

Gender Differences on Training Needs Among Farmers' Discussion Groups

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ABSTRACT

Training needs of Farmers Discussion Groups (FDGs) was undertaken in Coimbatore district, Tamilnadu to study the training needs of men and women FDG members in major subject area and specific subject area. The study indicated that 74 per cent of men FDG members preferred training on plant protection measures whereas 72 per cent of women FDG preferred training in harvesting among the major areas. Training on cropping pattern, soil reclamation and improvements were other important areas preferred by the FDG members. With regard to specific subject matter areas, the preference varies within each specific area. Multiple regression analysis reveals that of the fifteen selected variables only one variable viz. contact with extension agency had shown positively significant influence on training needs. Age had shown negatively significant impact on training needs indicating old members have little interest on training needs as compared to young and energetic members. It suggested consideration of preference of FDG members, reorientation of training separately for men and women, emphasis on innovative methods in farming and selection of young and middle aged members while planning training program for FDGs.

Key words: Training needs; Farmers discussion group;

The participation of farmers in extension activities has been prioritized nowadays as farmers respect and trust when the information is given by the fellow farmers. In order to improve the farm dissemination and to have participation in extension by locals, Farmers Discussion Groups (FDGs) are organized by Krishi Vigyan Kendras (KVKs) at Tamilnadu Agricultural University (TNAU), Coimbatore. The FDGs are the group of twenty to thirty five members and organized in villages to serve as a medium for imparting the latest farm technology information to their members. The important activities of the group are to conduct meetings; engage in information sharing; receive technical training; conduct field trials; organize bulk selling and purchasing; and support individual members on need basis (TNAU Agri Portal). These groups enable the farmers to gain access to specialists, consultants, professionals and other farmers in a group atmosphere and also, encourage the adoption of improved practices (Kathy Barrett and Merrill ewert, 2009). Keeping the above facts in view, this paper studies the training needs of men and women FDG members in major subject area and specific subject

area and identifies socio-economic factors associated with training needs.

METHODOLOGY

KVK Coimbatore was selected purposively for the study due to existence of more FDGs under this KVK and there are no exclusive studies about the FDGs in Coimbatore district. From each block, one FDG was selected. The selection of FDG from each block was based on the number of training attended by their group convenors in KVK. Altogether 100 members (80 males and 20 females) were selected using proportionate random sampling technique.

The Training need in this study has been operationalised as the expressed level of training required by the respondents in the major subject areas. The procedure followed by Mallika (1995) was used. The specific items in the study refer to a particular area/topic under the major subject area. Major subject matter area and the specific items were assessed by the use of a three point rating scale i.e. "much needed", "somewhat needed" and "not at all needed" with scores

of 3, 2 and 1 respectively. The scores were added and the respondents were grouped into low, medium and high categories based on their training needs using cumulative frequency.

To measure the training needs in the subject matter areas, ranking system was used. The respondents were asked to check each major subject matter area as well as specific items on the three-point continuum. The frequencies of each response categories were multiplied to the score allotted to it. The scores were summed up and divided by the total weights to get weighted mean for each subject matter area. Then they were ranked to find out the important areas in which farmers required trainings. To study the relationship between the training needs and selected independent variables, total training need score was worked out. The total score for each respondent arrived at by summing up the scores of all the specific items in each of the major areas as rated by the respondents. The statistical tools like percentage analysis, cumulative frequency, simple correlation and multiple regressions are used in this study.

RESULTS AND DISCUSSION

Training needs of men and women FDG members:

Major Subject Matter Area : The major crops cultivated in the study area were coconut, paddy, banana and sugarcane. Training needs of men and women FDG members under major subject matter areas are shown in Table 1.

Table 1. Training needs of men and women respondents in the major subject matter areas

S. No.	Major subject areas	Men (n=80)		Women (n=20)	
		MS	Rank	MS	Rank
1.	Improved varieties	0.55	VIII	0.57	V
2.	Seeds and sowing	0.60	V	0.49	VII
3.	Manures and manuring	0.52	IX	0.44	IX
4.	Plant prot. measures	0.74	I	0.59	IV
5.	Farm machinery	0.52	IX	0.53	VII
6.	Irrigation	0.70	IV	0.57	V
7.	Cultural operations	0.57	VII	0.55	VI
8.	Soil reclamation	0.59	VI	0.65	III
9.	Harvesting	0.72	III	0.72	I
10.	Cropping pattern	0.73	II	0.70	II

Training on plant protection measures was found to be the most preferred subject area among the men

members as indicated by a mean score of 0.74. This finding confirms the findings of *Bonny and Prasad (1999)*. The preference given to plant protection measures might be due to the frequent attack of crop by pest and diseases at all stages resulting heavy economic losses in the area. Moreover, men were mostly involved in pest and disease management practices.

Cropping pattern was preferred second by both men and women respondents indicating the importance of suitable cropping pattern in improving farm income and livelihood. The reason being involvement of both men and women equally in deciding the cropping pattern.

Time of harvesting plays an important role in deciding the yield. Knowledge on time of harvesting, stage of harvesting etc. would make them to protect their produce from harvesting losses. Women involved more in the harvesting related operations and thus preferred training in this area. Training on manures and manuring was the least preferred among the members indicating acquaintance of the practice in the area.

Specific Subject Matter Area : The major subject matter area though tells the overall picture of the training needs, it does not depict the full picture. Hence, effort has been made to analyze the training needs on specific subject matter areas. The training need of men and women respondents in the specific subject matter areas are depicted in Table.2

Improved Crop Variety : Training on improved varieties of horticultural crops was found to be most preferred by both men and women respondents. In addition, 60 per cent of the women respondents expressed the importance of high yielding varieties of commercial crops in improving productivity and income. The cultivation of horticultural crops has gained momentum in the area since many improved varieties and hybrids have been evolved in horticultural crops. They lack adequate knowledge on different horticultural crops and their improved varieties suitable to their land.

Seeds and Sowing : The preference given to pretreatment of seeds was high for both men and women respondents. There was a variation in preferring other items by both respondents as some of the operations are men oriented while some others are women oriented. Lack of adequate knowledge on the chemicals used, their concentration and mode of application might be the reason for this preference.

Table 2. Training need of men and women FDG members in the specific subject matter

S. No.	Major subject areas	Men (n=80)		Women (n=20)	
		MS	Rank	MS	Rank
1.	<i>Improved varieties of crops</i>				
(a)	Grain crops	0.44	III	0.53	II
(b)	Commercial crops	0.60	II	0.60	I
(c)	Horticultural crops	0.61	I	0.60	I
2.	<i>Seeds and sowing</i>				
(a)	Characteristic of good seed	0.54	V	0.46	III
(b)	Maintenance of seed purity	0.53	VI	0.48	II
(c)	Seed germination test	0.60	II	0.45	IV
(d)	Seed rate	0.53	VI	0.48	II
(e)	Duration of crops	0.55	IV	0.46	III
(f)	Growing of crops	0.59	III	0.51	I
(g)	Pretreatment of seeds	0.68	I	0.46	III
(h)	Methods of sowing	0.68	I	0.46	III
(i)	Spacing	0.59	III	0.46	III
3.	<i>Manures and manuring</i>				
(a)	Identification of fertilizers	0.51	II	0.41	II
(b)	Calculating unit cost of fertilizers and doses	0.50	III	0.41	II
(c)	Optimum dose of fertilizers	0.42	VI	0.38	III
(d)	Taking soil sample	0.77	I	0.76	I
(e)	Methods of fertilizer application	0.49	IV	0.36	IV
(f)	Foliar application of urea	0.47	V	0.33	V
4.	<i>Plant protection measures</i>				
(a)	Identification of pests	0.81	II	0.61	IV
(b)	Identify the pesticides	0.80	III	0.63	III
(c)	Use of bio-control	0.94	I	0.96	I
(d)	Use of bio-pesticides agents	0.92	II	0.95	II
(e)	Schedule of different plant protection chemicals	0.80	III	0.60	V
(f)	Preparation of different concentration of pesticides	0.60	V	0.38	IX
(g)	Operating sprays and duster	0.57	VII	0.41	VIII
(h)	Dusting and fumigating for storage pests	0.59	VI	0.45	VII
(i)	Control of storage grain pests	0.65	IV	0.46	VI
5.	<i>Farm machinery</i>				
(a)	Use of various tillage implements	0.51	III	0.55	I
(b)	Economics of using such implements	0.53	II	0.56	II
(c)	Repair and maintenance	0.56	I	0.50	III
6.	<i>Irrigation</i>				
(a)	Water requirement of different crops	0.62	III	0.58	I
(b)	Time of irrigation	0.69	II	0.58	I
(c)	Modern methods of irrigation	0.79	I	0.56	II
7.	<i>Cultural operations</i>				
(a)	Identification of local weeds	0.58	II	0.53	III
(b)	Weed control by chemicals	0.54	III	0.55	II
(c)	Other inter-cultivation practices	0.58	I	0.56	I
8.	<i>Soil reclamation and improvements</i>				
(a)	Visual identification of sample of soils	0.58	III	0.65	II
(b)	Identification of alkalinity and acidity	0.60	I	0.66	I
(c)	Reclamation of alkalinity and acidity	0.59	II	0.63	III
9	<i>Harvesting</i>				
(a)	Appropriate time of harvesting	0.61	II	0.40	II
(b)	Processing and storage of produce	0.83	I	0.47	I
10	<i>Cropping Pattern</i>				
(a)	Crop rotation	0.59	IV	0.30	IV
(b)	Mixed cropping	0.76	III	0.56	I
(c)	Inter cropping	0.79	I	0.40	III
(d)	Multiple cropping	0.78	II	0.42	II

Manures and Manuring : The FDG members also lacked knowledge on importance of soil testing in increasing productivity and income as shown by high training needs in this area. Both the respondents considered training on use of bio-control agents and bio-pesticides important as plant protection measures. Use of bio-control agents and bio-pesticides in horticultural crops was gaining momentum in the area where the members lack knowledge on the source of getting and use of these bio-controls.

Farm Machinery: Nearly 56 per cent of men respondents preferred training on repair and maintenance of farm implements due to lack of adequate knowledge on it. They hesitate to buy new implement because of high cost on repair and maintenance rather they prefer to hire the implements. The need of various tillage implements that will decrease drudgery in various farm operations might have induced the women respondents to prefer training on use of various tillage implements.

Irrigation: The shortage of water in the area made both the respondents to have knowledge on water requirements of different crops and modern methods of irrigation that pave way for the economic and judicious use of water.

Cultural operation: Preferences given to training on other inter cultivation practices was high for men and women respondent with the mean score of 0.58 and 0.56 respectively. The efficient use of inputs like seeds, fertilizers, spacing and irrigation might have induced to prefer in this subject.

Soil reclamation and improvement: Inadequate knowledge on reclamation of alkaline and acidic soils might have induced the members to prefer training on identification of alkalinity and acidity of their soils.

Harvesting: Preference given to training on processing and storage of farm produce was high for both the

respondents. Post harvest loss of horticultural crops is a major problem in the area. Due to heavy post harvest losses and commercialization of agriculture, storage and processing of farm produce for value addition gains much value.

Cropping pattern: The members of the FDG felt that due to insufficient water and lack of adequate knowledge on inter cropping and multiple cropping many were still adopting monocropping. They felt that they need to have more knowledge in this area.

The above findings indicate that the preference for training varies for both men and women respondents. It suggests the KVK to reorient the training as per the preference of the respondents. In addition, separate training should be organized for women, as their preferences are different from men counterparts.

Relationship of independent variables with training needs : Table 3 showed that out of fifteen variables, farm status, material status, annual income and contact with extension agency had shown positive and significant association with training needs. The rest of variables, viz. age, experience as FDG members, educational status, social participation, cosmopolitaness, mass media exposure, economic motivation, credit orientation, risk orientation and innovativeness had shown a non-significant association with training needs of FDG members.

Table 3. Correlation and multiple regression coefficients of independent variables with their training needs

S. No	Variables	Correlation coefficient 'r'	Multiple regression coefficient	Standard error of regression	't' value
X1	Age	-0.189	-0.286	0.127	-2.251*
X2	Experience in FDG	-0.180	-1.047	1.051	-0.996
X3	Educational status	0.095	0.0787	0.253	0.312
X4	Farm status	0.349**	2.336	1.194	1.957
X5	Material status	0.260**	-0.0763	0.131	0.582 ^{NS}
X6	Social participation	-0.127	-2.514	2.513	1.000 ^{NS}
X7	Annual income	0.245*	0.00001	0.000	0.637 ^{NS}
X8	Contact with extension agency	0.199*	0.373	0.145	2.564*
X9	Cosmopolitaness	0.142	1.824	1.378	1.324 ^{NS}
X10	Mass media exposure	0.131	-0.226	0.639	-0.354 ^{NS}
X11	Trainings attended	-0.216	-2.210	1.262	-1.751 ^{NS}
X12	Economic motivation	0.044	0.363	0.308	1.178 ^{NS}
X13	Credit orientation	0.052	-0.429	1.058	-0.406 ^{NS}
X14	Risk orientation	0.147	0.110	0.396	0.278 ^{NS}
X15	Innovativeness	0.166	1.033	1.528	0.676 ^{NS}
X14	Risk orientation	0.147	0.110	0.396	0.278 ^{NS}
X15	Innovativeness	0.166	1.033	1.528	0.676 ^{NS}

*Significant at 5 per cent level

** Significant at 1 per cent level

F = 2.619** R² = 0.352

NS = Non significant

Multiple regression analysis revealed that of the fifteen selected variables only one variable viz. contact with extension agency had shown positively significant influence on training needs. It shows that the contact of FDG members with extension persons increases their knowledge on improved technologies and thus need more training on diversified areas. Age had shown negatively significant impact on training needs indicating old members have little interest on training needs as compared to young and energetic members.

CONCLUSION

The major areas in which the respondents needed more considerations were on horticultural crops, commercial crops, taking soil samples, use of bio control agents, modern methods of irrigation, correction of alkaline and acidic soils, mixed cropping and inter cropping. Further, increase in contact with extension agency would motivate the respondents to prefer training in different areas, while age increases normally training needs decreases. Hence, the findings show the positive influence of contact with extension agency and negative influence of age on training needs. This implied

that training should be organized based on the preference of FDG members. Moreover, the training need varies for both the respondents with some exceptions. Therefore, there is a need for the KVK to reorient the training separately for men and women respondents. The respondents are to be trained in skill of various innovative methods in farming so that they can arrange their own method demonstration in the village and teach required skill to the farmers. Further awards, rewards and incentive programmes may be increased for involvement and enthusiasm to make the respondents more active. Young and middle-aged farmers should be selected while forming the FDGs. There is a lot of scope for efficient technology transfer when one effectively engages these FDG members in extension. Government should take necessary steps to strengthen these FDG members for technology transfer. The strengthening of these FDG members in turn would improve the income and livelihood of the farmers in the district.

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