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Marketing of black gram and constraints faced by farmers in production and marketing of black gram in Washim District

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Abstract

The study entitled "Economic Analysis of Black gram in Washim district" was undertaken in three tehsils of Washim district i.e. Mangrulpir, Karanja and Washim. The primary data were collected from selected farmers by personal interview. The information was collected regarding marketing of black gram and constraints faced by farmers in black gram production and marketing. Producer Commission agent cum wholesaler Retailer Consumer was the important channel through which maximum quantity was sold by farmers. Total marketing cost incurred in channel I was Rs./qtl 409.77 which was more as compared to channel II (Rs./qtl 282.46) in the marketing of black gram in Washim district. Net price received by producer was highest in channel II i.e. Rs./qtl 6050.41 than channel I Rs./qtl 5970.02. Producers' share in consumer's rupee was highest in channel II i.e. 90.97 per cent. Major constraints faced by farmers during black gram production were problem of wild animals (75.78 mean score) followed by infestation of insects and pests, unaware about seed treatment. In regards to marketing, major constraints faced by farmers were high transportation charges (70.28 mean score) followed by high commission charges, problem of price variation in the market and malpractices followed in market.

Keywords: Marketing, black gram, constraints, malpractices

Introduction

Black gram (*Vigna moongo* (L.) Hepper) is one of the important pulse crop of kharif season in our country. It belongs to the family Leguminaceae and sub-family Papilionaceae. The earlier name of black gram was phaseolus mungo that has now been changed to *Vigna mungo*. Black gram is used in the form of 'dal' (whole or split, husked, and un-husked) or perched. It is used as supplementary nutritive fodder specially for milch animals. High content of lysine in urdbean makes it as an excellent complement to other food grain in terms of balanced nutrition. The protein content in black gram is about 24 per cent, 1.4 per cent fat, 3.2 per cent mineral, 0.9 per cent fiber and 59.6 per cent carbohydrates.

Black gram ranks 4th in importance next to Bengal gram, red gram and green gram. The potential yield of black gram in India is 10-12 quintals per hectare whereas the demonstrated yield is 8-9 quintal per hectare. India is the world's largest producer as well as consumer of black gram. In India during year 2020-21 the area under black gram was 4.6 million hectares while the production accounts for 24.5 lakh tonnes of Urad with an average productivity of 533 Kg per hectare (agricoop.nic.in) as compared to other pulses i.e. chickpea (813 kg/ha), pigeon pea (564 Kg/ha), lentil (625 Kg/ha), peas (895 Kg/ha), lathyrus (627 Kg/ha), and total pulses (572 Kg /ha) was low i.e. 432 Kg/ha. North Indian plains are most preferred areas for the crop however, it may be grown from mean sea level upto an attitude of about 2000 meters.

Methodology

1. Selection of Area: The present study was undertaken in Washim district of Vidarbha region.

2. Selection of tehsils: Out of six tehsils of Washim district three tehsils were selected on the basis of highest area of black gram concentrated in last five years.

3. Selection of villages and farmers: In third stage, from each selected tehsil, three villages were selected randomly for the present study.

4. Cost of marketing, market margin and price spread

The data were collected from farmers, commission agent cum wholesaler and retailer about the expenses on loading, transportation, market entry fee, weighing, commission, cess fund and unloading. Marketing cost and market margin was worked out from actual data collected from producer and market intermediaries. 10 commission agent cum wholesaler and 10 retailers were selected for the study.

5. Marketing channels

- I) Channel I: Producer Commission agent cum wholesaler
Retailer
Consumer
II) Channel II: Producer Retailer Consumer

6. Marketing cost

Total marketing cost incurred by producer and various intermediaries i.e. commission agent cum wholesaler and retailer involved in sale and purchase of black gram till it reaches to the ultimate consumer.

Marketing cost (MC) is expressed as follows,

$$MC = C_F + C_W + C_R$$

Where,

MC = Marketing cost

C_F = Marketing cost incurred by farmer

C_W = Marketing cost incurred by commission agent cum wholesaler

C_R = Marketing cost incurred by retailer

7. Market margins

It refers to difference between the prices prevailing at successive stages of marketing at given period of time. Profits of the various market functionaries i.e. commission agent cum wholesaler and retailer involved in moving Black gram from the initial point of production till it reaches to the ultimate consumer. The absolute value of the marketing margin varies from channel to channel, market to market and time to time.

Market margin (MM) is expressed as follows,

$$MM = S_P - (P_P + M_C)$$

Where,

MM = Market margin

S_P = Selling price

P_P = Purchase price

M_C = Marketing cost

8. Price spread

Price spread indicates shares of various agencies involved in the marketing along with the cost incurred by them. The price spread of the produce shows the difference between net price

received by producer in the assembling market and price paid by the ultimate consumer. It includes all the market charges incurred by producer, wholesaler cum commission agent and retailer as well as profit margin of commission agent cum wholesaler and retailer.

Price spread (P_s) is expressed as follows,

$$P_s = P_c - P_R$$

Where,

P_s = Price spread

P_c = Price paid by consumer

P_R = Net price received by producer

9. Producer's share in consumer's rupee (P_s)

It is the ratio of net price received by the producer expressed as a percentage of the price paid by the consumer.

Producer's share in the consumer's rupee (P_s) is expressed as follow:

$$P_s = \frac{P_F}{P} \times 100$$

Where,

P_s = Producer's share in the consumer's rupee

P_F = Net price received by the farmer

P_C = Price paid by consumer

10. Constraints analysis

The constraints in black gram production and marketing were analyzed using Garrett's ranking technique. The ranks given by each respondent were converted into per cent position by using formula:

$$\text{Per cent position} = 100 (R_{ij} - 0.50) / N_j$$

Where,

R_{ij} = Rank given to the i^{th} constraints by the j^{th} farmer

N_j = Number of constraints ranked by j^{th} farmer.

The estimated per cent positions were converted into scores using Garrett's table.

The mean score values estimated for each factor were arranged in the descending order. The constraint with the highest mean value was considered as the most important one and the others followed in that

Results and Discussion

1. Cost of marketing of Black gram

The per quintal cost incurred by the producer, commission agent cum wholesaler and retailer was estimated in two channels and results are presented in Table 1.

Table 1: Cost of marketing of Black gram (Rs./qtl)

Sr. No.	Particulars	Total Price	
		Channel I	Channel II
A	Marketing cost incurred by Producer		
1	Cost of Loading	17.05	17.45
2	Cost of Gunny bag	40.31	41.63
3	Transportation Charges	48.22	55.41
4	Market Entry Fee	1.38	1.40
5	Weighing Charges	1.50	1.70

6	Commission Charges	0.00	7.47
7	Cost of Unloading	16.75	15.20
	Subtotal	125.21	140.26
	Selling Price of Producer	6095.23	6190.67
B	Marketing cost incurred by commission agent cum wholesaler		
1	Cost of Loading	20.32	0.00
2	Cost of Gunny bag	35.17	0.00
3	Transportation Charges	52.47	0.00
4	Market Entry Fee	1.60	0.00
5	Weighing Charges	1.75	0.00
6	Commission Charges	7.85	0.00
7	Cost of Unloading	18.28	0.00
	Subtotal	137.44	0.00
	Selling price of commission agent cum wholesaler	6389.48	-
C	Marketing cost incurred by Retailer		
1	Cost of Loading	20.59	18.12
2	Cost of Gunny bag	30.62	32.66
3	Transportation Charges	60.20	62.40
4	Market Entry Fee	1.72	1.40
5	Weighing Charges	1.75	1.70
6	Cess Fund	14.00	10.30
7	Cost of Unloading	18.24	15.62
	Subtotal	147.12	142.20
	Selling Price of retailer	6890.37	6650.29
	Purchase price of Consumer	6890.37	6650.29
	Total marketing cost	409.77	282.46

It is revealed from Table 1 that, maximum cost of Rs./qtl 140.26 was incurred by producer, as producer sold their black gram to retailer in channel II in the marketing of per quintal black gram. Total marketing cost incurred by commission agent cum wholesaler was high i.e. Rs./qtl 137.44 In channel I. Among the different items of expenditure, the highest charges paid for transportation charges i.e. Rs./qtl 52.47, cost of gunny bag i.e. Rs./qtl 35.17 and cost of loading i.e. Rs./qtl 20.32 in channel I. Total marketing cost incurred by retailer

was high i.e. Rs./qtl 147.12 in channel I and it was Rs./qtl 142.20 in channel II. Among the different items of expenditure, the highest charges paid by retailer for transportation charges i.e. Rs./qtl 60.20 and Rs./qtl 62.40 and cost of loading i.e. Rs./qtl 20.59 and Rs./qtl 18.12 in channel I and channel II.

2. Channel wise market margin of Black gram

Table 2: Channel wise market margin of Black gram

Sr. No.	Particulars	Channel I	Channel II
A)	Producer		
1	Gross Price received by Producer	6095.23 (88.46)	6190.67 (93.08)
2	Marketing cost incurred	125.21 (1.81)	140.26 (2.10)
3	Net Price received by Producer	5970.02 (86.64)	6050.41 (90.97)
B)	Commission agent cum wholesaler		
1	Purchase price	6095.23 (88.46)	0.00 (0.00)
2	Marketing cost incurred	137.44 (1.99)	0.00 (0.00)
3	Net Margin	216.81 (3.14)	0.00 (0.00)
4	Selling price	6449.48 (93.60)	0.00 (0.00)
C)	Retailer		
1	Purchase price	6449.48 (93.60)	6050.41 (90.97)
2	Marketing cost incurred	147.12 (2.13)	142.20 (2.13)
3	Net Margin	293.77 (4.26)	457.68 (6.88)
4	Selling price of Retailer or Purchase price of Consumer	6890.37 (100.00)	6650.29 (100.00)

Table 2 revealed that, per quintal gross price received by producer was high i.e. Rs./qtl 6190.67 in channel II followed by Rs./qtl 6095.23 in channel I. Net price received by producer was high i.e. Rs./qtl 6050.41 in channel II followed by Rs./qtl 5970.02 in channel I. Net margin earned by commission agent cum wholesaler was Rs./qtl 216.81 in channel I and marketing cost incurred by commission agent cum wholesaler was Rs./qtl 137.44. Selling price of

commission agent cum wholesaler was Rs./qtl 6449.48 in channel I. Net margin earned by retailer was high i.e. Rs./qtl 457.68 in channel II and it was Rs./qtl 293.77 in channel I. Selling price of retailer was high i.e. Rs./qtl 6890.37 in channel I and it was Rs./qtl 6650.29 in channel II.

3. Channel wise price spread of Black gram

The detail about price spread was estimated in Table 3.

Table 3: Channel wise price spread of Black gram (Rs./qtl)

Sr. No.	Particulars	Channel I	Channel II
1	Net Price received by Producer	5970.02 (86.64)	6050.41 (90.97)
2	Total marketing cost incurred by producer, commission agent cum wholesaler and retailer	409.77 (5.94)	282.46 (4.24)
3	Total market margin	510.58 (7.41)	317.42 (4.77)
4	Purchase price of Consumer	6890.37 (100.00)	6650.29 (100.00)
5	Producer's share in consumer's rupee	86.64	90.97

(Figure in parentheses indicates the percentage to purchase price of consumer)

It is revealed from Table 3 that, net price received by producer was high i.e. Rs./qtl 6050.41 in channel II followed by Rs./qtl 5970.02 in channel I. Total marketing cost was high i.e. Rs./qtl 409.77 in channel I followed by Rs./qtl 282.46 in channel III. Total market margin was high i.e. Rs./qtl 510.58 in channel I followed by Rs./qtl 317.42 in channel II.

Producer's share in consumer's rupee was high i.e. 90.97 per cent in channel II and it was low i.e. 86.64 per cent in channel I. It showed that if share of various intermediates decreases the producer's share in consumer's rupee increases.

4. Constraints faced by farmers in production of Black gram

Table 4: Constraints faced by farmer in cultivation of Black gram

Sr. No.	Constraints	Mean Score	Rank
1	Infestation of Insects and pests	72.44	II
2	Problem of wild animals	75.78	I
3	Lack of technical knowledge	61.44	IV
4	Non availability of inputs at proper time	55.89	V
5	Unaware about seed treatment	66.22	III

The table 4 revealed that, the problem of wild animals were major problem which was expressed with 75.78 mean score and rank I. Infestation of insects and pests was expressed with 72.44 mean score and rank II. Unaware about seed treatment was expressed with 66.22 mean score and rank III. Lack of technical knowledge was expressed with 61.44 mean score and rank IV. Non availability of inputs at proper time was expressed with 55.89 mean score and rank V.

5. Constraints faced by farmers in marketing of Black gram

Table 5: Constraints faced by farmer in marketing of Black gram

Sr. No.	Constraints	Mean Score	Rank
1	High transport charges	70.28	I
2	High commission charges	66.38	II
3	Malpractices followed in market	52.37	IV
4	Lack of market intelligence	48.89	V
5	Problems of price variation in the market	57.19	III

The table 5 revealed that, the high transport charges was major problem which was expressed with 70.28 mean score which rank I. high commission charges was expressed with

66.38 mean score which rank II. Problems of price variation in the market was expressed with mean score 57.19 which rank III. Malpractices followed in market was expressed with mean score 52.37 which rank IV.

Conclusions

1. Producer Commission agent cum wholesaler Retailer Consumer was the important channel through which maximum quantity was sold by the cultivators.
2. Producers' share in consumer's rupee was highest in channel II i.e. 90.97 per cent means the selling of black gram by cultivator to direct retailer is found to be more profitable as compared to channel I 86.64 per cent.
3. Wide variation was observed in the constraints faced by black gram cultivators. However, major constraints faced by cultivators during production were problem of wild animals (75.78 mean score) followed by infestation of insects and pests (72.44 mean score), unaware about seed treatment (66.22 mean score), lack of technical knowledge (61.44 mean score), non-availability of inputs at proper time (55.89 mean score) respectively.
4. In regards to marketing, major constraints faced by cultivators were high transportation charges (70.28 mean score) followed by high commission charges (66.38 mean score), problems of price variation in the market (57.19 mean score), malpractices followed in market (52.37 mean score) and lack of market intelligence (48.89 mean score) respectively.

References

1. Jadhav VA. Economics of Production and Marketing of Black gram in Parbhani district. Unpublished M.Sc. (Agri.) thesis submitted to M. P. K. V., Rahuri. (MS.); c2002.
2. Kumari R, Singh R. Production and marketing of chick pea in Bihar. Int. J Agril. Sci. and research. 2016;6(125-136).
3. Patil VG, Tingre AS. Black gram price movement across major markets of Maharashtra. Int. journal of agril. Economics and statistics; 2014. p. 32-38.
4. Parmar VS, Joshi NS, Prajapati PJ, Hadiya NJ. Constraints Faced by the farmers in Adoption of Improved Cultivation Practices of Gram. Int. J Curr. Microbiol. App. Sci. 2019;8(11):2071-2075.
5. Sengar VS, Gautam AK, Mishra VK, Musaddi MK,

- Kumari N, Singh DK. Study of disposal pattern, price spread, marketing efficiency of chickpea in Auraiya district of Uttar Pradesh. *The Pharma journal*. 2022;11(3):933-936.
6. Shashikant VG, Prabhakar I, Manjunatha BL. Constraints in Production and Marketing of Red gram in Gulbarga district of Karnataka. *Indian Journal of Community Mobilization and Sustainable Development*. 2016;6(2):202-204.
 7. Singh SN, Singh VK, Singh RK. Adoption constraints of pigeon pea cultivation in Lucknow District of Central Uttar Pradesh, *Indian J of Extn. Education*. 2007;7(1):34-35.
 8. Sowjanya B, Subba Rao DV, Kumari RV, Resource use efficiency and marketing of Red Gram. *Progressive Research – An International Journal*. 2016;2(2):1035-1039.
 9. Thombre AP. Economics of Production, marketing and processing of major pulses in Marathwada region of Maharashtra state. Unpublished M.Sc. (Agri.) thesis, submitted to M. P. K. V., Rahuri. (MS); c2008.