

Scale Development to Measure Attitude of Rose Growers Towards Improved Rose Cultivation

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ABSTRACT

The study was confined to develop a scale which can scientifically measure the attitude of rose growers towards improved rose cultivation. Among the techniques available, "Scale product method" combining Thurstone's technique of equal appearing interval scale for selection of items and Likert's technique of summated rating for ascertaining the response on the scale was used. The final scale constitutes 20 statements. The calculated reliability co-efficient is 0.856.

Keywords: Attitude, Rose growers, Improved cultivation

INTRODUCTION

Management is one of the most important factors which help the rose growers to exploit natural resources and accumulate capital. The efficient use of resources depends to a greater extent on how rose growers acquire and adopt innovations in the rose cultivation in effective manner to reach higher levels of economic performance through their management efficiency. One of the important factors affecting rose growers' management efficiency is the attitude of rose growers. Attitude refers to the "degree of positive or negative affect associated with some psychological object" (Thurstone, 1946). Attitude, a psychological character is conceptualized as positive or negative reaction of farmers towards improved rose cultivation. For the purpose, an attempt has been made to develop a scale which can scientifically measure attitude of rose growers towards improved rose cultivation.

METHODOLOGY

Among the techniques available, researcher has selected 'Scale product method' which combines the

Thurstone's technique of equal appearing interval scale (1928) for selection of items and Likert's technique (1932) of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown (1949) was used.

Item Collection

The items of attitude scale were called as statements. In initial stage for developing the scale large numbers of statements about improved rose cultivation were collected from relevant literature and discussion with experts of the area. The statements, thus selected were edited according to the criteria laid down by Edward (1957) and finally 43 statements were selected as they were found to be non-ambiguous and non factual.

Item Analysis

In order to judge the degree of 'Unfavorableness' Favourableness' of each statement on five point equal appearing interval continuum a panel of judges was selected. Seventy slips of the selected statements were handed over to the professors and extension educationists of Gujarat Agricultural Universities, Horticulturist and extension functionaries of Gujarat State. The judges were requested

to judge each statement in terms of their agreement or disagreement with the statements with the five point equal appearing interval continuum. Out of these experts, only 50 experts had returned the statements after dully recording their judgments and were considered for the analysis.

Determination of Scale and Values

The five points of the rating scale were assigned scores ranging from 1 (for strongly disagree) to 5 (for strongly agree). For positive statements, 5,4,3,2 and 1 score was given to strongly agree, agree, undecided,disagree and strongly disagree respose respectively, while for negative statements scoring was reversed. Frequency distribution of the scores of judges was than prepared. Based on the judgment, scale (median) value and ‘Q’ value for each of 43 statements were calculated by using following statistical formula.

$$S = L + \frac{0.50 - P_b}{P_w} \times i$$

Where, S = The median or scale value of the statement

L = Lower limit of the interval in which the median falls

P_b = The sum of the proportion below the interval in which the median falls

P_w = The proportion within the interval in which the median falls

i = The width of the interval and is assumed to be equal to 1.0 (one).

The inter-quartile range (Q = Q₃ - Q₁) for each statement was also worked out for determination of ambiguity involve in the statements. Based on the median and Q values, 20 statements were finally selected to constitute attitude scale. The final format of the scale is presented Table 1.

Reliability of The Scale

The reliability of the test was examined by employing test-retest method. In this method, the developed attitude scale with 20 items was administered twice to the 20 rose growers at 15 days interval, who were neither previously interviewed nor had a chance to come in the final sample of study. Thus two sets of attitude scores were obtained for each 20 respondents. Co-efficient of reliability between the two sets of score was calculated by Rulon’s formula (Guliford 1954), which was 0.856.

Attitude towards improved cultivation practices

Table 1: List of statements showing Attitude towards improved rose cultivation

Sr. No.	Statements	SA	A	N	DA	SD
1	Adopting improved rose cultivation technology one should get higher yield.(4.14)					
2	Improved rose cultivation is an instrument for social and economic change.(3.99)					
3	There is no risk in adoption of improved rose cultivation technology.(3.63)					
4	Only big farmers can do improved rose cultivation efficiently. (3.50)					
5	No matter what rose growers may try, crop yields will be improved only when god will it.(2.59)					
6	Only educated farmers can cultivate rose efficiently.(3.61)					
7	Improved rose cultivation is difficult as it requires more technical skill.(2.33)					
8	I would like to advise my son to continue improved rose cultivation (3-63)					
9	Improved rose cultivation requires more labour.(2.06)					
10	Improved rose cultivation practices are more complex and technical in nature. (3-55)					
11	Proper technical guidance is essential on agronomical practices on improved rose cultivation. (3.96)					

12	Improved rose cultivation is more suitable who have their own irrigation facilities.(4.28)					
13	Status, respects and prestige can be perceived by adopting improved rose cultivation. (3.82)					
14	As an innovator in improved rose cultivation technology he gets aspiration for further progress in agricultural production.(3.90)					
15	Improved rose cultivator becomes an example for other fellow farmers.(4.57)					
16	People having less income can also be successful in improved rose cultivation. (3.89)					
17	There is no surety of getting higher price from rose and its products.(2.83)					
18	Improved rose cultivation is costly affair for small and marginal farmers.(3.56)					
19	A rose grower should think on higher yields and economic return. (4.69)					
20	The most successful rose grower is one who get maximum of return from a minimum cost.(4.25)					

Scoring techniques

The selected 20 statements for final format of the attitude scale were randomly arranged to avoid response bias. Against each of 20 statements, there were five columns, representing a five point continuum of agreement or disagreement to the statements as followed by Likert (1932). The points on continuum were strongly agree, agree, undecided, disagree and strongly disagree with weight of 5,4,3,2 and 1 respectively for favourable (positive) statement and with weight 1,2,3,4 and 5 respectively for unfavourable (negative) statement.

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SA= Strongly Agree, A = Agree, N= Neutral, DA= Disagree & SD= Strongly Disagree