Global Journal of Agricultural Research
Vol.5, No.3, pp.34-41, September 2017
Published by European Centre for Research Training and Development UK (www.eajournals.org)

TRAINING NEED ASSESSMENT OF RURAL WOMEN REGARDING CROP PRODUCTION PRACTICES

Ghafoor M[1], I. Ashraf[1] and S. Arshad[2]

*Institute of Agri. Extension and Rural Development, University of Agriculture, Faisalabad, Pakistan
[2]Agricultural Officer (Tech.), Department of Agriculture Extension, Punjab, Pakistan

ABSTRACT: *In the rural areas of Pakistan, farmers mostly use their family labor including women for production of crop. Rural women are very active in diverse agricultural activities (i.e. pre-harvest, post-harvest). Women from poor households engage in a variety of income-generating and expenditure-saving activities. They are twice as likely as men to be involved in agriculture related activities. Pakistani rural women lagging behind as compared to other developed country women due to many reasons like lack of training programme about new techniques of crop production, lack of resources, little support by agricultural extension services etc. Therefore, the present study is designed to assess the training needs of the rural women in crop production Karor Lal Eson, District Layyah, which will be helpful for extension organizations to develop their future strategies for rural women. A sample of 120 female respondents was selected randomly from Tehsil Karor Lal Eson, District Layyah through multistage random sampling technique. The results of the study revealed that a large majority (70.8%) of the respondents were illiterate. A simple majority (50.8%) of the respondent spent 2 to 4 hours in land preparation and sowing practices. While about one-fifth (19.2%) of the respondents spent 2 to 4 hours in broad casting of seed/fertilizer. However, in crop production activities including broadcasting of seed/fertilize (mean= 3.35), plant protection (mean= 3.52), thinning (mean= 2.84) and grading of seeds (mean= 2.81) they were less competent and need to educate and train about these tasks.*

KEYWORDS: Rural women, Training, Crop, Production Practices, Pakistan

INTRODUCTION

It is well proven that all over the world women play a significant role in all conventional agricultural production technologies and also held responsible to produce more than 50 percent of the food grown worldwide (FAO, 1995). It is reported by Choudhary and Singh (2003) that in India almost 70% of actual farm work and up to 60% of farming population constitute by the women. There is a greater involvement of women under various agricultural operations along with household arrangements. Similarly rural women in Pakistan remain busy for look after the family and manage different sorts of household works at home. They also have to perform other allied activities like look after the livestock, post harvest activities at farm level. No doubt, they are playing their dynamic role along with men with true spirit and letter. Literature has proved that women are involved in all agricultural related tasks; it is somehow often that their participation varies from area to area because of some cultural and social setup constraints. However, they are competent in both pre-harvest as well as in post-harvest crop production activities.

In early time period, it was believed that men were the main actors or producers of agriculture commodities. With the passage of time it has been revealed that women's role is

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

highly significant in all sort of farming activities as compared to men from Stone Age (Baluch, 1988). Mollel *et al.* (2000) claimed that in Morogoro both men and women were equally involved in land preparation, ploughing, planting, weeding and harvesting. Palmer (1977) argued that rural women of India in Wheat growing areas disclosed that their average working of day was between 15 to 16 hours that's why women are awarded with the label "Backbone of the Agricultural Labor Force".

The matter of fact is this, similar condition prevailing in Pakistan, rural women are fighting to end poverty, engaged in activities to ensure the food security, toil hard to meet basic needs of their family (i.e. Clothing, food, shelter etc.) as well as overall development in the rural areas through crop production (Ranjh *et al.*,2009).

Begum and Yasmeen (2011) founded that females are lagging behind men in many spheres of agriculture tasks with special reference to their participation in enhancing productivity challenges but unfortunately their participation is not recognized at national level. They have to face many problems.

There is a large gap between the modern technologies and the conventional methods used by rural women in Pakistan. The importance of training cannot be under estimated. It's the training which brings desire change in the attitude, skills as well as knowledge of the people. Through knowledge people get aware about their basic rights in the society. Training of rural women is therefore inevitable for improving quality of life, alleviation of poverty and food insecurity and overall development in the rural areas.

It is the dire need of the time to design such effective extension informal training services/interventions for rural women which cater their true needs by keeping in view the special constrained faced by women in our patriarchal society.

METHODOLOGY

The study was conducted in Tehsil Karor lal Eson, District Layyah. Tehsil Karor lal Eson consist of 14 union councils out of which 2 Union Councils are Urban and 12 are Rural. 5 rural UCs were selected through simple random sampling technique. From each selected UC, 2 villages were selected randomly and from each selected village, 12 farm families were selected at random. From each selected farm family one woman, who was actively involved in performing different agricultural activities, was selected, thereby, making a sample of 120 respondents. The data were collected through a well structured validated pre-tested interview schedule. The collected data were analyzed by using Statistical Package for Social Sciences (SPSS) to draw the conclusions and formulate the suitable recommendations.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

RESULTS AND DISCUSSION

Table 1. Distribution of the respondents according to their education

Education	No.	%
Illiterate	85	70.8
Primary	26	21.7
Middle	7	5.8
Metric	2	1.7
Total	120	100.0

Education (number of years of schooling) is the aggregate of all the processes for bringing about desirable change in human behavior **(Memon, 1993).** It is evident from the data embodied in Table 1 that a large majority (70.8%) of the respondents were illiterate followed by 29.2% of the respondents who were literate/educated. Among the literates, about one fifth (21.7%) of the respondents were primary, (7.5%) middle and very few (1.7%) of the respondents had metric level of education.

In line with the above findings, **Qurashi (1997)** reported that from a sample size of 109 respondents, a majority (72.5%) was illiterate, followed by 11.9, 11.1 and 4.6% of the respondents who were educated up to metric, primary, and middle levels of education, respectively.

Table 4.6: Distribution of the respondents according to their farm size

Farm size (acres)	No	%
Small (Up to 6)	79	65.8
Medium (7-12)	26	21.7
Large (13 & above)	15	12.5
Total	120	100.0

Table 4.6 reveals that majority (65.8%) of the respondents fell in the category of small farm size (up to 6 acre), followed by 21.7 and 12.5% who belonged to medium (7-12 acres), and large (13 & above) categories, respectively.

These results strengthen the findings of **Rana (2002)** who founds that about half (49.3%) of the respondents belonged to small farms category cultivating a land up to 6 acres, followed by 33.4 and 17.3% of the respondents who were medium and large farms having land holding up to 12 and 13 acres or above, respectively.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Table 4.9: Ranking of respondents' competency of the specific crop relating tasks performed by them

Agricultural tasks relating to crop	Rank order	Weight score	Mean	Std. Dev.
Picking of cotton	1	568	4.90	0.44
Spreading of cotton bolls in sunshine and lint collection	2	565	4.83	0.40
Harvesting	3	513	4.79	0.61
Drying of seeds	4	512	4.79	0.53
Cleaning of seeds	5	540	4.74	0.58
Hand weeding/hoeing	6	515	4.64	0.54
Grading of seeds	7	441	4.45	0.88
Winnowing of cereal crops	8	484	4.36	0.86
Removal of diseased plants	9	444	4.15	1.03
Thinning	10	409	4.13	0.85
Peeling of sugarcane	11	307	4.04	1.04
Broadcasting of seed/fertilizer	12	185	3.56	1.30
Sowing of crops	13	253	3.42	0.95
Selection of variety	14	253	3.33	0.90
Storage	15	325	3.32	1.10
Irrigation of crops	16	198	3.25	1.31
Land preparation/tilling	17	229	3.09	1.04
Weedicides application	18	236	3.03	1.45
Mixing and spraying of pesticides	19	217	2.78	1.24
Threshing of wheat	20	192	2.70	1.13

The results presented in Table 4.9 indicate like picking of cotton, spreading of cotton bolls in sunshine and lint collection, harvesting, drying of seeds, cleaning of seeds and hand weeding/hoeing were ranked 1st, 2^{nd,} 3rd, 4th , 5th , 6th with mean 4.90, 4.83, 4.79, 4.74 and 4.64. Grading of seeds (mean= 4.45), winnowing of cereal crops (mean= 4.36), removal of diseased plants (mean= 4.15), thinning (mean= 4.13) and peeling of sugarcane (mean= 4.04) fell in good category. Other task related to crop production that came in good categories like sowing of crops (mean= 3.42), selection of variety (mean= 3.33), storage (mean= 3.32), irrigation of crops (mean= 3.25), land preparation/tillage (mean= 3.09) and weedicides application (mean= 3.03) fell in average category. However, mixing and spraying of pesticides (mean= 2.78) and threshing of wheat (mean= 2.07) fell in poor competency level but tending towards average and the respondents need too much technical advice as in these areas their mean value were in between poor categories.

The finding of present study are similar to those of **Nazar (2004)** who concluded that rural women were involved in a wide range of activities like cotton picking (94.2), storage (82.5%), harvesting as taking off fodder (79.92%, binding, threshing, and drying (77.5%), weeding (72.5%), applying chemicals (50.8%), sowing (46.7%), seed preparation (46.6%), and selling (36.7%). The difference in study findings may be due to different areas study.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Table 3. Distribution of the respondents according to assess the time devoted to various crop production tasks in their daily routine

Crop production tasks	Time (Hours)											
	Up to 2		2-4		4-6		7-8		Above 8		N.A.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Land preparation/tilling	20	16.7	61	50.8	24	20.0	0	0.0	1	0.8	14	11.7
Sowing	20	16.7	61	50.8	12	10.0	1	0.8	0	0.0	26	21.7
Broad casting of seed/fertilizer	4	3.3	23	19.2	9	7.5	0	0.0	0.0	0.8	83	69.2
Irrigation	9	7.5	28	23.3	14	11.7	0	0.0	8	6.7	61	50.8
Inter-culture practices	8	6.7	17	14.2	22	18.3	41	34.2	31	25.8	1	0.8
Harvesting	1	0.8	1	0.8	3	2.5	29	24.2	77	64.2	9	7.5
Post-harvest operation	3	2.5	2	1.7	19	15.8	33	27.5	50	41.7	13	10.8

Table 3 indicates that a simple majority (50.8%) of the respondent spent 2 to 4 hours and 20.0 % spent 4 to 6 hours daily in land preparation tasks hours in daily routine. In sowing 50.8% spent 2 to 4 hours daily and broad casting of seed/fertilizer about one-fifth (19.2%) spent 2 to 4 hours in daily routine. As above mentioned table respondents which were (23.3%) spent 2 to 4 hours in irrigation. About the inter-cultural practices the data indicated that (34.2%) of the respondents spent 7 to 8 hours daily. As above mentioned table majority of the respondent which were 64.2% spent more than 8 hours in harvesting and from the remaining 24.2% spent 7 to 8 hours. So, the Table 3 is clearly indicating that a simple majority of the respondent spent more time in harvesting than other tasks.

Table 4. Ranking Order of need for training in the following areas of crop production

Area of crop production	Rank Order	Weight score	Mean	Std. Dev.
Broadcasting of seed/fertilize	1	378	3.35	1.381
Plant protection	2	334	3.52	1.23
Thinning	3	307	2.84	1.47
Grading of seeds	4	301	2.81	1.46
Intercultural operations	5	301	3.34	1.18
Peeling of sugarcane	6	298	3.27	1.23
Sowing	7	278	3.35	1.15
Water management practices	8	278	3.35	1.15
Manure and fertilizer application	9	277	3.34	1.14
Threshing	10	276	3.29	1.16
Picking of cotton	11	259	3.28	1.23
Winnowing	12	256	3.28	1.18

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

Spreading of cotton bolls in sunshine and lint collection	13	254	3.30	1.20
Storage	14	252	3.36	1.22
Cleaning of cotton lint	15	252	3.27	1.20
Land preparation/tilling	16	249	3.28	1.16
Drying	17	249	3.23	1.18
Harvesting	18	231	2.82	1.53
Cleaning of Seed	19	191	3.98	1.62

The results presented in the Table 4 indicate that Broadcasting of seed/fertilize fell in 1st order rank with highest score of 378. Its mean value is 3.35 indicates that need for the training of respondents is most essential. Extension organization must focus their attention to educate rural women in these areas for better production. Medium assistance was needed in the areas peeling of sugarcane, sowing, water management practices, and manure and fertilizer application.

Therefore, in this area respondents perceived themselves to be more deserved for the training. The other areas in which the training was required plant protection, thinning, grading of seeds and intercultural practices as they had scored vary between 334 to and 301. Picking of cotton, winnowing, spreading of cotton bolls and lint collection, cleaning of cotton lint, drying, harvesting and cleaning of seed were the areas in which the participation of respondents was efficient. Therefore in these areas respondents needed relatively no assistance from extension organizations.

These results also get support from **Mudakuti and Miller (2002)** who concluded that six areas were reported by the respondents as the highest educational needs in crop production: 1) how to maintain regular records of crop spraying, 2) information about new agricultural technologies, 3) how to maintain safety measures when spraying crops, 4) how to spray crops, 5) identifying insects that affect crops, and 6) control of crop diseases and insects. Five items in crop production were reported as the lowest needs: 1) preparation of land for planting, 2) selection of suitable crop varieties, 3) how to plant crops, 4) how to identify weeds that affect crops, and 5) how to grow vegetables. Similarly **Onmolease (2002)** studied the perception of the women cassava farmers' needs in different farming areas in which they required attention from extension organizations. The first priority area was recommended harvesting time (70.83%) since about 71% of the women farmers were ignorant of it. The second priority area was recommended time of sowing (68%). Thirdly, around two-thirds of the respondents needed information on herbicides (65.83%), the fourth information needs is recommended crop spacing (65%). Four of these areas are concerned to be important as their mean score exceeded 2.5. They were the sources of farm chemicals (3.52), as well as marketing outlets for their farm produce (3.24). Further, 45% respondents needed training in the use of insecticides. Just like that **Sailaja and Reddy (2003)** who reported that preparation of compost was the primary preference of form women having a total score 78 with rank order 1. Germination test was the second preferred area of training needs with a total 72 and order 2. The third preference area of farm women was the procedure of calibration of sprayer with a total score 65 and rank order 3. The other area of preference of farm women was

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

precautions to be followed while spraying having total score 64 and rank order 4. The final preferred area of training need was soil moisture depletion studies under field conditions whose total score was 60 and rank order 4, which helped the farm omen in judging the time to irrigate the crop.

CONCLUSION AND RECOMMENDATIONS

In the rural areas of Pakistan, farmers mostly use their family labor including women for production of crop. These women participate in all operations related to crops, and other Agriculture activities. They carry out these tasks in addition to their normal domestic chores of work. The growth of production in crop largely depends on the transfer of technology to the farming community. Accordingly, high emphasis is given in Pakistan to strengthen and expand agricultural training program to educate the rural farmers about new technologies and useful information to them. Since independence, the government of Pakistan has tried many agriculture training programs one after the other. But there training program in Pakistan have benefited men more than rural women.

Recommendations

1. Government should take initiative with the association of NGOs, and other rural development agencies to impart training and education for rural women especially in the field of agriculture.

2. For gaining technical expertise, specialized need based and skill oriented trainings should be organized for women at village level by extension workers. Women should be given targeted trainings in agriculture and productive activities. In doing so, practical field experience and demonstration of use of new technologies will capable rural women to adopt new practice with ease and confidence.

3. Female extension personnel should be recruited at various hierarchical levels. Female extension worker would facilitate rural women to have access to different informational channels, new technologies and training programs.

4. Research organization should consider women as a farmer and hence improved and labor saving technologies should be produced and introduced among women.

5. For the crop production activities, government should focus on regular education/training of rural women by female training staff in the areas like storage of cereals, thinning, removal of diseased plants, broadcasting of seed, grading of seed, irrigation of crop and spraying of crop, as in these are respondents were not competent and were using traditional method.

6. In modern agricultural information sources like electronic media and print media, there should be special emphasis on the education of women engaged in farming so that they can know about the modern agricultural technologies to enhance their productivity.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)

REFERENCES

[1] Baluch, M. 1988. In: Pakistan, SD dimension, people, gender and development.
[2] Choudhary, H. and S. Singh, 2003. Farm Women in Agriculture Operations. Agriculture Extension Review, 15(1): 21-23.
[3] FAO, 1995. A Fairer Future for Rural Women. Rome.
[4] Mollel, E.L., F.P. Lekule, R.L. Kurwijila, F.M. Turuka and P.H. Petersen. 2000. A socioeconomic study on the role of gender in small-scale crop-livestock farming in Turiani division, Morogoro, Tanzania.
[5] Mudakuti, E.A. and L. Miller, 2002. Factors related to Zimbabwe women's educational needs in agriculture, proceedings of 18th annual conference of association for International agricultural and extension education (AIAEE), Duraban, South Africa. pp. 294-296.
[6] Memon, R. A. 1993. Extension Methods, National Book Foundation, Islamabad, Pakistan.
[7] Nazar, F. 2004. A sociological study of participation of rural women in agricultural activities in district Khanewal. M.Sc. (Hons.) Thesis, Dept. of Agric. Ext., Univ. of Agric. Faisalabad.
[8] Onemolease, E. 2002. Extension needs of women Cassava farmers in Igueben and Esan Northeast local government Areas of Edo State, Nigeria. Council for Development of Social Science Research in Africa. Africa Development, 27(1-2): 116-126.
[9] Palmer, I. 1977. Rural and Basic Needs Approach to Development International Labour Reviews 115 (1).
[10] Qureshi, L.R. 1997. Practices, perception and social aspects of energy use by rural women in the salt-affected areas of Faisalabad. M. Sc. Thesis. Dept. of Rural Sociol. Univ. of Agric. Faisalabad.
[11] Rana, F.M. 2002. Role of media in promoting agricultural technology (cotton) in rural areas of Tehsil Samundri. M. Sc. Thesis, Dept. of Rural Sociol., Univ. of Agric. Faisalabad.
[12] Ranjha, H.M., S. Ali and M. Luqman. 2009. Role of women in agricultural development. p. 198-200. In: Shoukat Aliand R. Rafique (ed.), Pak. Agri. Outlook, Multan Kitab Ghar , Multan Pakistan.
[13] Sailaja, A. and M.N. Reddy, 2003. Changing needs of farm women in agriculture. Manage. Extension Research Review. National Institute of Agriculture Extension Management, Rajendranagar, Hyderabad, India.
[14] Begum, R. and G. Yasmeen. 2011. Contribution of Pakistani women in agriculture: productivity and constraints. Sarhad J. Agric. 27:637-643.

ISSN 2053-5805(Print), ISSN 2053-5813(Online)