*Agriculture Update*
Volume 7 | Issue 3 & 4 | August & November, 2012 | 417-419

**Research Article**

# Effectiveness of training for farm women of Udaipur district regarding vermiculture technology

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**ARTICLE CHRONICLE :**
**Received:**
*21.08.2012;*
**Revised :**
*01.10.2012;*
**Accepted:**
*27.10.2012*

**SUMMARY :** Training provides knowledge and develops skills required for adoption of the technology and builds up desirable scientific attitude. The present study was planned with the objective to analyze the knowledge gain of the participants from the training programme. The study was conducted during 2011 in Udaipur, Rajasthan. The sample for the study consisted of 54 participants who attended the training programme. The results of the study shows that majority of the respondents belonged to low category (70.39%) followed by high ( 18.52%) and medium (11.11%) level knowledge categories before the training programme. On the other hand percentage of respondents increased in both high (51.86%) and medium (16.66%) categories after the training programme and decreased in low (31.48%) category of knowledge level. A well –designed training programme, based on the need of the participants would help to gain knowledge.

**How to cite this article :** Vyas, Latika, Vyas, Rahul and Indoria, Deepa (2012). Effectiveness of training for farm women of Udaipur district regarding vermiculture technology. *Agric. Update*, **7**(3&4): 417-419.

**KEY WORDS:**
Knowledge, Skill, Scientific attitude, Adoption, Organic farming

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## BACKGROUND AND OBJECTIVES

Dominance of chemical agriculture in last few decades has deteriorated the soil health and created the problem of agricultural waste disposal in rural areas. It is important to maintain environmental and agricultural sustainability without reducing productivity. Vermiculture technology has been considered as a sound and viable option to regenerate the soil health through recycling the agricultural waste. Vermiculture is the process of using earth worms to convert vegetable and animal waste into valuable product, namely vermicompost.

Training provides knowledge and develops skills required for adoption of the technology and builds up desirable scientific attitude. There is a great demand for organic products not only in the local but also in the international market. Keeping this in view training on vermiculture being given regularly at different institutes. Vermiculture is potential enterprise which supports unemployed youth ,agricultural labours, small and marginal farmers etc. Vermiculture programmes includes theory session as well as practical sessions. Practical programme includes preparation of vermicompost by actual doing. A part from this trainees are taken to believing so as to inspire them to make use of the knowledge and skill gained during the training programme.

It was felt important to evaluate the training programme in order to know whether the objectives formulated before the actual conduct of the training were fulfilled or not, to ascertain the knowledge gained by the trainees as well as to improve the quality and content of the training programme in future. Knowledge plays an important role in decision and adoption process. It is a stage or function in innovation decision process ( Rogers and Shoemaker, 1995).

Keeping all this in view, the present study was planned with the objectives to know the socio- personal characteristics of the participants, to analyze their knowledge gain from the training programme and also to know the relationship between knowledge level and socio-personal characteristics of the participants of the training programme.

## RESOURCES AND METHODS

The study was conducted during 2011 at NGO , Udaipur. The sample for the study consisted of 54 participants who attended the training programme. The duration of the training programme was three days which comprised of lectures and demonstrations with the trainees themselves learning by doing. Pre and post experimental design was used to ascertain the knowledge gained by the trainees in different aspects of vermiculture. Gain in knowledge was measured by a knowledge test developed by (Vyas and Maheshwari, 2009) for this purpose. Questionnaires, containing 10 knowledge items about vermiculture ,were given to the trainees before the start of the training programme and were collected back. Another set of questionnaire, containing the same questions, was given to the same trainees after the training programme. The score '0' and '1' were given to each incorrect and correct answers, respectively.

A knowledge score of the respondent is the summation of correctly answered items out of 10 knowledge test items which could result '0' as minimum and '10' as maximum score. Mean scores, percentages, standard deviations, 't' values and Pearsons' correlation coefficient were used to draw inferences.

## OBSERVATIONS AND ANALYSIS

Socio-personal characteristics of the participants are presented in Table 1. It was observed that majority (59.25 %) of the participants were young followed by middle aged group (33.30%). With regard to the education level, majority (64.80 %) were educated upto primary level and only 5.55 per cent of them were found illiterate. Most of the participants belonged to forward caste (62.96%) and only 27.77 per cent of them were marginal farmers. Farming was the main family occupation as expressed by majority (27.75 %) of the respondents and 53.70 per cent of them had annual income above Rs. 10,000/-.

To know the gain in knowledge by the trainees, mean knowledge score for pre and post training were calculated and are presented in Table 2. It was observed that there was an increase in knowledge as a result of exposure to training programme ( increase by 8.25 scores ). The gain in knowledge as a result of training was found to be highly significant statistically (1% level of probability) indicating that imparting training was one of the powerful means to increase gap. The results are in line with the results of Hosamani. *et al.* (2009) who found that farmers elites have acquired knowledge as a result of their exposure to vocational training on vermiculture.

**Table 1 : Distribution of participants on the basis of their socio – personal characteristics (n=54)**

| Sr. No. | Variables | Frequencies | Percentages |
|---|---|---|---|
| 1. | **Age** | | |
| | <30 years | 32 | 59.25 |
| | 30-50 years | 18 | 33.30 |
| | >50 years | 04 | 05.55 |
| 2. | **Education** | | |
| | Illiterate | 02 | 05.55 |
| | Primary | 35 | 64.80 |
| | Middle | 15 | 26.75 |
| | Senior secondary | 02 | 03.00 |
| | degree | - | - |
| 3. | **Caste** | | |
| | Forward caste | 34 | 62.96 |
| | Backward caste | 20 | 37.04 |
| 4. | **Land holding** | | |
| | Marginal | 05 | 27.77 |
| | Small | 15 | 40.75 |
| | Middle | 17 | 31.48 |
| | Big | - | - |
| 5. | **Occupation** | | |
| | Farming only | 15 | 27.75 |
| | Farming + Labour | 30 | 55.53 |
| | Farming + Service | 05 | 09.32 |
| | Farming + Business | 03 | 05.55 |
| | Farming + service +Business | 01 | 01.85 |
| 6. | **Income** | | |
| | < 10,000/- ( Low ) | 25 | 46.30 |
| | >10,000/- ( High ) | 29 | 53.70 |

Based on the knowledge score participants were distributed in three categories of knowledge level (Table 3 ) both before and after the training programme . It was observed that majority of the respondents belonged to low category (70.39%) followed by high ( 18.52%) and medium (11.11%) level knowledge categories before the training programme. On the other hand percentage of respondents increasd in both high (51.86%) and medium (16.66%) categories after the training programme and decreased in low (31.48%) category of knowledge level. The increase in knowledge level may be

**Table 2 : Extent of gain in knowledge by the participants of vermiculture training**

| Sr. No. | Particulars | Mean knowledge | ' t ' - value |
|---|---|---|---|
| 1. | Pre – training score | 1.50 | |
| 2. | Post training score | 9.75 | 21.05** |
| 3. | Mean difference | 8.25 | |

** indicates significance of values at P=0.01

**Table 3 : Distrbution of the participants according to their knowledge level before and after the training programme**

| | Low | Medium | High |
|---|---|---|---|
| Pre - test | 38 (70.39%) | 06 ( 11.11% ) | 10 (18.52 %) |
| Post- test | 17 ( 31.48 ) | 09 (16.66% ) | 28 (51.86% ) |
| Difference after training | -21 (38.91%) | + 03 (05.55%) | + 18 ( 33.34% ) |

** Figures in parentheses indicate percentage . + Increase in score and percentage -Decrease in score and percentage

attributed to the fact that the training was need based. Use of suitable teaching methods and hands on work experience that is 'learning by doing ' might have contributed to the increase in knowledge gain. The findings are in line with the findings of Mahipal and Prasad (1997) and Vyas and Maheshwari (2009) were found that majority of the respondents had gained medium level of knowledge about various technologies imparted during training.

Relationship between knowledge level and selected independent variables *viz.*, age ,education, land holding and annual income, was analyzed and the results were not presented in table form because, in the overall situation ,a non-significant relationship was found between knowledge level and selected independent variables.

**Conclusion:**

It can be concluded that a well –designed training programme ,based on the need of the participants would help to gain knowledge . The participation of small and marginal farmers was less , so, there is a need to impress upon these farmers about the need to participate in such type of training programmes. It is suggested that if the training programmes are well planned based on the trainees' needs and if provided congenial environment would certainly lead to acquisition of higher knowledge . There is also the need to involve the weaker sections of the society like small and backward caste and women in such formal programmes of mass awareness, organizers should ensure larger participation of these sections of the society.

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