STUDY ON THE SOCIO-ECONOMIC PROFILE AND KNOWLEDGE LEVEL ABOUT VERMICOMPOST TECHNOLOGY AMONG TRAINEES

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Abstract-In India, there are 98 million farm holdings, which are likely to increase further because of division of family. Of these total farm holdings, 58 per cent are marginal, 24 per cent are large and 18 per cent are small. Majority of marginal and small farmers are at lower level of literacy. The study was conducted in Jabalpur district of Madhya Pradesh in the year of 2012-13. This study revealed that out of total vermicompost trainees, 50.00 per cent belonged to middle age, higher percentage of education i.e. 40.52 per cent were having middle school passed, majority i.e. 60.34 per cent trainees were belonged to small farmers category, majority (60.34%) trainees who had received vermicompost training were from small farmers' category, highest (58.62%) of the trainees had medium social participation, maximum respondent belonged to low income categories (24001/- to 84000/- per annum), maximum percentage (44.82%) having marginal land holding (uo to 1.00 ha) is using the vermicompost, that majority (75.86%) vermicompost trainees were having agriculture as their main occupation, majority (64.65%) trainees possessed less number of livestock (1 to 3 animal), higher percentage (46.56%) of the trainees possessed medium level of knowledge about the vermicompost, the mean Score of various packages of practices of vermicompost technology were ranged from 0.87 to 1.48. that majority of the trainees have knowledge of application of vermicompost in field and type of raw material used in preparation of vermicompost technology, whereas the least number trainees knowledge Precaution taken during its preparation

Key Words- Socio-economic, vermicompost technology, knowledge, annual income and organic farming

1. INTRODUCTION

In India, there are 98 million farm holdings, which are likely to increase further because of division of family. Of these total farm holdings, 58 per cent are marginal, 24 per cent are large and 18 per cent are small. Majority of marginal and small farmers are at lower level of literacy. In a rough estimate, India has more than one lakh paid agricultural extension personnel to cater the needs of farmers in agricultural production. On the other hand, we have 30,000 agricultural scientists who are directly or indirectly associated or engaged in the dissemination of innovations among the farming community. In spite of these facts, about 30 to 40 per cent innovations are being adopted by the farmers. It indicates that our farmers have lack of knowledge and skill of new innovations, thus it necessary to train the farmers and farm women in various aspects of agricultural production. In order to fulfill the aforesaid need, the various farmers' training centers were set up in different states for imparting training to farmers. Moreover, the National Commission of Agriculture referred to extension as an informal out-of-school education and services for the farmers and the persons engaged in farm production directly or indirectly to help and motivate them for adopting the improved practices related to production, management, conservation and marketing.

As the vermicompost is a biological source of nutrient and can be prepared with the use of biodegradable wastes available at the village farm level through the joint action of microbes and earth worms, the vermicompost is the major component of organic farming as it may fulfill all the requirements with respect to production and protection of crop plants. The vermicompost may also be used as a tool for income generation, organic farming, and protection of environment, maintaining the soil health and sustaining the agricultural production.

At present the Krishi Vigyan Kendra, Jabalpur is conducting so many training programmes on vermicompost technology since its establishment with 2007 to 2012.

The present study was focused on those farmers who have received this training and they are adopting this technology. Keeping the above points in view, the present study was carried out with the help of following specific objectives:-

- ➢ To study the profile of trainees.
- ➢ To assess the impact of knowledge of vermicompost technology among the trainees.

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2. METHODOLOGY

The study was conducted in Jabalpur district of Madhya Pradesh. It lies between latitude 22° 49' and 24° 08'North longitude and 29° 21' and 80° 53' east and at a height of 394 m above sea level. The tropic of Cancer passes through the south of the district. The Jabalpur district comprises of seven blocks, out of which Panagar block was selected for the present study, because Krishi Vigyan Kendra Jabalpur has imparted more training programmers and also conducted demonstrations on vermicompost technology as compared to other blocks. The Krishi Vigyan Kendra, Jabalpur has adopted four clusters of villages in Panagar block for disseminating the vermicompost production technology through method demonstration and trainings. From all four clusters, seven villages i.e. Gudagwa, Bhidari Kala, Jatawan, Urdwah Khurd, Umariya Choubey, Maharajpur and Pipariya have been selected for the present investigation.The Krishi Vigyan Kendra, Jabalpur has conducted a training programme on vermicompost in seven villages of Panagar block during 2007-08 to 2009-10. 290 trainees who had been attended the training programme was obtained from the KVK. Only 40 per cent trainees were selected from each selected villages by random sampling method. Finally, in all 116 trainees have been selected for the study and list of villages.

3. RESULTS AND DISCUSSION

3.1 Socio-Economic Attributes of Trainees

Table-3.1Distribution of Vermi-Compost Trainees According to Their Age

S. No.	Age group	No. of trainees	Percentage
1.	Young (Up to 35 years)	26	22.41
2.	Middle (36 to 45 years)	58	50.00
3.	Old (Above 45 years)	32	27.59
TOTAL		116	100.00

Data presented in Table 3.1 revealed that out of total vermicompost trainees, 50.00 per cent belonged to middle age, whereas 27.59 per cent trainees in old age and 22.41 per cent trainees belonged to old age group.

Thus, it is evident that higher percentage (50.00%) of trainees belonged to middle age group.

Table-3.2 Distribution of Vermi-Compost Trainees According to Their Education Level

S. No.	Education level	No. of trainees	Percentage
1.	Illiterate	11	9.49
2.	Read, write and both	26	22.42
3.	Primary	26	22.42
4.	Middle	47	40.52
5.	Higher Secondary	06	5.17
TOTAL		116	100.00

Table 3.2 revealed that out of the total respondents, higher percentage of education i.e. 40.52 per cent were having middle school passed, whereas 22.42 per cent were read write and both and same as 22.42 per cent trainees educated primary school respectively, 9.48 per cent were illiterate, and only 5.17 per cent trainess were having Higher secondary and above education.

Thus, it can be concluded that the higher percentage (40.52%) of vermicompost trainees were educated up to middle school education level.

Table-3.3 Distribution of Vermi-Compost Trainees According to Their Size of Land Holding

S. No.	Categories	No. of trainees	Percentage
1.	Marginal farmers (Up to 1 ha.)	21	18.11
2.	Small farmers (1.1 to 2 ha.)	70	60.34
3.	Medium farmers (above 2 ha.)	25	21.55
TOTAL		116	100.00

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The data presented in Table 3.3 showed the size of land holding of the vermicompost trainees. Out of the total trainees, majority i.e. 60.34 per cent trainees were belonged to small farmers category, 21.55 per cent medium farmers and 18.11 per cent respondent belonged to marginal farmers category.

Thus, it is evident that majority (60.34%) trainees who had received vermicompost training were from small farmers' category.

Table-3.4 Distribution of Vermi-Compost Trainees According to Their Social Participation

S. No.	Categories	No. of Trainees	Percentage
1.	Low (up to 8)	37	31.89
2.	Medium (9 to 12)	68	58.62
3.	High (above to 12)	11	9.49
TOTAL		116	100.00

The percentage distribution of vermicompost trainees on the basis of their social participation is presented in Table 3.4. Data revealed that highest (58.62%) of the trainees had medium social participation, followed by 31.89 per cent had low, while only 9.49 per cent vermicompost trainees had high social participation.

Thus, it may be concluded the maximum (58.62%) vermicompost trainees had medium social participation.

Table-3.5 Distribution of Vermi-Compost Trainees According to Their Annual Income

S. No.	Categories	No. of Trainees	
		Trainees	%
1.	Below poverty line (Below Rs.24,000)	10	8.62
2	Low income (Rs. 24001 to 84000)	66	56.90
3.	Medium income (Rs.84001 to 144000)	35	30.17
4.	High income (Rs.144001 & above)	05	4.31
TOTAL		116	100.00

The data of table 5 Showed that out of the total respondent the maximum 56.90 respondent belonged to low income category (24000/- to 84000/- per annum) followed by medium income group 84001/- to 140000/-. Per annum

Thus it may conclude that the maximum respondent belonged to low income categories (24001/- to 84000/- per annum).

Table-3.6 Distribution of Vermi-Compost Trainees According to Change in Their Area Under the Use of Vermi-Compost Technology

S. No.	Categories (ha.)	No. of Trainees	Percentage
1	Marginal (up to 1.00 ha)	52	44.82
2	Small (1.1 to 2.00 ha)	48	41.38
3	Medium (above 2 ha)	16	13.80
Total		116	100.00

The data presented in Table 3.6 showed that the area under the vermicompost trainees. Out of the total trainees, highest i.e. 44.82 per cent trainees were belonged to marginal farmers category, 41.38 per cent small farmers and 13.80 per cent belonged to medium farmers category.

Thus it may be shows that the maximum percentage (44.82%) having marginal land holding (uo to 1.00 ha) is using the vermicompost.

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Table-3.7 Distribution of Vermi-Compost Trainees According to Their Occupation

S.No.	Categories	No. of trainees	Percentage
1.	Agriculture	88	75.86
2.	Agriculture + Agriculture labour	14	12.06
3.	Agriculture + Caste occupation	5	4.32
4.	Agriculture + Service	9	7.76
TOTAL		116	100.00

Table 3.7 revealed that out of the total trainees, majority (75.86%) trainees were having agriculture as main their occupation, whereas 7.76 per cent trainees were having agriculture and service, 12.06 per cent having agriculture and were doing work as agriculture labour, while only 4.32 per cent trainees were engaged in agriculture as well as in their caste occupation.

Thus, it is evident that majority (75.86%) vermicompost trainees were having agriculture as their main occupation.

Table-3.8 Distribution of Vermi-Compost Trainees on the Basis of Their Livestock Position

S. No.	Category	No. of Trainees	Percentage
1.	Less number (1 to 3 animal)	75	64.65
2.	Medium (4 to 5 animal)	34	29.32
3.	More (above 5 animal)	7	6.03
Total		116	100.00

The distribution of training regarding the livestock position is presented in table 8. The data revealed that majority (64.65%) trainees possessed less number of livestock (1 to 3 animal), while 29.32 per cent trainees were having medium (4 to 5 animal) livestock and only 6.03 per cent trainees had (above 5 animal) livestock.

3.2 Impact of Knowledge Level of Vermi-Compost Technology by the Trainees

The data in Table 8 shows that out of the total trainees, 46.56 per cent had medium knowledge level of vermicompost technology, while 30.17 per cent had high knowledge level and only 23.27 per cent trainees had low knowledge level about the vermicompost technology.

Thus, it can be concluded that higher percentage (46.56%) of the trainees possessed medium level of knowledge about the vermicompost

Table-3.8 Distribution of Vermi-Compost Trainees According to Their Knowledge Level of Vermi-Compost Technology

S. No.	Categories	No. of Trainees	Percentage
1.	Low knowledge level of vermicompost technology (Up to 11 scores)	27	23.27
2.	Medium knowledge level of vermicompost technology (12 to 21 scores)	54	46.56
3.	High knowledge level of vermicompost technology (21 to 32 scores)	35	30.17
TOTAL		116	100.00

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Table-3.9 Mean Score of Knowledge of Vermi-Compost Technology Among the Trainees

S. No.	Package of practices	Mean	Rank
1.	What is vermicompost	1.37	iii
2.	Which type of raw material used in preparation of vermicompost	1.39	ii
3.	Advantages of vermicompost technology	0.96	xii
4.	Which method used for prepartion of vermicompost technology	1.32	v
5.	How many layer sequence type of material used for vermicompost technology	1.05	ix
6.	Selection of place for vermicompost	1.14	viii
7.	Size of pit for preparation of vermicompost	0.87	xiv
8.	Which type of warms for vermicompost using	1.32	vi
9.	Used of water interval in vermicompost	0.96	xi
10.	Which type of material used for covering?	1.03	x
11.	What about you know how much time to complete vermicompost	0.93	xiii
12.	Which type of smell and colour present in vermicompost	1.32	iv
13.	Application of vermicompost in field	1.48	i
14.	Precaution taken during its preparation	0.81	xvi
15.	Harmful material remove when preparation of vermicompost	0.87	xv
16.	Precaution of sunlight, rain, wave, etc.	1.24	vii

Table 3.9 indicate the mean score of knowledge obtained by the vermicompost trainees. It is obvious from the table that the mean Score of various packages of practices of vermicompost technology were ranged from 0.87 to 1.48. Therefore, it can be concluded that majority of the trainees have knowledge of application of vermicompost in field and type of raw material used in preparation of vermicompost technology, whereas the least number trainees knowledge Precaution taken during its preparation.

CONCLUSION

Vermicompost can be described as a complex mixture of earthworm faeces, humified organic matter and microorganisms, which when added to the soil or plant growing media, increases germination, growth, flowering, fruit production and accelerates the development of a wide range of plant species. Vermiculture and vermicomposting technology is easy to practice, ecologically safe, economically sound and can create more employment opportunities for the rural people to upgrade their standard of living. At present Vermiculture technology is all set to emerge as a big business of the next century. The organic manure obtained from different waste materials using this versatile technique will avoid pollution problems to a greater extent. India being agriculture based country, it could easily produce millions of tones of Vermicompost, and considerably reduce the use of chemical fertilizers.

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