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ATTITUDE SCALE CONSTRUCTION FOR TRIBAL WOMEN TOWARDS VERMICULTURE TECHNOLOGY

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ABSTRACT

The study was conducted in purposively selected village Goran of Panchayat Samiti Jhadol, district Udaipur. A sample of 40 Tribal women, one women from each household, continuously using vermiculture technology, was considered for gathering required information. The results of the study indicate that finally, 24 statements were selected in the scale, having t- value more than 1.75 significant at 5 % level. Further, majority of the tribal women (79.03 & 8.75 %) were having favorable to most favorable attitude towards the vermiculture technology.

INTRODUCTION

Dominance of chemical agriculture is last few decades have 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 earthworms to convert vegetable and animal waste into valuable product, namely – vermicompost. Government, State Agriculture Universities and Non – governmental agencies are working continuously with farming community for adoption of this valuable compost.

Adoption of improved agricultural practices in tribal area depends on the attitude of the people towards the technology. It was therefore, thought necessary to develop a scale to measure the attitude of tribal women towards the Vermiculture technology.

RESEARCH METHODOLOGY

The investigation was conducted during the year 2003 on a sample size of 229 tribal women actively involved with the vermiculture technology from each household of single village " Goran" of P.S. Jhadol, district Udaipur .

Construction of Attitude Scale

Likeart's summated rating scale technique was used to construct the attitude scale to measure the attitude of tribal women. Initially 64 statements were collected where carefully examined in the light of the criteria suggested by likeart for screening. The items were scrutinized by an expert panel of judges to determine their relevancy and subsequent screening of items for their inclusion in the final scale. For this, In all 53 judges comprised of psychologist, sociologists, educational, personnel's of BAIF and Home Science Extension Educationists of the country contacted personally (met during a training at Division of Extension Education, IARI, Pusa, New Delhi) with appropriate instructions to critically evaluate each items for their relevance & appropriateness to measure attitude towards vermiculture technology and their response were obtained. Each item was rated on five point continuum viz. most appropriate, appropriate, neutral, inappropriate & most inappropriate with the

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score of 5,4,3,2 & 1 respectively. They were also requested to delete redundant statement and suggest modification in the statement deemed necessary.

In all, 50 judges could responded in time, the relevancy response of the 50 judges were tabulated and analyzed appropriateness percentage, weightage & mean score for all the itmes. The statements having appropriateness percentage, of more that 0.75, weightage of more than 0.75 and mean score of more than 3.5 were considered for final selection of statement. Finally, 46 statements more or less equal number of positive and negative, were administered to 20 tribal women actively involved in vermiculture technology from non sample area. Response through personal interview for each item was obtained on 5 point continumm, viz. " Strongly agree", " Agree", " Undecided", " Disagree" and "Strongly disagree" with a score of 5,4,3,2 & 1 respectively. Score of the respondents were arranged in ascending order based on attitude scores 25 Per cent of the subjects with highest total scores and 25 per cent with lowest total scores were selected for critical ratio calculation. The "t" value is a measure of the extent to which a given item differentiating the high group from low group.

$$t = \frac{\overline{X}H - \overline{X}L}{\sqrt{\frac{\Sigma(XH - \overline{Y}H)^2 + \Sigma(XL - \overline{Y}L)^2}{n(n-1)}}}$$

Where -

$$\Sigma\left(XH - \overline{X}H\right)^2 = \Sigma XH^2 - \frac{\left(\Sigma XH\right)^2}{n}$$

and

$$\Sigma\left(XL - \overline{X}L\right)^2 = \Sigma XL^2 - \frac{\left(\Sigma XL\right)^2}{n}$$

Where as -

ΣXH^2 = Sum of the squares of the individuals scores in the high group

ΣXL^2 = Sum of the squares of the individuals scores in the low group

$\overline{X}H$ = The mean score on a given statement for the high group

$\overline{X}L$ = The mean score on a given statement for the low group

n = Number of respondents in each group

The 'r' value for attitude scale towards vermiculture technology by tribal women was 0.97, indicating high reliability of the scale.

Scoring Procedure of final format of the scale:

The final scale consisting of 24 statement (12 favourable & 12 unfavourable) was administered to the 229 respondents. The responses were obtained on five point continuum namely "Strongly agree" "Agree", " Undecided", "Disagree" and "Strongly disagree" with weightage of 5,4, 3,2 & 1 respectively for favourable statement of weightage 1,2,3,4 & 5 for unfavourable statement. Attitude scores of the respondents was calculated by adding up the score of all the statements.

RESULTS AND DISCUSSION

Based on items analysis ('t' values) 24 items finally were retained in the scale, having 't' value more than 1.75 significant at 5 per cent level. Thus, 24 items were selected to constitute the scale to measure the attitude of tribal women towards vermicultre technology (Table 1). Due care was exercised while selecting and working the statements so as to cover all the relevant aspects of vermiculture technology thus, ensuring a fair degree of content validity.

Attitude towards vermiculture technology by tribal women

It is obvious that, an attitude of a person towards a thing or a person in question is mainly determined by the socio-economic situation under which he or she resides and works and further, how, why, what, where and to whom that particular thing is involved.

Table 2 shows that the majority of the tribal women (79.03 & 8.75%) were having favourable and most favourable attitude towards vermiculture technology, respectively. Only 12.22 per cent tribal women had neutral attitude towards the technology.

None of the respondent had unfavourable and most unfavourable attitude. Overall it can be said that most of the respondents expressed favourable attitude towards the vermiculture technology with mean attitude score 96.96.

Table 1. Final Attitude Scale with 't' values

S. No	Statement	't' value	SA 5	A 4	U 3	D 2	SD 1
1.	Vermiculture technology has come as a real boon to the farm families.	2.48					
2.	It has a little benefit and more propaganda.	3.09					
3	In vermicomposting return of comport per unit area of land is more.	5.59					
4	Rearing of earthworms in nearby house produces unhygienic conditions.	7.39					
5	Vermiculture technology is the best subsidiary occupation for small farmers and landless labourers	4.02					
6	Vermiculture technology is not suitable in the area with fluctuating temperature.	7.39					
7	Vermiculture technology is simple and easy to implement.	9.00					
8	Traditional method of 'preparing comport is better than vermicomposting.	3.83					
9.	Vermiculture technology is the best technology among all the compost making technology	1.86					
9.	It is difficult to transport the vermicompost to nearby market.	3.54					
10.	Tribal women can utilize their leisure for vermicomposting	5.66					
12	it is difficult to continue vermiculture technology in summer.	3.53					
13	Use of vermicompost in field reduces the use of chemical fertilizer.	3.49					
14	Vermiculture technology has increased the workload of tribal women.	3.025					
15.	Use of vermicompost result in low incidence of plant disease	5.81					
16	By using vermicompost in field soil moisture increases.	2.58					
17	By using vermicompost in field weed problem decreases	4.56					
18	Tribal women have to depend oil field functionaries and agency for the sale of their vermicompost.	2.97					
19	Use of vermicompost as a basal doze a nursery raising bed increases the production permit later on.	3.34					
20	Protection of earthworms in Bed from its enemies is difficult.)	3.15					
21.	Crops and vegetables grown in vermicompost are of 'better quality (more tender, heavy loner shelf life more shiny)	6.48					
22.	Crops and vegetables grown in vermicompost further more prices.	4.23					
23.	Site use of earthworms help in improving the physical condition of soil	3.31					
24.	Vermiculture technology does not generate income sound the year.	2.84					

SA= Strongly Agree, A= Agree, U= Undecided, D= Disagree, SD= Strongly Disagree

Table 2. Distribution of respondents by their Attitude towards vermiculture Technology

S. No.	Attitude categories	Frequency	Mean Scale	Total Score
1.	Most favourable (108.1 to 120.0)	20(8.73%)	113.25	2256
2.	Favourable (84.1to 108.0)	181 (79.03%)	98.07	17751
3.	Neutral (60.1to 84.0)	28 (12.2%)	78.14	2188
4.	Unfavourable (36.1to 60.0)	0	0	0
5.	Most unfavourable (24.0 to 36.0)	0	0	0

Mean Attitude score - 96.96

CONCLUSION

The scale was found to be reliable and valid .Therefore, it would correctly measure the attitude of tribal women towards vermiculture technology to the maximum precision possible and can yield constant results when used on different occasions involving the similar and or different subjects .

Further, study clearly shows that majority of respondents (79.03 % & 8.73 %) had favourable to most favourable attitude towards the vermiculture technology. None of the respondents had unfavourable to mostunfavourable attitude towards the technology.

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