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# Participation of women in agricultural activities

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#### Abstrac

The present study was undertaken to find out the participation of women in agricultural activities and musculoskeletal discomforts among them while doing those activities. A sample of 30 women who were participating in the agricultural activities was selected using the purposive sampling method. The data was analysed using descriptive statistics such as means, percentages, and standard deviation. The results of the study showed that the majority of farm women were participated in crop production activities like weeding, picking, removing stalks and stubbles, cleaning of field, top dressing fertilizer, sowing, transplanting, irrigation, cutting, bundling and heaping/uprooting were 100%, 100%, 76.67%, 76.67%, 76.67%, 76.67%, 76.67%, 70% and 70% respectively. None of the respondents were participating the activities like spreading/Mixing the manure and spraying. Findings also indicated that the participation of farm women in post-harvesting activities such as threshing, cleaning of grain, grading, and bagging/matting were 10%, 80%, 73.33% and 70% respectively. No participation was found in activities like sieving and transporting. It was observed that agricultural labor was manually doing most of the agricultural operations. The most commonly used tools were likki, Kodali and picking tools.

**Keywords:** Agricultural activity, crop production, labor, participation, post-harvesting, women

#### 1. Introduction

Agriculture is an important unorganized sector where the estimated agricultural workforce is 92 million. This figure accounts for 40 percent of the entire agricultural workers in the country (Singh *et al.*, 2007) <sup>[5]</sup>. Women are playing a noteworthy and vital role in agricultural development and allied fields including crop production, livestock production, horticulture, post-harvest operation, agro/social forestry, fisheries, etc.

Majority of the women engaged in agricultural activities either in their fields or in others fields. Women are doing 70% of major farm works like transplanting, weeding, threshing, cleaning, winnowing, grading, etc., and constitute 60% of the farming population (NSWF, 2014) [4]. This study, therefore, is carried out to find out the participation of women in agricultural activities.

#### 2. Materials and Methods

A sample of 30 women who were participating in agricultural operations at Dr. Y.S.R Horticulture University, Horticulture Research Station, Lam, Guntur were selected using the purposive sampling method. Purposive sampling involves the identification and selection of individuals or groups of individuals that are proficient and well-informed with a phenomenon of interest in addition to knowledge, experience, willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner (Etikan *et al.*, 2016) [2].

The data was collected through a structured interview schedule with a specified set of questions to be asked. Interview permit researcher to obtain important data which cannot be obtained through observation alone and provides a valuable way to gather complementary data (Gay *et al.*, 2006) <sup>[3]</sup>. The data was collected by using the interview schedule developed for the study.

#### 3. Result and Discussion

Using this head, the data related to socio-economic characteristics of the respondents, participation of farm women in various agricultural activities and tools used by respondents in agricultural activities are presented and discussed.

#### 3.1 Socio-economic characteristics of the respondents

The Socio-economic characteristics of the respondents for various variables were presented in Table 1. The age of the sample ranged from 13-52 years with an S.D of 6.76 years. Taking the mean and S.D into consideration the sample was classified into 3 groups. Slightly more than three fourth of the sample (76.66%) were in the age group of between 26 and 39 years were participating in agricultural operations. Probably this was the period where the women get settled in the family and play their role as wage earners. The respondents in the other two categories were very few. Only 10 percent of women in agriculture labor were in the age group of 39 to 52 years. The results of the study illustrate the national literacy level of the population. None of the women were illiterates and functionally literate women were more in the sample. This generation of women who were participating in unskilled farm operations were functionally literates. Sixty percent of the respondents were either with elementary (20%) or high school (40%) level of education. The socio-economic status of the respondents was measured using Kuppuswami socioeconomic scale. None of the agricultural labor was found in either upper or lower socio-economic status. Slightly more than half (53.33%) were in an upper lower category and slightly less than fifty percent (43.33%) were in the lowermiddle category. Only 3.33 percent of the sample fell in the category of upper-middle. Out of the total of 30 women agriculture labor that formed the sample for the study, only two families (6.66) owned agricultural land. Each one of them owned 0.014 and 0.02 acres. The land ownership among agriculture labor was insignificant. As regards experience in agriculture work, fifty percent of women labor were engaged in agriculture work for a period between 5 and 14 years. The mean years of work experience were 9.6 years with a standard

deviation of 4.87.

### 3.2 Participation in crop production activities

The data presented in table 2 shows that the most common crop production activities the women participated in were Preparatory tillage, Manure and Mannering, Sowing, Irrigation, after-care operations and Harvesting. Weeding one of the after-care operations was consuming more days. On an average women were spending 89 days in weeding operations. Next, more time-consuming operations were harvesting and irrigation.

# 3.3 Participation in post-harvest management chores

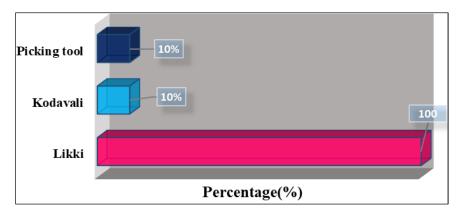
Data on participation in post-harvest management chores of the respondent was presented in table 3. Threshing, sieving, cleaning of grain, grading, bagging/matting, storage, marketing, and transporting the agricultural products were the main activities of post-harvest management. Cleaning of grain, grading of grain and bagging were the most labor demanding works.

Eighty percent of the respondents participated in the cleaning of grain. Slightly less than three fourth of the sample (73.33%) and seventy percent of the respondents were involved in Grading and Bagging/matting respectively.

The average number of days in a year the respondents participated in the activities like threshing, cleaning of grain, grading, and bagging/matting were 9, 4, 3 and 2 days respectively. None of the respondents were attending the activities like Sieving and Transporting activities.

#### 3.4 Tools used for farm activities

An attempt was made to know the tools used in agricultural operations. The most common tools were likki, kodavali and picking tools. These were the only tools the labor were using.



There were no specific tools for specific work. It was observed that agricultural labor was manually doing most of the agricultural operations. Irrespective of the work the commonly used tool was likki.

#### 3.5 Comfort while operating agricultural tools

The data presented in table 4 shows that the responents were asked to express their perceived comfort while using the tools in various agricultural operations. Sixty percent of the subjects felt comfort while using likki. More than half of the

respondents (66.67%) expressed discomfort while using kodavali. The total sample felt comfortable while using the picking tool. The use of the picking tool is limited to only scratching the ground to remove roots from the soil.

The use of tools for agricultural operations was very limited. The most commonly used tools were Likki and Kodavali. Women were not able to identify the level of comfort or discomfort while using these tools. The concept of using the right tool for the right work to reduce drudgery was not prevailing among women in agriculture labor.

**Table 1:** Socio-economic characteristics of the respondents n=30

S. No.	Variables	Frequency	Percentage (%)		
1.	Age (years)				
	13-26	4	13.33		
	26-39	23	76.66		
	39-52	3	10		
2.	Educational qualifications				
	Illiterate	0	0		
	Functionally Illiterate	12	40.00		
	Elementary school	6	20.00		
	High School	12	40.00		
	College	0	0		
3.	Socio-Economic Status of the respondent				
	Upper	0	0		
	Upper Middle	1	3.33		
	Lower Middle	13	43.33		
	Upper Lower	16	53.33		
	Lower	0	0		
4.	Agricultural land ownership				
	Landowners	2	6.66		
	Landless	28	93.33		
	Total	30	100		
5.	Experience in agriculture work				
	Below 5	6	20		
	5-14	15	50		
	Above 14	9	30		

Table 2: Distribution of the sample by Participation in crop production activities n=30

S. No	Name of crop Activity	The average number of days Respondents attending the activity						
		the agriculture work prevails	N	Percentage (%)				
1.	Preparatory tillage							
	Removing of stalks and stubbles	6	23	76.67				
	Cleaning of field	8	23	76.67				
2.	Manure and Mannering							
	Spreading/Mixing the manure	0	0	0				
	Top dressing of fertilizer	4	23	76.67				
3.	Sowing							
	Sowing (Broadcasting)	6	23	76.67				
	Transplanting	9	23	76.67				
4.	Irrigation							
	Irrigation	30	23	76.67				
5.	Aftercare operations							
	Weeding	89	30	100				
	Spraying	0	0	0				
6.		Harvesting						
	Cutting, Bundling and	8	21	70				
	Heaping/uprooting	25	21	70				
	Picking	83	30	100				

Table 3: Distribution of the sample by Participation in post-harvest management chores n=30

c No	Name of over Activity	The average number of days Number of respondents attending the activity			
5. 110	Ivaine of crop Activity	The average number of days the agriculture work prevails	N	Percentage (%)	
1.	Threshing and processing				
	Threshing	9	3	10	
	Sieving	0	0	0	
	Cleaning of grain	4	24	80	
	Grading	3	22	73.33	
	Bagging/matting	2	21	70	
2.	Storage and marketing				
	Transporting	0	0	0	

**Table 4:** The comfort of the respondents while operating agricultural tools n=30

S. No	Name of	Comfortable		Uncomfortable		Total
	the activity	N	%	N	%	1 Otai
1	Likki	18	60	12	40	100
2	Kodavali	1	33.33	2	66.67	100
3	Picking tool	3	100	0	0	100

#### 4. Conclusions

- 1. The most common crop production activities the women participated in were preparatory tillage, manure, and Mannering, sowing, irrigation, aftercare operations, and harvesting. Weeding one of the aftercare operations was consuming more days. On average women were spending 89 days in weeding operations. Next, more time-consuming operations were harvesting and irrigation.
- 2. Threshing, sieving, and cleaning of grain, grading, bagging/matting, storage, marketing, and transporting the agricultural products were the main activities of post-harvest management. Cleaning of grain, bagging were the most labor demanding works. The average number of days in a year the respondents participated in the activities like threshing, cleaning of grain, grading, and bagging/matting were 9, 4, 3 and 2 days respectively. None of the respondents were attending the activities like Sieving and Transporting activities.
- There were no specific tools for specific work. It was observed that the agricultural labor was mostly using their hands for most of the agricultural operations. Irrespective of the work the commonly used tools likki.

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