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Knowledge level of women chilli growers of Kundgol, Karnataka

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ABSTRACT

The present investigations were undertaken to study the socio-personal characteristics and knowledge level of 150 women chilli growers of Kundgol Taluk of Dharwad district, Karnataka through personal interview method. Kundgol Taluk is famous for chilli cultivation especially Byadagi variety of chilli. The study revealed that majority of the respondents were within the age group of 36-50 years, belonged to forward caste and had education up to primary level. More than fifty per cent of the farm women belonged to joint and medium size families. The occupation of all the sample families was agriculture of which 36.00 per cent families possessed small landholding and most (59.33%) of them had an annual family income up to Rs 132000 ie under low income category. The study also revealed that 55.30 per cent of farm women had medium knowledge about chilli cultivation practices. All of them had knowledge about yield per acre of chilli and 99.33 per cent had knowledge about interval for picking chilli. Knowledge of farm women was seen having positive significant relationship with extension participation, social participation and contact with extension agencies but showed a negative and significant relationship with annual income.

Keywords: Farm women; knowledge; chilli; cultivation

INTRODUCTION

The role and contribution of women is no longer a matter of contention because in rural India, the percentage of women who depend on agriculture for their livelihood is supposed to be as high as 84 per cent. Women's participation rate in the agricultural sector is about 47 per cent in tea plantation, 46.84 per cent in cotton cultivation, 45.43 per cent in growing oil seeds and 39.13 per cent in vegetable production. Depending on the region and crops women's contribution varies but they provide pivotal labour from planting to harvesting and postharvest operations.

Chilli is grown almost throughout the country. Karnataka is the second largest grower of chilli in India next only to Andhra Pradesh. In Karnataka Dharwad district and more specifically Kundgol Taluk is world Known for the Byadagi variety of chillies. Like other crops women play an important role in chilli cultivation. The present investigations were done to know the socio-personal characteristics and level of knowledge possessed by women in chilli cultivation in Kundgol Taluk of Dharwad district, Karnataka.

METHODOLOGY

This study was carried out during the year 2014-15 in Kundgol Taluk of Dharwad district, Karnataka. Kundgol Taluk was purposively selected for the study since it was the highest chilli growing area. Five villages namely Kundgol, Devanur, Kubhihal, Gudgeri and Saunshi in Kundgol Taluk were selected and from each village 30 respondents were randomly selected making a sample of 150. An interview schedule was prepared to collect the information and suitable statistical tools were used for the analysis of the data.

A knowledge test with 20 statements was developed to measure the knowledge level of the farm women about chilli cultivation practices. A score of 1

was given to the right answer and 0 to the wrong answer. Therefore the minimum and maximum scores ranged from 0 to 20. Based on the total scores the respondents were classified into low, medium and high knowledge taking mean and standard deviation as measures of check.

Based on the scores obtained by all the beneficiaries knowledge index was worked out by using the following formula:

$$\text{Knowledge index} = \frac{\text{Scores obtained}}{\text{Obtainable scores}} \times 100$$

RESULTS and DISCUSSION

Table 1 shows the socio-personal characteristics of women involved in chilli cultivation. Most of the women belonged to middle age group (45.30%); 45.33 per cent of the respondents had education up to primary level and nearly half of the respondents (46.70%) were from forward caste (Brahmin, Reddy, Lingayat, Jain and Muslim). Majority (80.00) of the respondents were from medium size families (5-8 members) mainly living in joint families (56.70%).

Table 1. Socio-personal characteristics of women involved in chilli cultivation (n= 150)

Variable	Category	Frequency	Percentage
Age (years)			
	Young (18-35)	42	28.00
	Middle aged (36-50)	68	45.30
	Old (>51)	40	26.70
Caste			
	Forward caste (GM)	70	46.70
	Other backward class	31	20.64
	SC	25	16.66
	ST	24	16.10
Education			
	Illiterate (0)	10	6.67
	Primary (class 1-4)	68	45.33
	Middle school (class 5-7)	52	34.67
	High school (class 8-10)	19	12.66
	PUC (class 11-12)	1	0.67
	Degree (class >12)	-	-
Type of family			
	Nuclear	65	43.30
	Joint	85	56.70
Family size (members)			
	Small (1-4)	6	4.00
	Medium (5-8)	120	80.00
	Large (9 and above)	24	16.00
Annual income (Rs)			
	Low (up to 132000)	89	59.33
	Medium (132000-572000)	60	40.00
	High (>572000)	1	0.67
Family occupation*			
	Agriculture	150	100.00
	Animal husbandry	-	-
	Service	-	-
	Business	-	-
	Agriculture + wage labour	37*	24.67
Landholding (acres dry land)			
	Marginal farmers (<2.5)	35	23.30
	Small farmers (2.5-5.0)	54	36.00
	Medium farmers (5-10)	36	24.00
	Big farmers (>10)	25	16.70

*Multiple responses

Due to purposive sampling, occupation of all the respondent families was agriculture of which 36.00 per cent possessed small landholdings (<5 acres) followed by 24 per cent with medium landholding (5-10 acres) Most (59.33%) of the respondents had an annual family income up to Rs 132000 ie under low income category.

Table 2 shows that most (98-100%) of the women knew about yield per acre, interval of chilli picking, number of pickings, NPK requirement and recommended varieties. A considerable number of women (90-97%) had knowledge of recommended seed rate, ideal time of sowing, right time of harvesting, ideal spacing, best season for chilli growing and important diseases of chilli. Women had low knowledge of length of time for green chilli picking (31.33%), rainfall required (11.33%), important pests and weedicides (6.66% each) and had least knowledge regarding the chemicals to be used for pest control. The overall knowledge index was 65.83 ie their knowledge was quite good. This could be due to high participation of women in most cultivation aspects where they naturally gain knowledge. The local Bydagi variety of chilli had been in cultivation for quite a number of years that increased their knowledge. Regarding low knowledge about amount of rainfall required, probably women did not know how to express quantity of rain in standard units. Hand weeding was a common method of getting rid of weeds and so they lacked knowledge about the weedicides. They also lacked exposure to new weedicides available in the market. Similarly they were not able to identify pests thus did not know about plant protection measures. These activities were mainly performed by men. The results are in line with the work of Jeyalakshmi and Govind (2008), Priya et al (2010) and Swetha et al (2011) who also found that majority of respondents had high knowledge about improved agricultural practices.

Table 3 indicates the categorization of women according to their knowledge about chilli cultivation practices. The data show that majority of the respondents (53.30%) belonged to medium category followed by 35.40 per cent to high and only 11.30 per cent to low category (Table 3). Agriculture being the main occupation of the respondents they were always trying to update themselves with new and improved agricultural technologies. This could be the reason for a high percentage of respondents having medium to high level of knowledge. Mass media ownership and participation among respondents could also be a source through which farm women kept themselves abreast with agricultural developments.

Table 2. Knowledge level of farm women involved in chilli cultivation (n= 150)

Statement	Respondents		Knowledge index
	F	%	
Best season for growing	139	92.67	92.67
Ideal time of sowing	144	96.00	96.00
Ideal spacing for higher yield	142	94.66	94.66
Variety recommended for Dharwad district (dry chilli)	144	96.00	96.00
Variety recommended for Dharwad district (green chilli)	147	98.00	98.00
Seed rate recommended to transplant for one acre	13	8.66	8.66
Amount of annual rainfall required for cultivation	17	11.33	11.33
Seed rate recommended for one hectare	146	97.33	97.33
NPK required for one hectare	148	98.66	98.66
Awareness about important pests	10	6.66	6.66
Awareness about important diseases	137	91.33	91.33
Awareness about recommended chemicals for pest control	1	0.66	0.66
Awareness about recommended chemicals for disease control	-	-	-
Weedicides used	10	6.66	6.66
Right time for harvesting green chilli	140	93.33	93.33
Right time for harvesting red chilli	143	95.33	95.33
Length of time for picking of green chilli	47	31.33	31.33
# of pickings	148	98.66	98.66
Interval of picking	149	99.33	99.33
Yield per acre	150	100.00	100.00
Overall knowledge index	-	-	65.83

Table 3. Knowledge level of farm women about chilli cultivation practices (n= 150)

Category	Respondents	
	Frequency	Percentage
Low (<12.5)	17	11.30
Medium (12.5-13.5)	80	53.30
High (>13.5)	53	35.40

Table 4 explains the relationship between the independent variable and dependent variables. Knowledge showed a significant and negative relationship with annual income of the families meaning that higher the income lesser was the knowledge probably because women from higher income groups hardly participated in the actual field work. The other variables which were positively and significantly related to knowledge were extension participation, social participation and contact with extension agencies. It is but natural that when women attend trainings and other extension programmes they update their knowledge. Their social participation exposes them to other members of the society like opinion leaders where exchange of information takes place.

Table 4. Relationship between independent variables and knowledge (n= 150)

Independent variable	Knowledge 'r' value
Age	0.020^{NS}
Education	0.020^{NS}
Annual income	-0.165*
Land holding	-0.056^{NS}
Extension participation	0.415*
Social participation	0.285*
Mass media participation	0.009^{NS}
Contact with extension agencies	0.283*

*Significant at 5% level, NS= Non-significant

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