

Adoption of organic and integrated farming practices followed by women farmers in northern transitional zone of Karnataka

■ VEENA S. JADHAV, ARCHANA BHATNAGAR AND DEEPA NAIK

Received: 12.09.2012; Revised: 30.10.2012; Accepted: 30.11.2012

See end of the paper for authors' affiliations

Correspondence to :

VEENA S. JADHAV

Department of Family Resource Management,
College of Rural Home Science, University of Agricultural Sciences,
DHARWAD (KARNATAKA)
INDIA

Email: suresh29@gmail.com

■ **ABSTRACT** : Indian rural women are extensively involved in agricultural activities. However, the nature and extent of their involvement differ with the variations in agro-production systems. The mode of female participation in agricultural production varies with the land owning status of farm households. The present study is an attempt to profile the adoption of organic farming and integrated farming practices followed by women farmers in northern transitional zone of Karnataka. The study was carried out to know the impact of sustainable agriculture on family income. Ninety women farmers from Belgaum, Dharwad and Haveri districts were selected as the respondents of the study. The results indicated that the women farmer of Belgaum district followed the organic farming practices in higher percentage followed by Dharwad district. Women farmers in Belgaum district adopted higher per cent of the integrated farming practices such as practicing and processing of vermicompost (70.00%), using vermicompost in field (64.44%) and maintaining dairy (56.67%).

■ **KEY WORDS** : Organic farming, Integrated farming practices, Women farmers

■ **HOW TO CITE THIS PAPER** : Jadhav, Veena S., Bhatnagar, Archana and Naik, Deepa (2012). Adoption of organic and integrated farming practices followed by women farmers in northern transitional zone of Karnataka. *Asian J. Home Sci.*, 7 (2): 487-489.

Indian rural women are extensively involved in agricultural activities. However, the nature and extent of their involvement differ with the variations in agro-production systems. The mode of female participation in agricultural production varies with the land owning status of farm households. Their roles range from managers to landless labourers. In overall farm production, women's average contribution is estimated at 55 per cent to 66 per cent of the total labour force with percentages, much higher in certain regions. In the Indian Himalayas, a pair of bullocks work 1064 hours, a man 1212 hours and a woman 3485 hours in a year on one-hectare farm, a figure that illustrates women's significant contribution towards agricultural production (Shiva FAO, 1991).

Women play a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, post harvest operations, agro/social forestry, fisheries etc. in a fact long taken for granted but also ignored. In some of the farm activities

like processing and storage, women predominate so strongly that men workers are numerically insignificant (Aggarwal, 2003). Studies on women in agriculture conducted in India and other developing and under developed countries all points to the conclusion that women contribute for more to agricultural production than has generally been acknowledged. Recognition of their crucial role in agriculture should not obscure the fact that farm women continue to be concerned with their primary functions as wives, mothers and homemakers. The present study is an attempt to profile the adoption of organic farming and integrated farming practices followed by women farmers in northern transitional zone of Karnataka.

■ RESEARCH METHODS

The study was conducted in three districts of Northern Transitional Zone of Karnataka. These three districts viz., Belgaum, Dharwad and Haveri receive moderate to heavy rainfall, there facilitating production of a variety of crops.

Ninety women farmers from each district were randomly selected thus making a total sample size of 270 women farmers for the study. Eight demographic features *viz.*, education, marital status, occupation, occupation of husband, type of family, age, family size and farming experience were selected for enumeration of data. The data were collected through interview method with the help of a structured questionnaire. The data were subjected to simple statistical analysis and the results are presented in Table 1 and 2.

■ RESEARCH FINDINGS AND DISCUSSION

The demographic information of the women farmers selected for the study from different districts, indicated that majority of the women farmers were illiterates (39.25%) and more than 90.00 per cent of them were married from the selected three districts. Farm women were agriculturist (74.08%) in owned land and their husbands occupation was also noticed as agriculture (66.29%). Health status of husband was healthy (82.96%) according to women farmers. More than 80.00 per cent of women farmer's families have nuclear type (83.33%).

A glance into district wise data reveals that majority of the women farmers were illiterates in Dharwad (35.56%), Belgaum (28.89%) and Haveri (53.33 %) districts. Only 25.56 per cent of women farmers can read and write and 17.78 per cent of them completed the primary school in Dharwad district. More than 20.00 per cent of the women farmers in Belgaum district completed the primary school education followed by 18.89 per cent of them completed the middle school and 17.78 per cent of them can read and write. Primary school education completed by 15.56 per cent of women farmers in Haveri district followed by 11.00 to 13.00 per cent of them completed the middle school and matriculation.

More than 90.00 per cent of the women farmers in Dharwad and Belgaum districts and 87.78 per cent of women farmers in Haveri district were married and very negligible per cent of unmarried and widow women farmers were noticed in all the districts.

Majority of the women farmers were agriculturists and they were working in their own land (68.89% in Dharwad, 81.12% in Belgaum and 72.22% in Haveri districts). Followed by 17.78 and 14.44 per cent of women farmers in Dharwad and

Belgaum districts were agriculturists but they have leased out the land. In Haveri district, 25.56 per cent of the women were self farmers.

Husband's occupation was also agriculture as noticed in 60.00-76.00 per cent of the families in all three districts. Business was second occupation in Belgaum district with 24.44 per cent families and in Dharwad district 13.33 per cent of the respondents husbands were working in government offices.

More than 70.00 per cent of the respondent's husbands were healthy (86.67%, 90.00% and 72.22%) in all three districts. Only 14.44 per cent of the respondent's husbands were unhealthy in Haveri district.

Majority of the nuclear families were found in all the three districts namely, Dharwad (82.22%), Belgaum (91.11%) and Haveri district (76.67%) followed by joint family system in the selected districts (17.78% in Dharwad, 8.89% in Belgaum and 21.11% in Haveri district).

The controversial results were found by Sudershan and Achala (2004) who reported that 57.66 per cent of farmwomen were illiterates

Table 1 explains the adoption of organic farming practices by women farmers in selected districts. According to table (77.78%) per cent of the women farmers were found using animal manure in crop production followed by crop rotation (72.96%) as organic farming practices adopted in all districts. It was followed by use of crop residues (69.26%), using farm organic wastes (68.89%) and growing leguminous crop (68.15%) were adopted by women farmers. Inter cropping was followed by 56.30 per cent of the women farmers as organic farming where as using of bio-culture was followed by less per cent (20.37%) of the women farmers in selected districts.

Further the district wise data clearly indicate that the women farmers of Belgaum district followed the organic farming practices in higher percentage followed by Dharwad district. Following crop rotation and using farm organic wastes were adopted by 90.50 and 85.70 per cent of the women farmer of in Belgaum district, followed by 76.20 per cent of the women farmers used crop residues, use of animal manure in crop production and growing leguminous crop and 66.70 per cent of them followed inter cropping in Belgaum district. In

Table 1 : Adoption of organic farming practices by women farmers in selected districts

Sr. No.	Organic farming practices	Dharwad (n=90)		Belgaum (n=90)		Haveri (n=90)		Total (n=270)	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1.	Following crop rotation	66	73.10	81	90.50	50	55.60	197	72.96
2.	Use crop residues	66	73.10	69	76.20	52	57.80	187	69.26
3.	Using animal manure in crop production	64	71.20	69	76.20	77	85.60	210	77.78
4.	Growing leguminous crops	43	48.10	69	76.20	72	80.00	184	68.15
5.	Using farm organic wastes	64	71.20	77	85.70	45	50.00	186	68.89
6.	Using bio-culture	17	19.20	21	23.80	17	18.90	55	20.37
7.	Following inter cropping system	47	51.90	60	66.70	45	50.00	152	56.30

Table 2 : Adoption of integrated farming practices by women farmers in selected districts

Sr. No.	Integrated farming practices	Dharwad (n=90)		Belgaum (n=90)		Haveri (n=90)		Total (n=270)	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1.	Practicing and processing of vermicompost	45	50.00	63	70.00	13	14.44	121	44.81
2.	Using vermicompost in the field	50	55.56	58	64.44	13	14.44	121	44.81
3.	Maintaining dairy	21	23.33	51	56.67	13	14.44	85	31.48
4.	Maintaining poultry	17	18.89	24	26.67	9	10.00	50	18.52
5.	Practicing goat and sheep rearing	17	18.89	19	21.11	31	34.44	67	24.81

Dharwad district, 73.10 per cent of the women farmers followed crop rotation, use of crop residues (73.10%), using animal manure in crop production (71.20%) and using farm organic wastes (71.20%) as practices of organic farming. Following inter cropping and growing leguminous crop were adopted by 51.90 and 48.10 per cent of the women farmers in Dharwad district. In Haveri district, 86.60 per cent of women farmers were using animal manure in crop production and growing leguminous crops (80.00%) was followed in organic farming. Use of crop residues, crop rotation, using farm organic wastes, and following intercropping were some of the organic farming practices followed by 57.80, 55.60, 50.00, and 50.00 per cent of the farm families of Haveri district, respectively. Using bio-culture organic farming practiced by 19.00-24.00 per cent of the women farmers in all the selected districts.

Similar results have been reported by Edwards (1988) highlighting the importance of fully integrating various practices such as legume rotations, use of organic, animal and agricultural wastes for maximizing benefits in sustainable agricultural systems. Organic farming is a system of agriculture that encourages soils and crops through such practices as nutrient recycling of organic matter (such as compost and crop residues), crop rotations, proper tillage and the avoidance of synthetic fertilizers and pesticides application Anonymous (1996). One more study conducted by Khatik (1999) states that most of the farmers adopted contour farming and intercropping as soil and water conservation practices. The other important practices were green manuring and summer ploughing.

Table 2 presents the adoption of integrated farming practices by women farmers in selected districts. Only 31.48 and 24.81 per cent of women farmers maintained dairy and practicing goat and sheep rearing, respectively, where as 18.52 per cent of the women farmers were maintaining poultry in selected districts.

As per the district wise data, women farmers in Belgaum district adopted higher percentage of the integrated farming practices such as practicing and processing of vermicompost

(70.00%), using vermicompost in field (64.44%) and maintaining dairy (56.67%). In Dharwad district, more than half of the women farmers were found practicing and processing of vermicompost and using vermicompost in field, followed by 23.33 per cent of the women farmers maintaining dairy. But in Haveri district, practicing goat and sheep rearing was followed by 34.44 per cent of the women farmers and rest other practices were followed by 10.00- 14.00 per cent of the farm women. Maintaining poultry and practicing goat and sheep rearing were practiced by less number of farm families in Dharwad (18.89%) and Belgaum (21.11-26.67%) districts.

Authors' affiliations:

ARCHANA BHATNAGAR, Department of Family Resource Management, Shreemati Nathibai Damodar Thackersay, MUMBAI (M.S.) INDIA

DEEPA NAIK, Department of Family Resource Management, College of Rural Home Science, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

■ REFERENCES

- Aggarwal** (2003). Economic participation or rural women in agriculture. In: *Economic empowerment of rural women in India*. Edited by Gopal Singh, 2003., RBASA.
- Anonymous (1996). Manual of orientation course on entrepreneurship development in agriculture held from Dec. 17 – 31, 1996. Organized by Entrepreneurship development cell, IARI, New Delhi.
- Edwards, C.A.** (1988). Agriculture ecosystem environment. Proc. Internat. Symposium at Padova, Italy, pp. 25 – 35
- Khatik, G.L.** (1999). Adoption of soil and water conservation technologies. *Indian J. Extn. Edu.*, **35**(1 &2): 47-48
- Shiva Vandan** (1991). Most farmers in India are women. FAO, NEW DELHI (INDIA).
- Sudershan, M.** and Achala, M. (2004), *Training : An effective tool for farm women empowerment*. Agrotech Publishing Academy, Udaipur, (1st Ed.), pp. 183-211.
