



ISSN (E): 2277-7695  
ISSN (P): 2349-8242  
NAAS Rating: 5.23  
TPI 2023; SP-12(6): 112-114  
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[www.thepharmajournal.com](http://www.thepharmajournal.com)  
Received: 30-03-2023  
Accepted: 12-05-2023

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## Market analysis and factors influencing business expansion of agrochemicals in central Gujarat

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### Abstract

The agricultural industry relies heavily on crop protection products to ensure food security and economic development. To assess the market potential for crop protection products in the diverse agricultural landscape of the region. The study involved 5 Area Business Managers and 5 Dealers across 5 districts of central Gujarat. Both primary and secondary data were collected to achieve the objectives of the study. Primary data were gathered through structured schedules, and various analytical techniques such as tabular analysis were employed. The study revealed varied agricultural practices across districts, with major crops including paddy, wheat, cotton, tobacco, and maize. Paddy cultivation emerged as a prominent crop in several districts, indicating a strong demand for paddy crop protection products such as pesticides, insecticides, and fungicides. Cotton, tobacco, and maize also presented viable markets based on their respective acreages in specific districts. This research concludes that Gujarat's agricultural landscape offers significant market potential for a range of crop protection products. Input providers and companies operating in the crop protection sectors can explore opportunities in paddy, cotton, tobacco, and maize cultivation areas and tailor their offerings to meet the specific needs of farmers in these regions.

**Keywords:** Crop protection, market share, prominent crop, viable market

### Introduction

Agrochemicals products play a crucial role in modern agriculture. These inputs have been developed over time to help farmers maximize crop yields and ensure food security. Crop protection products, including pesticides and herbicides, are used to protect crops from pests, diseases, and weeds that can significantly reduce yields. According to a report by Research and Markets, the global crop protection chemicals market was valued at \$63.9 billion in 2020 and is projected to grow at a CAGR of 3.6 per cent from 2021 to 2028. Overall, the use of agricultural inputs such as seeds and crop protection products has significantly contributed to increased crop productivity, food security, and global food supply. However, the sustainable use of these inputs is essential to minimize negative environmental impacts while ensuring continued productivity gains.

### Objective

To find out the market share of crop protection products

To identify the key factor that influences the business expansion of crop protection product

### Research methodology

The study covered 5 Area business Managers and 10 dealers in 5 districts of central Gujarat. Both primary and secondary data were used to achieve the stipulated objectives of the study. Primary data were collected with the help of a structured schedule. Tabular analysis was applied to achieve the stipulated objectives of the study.

### Results and Discussion

Region of central Gujarat, 5 Area business managers, and 10 dealers were selected from Ahmedabad, Anand, Kheda, Vadodara, and Panchmahal districts. In this study, most of the dealers are doing business in crop protection products so the central Gujarat region has significant market potential for a range of crop protection products.

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## Market share of crop protection products for wheat

**Table 1:** Market share of crop protection products for Wheat

Category name	Top varieties/ products	Market share
Fungicide	Tebuconazole	40.00%
Fungicide	Propiconazole	40.00%
Fungicide	Azoxystobin	20.00%
Herbicide	Clodinfop	30.00%
Herbicide	Sulfosulfuron	30.00%
Herbicide	2,4-D	30.00%
Insecticide	Chlorpyrifos	60.00%
Insecticide	Lamda cyhalothrin	30.00%
Insecticide	Imidacloprid	10.00%

Table 1 indicated that in the fungicide category, Tebuconazole, and Propiconazole held an equal market share of 40.00 Per cent, while Azoxystobin accounted for a market share of 20.00 per cent. Among herbicides, Clodinfop, Sulfosulfuron, and 2,4-D each held a market share of 30.00 per cent, indicating an equal distribution of usage among farmers. In the insecticide category, Chlorpyrifos dominated with a market share of 60.00 per cent, followed by Lamda cyhalothrin with a market share of 30.00 per cent. Imidacloprid held a smaller market share of 10.00 per cent.

## Market share of crop protection products for tobacco

**Table 2:** Market share of crop protection products for Tobacco

Category name	Top varieties/ products	Market share
Fungicide	Metalyxyl	40.00%
Fungicide	Carbendazim	30.00%
Fungicide	Propiconazole	25.00%
Herbicide	Glyphosate	50.00%
Herbicide	Flumioxazin	20.00%
Herbicide	Pendimethalin	20.00%
Insecticide	Imidacloprid	50.00%
Insecticide	Thiamithoxam	25.00%
Insecticide	Chlorpyrifos	25.00%

Table 2. indicated that in the fungicide category, Metalyxyl holds the highest market share at 40.00 per cent, followed by Carbendazim at 30.00 per cent, and Propiconazole at 25.00 per cent. Among herbicides, Glyphosate dominates with a market share of 50.00 per cent, while Flumioxazin and Pendimethalin each hold a market share of 20.00 per cent. In the insecticide category, Imidacloprid claims the largest market share at 50.00 per cent, followed by Thiamithoxam at 25.00 per cent and Chlorpyrifos at 25.00 per cent.

## Market share of crop protection products for paddy

**Table 3:** Market share of crop protection products for paddy

Category name	Top varieties/ products	Market share
Fungicide	Carbendazim	60.00%
Fungicide	Propiconazole	30.00%
Fungicide	Tricyclazole	10.00%
Herbicide	Bispyribac Sodium	40.00%
Herbicide	Pyrazosulfuryl ethyl	30.00%
Herbicide	pretilachlor	15.00%
Insecticide	Chlorpyrifos	60.00%
Insecticide	Imidacloprid	30.00%
Insecticide	Cartap hydrochloride	10.00%

Table 3. indicated that in the fungicide category, Carbendazim holds the highest market share at 60.00 per cent, followed by Propiconazole at 30.00 per cent and Tricyclazole at 10.00 per cent. Among herbicides, Bispyribac Sodium is the leading variety with a market share of 40.00 per cent, while Pyrazosulfuryl ethyl holds a market share of 30.00 per cent, and pretilachlor accounts for 15.00 per cent. In the insecticide category, Chlorpyrifos dominates with a market share of 60.00 per cent, followed by Imidacloprid at 30.00 per cent and Cartap hydrochloride at 10.00 per cent.

## Market share of crop protection products for maize

**Table 4:** Market share of crop protection products for Maize

Category name	Top varieties/ products	Market share
Fungicide	Carbendazim	40.00%
Fungicide	Azorxistobin+Mancozeb	25.00%
Fungicide	Copper oxychloride	20.00%
Herbicide	Atrazine	50.00%
Herbicide	2-4-D Ammonium Salt	30.00%
Herbicide	Glyphosate	20.00%
Insecticide	Emamection 5% G	50.00%
Insecticide	Emamection 10% S	30.00%
Insecticide	Spinosad	20.00%

Table 4. indicated that in the fungicide category, Carbendazim holds the highest market share at 40.00 per cent, followed by Azorxistobin+Mancozeb at 25.00 per cent, and Copper oxychloride at 20.00 per cent. Among herbicides, Atrazine leads with a market share of 50.00 per cent, followed by 2-4-D Ammonium Salt at 30.00 per cent, and Glyphosate at 20.00 per cent. In the insecticide category, Emamection 5% G holds the largest market share at 50.00 per cent, followed by Emamection 10% S at 30.00 per cent, and Spinosad at 20.00 per cent.

## Market share of crop protection products for cotton

**Table 5:** Market share of crop protection products for Cotton

Category name	Top varieties/ products	Market share
Fungicide	Tebuconazole	40.00%
Fungicide	Azoxystobin	30.00%
Fungicide	Propiconazole	30.00%
Herbicide	Glyphosate	50.00%
Herbicide	Pendimethalin	30.00%
Herbicide	2,4-D	20.00%
Insecticide	Imidacloprid	50.00%
Insecticide	Chlorpyrifos	40.00%
Insecticide	Fipronil	10.00%

Table 5. indicated that In the fungicide category, Tebuconazole holds the highest market share at 40.00 per cent, followed by Azoxystobin and Propiconazole, both at 30.00 per cent. Among herbicides, Glyphosate leads with a market share of 50.00 per cent, followed by Pendimethalin at 30.00 per cent, and 2,4-D at 20.00 per cent. In the insecticide category, Imidacloprid dominates with a market share of 50.00 per cent, followed by Chlorpyrifos at 40.00 per cent, and Fipronil at 10.00 per cent.

## The key factor that influences the business expansion of crop protection products in selected districts of Gujarat

**Table 6:** The key factor that influences the business expansion of crop protection products in selected districts of Gujarat

Factors	Mean Garrett's Score	Rank
Product Quality	64.25	1
Competitive Pricing	57.8	2
Customer Service	55.67	3
Brand Recognition	54.37	4
Payment Terms	54.04	5
Marketing and Promotional Activities	52.98	6
Supply Chain Efficiency	52.72	7
Product Mix	44.64	8
Incentives	40.16	9
Training And Extension Support	22.17	10

The study data revealed that the factors with the highest mean Garrett's scores were product quality, competitive pricing, and customer service. These three factors were crucial for business success as they directly impacted customer satisfaction and loyalty. Additionally, brand recognition and payment terms also held importance, indicating the need for a strong brand presence and favorable payment options. Other factors, such as marketing and promotional support, supply chain efficiency, and product variety, also contributed to overall success but to a lesser extent.

### Conclusions

The study revealed varied agricultural practices across districts, with major crops including paddy, wheat, cotton, tobacco, and maize. Paddy cultivation emerged as a prominent crop in several districts, indicating a strong demand for paddy crop protection products such as pesticides, insecticides, and fungicides. Cotton, tobacco, and maize also presented viable markets based on their respective acreages in specific districts. This research concludes that Gujarat's agricultural landscape offers significant market potential for a range of crop protection products. Input providers and companies operating in the seed and crop protection sectors can explore opportunities in paddy, cotton, tobacco, and maize cultivation areas and tailor their offerings to meet the specific needs of farmers in these regions. The study highlights that product quality, competitive pricing, and customer service are the most crucial factors for the success of agrochemical businesses. These factors directly impact customer satisfaction and loyalty.

### References

1. Amaliyar, Kinjal, Singh, Ritambhara. A Study on Market Potential, Farmers' Buying Behaviour, And Satisfaction Level Towards Water Soluble Fertilizers In Anand And Narmada Districts Of Gujarat. *International Journal of Research in Business Management*. 2016;4:27-36.
2. Choudhary P. Market Share, Market Potential and Farmer's Perception of Fungicide on Chilies Crop in Khargone District with Reference to Dhanuka Agritech Ltd. Madhya Pradesh, M.B.A (Agriculture), Thesis, Dept. of agricultural economics and Farm management, J.N.K.V.V., Jabalpur; c2014.
3. Kumar A, Singh S, Kumar T, Jawla SK. Market Potential and Promotional Strategy for Akshay Seed Tech Co. in Sabarkantha and Gandhinagar Districts. *Annals of Agri-Bio Research*. 2014;19(4):757-762.
4. Patel P, Lad Y. Market Potential and Awareness of

Different Fungicides for Control of Diseases in Tomato in Anand District; c2018. p. 6835-6837.

5. Agri-inputs industry in India: Time for a Tech-Makeover. Retrieved From
6. <https://news.agropages.com/News/NewsDetail---33696.htm>
7. Food and agriculture organization. Retrieved from <http://www.fao.org/home/en/>
8. Green Agrevolution Limited. Retrieved From <https://agrevolution.in/>
9. International Seed Testing Association. Retrieved from <https://www.seedtest.org/>
10. Research and markets. Retrieved from <https://www.researchandmarkets.com/>