

## Original Research Article

# Estimate the Marketable Surplus of Wheat of the Respondents in Indore (M. P.) India

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## ABSTRACT

As observed in data the average production wheat per farm was found to be 42.78 quintals. Among the total production of wheat on an average 12.02 quintal (28.10% of total production) was utilized as family requirement to total production. For family requirement, the quantity of wheat retained by size group wise data shows that the small farmers retained wheat for consumption requirement is lowest i.e. 7.08 quintal per farm which is the highest proportion (34.93% of total production of small farmers) in comparison to other size group. It can be concluded that overall, on an average 28.10 per cent of the total wheat produce was utilized for various consumption purpose and remaining 71.90 per cent of the produce remained as marketable surplus. The data also showed that among the all size of farmers, the percentage of wheat consumption to total available wheat was found to decrease with increase in size of holding and marketable surplus of wheat increase with increase in size of holding.

### Keywords

Small Farmers: - Those farmer who have less than two (<2) hectare land; Medium Farmers: - Those farmer who have two to four (2 - 4) hectare land; Large Farmers: - Total Production – Total Consumption

## Introduction

As per the demand and production basis it can be said that among the cereal crops, wheat is the important crop growing in many parts of the country. Wheat is being cultivated from prehistoric times (500 B.C.). India is the second largest wheat growing country in the world after the Peoples Republic of China. There has been a phenomenal increase in wheat production in India after independence, which has gone up from 5.6 million metric tonnes in 1947-48 to about more than 96.00 million metric tonnes

in 2014-15. The major progress in wheat production, however, has been achieved after 1966 – 67 when the total wheat production in the country stood at 11.4 million metric tonnes.

Currently India produced a historic about more than 96.00 million tonnes of wheat production during 2014-15 owing to the coordinated research efforts, favourable government policy and weather conditions. The estimated Marketable Surplus of all

India was 43.79%. Atteri and Bisaria (2003). Madhya Pradesh is one of the important states in India producing 10% of total wheat production in the country. It is adaptable to different soils, climates and elevation. The wheat production has been increasing year to year after the green revolution in the state. The increase in wheat production in the state is not the result of just an increase in the area of cultivation, but also due to higher yields per hectare. After the green revolution the yield per hectare of wheat in the state increased from 14.1 quintal per hectare to 25.80 quintal per hectare on the farm of progressive farmers. 62.21% marketable Surplus was observed by Panday (2009) in Madhya Pradesh.

## **Materials and Methods**

### **Study area**

The present study was confined to Indore district of Madhya Pradesh. The Indore district was purposively selected for study because, this district is one of the important wheat growing tracts in the state. The district Indore was also selected due to availability of data of study and awareness of area by the researcher.

### **Sampling procedure**

Multi stage stratified random sampling technique was used for drawing a sample for the present study. At first stage of sampling, the block in the district was selected. At the second stage of sampling, the villages in the block were selected. At the third stage of sampling, the wheat growers were selected as respondents.

### **Selection of block**

Indore district comprises of 4 blocks. In first stage-sampling, Indore block was selected

purposively due to larger area under wheat cultivation.

### **Selection of villages**

In the second stage of sampling, a list of main wheat growing villages of the selected block was prepared. Out of this list 5 villages were selected randomly.

### **Selection of respondents**

In the third stage of selection, a list of wheat growing farmers in all 5 selected villages was prepared. These farmers was categorized into 3 size groups i.e. small farmers (<2 ha.), medium farmers (2-4.00 ha.) and large farmers (>4ha.). From this list 90 wheat growers were selected randomly using proportional allocation. The detail allocation of farmers (wheat growers) is presented in table.

### **Computation of Marketable Surplus**

It is computed by the formula:

$$MS = P - C$$

Where,

MS = Marketable Surplus,

P = Total production of wheat in the year of reference and

C = stands for the following items in the same year:

Consumption by the farm family,

Wages paid as to permanent labour,

Wages paid as to the casual labour,

Quantity retained for seed,

Quantity retained as feed for farm animals and others,

Quantity retained for barter,

Physical losses:

Others.

## Results and Discussion

### Marketable surplus of wheat

The marketing activities in which producers and other intermediaries are involved in reality look into the ways and means of moving the surplus available with the farmers. The quality of marketable surplus is the real quantity for which marketing activity is performed with economic view point. The marketable surplus is not exactly the actual production. The marketable surplus is especially quantity of produces which is actually made available to the non-farm population. The marketable surplus is the portion of actual quantity of total production of grain, which is available for marketing to the farmers after meeting his family and other requirement. Category wise average utilization of wheat for family consumption and other uses with marketable surplus for selected wheat growers has been presented in Table.

As observed in data that the average production or of wheat per farm was found

to be 42.78 quintals. The total production or available wheat per farm was found to be on an average 20.27 quintals on small size holding followed by 37.33 quintal on medium size and 70.75 quintal on large size farmers per farm.

The trend of total wheat production per farm was found to increase with increase in size of holding. Similar findings were also reported by Mayda (2014).

Among the total production of wheat on an average 12.02 quintal (28.10% of total production) was utilized as family requirement or total consumption. For family requirement, the quantity of wheat retained by size group wise data shows that the wheat retained for consumption by small farmer requirement was lowest i.e. 7.08 quintal per farm which was the highest proportion (34.93% of total production) in comparison to other size group.

For family requirement, the quantity of wheat retained by size group wise data shows that the amount medium farmers retained the wheat for consumption requirement was found to be 11.58 quintal per farm which is (31.02% of total production) and large farmers retained the wheat for consumption requirement was highest i.e. 17.39 quintal per farm which was the lowest proportion (24.58% of total production) in comparison to other size group. Sharma *et al.*, (2014).

### Allocation of wheat growers

S. No.	Size group	Actual wheat growers	Selected wheat growers
1.	Small farmers (<2 ha.)	210	42
2.	Medium farmers (2.00 - 4.00 ha.)	150	30
3.	Large farmers (>4.1ha.)	90	18
4.	Total	450	90

**Table.1** Statement showing marketable surplus of wheat as per their size group. (q/farm)

S. No.	Particulars of marketable surplus	Size of holding			Average
		Small	Medium	Large	
1.	Total production of wheat (P)	20.27 (100.00)	37.33 (100.00)	70.75 (100.00)	42.78 (100.00)
2.	Family consumption	6.03 (29.75)	5.94 (15.91)	5.78 (8.17)	5.92 (13.84)
3.	Payments in kinds	0	1.76 (4.71)	5.16 (7.30)	2.30 (5.38)
A	Paid as wages to permanent labour	0	0	2.41 (3.41)	0.80 (1.87)
B	Paid as wages to the casual labour	0	1.76 (4.71)	2.75 (3.89)	1.50 (3.51)
4.	Quantity retained for seed	0.83 (4.09)	2.51 (6.72)	5.50 (7.77)	2.95 (6.90)
5.	Quantity retained as feed	0	0.25 (0.67)	0.69 (0.98)	0.31 (0.72)
6.	Quantity retained for barter	0.04 (0.20)	0.06 (0.16)	0	0.03 (0.07)
7.	Physical losses	0.08 (0.39)	0.15 (0.40)	0.27 (0.38)	0.17 (0.40)
8.	Others	0.11 (0.54)	0.91 (2.44)	0	0.34 (0.79)
9.	Total consumption requirement (C)	7.08 (34.98)	11.58 (31.02)	17.39 (24.58)	12.02 (28.10)
10.	Total marketable surplus (P-C)	13.18 (65.02)	25.75 (68.98)	53.36 (75.42)	30.76 (71.90)

On an average among the family requirement the highest proportion was retained for “family consumption” 5.92 q/farm (13.84% to total production) followed by “quantity retained for seed” 2.95 q/farm (6.90% to total production), “paid as wages to the casual labour” 1.05 q/farm (3.51% to total production), “paid as wages to permanent labour” 0.80 q/farm (1.87% to total production), “others” 0.34 q/farm (0.79% to total production), “quantity retained as feed” 0.31 q/farm (0.72% to total production), “physical losses” 0.17 q/farm (0.40% to total production) and “quantity retained for barter” 0.03 q/farm (0.07% to total production) respectively. Lal *et al.*, (2003).

Marketable surplus is the main portion of total available grain with farmers which have to be disposed for economic gain. The study also revealed that on an average the marketable surplus of wheat was available i.e. 30.76 q/farm. The available marketable surplus of wheat was 71.90 per cent to the total available wheat at farm level. Similar findings were also reported by Mayda, (2014), and Sharma *et al.*, (2014), Lal *et al.*, (2003). The marketable surplus of wheat was found to have variation in quantity with different size of holding. The maximum marketable surplus of wheat was found with large farm size i.e. 53.36 q/farm i.e. (75.42% of total production) in the year. The decreasing quantity of marketable surplus of

wheat was found with medium farm size i.e. 25.75 q/farm i.e. (68.98% of total production) in the year, while the lowest marketable surplus of wheat was found with small farm size i.e. 13.18 q/farm i.e. (65.02% of total production) in the year respectively. Similar findings were also reported by Sarju *et al.*, (2014).

Thus, it can be concluded that overall on an average 28.10 per cent of the total wheat produce was utilized for various consumption purpose and remaining 71.90 per cent of the produce remained as marketable surplus. The data also shows that among the all size of farmers, the percentage of wheat consumption to total available wheat was found to decrease with increase in size of holding. On the other hand, data also shows that among the all size of farmers, the percentage of wheat marketable surplus to total available wheat was found to increase with increase in size of holding.

## References

- Atteri. B.R. and Bisaria, G. 2003. Marketable surplus of rice and wheat and benefits of storage to the farmers in India. *Agricultural Marketing*. 46(1):27-31.
- Lal, R.C.: singh J.: Sharma, A. and Tyagi, D.B. 2003. Marketable surplus and marketing behavior of the farmers. A case study of wheat growers in Agra district of Madhya Pradesh, Indian journal of Agriculture marketing vol. 17(2):106.
- Mayda, S. 2011. An Economic Analysis and Marketing of Chickpea Production in Alirajpur District of Madhya Pradesh. *M.Sc. (Ag.) The Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior*.
- Panday P.R. 2009. *Study of Marketable surplus and post-harvest lossess of wheat crop in jabalpur district of Madhya Pradesh. Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur*.
- Sarju P., Ropan B., Ravi S. 2014. Marketable surplus of wheat in Durg District of Chhattisgarh state. *International Journal of Commerce and Business Management*; 7(1):73-75.
- Sharma, H. O. and Rathi, D. 2014. Assessment of marketable & marketed surplus of wheat, gram & tur in Madhya Pradesh. *Report Agro-Economic Research Centre for Madhya Pradesh and Chhattisgarh Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.)*.