



LOKNETE DR. BALASAHEB VIKHE PATIL
(PADMA BHUSHAN AWARDEE)
PRAVARA RURAL EDUCATION SOCIETY

**ARTS, SCIENCE & COMMERCE COLLEGE
KOLHAR**

Tal. Rahata, Dist. Ahmednagar, Pin - 413 710
NAAC Accredited at 'A' Grade with CGPA 3.10

Ref : ASCCK/2021-22/ **HA/273**

Date : 04/10/2021

To,

The Secretary,
Pravara Rural Education Society,
Pravaranagar (Loni Kd.)
Tal. - Rahata, Dist. - Ahmednagar

Pravara Rural Education Society,
Pravaranagar, Tal. Loni Kd.,
Tal. Rahata Dist. Ahmednagar
Inward No 1402/1
Date: 4/10/21

Subject: Regarding the permission to start certificate courses under Skill Development Center.

Respected Sir,

With reference to above subject, we would like to inform you that our college wish to introduce the following self financed certificate courses from the academic year 2021-22 by considering the need and demand of the students. We request you to permit us to start these courses.

Sr. No.	Name of the course	Type of the course Certificate / Diploma	Duration	Intake
1.	Certificate Course in Computer Literacy	Certificate Course	3 Month	240
2.	Certificate Course in Vermi-composting	Certificate Course	3 Month	30

Look forward to your positive response.

Thank you,

Yours Faithfully,


H/C PRINCIPAL
Arts, Science & Commerce College
Kolhar, Tal. Rahata, Dist. Ahmednagar.



लोकनेते डॉ. बाळासाहेब विखे पाटील
(पद्मभूषण उपाधिने सन्मानित)

प्रवरा
ग्रामीण शिक्षण
संस्था
प्रवरानगर

Ref: PRES/2021-22/1893

Date: 05/10/2021

To,

The Principal,
Arts, Science, and Commerce College, Kolhar
Tal. - Rahata, Dist.- Ahmednagar

Subject : Approval to start new certificate courses

Reference: Your letter no. ASCCK/2021-22/H.D./273 dated 04/10/2021

Respected Sir,

With reference to your application, I am pleased to inform you that your proposal to introduce the following certificate courses has been approved. This approval is valid for next five years from the academic year 2021-22. The courses can be implemented from the current academic year.

Sr. No.	Name of the course	Type of the course Certificate / Diploma	Duration	Intake
1.	Certificate Course in Computer Literacy	Certificate Course	3 Month	240
2.	Certificate Course in Vermi-composting	Certificate Course	3 Month	30

Thank you,



Sincerely,

प्रवरा ग्रामीण शिक्षण संस्था, प्रवरानगर
मु.पो.लोणी खुर्द, ता. राहता, जि.अहमदनगर

Loknete Dr. Balasaheb Vikhe Patil (Padma Bhushan Awardee)

Pravara Rural Education Society

Arts, Science & Commence College, Kolhar

Tal-Rahata, Dist-Ahmednagar, Pin-413710

DEPARTMENT OF ZOOLOGY

"A Certificate Course in Vermi-composting"

Vermicomposting technology is known throughout the world, but in limited areas. It may be considered a widely spread, though not certainly popular technology. As a process for handling organic residuals, it represents an alternative approach in waste management, in as much as the material is neither land filled nor burned but is considered a resource that may be recycled. In this sense, vermicomposting is compatible with sound environmental principles that value conservation of resources and sustainable practices. Vermicomposting is similar to composting in that similar feedstock-organic residuals -are used. Both systems utilize microbial activity to break down organic matter in the moist, aerobic environment.

Vermicomposting is however faster, produces fewer odours and produces a superior product. But vermicomposting requires greater surface area, more moisture, and is susceptible to heat, high salt levels and substances that may be toxic to earthworms. Of the 4400 identified earthworm species, specific species of litter dwelling earthworms are required for this purpose.

Vermicomposting in developing countries could prove to be useful in many cases. Where accumulation of food wastes, paper, cardboard, agriculture waste, manures and bio solids is problematic. Composting and vermicomposting offer potential to turn waste material into a valuable soil amendment. In the past ten years an organization in India has promoted over 3,000 farmers and institutions to switch from conventional chemicals to the organic fertilizer, vermicompost.

Vermiculture enables any scale or size of operation. Vermicompost is being used in over 1,00,000 hectare cultivated area in almost all agro-climatic zones in India. Noted for its ability to increase organic matter and trace minerals in soil, vermiculture has been the primary focus at Maharashtra Agricultural Biotech in India, an organization that has initiated both commercial and educational ventures to promote vermiculture. In 1985, Maharashtra Agricultural Biotech was formed and established a small plant to manufacture vermicompost from agricultural waste. Those involved believed that a successful commercial venture based on regenerative principles might convince others

toadapt sustainable practices. The organization currently produces 5,000 tons of vermicompost annually. Its real achievement, however, has been in raising awareness among farmers, researchers and policy makers in India about regenerative food production methods. The group is directly responsible for 2,000 farmers and horticulturalists adopting vermicomposting. These converts have begun secondary dissemination of the principles they were taught.

In 1991-1992, Maharashtra Biotech and the India Department of Science and Technology promoted the adoption of vermicompost technology in 13 states in India. Educational institutes in Maharashtra & other states have started conducting certificate/diploma/regular courses on vermiculture, vermiculture biotechnology, and vermiculture & vermicompost technology. The duration of courses ranges from 10 days to six months.

Vermicomposting truly is nature's great disappearing act! Aristotle once said, "*Worms are the Intestines of the Earth*". Using worms to convert decomposing food waste into nutrient-rich fertilizer is simple, inexpensive, energy efficient, and a great way to teach students to become life-long recyclers. Thus, by considering these values Department of Zoology has decided to start this course for the students to improve their skills and thus help them to get employment.

Aims & Objectives:

- Students will be able to compost in a limited space and describe the decomposing process.
- The interested students will get the knowledge of composting,
- Students will get the employment,
- They can generate employments,
- They will also turn towards organic farming,
- Will help to maintain the environment pollution free and
- Will get the knowledge of biodiversity of local earthworms.



Loknete Dr. Balasaheb Vikhe Patil (Padma Bhushan Awardee)
Pravara Rural Education Society

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DEPARTMENT OF ZOOLOGY

❖ **Focus:**

To convert unwanted, organic matter, particularly food scraps and paper into fertile soil.

❖ **Name of the course: Certificate Course in Vermicompost technology**

- **Level:** Certificate
- **Stream:** Science or any stream
- **Subject:** Vermiculture/vermicompost

❖ **Eligibility Criteria:**

❖ **Duration:** 3 months

❖ **Language:** English

❖ **Intake:** 30 seats

❖ **Fees:**

❖ **Selection /Admission Criteria:** First come first serve

❖ **Attendance:** 90%

❖ **Lecture/practical timing:** 4.00 PM to 4.50 PM

❖ **Academic calendar for the course:** Four days in a week

❖ **Available infrastructure:** Well-equipped laboratory, small & large scale vermiculture units

Examination structure & schedule:


At the end of course the examination will be conducted. Its notice & time table will be displayed for communication to the students at least 15 days before the date of examination.


1. Theory paper (objective/short answer type) = 50marks, Two hours duration.
2. Practical paper =50 marks, two hours duration.

Marking scheme & Award of grades: Average of the marks obtained in each paper will be calculated as: $50+50+100/2 = 50$;

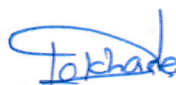
- a) 8-10 marks = 1point, C' grade – pass;
- b) 10-20 marks = 2 points, B' grade;
- c) 20-30 marks = 3points, B+ grade;
- d) 30-40 marks =4points, A' grade;
- e) 40-50 marks =5points, A+ grade

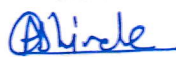
Award of Certificate carrying grades: After successful completion of course colourful certificate indicating grade will be awarded to the candidate.

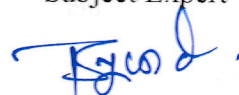

Dr. Ram S. Tambe
Subject Expert


Mr. Prashant L. Pulate
Industry Representative




Prof. Dattatray V. Lokhande
Subject Expert


Miss. Arti N. Shinde
Subject Expert


Mr. Prakash D. Pulate
Co-ordinator


Principal
Pravara Rural Education Society's
Arts, Science and Commerce College, Kolhar

Proposed Syllabus for the Course

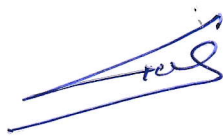
“A Certificate Course in Vermi-composting”


Paper-I (Theory) 30 Hrs.

1. **Vermitechnology-** 02
 - a. Definition
 - b. History
 - c. Growth and development in other countries & India, significance.
2. **Vermiculture and Vermicomposting –** 02
 - a. Definition
 - b. scope and importance
3. **Biology Of Earthworms** 05
 - a. Key to identify the species of earthworms.
 - b. Choosing the right worm. Useful species of earthworms, Local species of earthworms, Exotic species of earthworms.
 - c. General characters & Anatomy.
 - d. Economic importance of Earthworms.
4. **Method of Vermicomposting** 08
 - a. Small Scale vermicomposting of wastes in field pits, ground heaps, tank method.
 - b. Large Scale vermicomposting in roof shed method, static pile windrows, top fed windrows, wedges & bin method,
 - c. Harvesting and collection of the compost, storage,
 - d. Vermiwash: collection, composition & use.
5. **Applications of vermitechnology –** 04
 - a. Vermiculture Bio-technology
 - b. Nutritional Composition of Vermicompost for plants, comparison with other fertilizers
 - c. Vermicomposting- use of vermicastings in organic farming/horticulture, earthworms for management of municipal/selected biomedical solid wastes; as feed/bait for capture/culture fisheries; forest regeneration.
6. **Future perspectives –** 03
 - a. Predator / pathogen control in wormeries; Potentials and constraints for vermiculture in India.
 - b. Marketing the products of vermiculture – quality control, market research, marketing techniques – creating the demand by awareness and demonstration, advertisements, packaging and transport, direct marketing

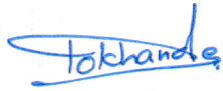
Proposed Syllabus for
"A Certificate Course in Vermi-composting"
Paper-II (Practical) (16 Hrs.)

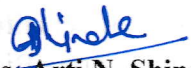
1. Key to identify different types of earthworms
2. Field trip- Collection of native earthworms & their identification
3. Study of systematic position, habits, habitat & External characters of *Eisenia fetida*
4. Study of Life stages & development of *Eisenia fetida*
5. Study of Life stages & development of *Eudrilus eugeniae*
6. Comparison of morphology & life stages of *Eisenia fetida* & *Eudrilus eugeniae*
7. Study of Vermiculture, Vermiwash & Vermicompost equipments, devices
8. Preparation vermibeds, maintenance of vermicompost & climatic conditions.
9. Harvesting, packaging, transport and storage of Vermicompost and separation



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ARTS, SCIENCE AND COMMERCE COLLEGE, KOLHAR

Department Of Zoology

CERTIFICATE COURSE IN VERMI-COMPOSTING

YEAR: 2021-22

Student list

Sr. No.	Name of the Student
1.	Anap Saurabh Sahebrao
2.	Buchude Mahesh Nanasaheb
3.	Chande Shubham Annasaheb
4.	Chavan Krushna Laxman
5.	Dale Sanika Hemant
6.	Dale Sharda Bahusaheb
7.	Gadhe Dnyanesh Somnath
8.	Inamke Onkar Anil
9.	Kachare Swapnil Vilas
10.	Mali Akash Subhash
11.	Musmade Chetan Haribhau
12.	Pandore Ganesh Kalusing
13.	Patel Mashira Shakir
14.	Pathan Saniya Jakir
15.	Pathan Simran Parvej
16.	Pathan Zaid Firdous
17.	Raut Bhagyashri Vilas
18.	Raut Nikhil Ashok
19.	Rokade Nikhil Babasaheb
20.	Sayyad Aftab Musa
21.	Shaikh Faijan Nisar
22.	Shaikh Isha Idris
23.	Shaikh Joya Rais
24.	Shaikh Tousim Husen
25.	Shaikh Salman Badshah
26.	Shelke Vaishanvi Dnyandev
27.	Shinde Ravindra Kailas
28.	Shirsath Akash Balasaheb
29.	Tekade Kunal Appasaheb
30.	Waditake Krutika Dnyaneshwar




I/c PRINCIPAL
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