

International Journal of Agriculture Extension and Social Development

Volume 9; Issue 8; August 2026; Page No. 445-448

Received: 14-06-2026
Accepted: 18-07-2026

Indexed Journal
Peer Reviewed Journal

Marketing of soybean in Washim district of Maharashtra: An economic analysis

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DOI: <https://www.doi.org/10.33545/26180723.2026.v9.i8f.4047>

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Abstract

The study was conducted in Washim district of Maharashtra to examine the major marketing channels, marketing costs, marketing margins, price spread and marketing efficiency of soybean. Primary data were collected from 180 soybean growers from six villages, along with five village traders and five wholesalers. Three marketing channels were identified: Channel I (Producer–Processor), Channel II (Producer–Wholesaler–Processor) and Channel III (Producer–Village Trader–Wholesaler–Processor). Channel II was the most commonly used, accounting for 53.89 per cent of growers and 53.75 per cent of the quantity marketed. The total marketing cost was lowest in Channel I (Rs.70.56/qlt) and highest in Channel III (Rs.322.73/qlt). The producer's share in the consumer's rupee was highest in Channel I (98.77%), followed by Channel II (90.88%) and Channel III (88.19%). Marketing efficiency, estimated using the method of Acharya and Agrawal, was also highest in Channel I (80.10), followed by 9.96 in Channel II and 7.47 in Channel III. Overall, direct marketing from producers to processors was found to be the most efficient channel, providing higher net price realization to growers. Strengthening direct linkages between soybean growers and processors could help reduce marketing costs and improve marketing efficiency in the study area.

Keywords: Soybean, marketing channels, price spread, marketing efficiency, producer's share

1. Introduction

Soybean (*Glycine max* L. Merrill) is one of the major oilseed crops of India and is important as a source of edible oil and high-quality protein. It contains about 40 per cent protein and 18–22 per cent oil and is widely used for edible oil extraction and protein-rich animal feed. With its growing commercial importance, soybean has become an important component of the agricultural economy of the country.

Soybean cultivation is concentrated mainly in the central and western parts of India, with Maharashtra and Madhya Pradesh being the major producing states. According to the Third Advance Estimates for 2025–26, soybean was cultivated on about 12.39 million hectares in India with estimated production of 125.96 lakh tonnes. At the state level Maharashtra accounted for about 49.96 lakh hectares of area and 48.53 lakh tonnes of production. Within Maharashtra, soybean is widely cultivated in the Vidarbha and Marathwada regions, with Washim being one of the important soybean growing district of Vidarbha. According to the Third Advance Estimates in respect of Maharashtra state for 2025–26, soybean occupied about 2.91 lakh hectares in the district with an estimated production of 3.99 lakh tonnes and productivity of 1,371.17 kg/ha (Department of Agriculture, 2026) ^[4].

The income of soybean growers depends not only on

production and productivity but also on the efficiency of marketing. After harvest, soybean may move through different marketing channels involving village traders and wholesalers before reaching the processor. These intermediaries incur marketing costs and receive margins for the services they provide. As the number of intermediaries increases, marketing costs and price spread may also increase, which may reduce the producer's share in the final price. Chavhal *et al.* (2014) ^[2] found that the producer's share was highest in the direct channel from producer to oil processor in Parbhani district of Maharashtra. The choice of an appropriate marketing channel is therefore important for improving farmers' price realization.

Studies conducted in soybean-growing areas have also reported differences in marketing costs, margins and price spread across channels. Chopde *et al.* (2023) ^[3], in Amravati district of Maharashtra, identified three major soybean marketing channels involving village traders, wholesalers and oil processors and reported that the producer's share in the consumer's rupee was highest in the direct producer to processor channel. These findings indicate that the structure of the marketing channel can have an important bearing on the price received by soybean growers.

Despite the commercial importance of soybean in Washim district, location-specific information on the marketing

channels followed by soybean growers and their relative efficiency in Washim district is limited. Marketing conditions may vary across locations depending on market access, transportation facilities and the role of intermediaries. Therefore, channel-wise assessment is necessary to understand the marketing cost and margins and to identify the marketing arrangement that provides better price realization to soybean growers.

In view of this, the present study was undertaken to examine the marketing pattern of soybean in Washim district of Maharashtra. The study identifies the major marketing channels followed by soybean growers and evaluates their marketing costs, marketing margins, price spread and marketing efficiency. It also estimates the producer's share in the price paid by the processor.

2. Objective

1. To Study the marketing of soybean

3. Methodology

3.1 Sampling and Data Collection

The study was conducted in Washim district of Maharashtra. A total of 180 soybean growers were selected randomly from six villages, with 30 growers selected from each village. Primary data pertaining to the agricultural year 2025–26 were collected from the selected soybean growers through a structured interview schedule. In addition, five village traders and five wholesalers involved in soybean marketing were selected to obtain information on marketing costs, prices and margins.

3.2 Marketing Channels

Three important marketing channels were identified for soybean marketing in the study area:

Channel I: Producer → Processor

Channel II: Producer → Wholesaler → Processor

Channel III: Producer → Village Trader → Wholesaler → Processor

The major market functionaries involved in these channels were producers, village traders, wholesalers and processors. In the present study, the processor was considered the final buyer of soybean grain.

3.3 Marketing Cost

Marketing cost refers to the total expenses incurred by the producer and various market intermediaries in the process of marketing soybean.

The total marketing cost was calculated as:

$$C = C_F + C_{m_1} + C_{m_2} + C_{m_3} + \dots + C_{m_n}$$

Where,

C = Total cost of marketing

C_F = Cost borne by the farmers in marketing his produce

C_{m_i} = Cost incurred by the middleman in the process of buying and selling

$i = 1, 2, 3, \dots, n$

n is the number of middlemen involved in the channels.

3.4 Marketing Margin

Marketing margin refers to the difference between the selling price and purchase price of an intermediary after deducting the marketing cost incurred by that intermediary.

3.5 Price Spread

Price spread refers to the difference between the price paid by the final buyer (processor) and the net price received by the producer. It was calculated as:

Price spread = Price paid by final buyer – Net price received by producer

3.6 Producer's Share in Consumer Rupee

Producer's share indicates the proportion of the price paid by the consumer (processor) that is received by the producer after deducting the marketing expenses incurred by the producer. It was calculated as:

$$P_s = \frac{P_f}{P_c} \times 100$$

Where,

P_s = Producer's share in consumer rupee (%)

P_f = Net price received by the producer

P_c = Price paid by the consumer (processor)

3.7 Marketing Efficiency

The marketing efficiency of different soybean marketing channels was estimated using the formula suggested by Acharya and Agrawal (2011) ^[1]:

$$MME = FP / (MC + MM)$$

Where,

MME = Modified measure of marketing efficiency

FP = Price received by the farmer

MC = Total marketing cost

MM = Net marketing margin.

4. Results and Discussion

4.1 Marketing Channels of Soybean

The distribution of soybean growers and the quantity marketed through different channels is presented in Table 1.

Table 1: Distribution of soybean growers according to marketing channels

Sr. No.	Channels	No. of farmers	Per cent of total farmers	Quantity sold(qtl)	Quantity marketed (%)
1	Channel I	34	18.89	1802	22.85
2	Channel II	97	53.89	4238	53.75
3	Channel III	49	27.22	1845	23.40
Total		180	100.00	7885.00	100.00

The results revealed that Channel II was the most commonly used marketing channel, followed by Channel III and Channel I. A majority of the soybean growers (53.89%)

marketed their produce through Channel II, accounting for 53.75 per cent of the total quantity marketed. Channel III was followed by 27.22 per cent of the growers and accounted for

23.40 per cent of the total quantity marketed. Channel I was used by 18.89 per cent of the growers and accounted for 22.85 per cent of the total quantity marketed.

The predominance of Channel II indicates that the wholesaler played an important role in soybean marketing in the study area. Direct marketing to processors through Channel I was followed by a relatively smaller proportion of growers, while Channel III involved an additional intermediary, namely the

village trader.

4.2 Marketing Cost of Soybean

The marketing cost of soybean varied across the three marketing channels depending on the number of market functionaries involved. The details of marketing costs incurred by producers, village traders and wholesalers are presented in Table 2.

Table 2: Marketing cost of soybean through different marketing channels (Rs/ql)

Sr. No.	Particulars	Channel I	Channel II	Channel III
A	Marketing cost incurred by producer			
1	Packing charges (gunny bag)	20.15	19.90	19.59
2	Transportation charges	25.29	30.31	20.82
3	Loading and unloading charges	15.18	15.89	15.82
4	Weighing charges	5.94	5.85	5.08
5	Commission charges	0.00	27.32	0.00
6	Miscellaneous charges	4.00	3.96	3.80
7	Marketing cost incurred by producer	70.56	103.23	65.11
8	Selling price of producer	5722.31	5352.67	5191.71
9	Net price received	5651.75	5249.44	5126.60
B	Marketing cost incurred by village trader			
1	Transportation charges	-	-	31.33
2	Loading and unloading charges	-	-	20.20
3	Weighing charges	-	-	5.63
4	Commission charges	-	-	26.84
5	Miscellaneous charges	-	-	4.78
6	Marketing cost incurred by village trader	-	-	88.78
7	Selling price of village trader	-	-	5417.46
8	Net price received	-	-	5328.68
C	Marketing cost incurred by wholesaler			
1	Transportation charges	-	49.64	50.31
2	Loading and unloading charges	-	30.82	30.41
3	Weighing charges	-	5.25	5.45
4	Market fee	-	58.33	57.12
5	Godown charges	-	20.08	20.16
6	Miscellaneous charges	-	5.05	5.39
7	Marketing cost incurred by wholesaler	-	169.17	168.84
8	Selling price of wholesaler	-	5776.26	5813.23
9	Net price received	-	5607.09	5644.39
	Total Marketing cost	70.56	272.40	322.73

The total marketing cost was lowest in Channel I (Rs. 70.56/ql), where soybean was marketed directly from the producer to the processor. The producer incurred Rs.70.56/ql towards packing, transportation, loading and unloading, weighing and miscellaneous expenses.

In Channel II, the producer incurred a marketing cost of Rs.103.23/ql, while the wholesaler incurred Rs.169.17/ql. Consequently, the total marketing cost increased to Rs.272.40/ql. The higher cost was mainly due to the additional marketing operations and expenses incurred by the wholesaler. The highest total marketing cost was observed in Channel III (Rs.322.73/ql), where the producer, village trader and wholesaler incurred Rs.65.11, Rs.88.78 and Rs.168.84/ql, respectively. The involvement of both a village trader and wholesaler added further handling, transportation and other marketing expenses to the channel.

The producer received the highest net price in Channel I (Rs.5,651.75/ql), followed by Channel II (Rs.5,249.44/ql) and Channel III (Rs.5,126.60/ql). Thus, the direct marketing through Channel I involved the lowest marketing cost and provided the highest net price to the producer. In comparison, the involvement of additional intermediaries increased the total marketing cost and was associated with a lower net price received by the producer.

4.3 Price Spread, Marketing Efficiency and Producer's Share

The distribution of the price paid by the final buyer among the producer and market functionaries, along with price spread, marketing efficiency and producer's share, is presented in Table 3.

Table 3: Price spread, marketing efficiency and producer's share in soybean marketing (Rs/qlt)

Sr. No.	Particulars	Channel I	Channel II	Channel III
1	Net price received by producer	5651.75 (98.77)	5249.44 (90.88)	5126.60 (88.19)
2	Marketing cost incurred by producer	70.56 (1.23)	103.23 (1.79)	65.11 (1.12)
3	Price paid by village trader	-	-	5191.71 (89.31)
4	Marketing cost incurred by Village	-	-	88.78 (1.53)
5	Marketing margin of village trader	-	-	136.97 (2.36)
6	Price paid by wholesaler	-	5352.67 (92.67)	5417.46 (93.19)
7	Marketing cost incurred by wholesaler	-	169.17 (2.93)	168.84 (2.90)
8	Marketing margin of wholesaler	-	254.42 (4.40)	226.93 (3.90)
9	Price paid by processor (consumer's price)	5722.31 (100.00)	5776.26 (100.00)	5813.23 (100.00)
10	Total marketing cost	70.56	272.40	322.73
11	Total marketing margin	-	254.42	363.90
12	Price spread	70.56	526.82	686.63
13	Marketing efficiency (index)	80.10	9.96	7.47
14	Producer's share in consumer rupee (%)	98.77	90.88	88.19

(Figure in parentheses indicates per cent to the consumer's rupee)

The results showed clear differences in the performance of the three marketing channels. The price paid by the processor was Rs.5,722.31, Rs.5,776.26 and Rs.5,813.23 per quintal in Channels I, II and III, respectively. However, the net price received by the producer was highest in Channel I (Rs.5,651.75/qlt) and declined to Rs.5,249.44/qlt in Channel II and Rs.5,126.60/qlt in Channel III.

The price spread was lowest in Channel I at Rs.70.56/qlt, compared with Rs.526.82/qlt in Channel II and Rs.686.63/qlt in Channel III. The higher price spread in Channels II and III was associated with the marketing costs and margins of the intermediaries involved in these channels. Channel III recorded the highest price spread because both the village trader and wholesaler were involved in the marketing process.

The total marketing margin was Rs.254.42/qlt in Channel II and Rs.363.90/qlt in Channel III. In Channel III, the village trader received a margin of Rs.136.97/qlt, while the wholesaler received Rs.226.93/qlt. Thus, the involvement of an additional intermediary was accompanied by a higher total marketing margin.

The producer's share in the price paid by the processor was highest in Channel I (98.77%), followed by Channel II (90.88%) and Channel III (88.19%). Marketing efficiency also followed the same pattern, with the highest value in Channel I (80.10), followed by Channel II (9.96) and Channel III (7.47). The higher efficiency of Channel I was mainly due to its shorter marketing route, lower marketing cost and absence of intermediaries. Overall, Channel I was the most efficient channel from the producer's perspective, as it provided the highest net price and producer's share, while recording the lowest price spread and marketing cost.

5. Conclusion

The study identified three major marketing channels followed by soybean growers in the study area, with Producer → Wholesaler → Processor (Channel II) being the most widely used channel. However, direct marketing through Producer → Processor (Channel I) was found to be more advantageous

to producers.

The producer's share in consumer rupee was highest in Channel I (98.77%), followed by Channel II (90.88%) and Channel III (88.19%). Marketing efficiency was also highest in Channel I (80.10), compared with 9.96 and 7.47 in Channels II and III, respectively.

Overall, direct marketing to processors was the most efficient channel from the producer's perspective. The findings suggest that strengthening direct linkages between soybean growers and processors could reduce marketing costs, improve price realization and enhance the efficiency of soybean marketing in the study area.

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