Original Research Article

A study on knowledge of farmers for the production of vermicompost in Kurnool district of Andhra Pradesh

ABSTRACT

A study ~~entitled "knowledge of farmers for the production of vermicompost - Kurnool district of Andhra Pradesh"~~ was carried out to study the knowledge level of farmers in the production of vermicompost. A structured interview schedule was developed to complete the study and 120 farmers were taken from 10 villages of selected block of district purposively. The knowledge level of respondents clearly visible that majority 52.5% of the vermicompost users had medium level of knowledge on vermicompost production technology, 25.30%~~per cent~~ and 22.5%~~per cent~~ of the vermicompost users has low and high level of knowledge on vermicompost technology respectively. It can be concluded that knowledge level of majority of respondents was medium.

Key words: Knowledge, Vermicompost production technology

1. INTRODUCTION:

In recent years, the disposal of organic wastes from domestic, agricultural and industrial sources has caused increasing environmental and economic problems and many different technologies to address this problem have been developed. The growth of earthworms in organic wastes have been termed vermiculture and the processing of organic wastes by earthworms is known as vermicomposting **(Edwards, 2004).**

The awareness of organic matter and concept of sustainable agriculture is gaining impetus among our farmers in recent years to produce good quality consumable agricultural produce. Recycling of available bio-wastes of different sources is helpful and can reduce the environmental pollution. Vermicomposting is an important component of organic farming without much financial involvement, which can convert rural and urban bio-wastes into nutrient rich organic manures. which can be utilized for improving the soil structure and fertility in organic farming**(Sajnanath and Sushama, 2004).**

Vermicompost is becoming popular as a major component of organic farming system. Using vermicompost can fulfil the requirements for organically grown products. The vermicomposting procedure usually starts about a week, when the pit has been lined and filled with manure, grass, straw and covered with soil **(Lynch, 2015).** This method can allowsomeworms to escape into the soil hence precautions has to be taken by lining the pit before adding the worms and the bedding into the pit **(Nagavallemma et.al.,2004).**

Earthworm Selection

Individual study on the different earthworms coming under the umbrella of Epigeic type.

Eisenia fetida:

Named as tiger worm *Eisenia fetida* is the most common type of earthworm used for vermicomposting. Given its features like rapid rate of growth and easy handling nature it is most preferred for vermicomposting.

Dendrobaenaveneta:

Named as European night crawler *Dendrobaenaveneta* is used for industrial vermicomposting given its large structure. However, it has share of disadvantages like low reproduction and maturity rates compared *E.fetida, P.excavatus* and*E.eugeniae.*

Dendrobaenarubida:

Although it is not commonly used for vermicomposting citing its preference for organic soil this species can also used in vermicomposting.

Lumbricusrubellus:

Found in moist surfaces *Lumbricusrubellus* takes more time to mature and less rate of reproduction. Citing this disadvantage this is not suitable for vermicomposting.

Perionyx excavatus:

It is found in tropical zones. *Perionyx excavatus* is used in vermicomposting given its advantage of breaking up of organic matter under high range of temperatures.

2. Research Methodology:

Descriptive research design was adopted for the study as it describes the characteristics or phenomena that are being studied. The present study was conducted in Kurnool district of Andhra Pradesh. Out of 55 blocks in Kurnool district, Panyamblock is selected purposively based upon the nearness to local vermicompost farm. From the selected block, ten villages were selected purposively based upon the nearness to local vermicompost farm. The entire data collected was transformed into the score for tabulation and suitable statistical tests are applied as per the nature of data to draw logical conclusions.

3.RESULTS AND DISCUSSION

Comment [AM1]: A very brief introduction. You need more details

The study entitled **"Knowledgeof farmers for the production of vermicompost in Kurnool District"** was undertaken to assess the knowledge of the respondents towards Vermicompost production technology.

Table No.1.KNOWLEDGE OF THE RESPONDENTS IN VERMICOMPOST PRODUCTION

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S.No	Statements	KNOWLEDGE LEVEL		
		Fully correct *f* (%)	Partially Correct *f* (%)	Not Correct *f* (%)
I)	KNOWLEDGE ON VERMICOMPOST			
1.	Knowledge on the usage of vermicompost	32 (22.67)	61 (50.83)	27 (22.5)
2.	Aware of the advantages of vermicompost	34 (28.33)	56 (46.67)	30 (25)
3.	Aware amount of vermicompost used for any crop	39 (32.50)	58 (48.333)	23 (19.167)
4.	Aware regarding treatment of soil before application of vermicompost	27 (22.50)	73 (60.83)	20 (16.67)
5.	Participation in training of vermicompost conducted by Government	31(25.83)	61 (50.83)	28 (23.33)
6.	Aware about the preparation of vermicompost	32 (22.67)	62 (51.67)	26 (21.67)
7.	Aware that vermicompost is suitable for any crop	27 (22.5)	65 (54.167)	28 (23.33)
8.	Aware regarding time of application of vermicompost in different crops	30 (25)	67 (55.833)	23 (19.167)

9.	Aware that vermicompost is rich in organic carbon	21 (17.5)	65 (54.167)	34 (28.33)
10.	Aware about species of earthworms used in vermicompost preparation	25 (20.833)	56 (46.67)	39 (32.5)
11.	Aware about the sign when vermicompost is ready	32 (22.67)	58 (48.333)	30 (25)
12.	Aware about use of *Pongamia* and neem leaves in vermicompost	23 (19.167)	56 (46.67)	41(31.167)
13.	Collect non borrowing, organic debris consuming species of earthworms	31(25.833)	54 (45)	35 (29.167)
14.	Water the compost heap adequately to maintain moisture	34 (28.33)	58 (48.33)	28 (23.33)
15.	Turn compost heap upside down every 15-20 days	39 (32.5)	58 (48.333)	23 (19.167)

Table 2. Distribution of respondents according to their knowledge level

S.No.	Category	Number	Percentage
1.	Low (25-40)	30	25.30
2.	Medium (41-56)	63	52.5
3.	High (57- 72)	27	22.5
	Total	120	100.00

It was clearly visible that majority (52.50%) of the respondents have medium level of knowledge on vermicompost production, 25.30 per cent and 22.5 per cent of the respondents had low and high level of knowledge on vermicompost production respectively.

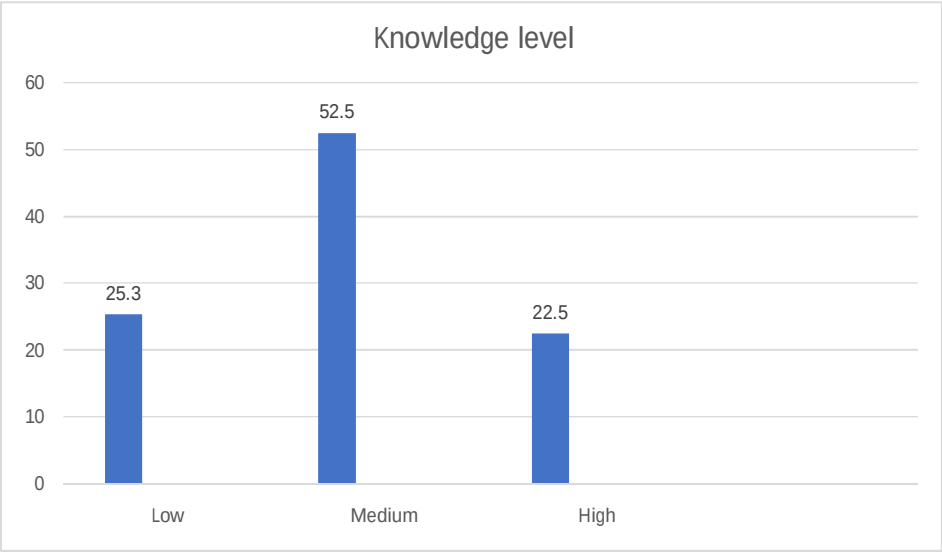

Fig. 1. Distribution of respondents based on their knowledge level

Conclusion:

It was concluded that majority 52.5%~~per cent~~ of the vermicompost producers had medium level of knowledge on vermicompost production, 25.30%~~per cent~~ and 22.50%~~ percent~~of the vermicompost producers had low and high level of knowledge onVermicompost production respectively. knowledge level of majority of respondents was medium. Training should be provided to farmers for increasing knowledge towards vermicompost production which leads to increase in vermicompost farms.

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