Rayat Shikshan Sanstha's

Arts, Science and Commerce College, Ramanandnagar (Burli)

Short Term Course

Vermicomposting
2021-2022

Objective:

- To study various species of Earthworms
- To study the species of Earthworms suitable for vermicomposting
- To study the establishment of vermicomposting pit.
- To study the feeding and breeding behavior of Earthworms
- To study the composition of vermicompost.
- To study the economic importance of vermicomposting.

Duration of the course: Three Months (Theory and Practical)

Tuition Fees: Rs. 500/- (2018-19 Free of cost)

Facilities:

- Well equated class-room, Laboratory and well established vermicomposting pit in Botanical garden.
- Computer with internet and Printer facility.

Syllabus:

- Duration of course - 30 hours
- Theory- 10 hours
- Practical's – 20 hours

Theory Syllabus

Unit I: Vermiculture.

a) Introduction

b) Brief history

c) Taxonomic status

d) Habit and habitat

e) Distribution of Earthworms

Unit II: Worms for culture

a) General morphological features of Earthworm

b) Types of Earthworm

c) Significance of gut in formation of vermicompost

Unit-III Techniques of Vermiculture

a) Construction of worm bin

b) Bedding Material

c) Adding the worm

d) Adding food wastes

e) Controlling temperature and moisture in the bin

f) Maintaining the bin

g) Harvesting the compost and worms

Unit-III Techniques of Vermiculture

a) Vermicompost

b) Chemical characteristics of vermicompost

c) Precautionary measures

d) Factors influencing the culturing Earthworms

e) Importance of vermicomposting

i)Overall benefits

ii)Environmental Assessment

iii) Vermiculture as bio fertilizer

B) Practical Syllabus

1) Handling of Earthworms

2) How to construct the worm bin

3) Bedding material

4) Adding of worms

5) Adding food wastes

6) Controlling temperature and moisture in the bin

7) Maintaining the bin

8) Harvesting the compost and worms

9) Marketing

References

1. Text books of Non Choradates by Armugum

2. Text books of Invertebrates by Kotpal

3. Text books of Annelida by Kotpal

4. Text books of Annelida by Hyman

5. Bhiday M.R. 1994. Earthworm in agriculture. Indian Farming 43(12):31-34

6. Gandhi M., Sangwan V, Kapoor K. K. and Dilbaghi N. 1997. Composting of household wastes with and without earthworms. Environment and Ecology 15(2): 432-434.

RAYAT SHIKSHAN SANSTHA'S

Dr. Patangrao Kadam Mahavidyalaya, RAMANANDNAGAR (BURLI)

DEPARTMENT OF ZOOLOGY

SHORT TERM COURSE – VERMICOMPOSTING

STUDENT LIST 2021- 2022

Sr. No	Roll No.	Name of the Student
1	1532	Kuchekar Dnyaneshwari Gorakh
2	1533	Mane Prerana Shivaji
3	1534	Gaikwad Pranav Ajit
4	1535	Kamble Pallavi Arvind
5	1536	Shejale Ashish Shivaji
6	1537	Sutar Swapnali Vijay

Course Co-ordinator

Head

Head of Dept.
Department of Zoology
Dr. Patangrao Kadam Mahavidhyalaya,
Ramanandnagar (Burli)

Principal

Principal,
Dr. Patangrao Kadam Mahavidhyalaya,
Ramanandnagar (Burli)
Tal. Palus, Dist. Sangli.

Rayat Shikshan Sanstha's

Dr. Patangrao Kadam Mahavidyalaya Ramanandnagar (Burli)

B. Sc. III Zoology

Short Term Course- Vermicomposting 2021-22

Attendance Sheet

Student and Faculty

Roll No.	Name of the student	31/1/22	4/01/22	5/01/22	6/01/22	7/01/22	8/01/22	10/1/22	12/01/22	13/1/22	14/01/22	15/1/22	17/01/22	18/1/22	19/1/22	20/01/22	21/01/22	22/1/22	24/01/22	25/1/22	27/01/22	28/1/22	29/1/22	31/01/22	01/02/22	02/02/22	03/2/22	04/02/22	05/02/22	7/02/22	8/02/22
1532	Kuchekar Dnyaneshwari Gorakh	P	P	P	A	P	P	P	P	P	P	P	A	T	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1533	Mane Prerana Shivaji	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P
1534	Gaikwad Pranav Ajit	P	P	P	A	P	P	A	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	A	P
1535	Kamble Pallavi Arvind	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
1536	Shejale Ashish Shivaji	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
1537	Sutar Swapnali Vijay	P	P	P	P	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Program coordinator

Head of Dept.
Department of Zoology
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Principal,
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B. Sc. III Zoology

Short Term Course- Vermicomposting 2021-2022

Annual Report

The College is located in rural locality. Most of student community are from socioeconomically backward section. The parents are of these students are working in the agriculture field. To save the environment the college has decided to run the said course, vermicomposting. The said course is affiliated with the Adult and Continuing Education and Extension Department, Shivaji University, Kolhapur. All the B. Sc. III students (06) are enrolled for this course. The course is satisfactorily completed by the students.

All the students secured first class during theory and practical exam.

Course Co-ordinator

Head

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Tal. Palus, Dist. Sangli.

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Certificate Course: Vermicomposting

Time Table 2021-2022

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10:00 to 10:45	A.B.M	T.S.B	A.B.M	T.S.B	A.B.M	T.S.B
10:45 to 11:30	T.S.B	A.B.M	T.S.B	A.B.M	T.S.B	A.B.M

T.S.B:- Dr. T. S. Bhosale
A.B.M:-Mr. A.B.Mane

Course Coordinator

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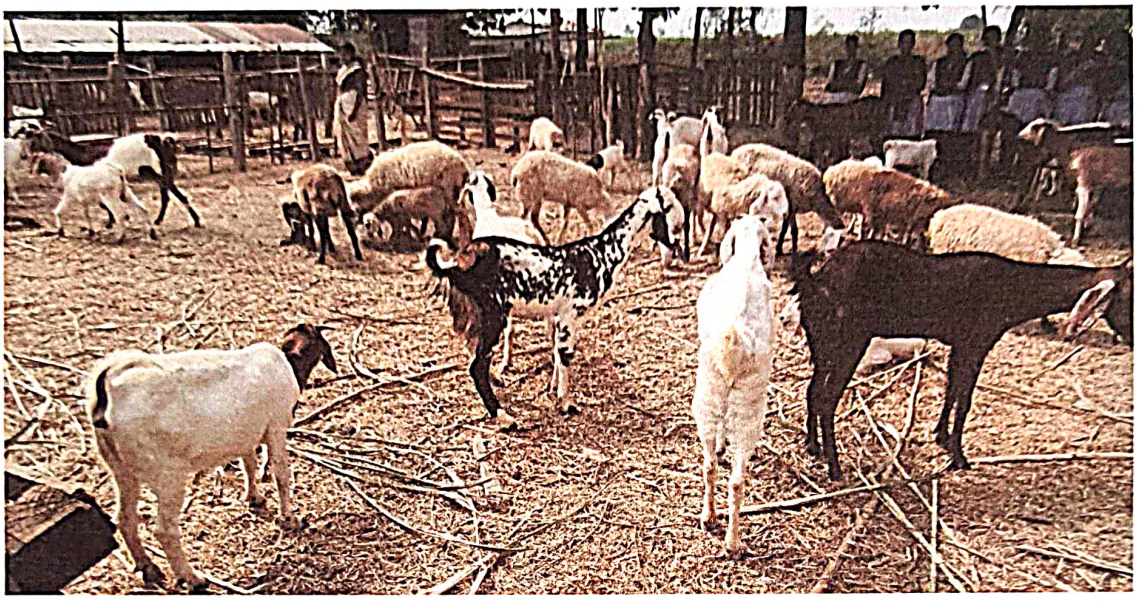
Department of Zoology

Value Added Course: Goat Farming 2021-2022



Visit to Goat Farming: Gondilwadi, Tal: Palus, Dist.: Sangli

Variety of Goat Breeds

Variety of Goat Breeds

Q.11. Which of the following is not raw material required for preparing composts?

(a) Cow dung (b) Weed biomass

(c) Dry straw and leaves (d) All of the above

Q.12. Which of the following procedures are used by the farmers to multiply the earthworms?

(a) By adding cow dung (b) By adding plant materials

(c) By mixing more amount of biodegradable wastes (d) All of the above

Q.13. Which of the following products cannot be used for vermicomposting?

(a) Cow dung (b) Plant materials

(c) Animal Wastes (d) All of the above

Q.14. For vermicomposting, this species of earthworm is not apt

(a) Perionyx excavates (b) Pheretima posthuma

(c) Eudrilus eugeniae (d) Eisenia fetidae

Q.15. The process in which earthworms are used to degrade organic wastes is

(a) Compost bedding (b) Humus forming

(c) Vermicomposting (d) None

Q.16. Kitchen wastes and animal excreta can be minimized most profitably via

(a) vermiculture (b) biogas production

(c) direct usage as biofertilizers (d) storing in underground storage tanks

Q.17. The process of covering spawned compost with a suitable material is known as

(a) cropping (b) casing

(c) spawning (d) composting

Q.18. While burrowing, the anterior ends of earthworms become turgid serving as a hydraulic skeleton though they do not possess a skeleton. This is as a result of

(a) setae (b) gut peristalsis

(c) coelomic fluid (d) none of the above

Q.19. This is apt for vermicomposting

(a) Algae (b) Nitrifying bacteria

(c) Earthworms (d) Fungus

Q.20. Vermicompost is a/an .....

(a) toxic material (b) organic biofertilizer

(c) inorganic fertilizer (d) synthetic fertilizer