

**CERTIFICATE COURSE
ON
VERMICULTURE AND VERMICOMPOSTING**

**ACADEMIC YEAR 2021-2022
[FROM 01-11-2021 TO 14-12-2021]**

DEPARTMENT OF ZOOLOGY



No. of Participants: 25

No. of Course Hours: 30

**GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT - 509216.**

GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216

DEPARTMENT OF ZOOLOGY

PERMISSION LETTER

Date:24-09-2021

To
The Principal
Government Degree College
Shadnagar
Ranga Reddy District -509216
Sir



Sub: Department of Zoology – Seeking permission to start Certificate Course in Zoology in our college – Request – Reg.

The Department of Zoology aspires to initiate a Certificate Course in Zoology in our college for the academic year 2021-2022 for value addition and enrichment of skills of Zoology students.

Hence, we request you to permit us to start the Certificate Course on “VERMICULTURE AND VERMICOMPOSTING” for the aforesaid academic year.

Thanking you,


Yours Sincerely

Dr. N. Rajkumar

Department of Zoology

Dept. Incharge/Course Coordinator

Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.



GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216

DEPARTMENT OF ZOOLOGY

Certificate Course on

“VERMICULTURE AND VERMICOMPOSTING”

Curriculum of the Certificate Course

Total Hours: 30

Unit – I

(10 Hours)

1. Introduction to vermiculture, definition, classification, history, economic importance. Their value in maintenance of soil structure.
2. Its role in biotransformation of the residues generated by human activity and production of organic fertilizers.
3. Choosing the right worm. Useful species of earthworms and local species of earthworms. Exotic species of earthworms.
4. Biology of *Pheretimaposthuma*.
 - a. Taxonomy, Anatomy, Physiology and Reproduction.
 - b. Vital cycle of *Pheretimaposthuman*; alimentation, fecundity, annual reproducer potential.

Unit – II

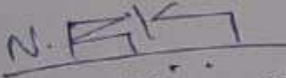
(10 Hours)

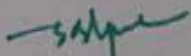
5. Limit factors (gases, diet, humidity, temperature, pH, light and climatic factors).
6. Physicochemical parameters of vermin compost.
7. Different methods of Vermin composting: Small scale and Large scale Bed method, Pit method, Small scale Earthworm farming for home gardens. Earthworm compost for home gardens.
8. Conventional commercial composting: Earthworm composting large scale.
9. Pests and diseases of earthworms. Frequent problems. How to prevent and fix them. Complementary activities of auto evaluation.


Unit – III

(10 Hours)

10. Nutritional composition of vermicompost for plants, comparison with other fertilizers.
11. Earthworm Farming (Vermiculture), Extraction (harvest), vermin compost harvest and processing.
12. Vermiwash.
13. Small scale earthworm farming for home gardens.
14. Conventional commercial composting.
15. Harvesting, packaging, transport and storage of vermicompost and separation.


Dept Incharge/Course Coordinator


Principal
Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.


GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216

DEPARTMENT OF ZOOLOGY

CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING

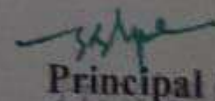
Resource Person: **Dr. N. RAJKUMAR**, Asst. Prof. of Zoology

Aims and Objectives:

1. To give Definition and Meaning of Vermiculture.
2. To explain the need of Vermiculture in the present scenario.
3. To disseminate the knowledge about Vermiculture as synonym to fertilizers.
4. To describe the different types of worm forms.
5. To identify different types of organic waste required for worm farms.
6. To provide specific knowledge about the construction of worm farms at home.
7. To sensitize the benefits of worm farming to the society.
8. To create better understanding about the role of worm farming as an alternative.
9. To extend understanding about the potentiality of vermin compost.
10. To explain the role of vermiculture in maintaining fertility of soil.
11. To ignite economic importance of vermiculture.
12. To create wide comprehension about the role of vermiculture in protecting the environment.
13. To imbibe vermiculture as an alternative career.



Dept Incharge/Course Coordinator



Principal /
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.

GOVT. DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT - 509216

DEPARTMENT OF ZOOLOGY

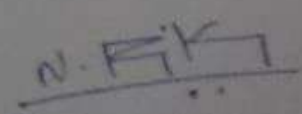
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING

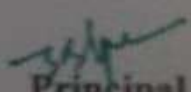
ACADEMIC YEAR 2021-2022

CIRCULAR

Date: 27-09-2021

All the students are hereby informed that the Department of Zoology is planning to launch "CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING" for a period of 30 hours for this Academic Year 2021-2022. The classes will be conducted during zero hours i.e., from 4:30 pm to 5:30 pm (1 hour) on all working days. Interested candidates may enrol their names with Dr. N. Rajkumar, Asst. Prof. of Zoology on or before 30-09-2021.


Dept Incharge/Course Coordinator


Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.



GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT - 509216
DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING
ACADEMIC YEAR 2021-2022

Student Enrolment Sheet:

GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT - 509216
DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING
ACADEMIC YEAR 2021-2022

Student Enrolment Sheet:

S.No.	Name of the Student	Class/Group /Sem	College Id	Signature of the Student
1	B. Yamini	B.Sc BZC I	210330674451004	B. Yamini
2	B. Manisha	B.Sc BZC I	210330674451005	B. Manisha
3	B. Girija	B.Sc BZC I	210330674451007	B. Girija
4	B. Anitha	B.Sc BZC I	210330674451008	B. Anitha
5	D. Swapna	B.Sc BZC I	210330674451010	D. Swapna
6	G. Sruthi	B.Sc BZC I	210330674451011	G. Sruthi
7	J. Naveen Prakash	B.Sc BZC I	210330674451012	J. Naveen Prakash
8	K. Anusha	B.Sc BZC I	210330674451014	K. Anusha
9	K. Gayathri	B.Sc BZC I	210330674451015	K. Gayathri
10	K. Sandhya Rani	B.Sc BZC I	210330674451017	K. Sandhya Rani
11	K. Jahnvi	B.Sc BZC I	210330674451018	K. Jahnvi
12	M. Sony	B.Sc BZC I	210330674451020	M. Sony
13	M. Babu	B.Sc BZC I	210330674451021	M. Babu
14	R. Shircesha	B.Sc BZC I	210330674451025	R. Shircesha
15	S. Swathi	B.Sc BZC I	210330674451027	S. Swathi
16	B. Sai Teja	B.Sc BZS I	210330679041003	B. Sai Teja
17	K. Nirman	B.Sc BZS I	210330679041007	K. Nirman

18	M. Bhavani	B.Sc BZS I	210330679041008	M. Bhavani
19	M. Nikitha	B.Sc BZS I	210330679041009	M. Nikitha
20	M. Srilatha	B.Sc BZS I	210330679041010	M. Srilatha
21	N. Pavani	B.Sc BZS I	210330679041011	N. Pavani
22	N. Bhavani Shankar	B.Sc BZS I	210330679041012	N. Bhavani Shankar
23	P. Shirisha	B.Sc BZS I	210330679041013	P. Shirisha
24	P. Nandini	B.Sc BZS I	210330679041014	P. Nandini
25	P. Gangothri	B.Sc BZS I	210330679041015	P. Gangothri

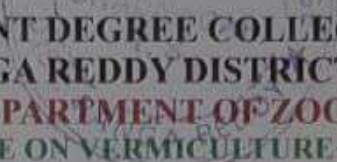
N. R. K.

Dept Incharge/Course Coordinator

[Signature]

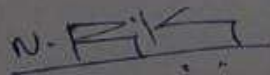
Principal

GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.


GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216
DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING
ACADEMIC YEAR 2021-2022

Learning Outcomes:

1. Students will be able to understand and distinguish different types of earthworms.
2. Derive knowledge to identify the different types of worm farms.
3. Understand the importation with regard to organic waste coming from worm farms.
4. Acquire specific knowledge about the construction of worm farms at home.
5. Sensitized about the benefits of worm farming.
6. Able to understand that worm farming in modern methods promotes economic growth.
7. Understand that worm farming is an alternative to fertilizers.
8. Understand that the practice of Vermiculture is good for soil and also as a source of income generation.



Dept Incharge/Course Coordinator



Principal

Principal

**GOVT. DEGREE COLLEGE
SHADNAGAR**



GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216
DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING

ACADEMIC YEAR 2021-2022

Certificate Course Summary

Name of the Course : Vermiculture and Vermicomposting

Name of the Course Coordinator : Dr. N. Rajkumar

No. of Students attended the Course : 25

No. of Hours of the Course conducted : 30 Hours

Dates of the Course (From...To...) : 01-11-2021 to 14-12-2021

Name of the Department conducted : Zoology

N. Rajkumar

Dept. Incharge/Course Coordinator

[Signature]

Principal
Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.



GOVERNMENT DEGREE COLLEGE, SHADNAGAR
RANGA REDDY DISTRICT – 509216

DEPARTMENT OF ZOOLOGY
CERTIFICATE COURSE ON VERMICULTURE AND VERMICOMPOSTING
ACADEMIC YEAR 2021-2022

Name of the student..... H.T.No.....

Group Year.....

Multiple Choice Questions

10*2 = 20

1. Which of the following is not a method of worm cast harvesting or manufacturing? ()
A. Homogenization B. Active feeding
C. Drying under adequate light D. Separation of cocoons
2. Earthworms subsidize to the burial of wastes? ()
A. B.
C. D.
3. Which of the following cannot be established properly in the field ()
A. Eisenia fetida B. Perionyx C. Epigeic D. Anecic
4. Which of the following species is most stable in Indian conditions?
A. Perionyx B. Epigeic C. Endogeic D. Anecic
5. What is the major advantage of three-tire vermiculture technology? ()
A. It can be applied to both solid and liquid wastes
B. It cannot be applied to both solid and liquid wastes
C. It involves chemical treatment
D. It can degrade organic wastes
6. Which of the following species of earthworms is not suitable for vermicomposting? ()
A. Epigeic B. Anecic C. Endogeic D. Plasmodium
7. Which among the following is not a major reason for choosing earthworms for vermicomposting? ()
A. Low incubation time B. Digestion rate C. Adaptability D. Low growth rate
8. Which of the following is not a major objective of vermicomposting ()
A. To elevate the value of original material B. To accelerate the rate of degradation
C. To obtain toxic products D. To obtain products free off any pollutants
9. Which of the following methods uses earthworms during composting? ()
A. Vermicomposting B. Vertical composting
C. Window composting D. Burning
10. Which of the following species has a shorter body size? ()
A. Epigeic B. Endogeic C. Anecic D. Eudrilus

Dept.Incharge/Course Coordinator

Principal

GOVERNMENT DEGREE COLLEGE, SHADNAGAR
(Affiliated to Palamuru University)
DEPARTMENT OF ZOOLOGY
ACADEMIC YEAR 2021-2022

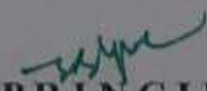
Feedback analysis of Certificate Course in
VERMICULTURE AND VERMICOMPOSTING

Name of the Lecturer: Dr. N. RAJKUMAR



S.No.	Questionnaire	Excellent	Very Good	Good	Average	Poor	Total
1	Syllabus	9	1				10
2	Coverage of Syllabus	9	1				10
3	Explanation of the topics	9	1				10
4	Teaching Methods	8	1	1			10
5	Interaction	8	2				10
6	Doubts Clarification	9	1				10
7	Teacher Presentation	9	1				10
8	Generating interest	9	1				10
9	Time Maintenance	10					10
10	Overall Opinion	10					10

Excellent


PRINCIPAL
Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.



GOVERNMENT DEGREE COLLEGE, SHADNAGAR
Dist: Ranga Reddy-509216, TELANGANA STATE



DEPARTMENT OF ZOOLOGY

CERTIFICATE

This is to certify that Mr/Ms K. JAHNAVI
B.A./B.Sc./B.Com. BZC I Sem Year bearing the roll number 210330674451018 has
successfully completed the certificate course in Vermiculture & Vermicomposting ganized
by the Department of Zoology from 01-11-2021 to 14-12-2021

N. R. S.
Head of the Department/Coordinator

[Signature]
Principal
GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.



GOVERNMENT DEGREE COLLEGE, SHADNAGAR

Dist. Ranga Reddy - 509216, Telangana State

DEPARTMENT OF ZOOLOGY

CERTIFICATE



This is to certify that Mr/Ms
B.A./B.Sc./B.Com.....Year bearing the roll number.....has
successfully completed the certificate course in.....organized
by the Department of Zoology from to

N. RK

Head of the Department/Coordinator

[Signature]
Principal

GOVT. DEGREE COLLEGE
SHADNAGAR
Ranga Reddy Dist.