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Existing practices of farmers towards vermiculture technology

RR Kalita[1], M Dutta Das[2], Sayanika Borah[3]
[1] M.Sc. Student, Department of Extension & Communication Management, College of Home Science, Assam Agricultural University, Jorhat, Assam, India
[2] Professor, Department of Extension & Communication Management, College of Home Science, Assam Agricultural University, Jorhat, Assam, India
[3] Assistant Professor, Department of Extension & Communication Management, College of Home Science, Assam Agricultural University, Jorhat, Assam, India

Abstract
The present study entitled "Existing Practices of farmers towards Vermiculture Technology" in Jorhat district of Assam. A total 120 numbers of farmers were selected for the study. This study was conducted with the specific objective namely to explore the existing practices of Vermiculture technology adopted by the farmers. To achieve the objective of the study, various statistical tools like averages, percentages, mean score etc. were used. The study also revealed that majority of the farmers (69.17%) had medium level of practice towards vermiculture technology.

Keywords: vermiculture technology, farmers, Jorhat district

Introduction
The concept of soil, as a living system, is central to alternative farming systems as opposed to chemical farming. It is essential to establish and maintain an active and abundant soil life in order to produce healthy plants. Therefore, the soil must be "fed" in a way, that the activities of beneficial soil organisms, necessary for recycling nutrients and producing humus, are not inhibited. Use of earthworms for degradation of organic wastes and production of vermicompost is becoming popular and is being commercialized. Darwin (1881) was the first to show that earthworms affect soil formation and development. Thousands of farmers, in different agro climatic regions of India, are switching over to sustainable agriculture in field and horticultural by adopting vermiculture technology.
Vermiculture technology is the science of cultivating earthworms which feed on waste material and soil and release digested food material back into the soil, thereby producing compost rich in nutrients. Worms are natural ploughers of the soil throughout the day and night, maintaining the fertility and porosity of the soil. The commonly used earthworm species are *viz.*, *Eisenia foetida*, *Perionyx excavatus*, *Lumbricus rubellus* and *Amyanthus defringens*. Vermiculture is considered a proven technology for increasing production and productivity of different crops.

Research Methodology
The present study was conducted in Jorhat District of Assam. A multi stage purposive cum simple random sampling design was followed for selection of three blocks namely Baghchung, Chipahikhula and Titabor from respective subdivision such as Jorhat and Titabor. For the present study 120 numbers of respondents were selected from 12 villages of the three blocks who were undergone training on vermicompost formally or informally from various sources. Data collection was done by using interview cum questionnaire method.
In this research study, practice statements were prepared based on the actual performance of a respondent in application or use of an idea in vermicompost production. All total 26 statements were prepared with the help of the expert and collected reviews which are based on bed preparation, raw materials, earthworms, process of filling bed, maintenance of bed and care taken before using prepared vermicompost. The 3 points continuums such as fully apply, sometime apply and not apply with respective weightage of 3, 2 and 1. On the basis of the total score obtained, respondents were categorized into three classes that is low, medium and high level of practice.

Findings and Discussion
The data on existing practices of vermiculture technology adopted by farmers is presented in Table 1. Practice was assessed in bed preparation, raw materials, earthworms, process of filling bed, maintenance of bed, harvesting of ready compost, care taken before using prepared vermicompost and uses and advantages. Data reveals that most of the respondent (69.17%) had medium practice level followed by 15.83 per cent had high and only 15.00 per cent had low practice level. It might be due to the lack of scientific knowledge regarding vermiculture technology. Similar findings revealed that Subhashini *et al.* (2017) [5], Tyagi (2016) [6], Sharma *et al.* (2013) [3] etc.

Table 1: Distribution of respondents according to existing practices of vermiculture technology N=120

Category	Frequency	Percentage
Low	18	15.00
Medium	83	69.17
High	19	15.83

Ranking of practice statements according to their mean score

The data in the table 2 reveals that uses of vermicompost ranked I with mean score 2.62, followed by filling of bed ranked II, water ranked III, earthworms ranked IV, maintenance of vermi-bed ranked V, raw material ranked VI, bed preparation ranked VII, harvesting of ready compost ranked VIII and care during transportation ranked IX with mean score (2.60), (2.57), (2.53), (2.49), (2.37), (2.32), (2.20) and (2.18).

Table 2: Distribution of the respondents according to their mean score of practice statement

S. No.	Statements	Mean Score	Rank
1	Bed Preparation	2.32	VII
2	Raw material	2.37	VI
3	Earthworms	2.53	IV
4	Water	2.57	III
5	Filling of bed	2.60	II
6	Maintenance of vermi-bed	2.49	V
7	Harvesting of ready compost	2.20	VIII
8	Care during transportation	2.18	IX
9	Uses	2.62	I

Conclusion

The findings emerged out that majority of the respondents having medium level of practices towards vermiculture technology. Hence this study implied that extension f unctionaries should create more awareness among the farming community about vermiculture technology, it will definitely useful for increasing the adoption level of the farmers and indirectly to raise the productivity of various crops. It will also useful to maintain the soil health. In this context, it is also suggested that the information regarding these practices should be disseminated to the farmers by extension functionaries of state department of agriculture, KVK, NGOs, Agriculture Universities, etc through demonstration, workshop, seminars, preparing videos, distribute the leaflets, folders and other printed materials etc for imparting knowledge about Vermiculture technology.

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