha's

Shri Sadguru Gangageer Maharaj Science,
Gautam Arts & Sanjivani Commerce College

Kopergaon, Dist. Ahmednagar (M.S.)




Short Term Course

CERTIFICATE OF COMPLETION

This is to Certify that Shri/Kum. Bargal Swati Sudhakaz
of Class T.Y. B.Sc. Zoology has Completed Short Term Course in vermiculture
_____ conducted by the department of Zoology.
during the academic year 2020 /2021


Course Co-ordinator


Co-ordinator


Principal
S.S. Gangageer
S.S. College
Kopergaon

Rayat Shikshan Sanstha's
Shri Sadguru Gangageer Maharaj Science, Gautam Arts and Sanjivani Commerce
College, Kopargaon, Dist. Ahmednagar 423601 (Maharashtra)
Short Term Course: 2020-21

Department of Zoology

FEEDBACK FOR OF CERTIFICATE COURSE IN VERMICULTURE

Name of Student: Guinde Vrushali Bhausaheb

Class : J.Y.B.Sc.

Mobile No.

Criteria's	Excellent	Very Good	Good	Average
Content of the curriculum		✓		
Quality of Lectures	✓			
Quality of Practical	✓			
Arrangement of tour r and hands on training			✓	
Is the course is applicable for entrepreneurship development in your future life		✓		
Overall evaluation of the course	✓			
Is the course is beneficial for students and parents as far as environment and crop production concerned	✓			

Suggestion: Increase the Practical hours.
Arrange the tour to visit large
Scale Vermiculture plant.