

Inter Gender Work Participation In Cotton Cultivation

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Abstract: The study was conducted in purposively selected, districts Fatehabad and Sirsa of Haryana, during 2014-15 in order to study the labour use pattern and inter gender work participation in cotton cultivation. Results of the study revealed that majority of the respondents (77.0%) were from upper caste, more than half of the female respondents (55.5%) were illiterate, and male respondents (59.0%) were educated upto metric/higher secondary level. 93.0 per cent of female respondents and (84.0%) male respondents had farming as their main occupation, had joint medium sized families, 27.5 per cent of respondents were having irrigated land holding between 2.5 to 5 acres followed by more than 15 acres of land (18.0%), up to 2 acres of land taken on lease by 12.5 per cent of respondents. Cotton cultivated on 2.5 to 5 acres of land and up to 2 acres of land. Cent percent participation of male respondents were in land preparation, sowing, mechanical weeding, plant protection, fumigation and marketing. Majority of the female respondents were involved in manual weeding, picking of bolls, stalk harvesting and storage. Similar pattern of work participation of other family members was observed in almost all the activities. Majority of the respondents employed male labourers for sowing, plant protection and marketing.

Keywords: Inter gender, labor use, cotton cultivation, work participation.

1. INTRODUCTION

Cotton is important cash crop for Indian farmers. It is third in total acreage planted among all crops in India behind rice and wheat. In 2011-12, it was cultivated on about 12.19 million hectares producing 35.3 million bales (Anonymous, 2012). In the last ten years, cotton acreage has been growing at an average annual rate of around 3.00 per cent. However, the average cotton yield in India is only 0.49 tons per hectares compared to world average of 0.73 tons per hectare (ICAC, 2010). The low yields of cotton in India are attributed to inadequate input usage, rain fed cultivation, untimely operations on field and inefficient crop production technologies. In many parts of the country, farmers still use human labour for many of the operations like planting, weeding and picking and use inefficient farm implements/machinery for those operations. Cotton cultivation includes seed sowing, irrigation, hand weeding, applying chemicals for weeds, disease and insect control, picking the cotton bolls, marketing and transportation to the mills for ginning. Labourers mainly plough, sow and fertilize fields, inter-row cultivation, and picking. Women along with men are the main actors in feeding the world. In fact, women in most of the rural societies play a major role in crop production activities. Women work as mothers, household labourers, and as social production workers (Felsing & Baticados, 2001; FAO, 2002). Throughout the world, rural farm women are involved extensively in agricultural operations. A number of research studies had proven women's participation in various agricultural activities having complementary roles, sharing agriculture related activities with her male counterpart (Franzel & Helen, 1992; Saito & Spurling, 1992; Sharma et al., 1997; Ahmad & Ismail, 1998; Lovenbalk et al., 2003; Oladeji, 2004; Oyesola, 2004). However, in some parts of the world, women's participation in agricultural activities is higher than that of men (Prakash, 2003; Tacio, 2003). Women in rural areas are equally involved in pre-harvest agricultural activities like preparation of soil, planting, weeding, harvesting etc., and post-harvest activities like storage of food grains (Saini & Koppen, 2001). This study attempts an analysis of gender perspective in work participation in cotton cultivation with the following specific objectives:

1. To study the labour use pattern in cotton cultivation
2. To assess the inter gender work participation in cotton cultivation

2. MATERIAL AND METHODS

The study was carried out in two districts of Haryana namely Fatehabad and Sirsa selected purposively for the study due to leading districts in cotton cultivation in state. Two blocks from each district viz. Bhattukalan and Bhuna from Fatehabad and Nathusari Chopta and Sirsa from Sirsa and one village from each block i.e. Bhattu from Bhattukalan, Baizalpur from Bhuna block, Bakriyanwali from Nathusari Chopta and Panihar from Sirsa block were selected randomly. A proportionate sample of 200 farm families was selected randomly from the selected villages. Thus 50 families (50 male and 50 female of the same family) from each village were selected comprising a sample of 200 farm families. (an equal number of male and female).

The data were collected personally by researcher with the help of well structured interview schedule and quantified and interpreted by using suitable statistical tools such as frequency and percentage.

3. RESULT

Majority of the respondents (77.0%) were from upper caste, more than half of the female respondents (55.5%) were illiterate, and male respondents (59.0%) were educated upto metric/higher secondary level. 93.0 per cent of female respondents and (84.0%) male respondents had farming as their main occupation, had joint medium sized families, 27.5 per cent of respondents were having irrigated land holding between 2.5 to 5 acres followed by more than 15 acres of land (18.0%), up to 2 acres of land taken on lease by 12.5 per cent of respondents. Cotton was cultivated on 2.5 to 5 acres of land.

Data regarding labor use pattern presented in Table 1 clearly revealed that more than half of the respondents employed 1-3 male labourers for pesticide spray (56.0%) followed by marketing (52.0%), sowing (44.0%), irrigation (33.5%), stalk harvesting (20.0%) and manure application (15.0%) respectively.

Table 1 further pinpointed the female labourer participation data for performing various activities revealed that 27.0 per cent respondents employed 1-3 female labourers in weeding activities, followed by picking (24.0%) and stalk harvesting (12.0%) respectively. While 4-6 female labourers were employed in picking (30.0%) and plant harvesting (15.0%). More labor use pattern was observed where cotton was cultivated in large area.

Regarding average work hours devoted by the labourers per day presented in Table 1. It was evident that 7-8 hours per day was devoted in all the activities.

Table: 1 Labour use pattern in cotton cultivation

N=200

S.N.	Activities	Male (no.)		Female(no.)		Hours/day	
		1-3	7-8	1-3	4-6	7-8	
1.	Land preparation	54(27.00)	54(27.00)	-	-	-	
2.	Sowing	88(44.00)	88(44.00)	-	-	-	
3.	Weeding & inter-culturing	16(8.00)	16(8.00)	54 (27.00)	-	54(27.00)	
4.	Manure application	30 (15.00)	30 (15.00)	-	-	-	
5.	Plant protection (spray)	128 (64.00)	128 (64.00)	-	-	-	
6.	Irrigation	67(33.50)	67(33.50)	-	-	-	
7.	Harvesting (picking)	-	-	48(24.00)	60(30.00)	108 (54.00)	
	Stalk collection	40 (20.00)	40 (20.00)	24(12.00)	30(15.00)	54(27.00)	
9.	Marketing	104 (52.00)	104 (52.00)	-	-	-	

Figures in parentheses indicate percentages

Data regarding gender-wise participation, hours/day and number of days spent for crop presented in Figure 1 revealed that cent percent male respondents were involved in land preparation. Regarding time allocation table further elucidated that majority of male respondents (88.0%) worked 6-8 hrs/day in the land preparation followed by 12.0 per cent respondents 3-5 hrs/day. It was observed that female respondents participation was nil in land preparation activity.

It is evident from the Figure 1 that all the male respondents (100.0%) were involved in sowing operation whereas only (10.0%) of female respondents were involved in this. Data regarding number of hrs/day devoted by respondents, majority of male respondents (66.0%) spent 6-8 hrs/day followed by an equal number of male respondents spent 3-5 hrs/day. All the female respondents (10.0%) devoted 6-8 hrs/day in sowing activity.

From the data (Figure 1) it can be observed that in manual weeding, majority of female respondents (90.0%) followed by very few male respondents (20.0%) were involved. Regarding number of hours/day devoted by respondents revealed that majority of the female respondents (88.0%) devoted 6-8 hours/day followed by 3-5 hours/day (2.0%).

Mechanical weeding was done by male respondents. Cent per cent male respondents were involved in weeding by cultivators. Majority of male respondents (81.0%) devoted 6-8 hrs/day.

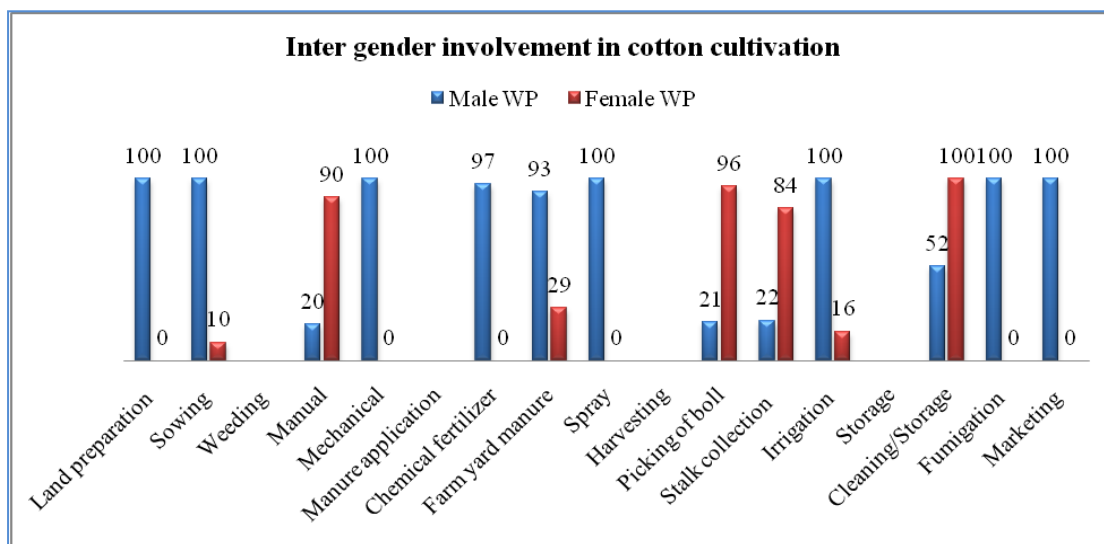


Figure:1

Participation of female respondents in chemical fertilizer application was nil and 29.0 per cent of female respondents were involved in farm yard manure application. Whereas majority of the male respondents (97.0%) and (93.0%) were involved in chemical fertilizer application followed by farm yard manure (FYM).

Data regarding number of hours/day devoted by the respondents explained that majority of the male respondents (76.0%) devoted 3-5 hrs/day followed by 21.0 per cent male respondents who devoted 6-8 hrs/day in chemical fertilizer application in cotton crop. Whereas time devoted in FYM application, majority of the male respondents (71.0%) and female respondents (29.0%) devoted 6-8 hrs/day and 22.0 per cent of male respondents devoted 3-5 hrs/day in farm yard manure application.

Male dominance was observed in pesticide spray. Cent percent of male respondents were involved in plant protection activity (either doing supervision to the labourers or carrying out this operation themselves). Data revealed that majority of the male respondents (83.5%) devoted 3-5 hrs/day and rest 16.5 per cent devoted 6-8hrs/day in plant protection activity.

Harvesting of cotton includes two activities i.e. picking of bolls and cutting of stalks. Majority of the female respondents (96.0%) were involved in bolls picking. Only 21.0 per cent of male respondents were involved in cotton picking. Again it is evident from the Figure that majority of female (95.0%) and (17.5%) male devoted 6-8hrs/day in picking of cotton followed by (3.5%) male respondents and (1.0%) of female respondents devoted 3-5 hrs/day in picking activity. Data regarding participation of respondent in cotton stalk harvesting presented in Figure 1 pinpointed that majority of female respondents (84.0%) followed by male respondents (22.0%) had participation in cotton stalk harvesting. Majority of

female respondents (69.0%) followed by male respondents (7.0%) had devoted 6-8hrs/day in stalk harvesting, while an equal percentage of male and female respondents (15.0% of each) had devoted 3-5 hrs/day in cotton stalk harvesting.

All the male respondents (100.0%) and only 16.0 per cent of female respondents were involved in irrigation activity. Regarding time devoted per day, more than half of the male respondents (56.0%) and 8.0 per cent of female respondents devoted 6-8hrs/day. 45.0 per cent of male respondents and 8.0 per cent of female respondents devoted 3-5hrs/day.

Storage activity includes cleaning, fumigation and storage of cotton. Figure 1 stated that cent per cent of female respondents and half of the male respondents (52.0%) were involved in cleaning and storing of cotton and all male respondents (100.0%) were involved in fumigation. More than half of the female respondents (64.0%) followed by male respondents (52.0%) devoted 3-5 hrs/day, while the rest of female respondents (36.0%) devoted 6-8hrs/day.

Table: 2 Inter-gender participation of other family members

N=200

S.N.	Activities	Male f(%)	Female f(%)
	Land preparation	125 (62.5)	-
	Sowing	136 (68.0)	-
	Weeding & inter-culturing		
	Manual	54 (27.0)	99(49.5)
	Cultivator	91 (45.5)	-
	Manure application		
	Chemical fertilizer	115 (57.5)	-
	Farm yard manure	85 (42.5)	43 (21.5)
	Plant protection (spray)	105 (52.5)	-
	Irrigation	131 (65.5)	18 (9.0)
	Harvesting		
	Picking of bolls	29 (14.5)	130 (65.0)
	Stalk collection	44 (22.0)	119 (59.5)
	Storage		
	Cleaning/Storage	63 (21.5)	125 (62.5)
	Fumigation	58 (29.0)	-
	Marketing	83 (41.5)	-

Figure in parentheses indicate percentages

Marketing is male dominating farm operation and the entire male respondents (100.0%) were involved in this activity, whereas female respondents' participation was found nil (Figure 1).

Data presented in Table 2 clearly revealed that majority of female family members' participation was evident in picking (65.0%) followed by cleaning & storage (62.5%), cotton stalk harvesting (59.5%), manual weeding (49.5%), FYM application (21.5%) and irrigation (9.0%) respectively.

Data regarding work participation of other male family members reported in sowing (68.0%) irrigation (65.5%), land preparation (62.5%) chemical fertilizer application (57.5%) respectively. More than half of the respondents reported that male family members were involved in plant protection (52.5%), mechanical weeding (45.5%), FYM application (42.5%), marketing (41.5%), fumigation (29.0%), manual weeding (27.0%), stalk collection (22.0%), cleaning & storage (21.5%) and picking of bolls (14.5%) respectively.

4. CONCLUSION

Majority of the respondents were from upper caste, more than half of the female respondents were illiterate, and male respondents (59.0%) were educated upto metric/higher secondary level. 93.0 per cent of female respondents and (84.0%) male respondents had farming as their main occupation, had joint medium sized families, had medium family education, living in pucca houses. Cent percent participation of male respondents were in land preparation, sowing, mechanical weeding, plant protection, fumigation and marketing. Majority of the female respondents were involved in manual

weeding, picking of bolls, stalk harvesting and storage. Similar pattern of work participation of other family members was observed in almost all the activities. Majority of the respondents employed male labourers for sowing, plant protection and marketing. Similar conclusions were arrived at by Rani et al. (2002), Jamali (2009), Borkakoty (2013), Mahanta and Nayak (2013) and Devi et al. (2014).

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