



SUITABILITY OF ON-FARM AND OFF-FARM FARMING TECHNOLOGIES AS PERCEIVED BY DRY LAND FARM WOMEN

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Abstract

The involvement of women in agriculture is as old as the advent of agricultural practices in the world. Women are intensively involved in all the farm operations. However, women's involvement and participation are not always 'visible' as compared to the 'visibility' of men. Moreover, the technologies are said to be gender neutral. Few research studies have shown that most of the technologies in agriculture are not suitable to farm women. The study was taken up with the objective to assess the suitability of cotton and poultry keeping technologies as perceived by small farm women. Sample size of 60 dry land farm women were selected using proportionate random sampling technique. Technology suitability index was developed to assess the suitability of the cotton and poultry keeping technologies. The findings on suitability of cotton farming technologies as perceived by dry land farm women, showed that out of twenty eight items studied for assessing the suitability of cotton technologies among dry land farm women, the technologies found to be highly suitable were viz., thinning the seedlings (1.00), gap filling (1.00), pinching of terminal buds (1.00), hand weeding (0.97), picking kapas (0.97), dibbling the seeds (0.95), cleaning the kapas (0.90), grading the kapas (0.89), removal of affected plants (0.84), removal of fuzz from seeds by using hands (0.78), seed treatment with fungicides (0.78), bagging (0.78), earthing-up by using hand hoe (0.77), seed treatment with bio-fertilizers (0.69) and removal of fuzz from seeds by using chemicals (0.67). In case poultry keeping, six technologies which were perceived as highly suitable by women were feeding (0.88), preparation of feed (0.80), providing water (0.78), collection of eggs (0.78), care of sick birds (0.67) and cleaning the cages (0.67).

Keywords: Suitability, Farm women, Cotton technologies and poultry keeping.

INTRODUCTION

Technological base for improving productivity and income of the rural population in the field of agriculture has broadened with the success of Green revolution that the country witnessed during mid sixties. Various technological innovations have been released claiming spectacular yield potential at research stations. As a result of this research and transfer of technology programmes, the production has increased over time in the decades, thus balancing the population growth and food production of our country. However, the benefits of the new production technology have accrued mostly to male farmers while the women farmers have been bypassed in the development process.

The involvement of women in agriculture is as old as the advent of agricultural practices in the world. Agriculture is considered as one of the most primitive and oldest forms of human economic activity primarily based on land. Women in the past were intensively involved in all the farm operations. However, women's involvement and participation were not always 'visible' as compared to the 'visibility' of men. The situation has not improved much, even today. Social and

institutional setup is unable to take into cognisance the role played and contribution made by women in any areas of economic activity including their participation in agriculture and dairy management. Barker (1997) opined that appropriateness should be defined within the scope of what is technically feasible, economically feasible, socially acceptable, environmentally safe and sustainable.

The present situation demands active participation of women along with men in all walks of life to have better life. Involvement of women in all development activities again demands a proper understanding to assess their needs and extent of fulfilment. With this background and in the absence of empirical evidence, the present study is attempted to understand the suitability of the cotton and poultry keeping technologies as perceived by dry land small farm women.

METHODOLOGY

The study was taken-up in Perambalur district in Tamil Nadu which comprised of maximum area under dry land farming system. A sample size of 60 dry land small farm women was taken for analysing the suitability of cotton and poultry keeping technologies as perceived by dry

land farming. Ex Post Facto research design was used in the study. The required data was collected by utilising a well structured and pre-tested interview schedule. An exhaustive list of 20 statements on cotton farming and poultry keeping technologies was prepared. These statements were to be examined within the scope of what is technically feasible, economically feasible, socially acceptable, environmentally safe and sustainable one. The suitability of cotton and poultry keeping technologies as perceived by the respondents was measured on a three point continuum of 'Highly suitable, Moderately suitable and Not suitable' by allotting a score of 3, 2, and 1 respectively.

Actual score obtained
Technology suitability index = -----
Maximum possible score

Based on the index obtained for each technology, they were classified further into highly suitable, moderately suitable and less suitable.

FINDINGS AND DISCUSSION

Overall suitability of cotton farming technologies

Results on distribution of respondents according to their overall suitability of cotton farming technologies as perceived by small farm women are presented in Table 1.

TABLE 1
DISTRIBUTION OF RESPONDENTS ACCORDING TO THEIR OVERALL SUITABILITY
OF COTTON FARMING TECHNOLOGIES
(n=60)

S. No		Number	Per cent
1.	Low	20	33.33
2.	Medium	35	58.33
3.	High	5	8.34
	Total	60	100.00

It could be observed from the data in Table-1, that nearly three-fifth of the respondents (58.33 per cent) fell under medium level of suitability of cotton farming technologies, whereas one-third of the respondents (33.33 per cent) belonged to low level and only 8.34 per cent of the respondents belonged to high level of suitability of cotton technologies. It was noticed that farming and suitability of technologies were the two sides of the same coin and were inseparable among small farm women. This may be due to the reason that most of the technologies are traditionally followed practices by farm women. These technologies were difficult to understand and practice by farm

women. Further, these technologies did not improve production efficiency and involved more drudgery in their day to day work. The result is in agreement with the results of Vengatesan and Santha Govind (2009).

SUITABILITY OF COTTON TECHNOLOGIES AS PERCEIVED BY DRY LAND FARM WOMEN

The extent of involvement of dry land farm women in the technologies is either directly or indirectly linked with suitability of technologies. For this purpose suitability index was worked out and the findings are given in Table-2.

TABLE -2
SUITABILITY OF COTTON TECHNOLOGIES AS PERCEIVED BY DRY LAND FARM WOMEN
(n = 60)

S. No.	Technologies	Index score	Suitability index
1.	Field preparation		
	(I) Stubble collection	100	0.55
	(II) Cleaning field boundaries by using spade	80	0.44
	(III) Digging the corners of field by using spade	86	0.48
	(IV) Application of FYM	78	0.43
2.	Planting		
	(I) Removal of fuzz from seeds by using hands	140	0.78
	(II) Removal of fuzz from seeds by using chemicals	120	0.67
	(III) Seed treatment with fungicides	140	0.78
	(IV) Seed treatment with bio-fertilizer	125	0.69
	(V) Seed hardening by using Pungam leaf extract	72	0.40
	(VI) Dibbling the seeds in the furrow by using hand hoe	172	0.95

3.	Inter –cultivation		
	(I) Mixing sand with pre-emergence herbicide	90	0.50
	(II) Mixing herbicide with water in high volume sprayer	60	0.33
	(III) Application of pre-emergence herbicide by using sprayer	60	0.33
	(IV) Hand weeding by using hand hoe	175	0.97
	(V) Thinning	180	1.00
	(VI) Gap filling	180	1.00
	(VII) Band application of inorganic fertilizers	115	0.64
	(VIII) Top dressing the inorganic fertilizers by broadcasting	72	0.40
	(IX) Earthing-up by using hand hoe	140	0.77
	(X) Application of NAA mixed with water by using sprayer	40	0.22
	(XI) Application of pesticides / fungicides by using sprayer	60	0.33
	(XII) Spot application of pesticides/ fungicides	82	0.45
	(XIII) Pinching of terminal buds	180	1.00
	(XIV) Removal of affected plants	152	0.84
4.	Harvest		
	(I) Picking kapas at frequent intervals	175	0.97
	(II) Cleaning the kapas	162	0.90
	(III) Grading the kapas	160	0.89
	(IV) Bagging the produce into gunny bag	142	0.78

It could be seen from Table-2, that out of twenty eight technologies considered under cotton cultivation, only fifteen technologies were found to be highly suitable among farm women and they were thinning the seedlings (1.00), gap filling (1.00), pinching of terminal buds (1.00), hand weeding (0.97), picking kapas (0.97), dibbling the seeds (0.95), cleaning the kapas (0.90), grading the kapas (0.89), removal of affected plants (0.84), removal of fuzz from seeds by using hands (0.78), seed treatment with fungicides (0.78), bagging (0.78), earthing-up by using hand hoe (0.77), seed treatment with bio-fertilizers (0.69) and removal of fuzz from seeds by using chemicals (0.67). These technologies could be easily tried by farm women themselves without much cost and additional inputs. Hence, the women had perceived these tasks as highly suitable. While the other technologies were men oriented operations. Further, most of them were energy saving technologies involving less physical strain. This finding is the agreement with the findings of Reena C Sethi and Renu Bala harma.,(2011)

Some of the technologies which were found to be moderately suitable among farm women were band application of inorganic fertilizers (0.64), stubble collection (0.55), mixing sand with pre-emergence herbicide (0.50), digging the corners of the field by using spade (0.48), spot

application of pesticides/fungicides (0.45), cleaning the field boundaries by using spade (0.44), application of FYM (0.43), top dressing of inorganic fertilizers by broadcasting (0.40) and seed hardening by use of Pungam leaf extract (0.40).

The remaining three technologies which were perceived as less suitable among dry land farm women were application of pre-emergence herbicide by using sprayer (0.33), application of pesticides/fungicides by using sprayer (0.33), mixing herbicides with water in high volume sprayer (0.33) and application of Naphthalin Acidic Acid mixed with water by using sprayer (0.22). The money required to initiate adoption of these technologies is high with the requirement of additional inputs. Further, the technologies are not consistent, very difficult to practice and are not in harmony with the overall farming system as expressed by the respondents. This finding is in confirmation with the findings of Arul raj (2013)

SUITABILITY OF POULTRY KEEPING TECHNOLOGIES AS PERCEIVED BY DRY LAND FARM WOMEN

The various poultry keeping technologies were listed out to assess the suitability of technologies among the dry land farm women and the results are presented in Table-3.

TABLE-3
SUITABILITY OF POULTRY KEEPING TECHNOLOGIES AS PERCEIVED BY DRY LAND FARM
WOMEN (N = 60)

S. No.	Technologies	Index score	Suitability index
1	Construction of cages	90	0.50
2	Preparation of feed	145	0.80
3	Feeding	160	0.88
4	Providing water	140	0.78
5	Care of sick birds	120	0.67
6	Cleaning the cages	120	0.67
7	Collection of eggs	140	0.78
8	Vaccination of chicks at correct stage	60	0.33

It could be seen from Table-2, that six technologies which were perceived as highly suitable by women were feeding (0.88), preparation of feed (0.80), providing water (0.78), collection of eggs (0.78), care of sick birds (0.67) and cleaning the cages (0.67). Construction of cages (0.50) was perceived as moderately suitable by farm women while vaccination of chicks at correct stage (0.33) was perceived as less suitable among the respondents. This finding is in line with the findings of Shanthi (2004).

CONCLUSION

The findings on suitability of cotton farming technologies as perceived by dry land farm women, showed that out of twenty eight technologies, only fifteen technologies were found to be highly suitable, while six poultry keeping technologies were expressed as highly suitable by the respondents. Low cost, women oriented and less drudgery involving farming technologies should be developed to put them into immediate use in the rural farm setting. The methodology developed for assessing the suitability of technologies in the study, can also be utilized for assessing the suitability of other farm and allied technologies. Research efforts should be focused on the need and suitability assessment of technologies which would be highly suitable to the

farm women so as to carry out the farm operations more efficiently.

REFERENCES

1. Arul raj, A.2013. Technological Needs of Banana Growers of Cuddalore District, Unpublished M.Sc Thesis (Agricultural Extension Thesis, Annamalai university Annamalai nagar)
2. Barker, C., 1997, Selecting appropriate content and methods in programme delivery. In: Swanson, B.E., Bentz, R., Pand, A.J. and Sofranko (Eds.), *Agricultural Extension: A Reference Manual*, Rome: FAO, P. 67-68.
3. Reena C Sethi and Renu Bala Sharma., 2011, "Frontier technologies for empowering farm women", *International Journal of Farm Sciences*, 2 (1):142-145
4. Shanthi, J. 2004. A Study on TANWA Self Help Groups of Cuddalore District, Unpublished M.Sc.(Ag.) Thesis, Annamalai University, Annamalai Nagar.
5. Vengatesan and Santha Govind 2009. "Role performance of Wet Land Farm Women in Paddy Farming System" *International journal of Extension Education*,5:56-60.