



# “STUDY ON MARKETING OF FUNGICIDE IN SAGAR DISTRICT OF MADHYA PRADESH”

**Author's**

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## **Abstract:**

Fungicides are pesticides that are used to manage or eliminate fungi that might cause diseases in plants, animals, or humans. Fungi can create a variety of issues, such as plant illnesses, food spoilage, and human infections. Fungicides are chemicals that are used to limit the growth and spread of fungi. They are available in liquids, powders, and granules. Fungicides come in a variety of forms, each with its own mode of action, target fungi, and application method. Some fungicides act by stopping fungi from growing or reproducing, while others directly destroy fungi. Some are sprayed on the plant or used as a seed treatment, while others are applied to the soil. During the current study, it was discovered that in farm size the majority of farmers are found in the marginal size farm category, followed by the medium size farm category, the tiny farm size category, the semi medium farm size category, and finally the large farm size category. In age category it is seen that maximum of respondents are in young age category followed by middle group age and lastly old age group. In education category it had been seen that 22 of total respondents are illiterate and left 98 were literate in different categories. In gender category it had been seen that 98 were male among all respondents and 22 were female. There are two marketing channels involved in marketing of Provax in Sagar district of Madhya Pradesh out of which channel 2 is preferred over channel 1. Eventually the selling price of the provax to the consumers was Rs.300/ 0.1 kg bottle. Eventually, the total marketing margin in channel 1 isRs.120 the marketing cost was Rs.48, the marketing efficiency was 1.78%. and price spread in channel 1 is Rs 98 and in channel 2, the total marketing cost was Rs.65, total marketing margin in channel 2 is Rs. 129.20 the marketing efficiency is 1.67% and price spread seen in channel 2 is Rs 124.20.

**Keywords:** Marketing Cost, Marketing Efficiency, Price Spread, Marketing Margin

## **Introduction**

Modern agriculture and industry depend on a wide variety of synthetically produced chemicals. including insecticides, fungicides. herbicides and other pesticides. Continual widespread use and release of such synthetic chemicals have become a daily occurrence, resulting in environmental pollution. The use of synthetic pesticides started during 1948-49. Synthetic chemicals have become an integral part of modern society from mid of 1940's. India has a diverse economy principally dependent on agriculture and its allied regions. Therefore, agricultural development is one of the prime emphases of Indian planning and policy. After Freedom, agriculture in India underwent significant transformation and production has increased tremendously due to the introduction of high yielding varieties and the large-scale use of synthetic pesticides and fertilizers. However, there is a trade-off between agricultural production and increasing soil, air and water pollution and associated health vulnerabilities. Although the average consumption of fungicide is far lower than many other countries, the problem of fungicide pollution is of serious concern in India. Currently many hazardous chemicals are released into the environment, for example, fungicide, pesticides, industrial waste products, from commercial use and transport or by accidental spillage. In the long term, the presence and accumulation of these toxic chemicals in the environment may directly or indirectly damage the whole ecosystem. Thus, it is essential that there be a strong focus on the in-situ monitoring of environmental pollutants, both chemically for their constituents and biologically for their genotoxic risk potential. There are more than 234 registered fungicide in India and the Indian fungicide industry includes more than 125 large and medium scale producers of more than 500 fungicide products. Among the various fungicide formulations produced, dust formulations constitute about 85% of the total followed by water-soluble dispersible powder (12%) and dispersible powder (2%). Unfortunately, India is one of the few remaining countries still producing and using some of the chlorinated pesticides such as dichlorodiphenyl trichloroethane (DDT) and lindane. The production of fungicide started in India in 1952 and India is now the second largest manufacturer of fungicide in Asia after China and ranks twelfth globally. There has been a steady growth in the production of technical grade fungicide in India, from 5,000 metric tons in 1958 to 102,240 metric tons in 1998. In 1996-97, the demand for pesticides in terms of value was estimated to be around Rs. 22 billion (0.5 billion US \$), which is about 2% of the total world market. The pattern of pesticide usage in India is different from that for the world in general. In India, 76% of the pesticide used is insecticide, as against 44% globally. The use of herbicides and fungicides is correspondingly less heavy. The main use of fungicide in India is for paddy, vegetable and wheat. Fungicides are pesticides that are used to manage or eliminate fungi that might cause diseases in plants, animals, or humans. Fungi can create a variety of issues, such as plant illnesses, food spoilage, and human infections. Fungicides are chemicals that are used to limit the growth and spread of fungi. They are available in liquids, powders, and granules. Fungicides come in a variety of forms, each with its own mode of action, target fungi, and application method. Some fungicides act by stopping fungi from growing or reproducing, while others directly destroy fungi. Some are sprayed on the plant or used as a seed treatment, while others are applied to the soil.

**Materials and Methods:**

**1. Selection of the District:** Madhya Pradesh has 50 districts and ten divisions: Bhopal, Chambal, Gwalior, Indore, Jabalpur, Narmadapuram, Rewa, Sagar, Sehdol, and Ujjain. The Sagar district of Madhya Pradesh was chosen for the current study on the basis of having the most area for Soybean crop cultivation. According to the 2019-2020 land records, the total area of Sagar District is 10252 km<sup>2</sup>. The majority of the district has matured landforms.

**2. Selection of Block:** The district is divided into 11 blocks. Khurai was chosen at random from among these candidates for the study. The block's agro-condition is excellent for soybean cultivation. This block's farmers have been planting soybeans for several years.

**3. Selection of Village:** According to the block development office, there are a total of 173 villages in Khurai block. Following that, these communities were ordered in order based on land holding area. Thus, 5% of the villages were chosen at random for the current study.

**4: Selection of Respondents:** The block development office in each selected village provided a list of all Soyabean farming farmers from the selected villages. The selection of cultivators from families was listed in ascending order based on the amount of their landholding, and 120 farmers were randomly selected from the entire village, and the selected farmers were then grouped into five sizes of groups.

**Analytical Tools****PRICE SPREAD**

Price spread is defined as the difference between the price paid by consumers and the net price received by the producer for an equivalent quantity of farm produce. It is expressed as percentage of consumer's price.

$$\text{Price Spread} = \frac{(\text{Consumer price} - \text{Net Price of Producer})}{\text{Consumer price}} \times 100$$

**Marketing cost-** The total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it reaches the ultimate consumer.

$$\text{Marketing cost (C)} = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

**Market Margin:** Margin is calculated by subtracting the net farm value equivalent of product sold at retail of the farm product from the retail price.

**Marketing margin: Product price- Raw Material.**

**Marketing Efficiency:** Market efficiency refers to the ability possessed by markets to include information that offers maximum possible opportunities for traders to buy and sell securities without incurring additional transaction costs. The concept of market efficiency is closely linked to the efficient market hypothesis (EMH).

$$\text{Marketing efficiency} = \frac{\text{Consumer price}}{\text{Total marketing cost} + \text{Total Marketing margin}}$$

**Garrett Ranking**

To know the acceptance of respondents and constraints in processing and marketing of herbal products Garrett's ranking technique has been used. Basically, it gives the change of orders of constraints and advantages into numerical scores. The major advantage of this technique as compared to simple frequency distribution is that the constraints and advantages are arranged based on their importance from the point of view of respondents. Hence the same number of respondents on two or more constraints may have been given different rank (Kumar and Pandey, 1999). Garrett's formula for converting ranks into per cent was given by,

$$\text{Per cent position} = 100(\text{Rij}-0.5) / \text{Nj}$$

Where,

Rij= rank given for i<sup>th</sup> factor by j<sup>th</sup> individual

Nj= number of factors ranked by j<sup>th</sup> individual.

**RESULT AND DISCUSSION**

The end result is a presentation of the study's findings based solely on the objective:

- To estimate the marketing cost, market margin, price spread and market efficiency of PROVAX.

**Table 1 Reveals the marketing cost, marketing margin, marketing efficiency and price spread of the product in channel-I.**

**Channel I - Producer- Wholesaler- Consumer**

S.No	Particulars	Value in Rupees / 0.1 kg bottle of Provax
		Rs
1.	Producer sale price to wholesaler	250
2.	Cost incurred by the producer	
i	Packing cost	8.00

ii	Packing material cost	8.00
iii	Transportation cost	5.00
iv	Market cost	5.00
v	Labour cost	05.00
vi	Loading and Unloading cost	05.00
vii	Miscellaneous charges	12.00
	<b>Total cost (i-vii)</b>	<b>48.00</b>
3.	<b>Margin of Producer</b>	<b>70.00</b>
	<b>Margin of Wholesaler</b>	<b>50.00</b>
4.	Net price received by producer	202
5.	Wholesaler sale price to Consumer	300
<input type="checkbox"/>	<b>Total Marketing cost</b>	48
<input type="checkbox"/>	<b>Total Marketing margin</b>	120
<input type="checkbox"/>	<b>Marketing Efficiency</b>	<b>1.78%</b>
<input type="checkbox"/>	<b>Price Spread</b>	<b>98</b>

**Table 1** Reveals that the marketing price of the Provax channel -I , supplied by the producer was Rs.250 and the net price received by producer Rs.202. Meanwhile, the cost incurred by the producer in marketing is Rs. 48, and Rs.70 as profit per 0.1 kg bottle of Provax. Simultaneously, the wholesaler purchased the Provax from the producer as Rs.250/ 0.1 kg bottle, with Rs.50 as profit, by which the final selling price of the Provax was Rs. 300/ 0.1 kg bottle. Finally, the selling price of the provax to the consumers was Rs.300/ 0.1 kg bottle. Eventually, the total marketing margin in channel 1 is Rs.120 the marketing cost was Rs.48, the marketing efficiency was 1.78%. and price spread in channel 1 is Rs 98.

**Table 2** Reveals the marketing cost, marketing margin, marketing efficiency and price spread of the product in channel-II

#### Channel II

**Producer – Wholesaler – Retailer – Consumer**

Sr. No.	Particulars	Value in Rupees/ 0.1 kg bottle of Provax
1	Producer sales price Wholesaler	250
A	Marketing cost incurred by producer	48
B	Margin of producer	70
AC	Net price Received by Producer	202

2.	Sales price of Wholesaler to Retailer	297
A.	Cost incurred by the Wholesaler	
I	Loading & Unloading charges	2
Ii	Carriage up to shop	3
Iii	Weighting charges	3
Iv	Town charges	4
V	Transportation	3
Vi	Losses & Miscellaneous charges	2
	<b>Total Cost (i-vi)</b>	<b>17.00</b>
	<b>Margin of Wholesaler</b>	<b>30</b>
3	Margin of Retailer	29.20
4	Consumers paid price	326.2
□	<b>Total marketing cost</b>	<b>65</b>
□	<b>Total marketing margins</b>	<b>129.20</b>
□	<b>Marketing Efficiency</b>	1.67%
□	<b>Price Spread</b>	<b>124.20</b>

**Table 2** The wholesaler's marketing price for Provax was 297, the wholesaler's marketing cost was Rs. 17, and the net price received by the producer for 0.1 kg bottle of Provax was Rs. -202, with a profit margin of Rs. 30.00. Finally, the selling price of Provax from retailer to consumer is Rs. 326.20, and the retailer's profit margin is Rs 29.20, resulting in a final price for consumer of Rs. 329.20. Finally, the overall marketing cost was Rs.65, the total marketing margin in channel 2 was Rs.129.20, the marketing efficiency was 1.67%, and the pricing spread in channel 2 was Rs 124.20.

## CONCLUSION

Increasing has a bright future in the current and future situation because the usage of insecticides is increasing day by day. Farmers rely on fungicides, which are becoming increasingly popular. Farmers do not want to lose time on the field; they want quick remedies to any field problems, thus they utilise fungicide effectively. Farmers produce more crops as a result of fungicide application, therefore they continue to use the fungicide. Fungicide takes less time to act on the target organisms. Most farmers use an excessive amount of fungicide, while some farmers believe that excessive fungicide use is hazardous to the land. According to farmers, crop growing without fungicide is not possible at this time since the plant's different types of soil damage the leaf and stem at every stage, hence fungicide is needed for agricultural purposes. Every farmer wants a good yield for a minimal investment, thus they use fungicide, which helps farmers get rid of disease attacks that may occur in their crop.

Sagar is one of the top districts in soyabean production, and the soyabean growers use the agrochemicals of different companies like Syngenta, Dow, Bayer, Sumitomo, Dhanuka, UPL etc.

Overall, UPL performance is good but it needs to carry out more effective promotional activities in Sagar district. UPL is having a good opportunity to capture more market in district by increasing its promotional activity and focusing on new products. UPL enjoys good brand image and has got reputation for services in the region. It needs to capitalize on these strengths by effective promotion for increased market share and sales.

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