



# Study on Marketing of Arhar (*Cajanas cajan*) in Bhandara district of Maharashtra

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## ABSTRACT

*Red gram is an essential product for agricultural economy. Considering the dominance of red gram in the agricultural economy of the region, despite the production of red gram in the country, across Maharashtra and in Bandra district, the production of this product in the region and I needed to look into the issue of sales. Especially as it increased over time. This study was conducted in Bhandara district of Maharashtra, India, to identify the constraints faced by farmers in increasing and commercializing red bean production. Important information was collected from different groups of farmers through the study. Research results show that the biggest challenge farmers face in red bean production is the presence of a large number of diseases and pes.ts (ranked first), followed by their lack of strength (ranked second). Farmers generally suffer from the high costs of agricultural pesticides, lack of quality fertilizers and seeds, low production prices after harvest, large fluctuations in production prices, damages caused by natural disasters, lack of high-quality pesticides, etc. As a result, when it comes to marketing limitations of agricultural products, lack of transportation facilities, high market costs, high transportation costs, and lack of storage facilities are the most important limitations that agricultural products face. I, II, III, IV. Find them by: Farmers. According to the evaluation results, various pest and disease measures are recommended in order to predict the spread of pests and diseases, create the necessary opportunities to benefit from the benefits and protection of plants, and promote the integration of pest management into the work area, including: Infrastructure should be provided to overcome transportation and other business difficulties.*

**Key Words:** Red Gram, Marketing, Economy, Constraints, Survey.

## INTRODUCTION

Agriculture accounts for 18.5% of the country's GDP and is one of the pillars of the Indian economy. India, which accounts for 25% of global production, 15% of trade and 27% of consumption, is the world's largest food producer, exporter and consumer, and a part of the population still consumes food to meet its protein needs. Although India is the world's largest producer, it exports large

quantities of pulses to meet the country's domestic needs. India exported 2.79 million tons of different pulses in 2007. These came primarily from China, Canada, Australia, and Myanmar. India is a country that exports pulses. The Indian government has now outlawed pulse exports to fulfil rising domestic demand. Pulses are annual leguminous crops that are used for feed and food. A pod of one to twelve grains or seeds

of varying sizes, shapes, and colours can be extracted from them. The term “pulses” refers only to crops that are harvested for their dry grain; this means that crops collected for food purposes—which are categorized as vegetable crops—as well as those primarily used for oil extraction and leguminous crops that are used only for sowing—are not included in this definition. The most common legume is gram and accounts for 40% of the total crop. This is followed by Tur/Arhar (15-20%), Urad/Black Matke and Moog (8-10%). In terms of pulses production, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh are the top five states. Pulse yield is 764 kg/ha. Pulses are grown as rain-fed crops in Madhya Pradesh (23%), Uttar Pradesh (18%), Maharashtra (14%), Rajasthan (11%), Andhra Pradesh (9%) and Khanna state (6%). These states are important producers of red beans. Pulses are the main source of protein in the Indian diet, especially for vegetarians. By 2020 AD, when the population reaches 1350 million, the nation will require 30.3 million tons of pulses. However, the production of pulses has stalled over the past forty years and has to be boosted using a variety of strategies. India's population is vegetarian and the Indian Council of Medical Research recommends that everyone eat 70 to 80 grams of pulses a day to maintain health and well-being. Pulses are an equally significant component of rainfed and irrigated areas in developing nations like India. Because they

are high in protein and make up 10–15% of the country's food grain intake, pulses are significant to the agricultural economy of India. Most of Them improve the physical, chemical, and biological qualities of soil and work as a "mini nitrogen factory." By storing atmospheric nitrogen in the root nodules, pulses increase soil fertility and enhance soil structure (Asthana and Chaturvedi, 1999).

## **MATERIALS AND METHODS**

An attempt is made to explain the sample strategy, kind and method of data collecting, and analytical instruments used to meet the goals of the current investigation. Of the 36 districts in Maharashtra, the Bhandara district will be purposefully picked since it contains the greatest concentration of red gram cultivators. Bhandara District consists of 7 blocks. Out of these Pauni block will be selected for the present study. Selected block has 135 villages. Out of these 5% of village will be randomly selected.

### ***Selection of Market***

- Local market / village market
- Secondary market / Mandi
- Terminal market

### ***Selection of Respondents***

The complete list of farmers will be obtained from the local agricultural office and 10% of the participants will be selected for the study. Participants will be divided according to the land they own.

**Table 2.1: Farmers classified on the basis of their land holdings**

Group 1	Marginal farmers	Below 1 Ha.
Group 2	Small farmers	1 to 2 Ha.
Group 3	Semi medium	2 to 4 Ha.
Group 4	Medium farmers	4 to 10 Ha.
Group 5	Large farmers	10 Ha. and above

**ANALYTICAL TOOLS**

*STANDARD DEVIATION:*  $\sigma$  is the symbol

$$\sigma = \sqrt{\frac{\sum (x - \text{mean})^2}{n}}$$

*MARKETING COST:* The total transaction costs incurred by intermediaries involved in the purchase and sale of goods until the goods reach the end consumer are as follows:

$$C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

*MARKETING EFFICIENCY:*

Marketing efficiency is the degree of market performance. Marketing efficiency is the ratio of market output to marketing input (cost of resources)

$$MME = [RP / (MC + MM)]$$

*PRICE SPREAD:*

$$\text{price spread} = \frac{(\text{consumer price} - \text{net price of producer})}{\text{consumer price}} \times 100$$

*GERRETT RANKING*

*TECHNIQUE:*

$$\% \text{ Position} = \frac{100 \times (R_{ij} - 0.50)}{N_j}$$

Dividing the  $R_{ij}$  value by the Garrett value determines the total Garrett score. The average Garrett score is calculated by dividing the total Garrett score by the number of alternatives. Another ranking is made based on the highest average.

**RESULTS AND DISCUSSION**

*MARKETING CHANNELS FOR ARHAR*

By looking at different channels and arhar marketing officials, the marketing channels for Arhar were investigated. The study area has two primary marketing channels, which the sample farmers also utilized to sell their produce.

1. Producer, Trader, Processor (Dal miller) on Channel I Retailer, Wholesaler, and Consumer
2. Channel II: Producer, Wholesaler, Retailer, Processor (Dal miller), and Consumer
3. Marketing cost for red gram (Rs/q).

**Table 3.1. Marketing costs for Arhar**

S No.	Particular	Amount	Percent
1	Transportation	12.56	<b>46.09</b>
2	Market fee	-	-
3	Deduction	11.47	<b>42.09</b>
4	Weighing charges	3.22	<b>11.81</b>
<b>Total cost</b>		<b>27.25</b>	<b>100</b>

Table 3.1 shows that the overall marketing cost was 27.25 Rs/q. This figure was determined by adding together the costs for several categories, including transportation (12.56), deduction (11.47), and weighing charges (3.22).

**Table 3.2. Cost incurred by village traders (Rs/q)**

S No.	Particular	Amount	Percent
1	Transportation	27.02	<b>36.29%</b>
2	Labor Charges	7.15	<b>9.60%</b>
3	Commission charges @ 2%	37.15	<b>49.90%</b>
4	Weighing charges	3.12	<b>4.19%</b>
<b>Total</b>		<b>74.44</b>	<b>100%</b>

Table 3.2 shows that the total Cost incurred by Village traders was 74.44 Rs/q. This was determined by the expenditure on the various purposes such as Transportation (27.02), Labour charges (7.15), Commission charges @ 2% (37.15), and Weighing charges (3.12).

**Table 3.3. Cost incurred by Wholesaler (Rs/q)**

S.No.	Particular	Amount	Percent
1	Transportation	12.5	<b>24.66</b>
2	Labour charges	6	<b>11.83</b>
3	License charges	0.08	<b>0.15</b>
4	Electronic charges	0.95	<b>1.87</b>
5	Shop tax	0.53	<b>1.04</b>
6	Communication charges	0.78	<b>1.53</b>
7	Depreciation, repaired or fixed cost @ 10%	0.39	<b>0.76</b>
8	Interest on fixed assets @ 11%	0.25	<b>0.49</b>
9	Market fee	22	<b>43.40</b>
10	Other	7.2	<b>14.20</b>
<b>Total cost</b>		<b>50.68</b>	<b>100</b>

Table 3.3 shows that the total Cost incurred by Wholesaler was 50.68 Rs/q. This was determined by the expenditure on the various purposes such as Transportation (12.5), Labour charges (6), Market fee (22), Other charges (7.2), etc.

**Table 3.4. Marketing cost, Marketing margin and Price spread in Arhar marketing (Rs/q).**

S. No.	Particular	Rs.	Percentage
1	Net price received by producer	3896.72	87.15%
2	Marketing cost incurred by producer	27.25	0.6%
3	Price paid by village trader	3923.97	87.76%
4	Expenses incurred by village trader	74.44	1.66%
5	Margin of village trader	72.54	1.86%
6	Price paid by wholesaler	4070.95	91.05%
7	Expenses incurred by wholesaler	50.68	1.13%
8	Margin of wholesaler	50.05	1.22%
9	Price paid by processor	4171.68	93.3%
10	Total marketing cost	152.37	3.4%
11	Total market margin	147	3.52%
12	<b>Consumer price</b>	<b>4471.05</b>	<b>100%</b>

Table 3.4 shows Marketing Cost, Marketing Margin and Price spread in Arhar marketing. This Table reveals the Channel flow from one to another and their expenditure on investment and their profit on outcome and also the final purchasing price that consumer will pay to buy the goods.

### CONSTRAINTS FACED BY THE FARMERS

**Table 3.5. Constraints faced by the farmers**

Constraints	Garret score	Rank
High incidence of pests and diseases	39.66	I
Inadequate availability of labour	36.42	II
High cost of pesticides	33.18	III
Inadequate availability of fertilizer	32.09	IV
Inadequate availability of quality seeds	30.56	V
Low output price during harvesting	27.93	VI
High output price fluctuation	26.47	VII
Damage due to natural calamities	23.19	VIII
Lack of support to red gram cultivation	22.64	IX
Unavailability of quality pesticide	<b>21.98</b>	<b>X</b>

Other major challenges experienced by farmers included high output price fluctuations, damage from natural disasters, lack of assistance for arhar agriculture, and availability of high-quality insecticides. The main obstacle (Table 5) that farmers faced in increasing the yield of arhar crop was the high occurrence of pests and diseases (Rank I).

**Table 3.6. Constraints faced by the farmers in marketing**

Constraints	Garret score	Rank
Inadequate transportation facility	18.26	I
High market fees and charges	17.35	II
High transportation cost	16.22	III
Lack of storage facilities	16.02	IV
Too many middlemen	15.75	V
Lack of cooperative marketing	14.36	VI
Difficulties in handling facilities of produce	13.25	VII
Difficulty in the sale of produce	12.48	VIII
Lack of price knowledge	<b>11.97</b>	<b>IX</b>

The main issues that farmers faced were an abundance of middlemen, a lack of cooperative marketing, inadequate facilities for processing produce, challenges in selling produce, ignorance of current prices, and a dearth of appropriate marketing firms. The main issue that all farmers, particularly small and marginal farmers in arhar marketing, faced was inadequate transportation facilities.

### CONCLUSION

Regardless of the types of pulses farmed in the research area, the analysis finds that small farmers are more economically efficient than large farmers. Smaller operational holdings enable better control and efficient farm management, which may be the cause of this. This implied that direct supervision and farm management are significant determinants of economic efficiency in addition to effective input allocation. These findings suggest various pest control strategies, including predicting the emergence of pests and diseases, creating the necessary environment for cost-effective and effective plant protection, and

promoting integrated pest management in the study area. Adequate infrastructure must be provided to address transportation-related issues and other business-related issues.

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