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# Market share of fungicide for paddy crop in Dhamtari district of Chhattisgarh with reference to Syngenta India limited

**Bhashkar Sahu and SB Nahatkar**

### Abstract

Syngenta India Ltd. is a leading company in Fungicide marketing in Chhattisgarh. The present study had been assigned by the organization for the period of two months in-plant training programme in the Dhamtari district of Chhattisgarh with a view to analyse the Market share of different fungicide company. Fungicides prevent and cure diseases which can have adverse effects on crop yields and quality. The market in rice Plant diseases are caused by a great variety of pathogens.

**Keywords:** market share, fungicide, paddy crop, Dhamtari, Syngenta India limited

### 1. Introduction

Agriculture continues to be the mainstay to India's large and growing population for its sustained food security. More than 70 percent people are engaged in agriculture sector. The sector provides employment to over half of country's work force and is the single largest private sector occupation. Due to the prominence of agriculture in the national food security and the employment, its performance is of great focus in the India's policy and planning. The contributory share of agriculture in GDP was 55.4 percent in 1950-51, 52 percent in 1960-61 and is reduced to 13.7 percent only in 2012-13. Moreover, the Indian agriculture is characterized by dominance of the small and marginal farmers having very small land holdings. Majority of the people belong to farming communities. It provides food and raw materials to the small scale and cottage industries who's are directly dependent on agriculture.

#### 1.1 Fungicide

Fungicides prevent and cure diseases which can have adverse effects on crop yields and quality. The main markets are fruit and vegetables, cereals and rice. Plant diseases are caused by a great variety of pathogens. This requires many products used in combination or series to control the full range of problems in ways that minimize the chance of resistance building up. During recent years, among few new active ingredients, an innovative generation of fungicides - strobilurins - has been developed and introduced in order to improve the control in the key plant diseases like downy mildew, powdery mildew, late blight, rynchosporium, net blotch and eyespot.

### 2. Data and methodology

The knowledge of general characteristics of the study area is essential for understanding the features of the area. This will facilitate the discussion with respect to similarities and variation in land use pattern, rainfall, cropping pattern etc. This also enlightens the socio-economic conditions of the area selected for the study.

#### 2.1 Geography of Dhamtari

Mahanadi River is the principal river of this district and till this area it is named as Kankannadi, Chitrotapala, Neelotapala, Mandvahini, Jairath etc. The fertility of lands of Dhamtari district can be attributed to the presence of these rivers. The chief crop of this region is paddy.

Products	Fungicide
	<p><b>Taspa-</b> Propiconazole 13.9% w/w + Difenconazole 13.9% w/w EC is a mixture of triazole fungicide recommended for the control of sheath blight and ditly panicle disease in paddy. This is an emulsifiable concentrate formulation. Containing 27.8% active ingredients, equivalent to 30% w/v or 300g/l of formulation. Dose-200ml/acre</p>
	<p><b>Amistar-</b> Amistar (Azoxystrobin 23% SC) is Broadest spectrum strobilurin with an excellent environmental file, optimizing yield and quality in a wide range of crops.</p>
	<p><b>Score-</b> Score (Difenconazole 25% EC) provides a high level of activity against a wide range of plant pathogenic Ascomycetes, Basidiomycetes including species of Alternaria, Septoria, Cercosporidium, Venturia, Powdery Mildews and several seed borne plant pathogenic fungi.</p>
	<p><b>Tilt-</b> Tilt (Propiconazole 25% EC) is Highly effective broad spectrum systemic fungicide. It controls a wide range of Ascomycetes, Basidiomycetes, Deuteromycetes including important diseases such as Powdery Mildews, Karnal Bunt, Rusts and leaf Spots occurring in Wheat, Rice, Tea, and Groundnut.</p>
	<p><b>Kavach-</b> Kavach (Chlorothalonil 75% WP) is a broad spectrum contact fungicide and is highly effective against Anthracnose. Fruit Rots, Tikka disease, Early and Late Blight on various crops. Gives outstanding results when used prophylactically.</p>
	<p><b>Blue-Copper-</b> Blue Coper (Copper Oxychloride 50% WP) Broad spectrum contact fungicide and is used on major fruits and vegetables for the control of Leaf Spot, Early and Late Blight, Canker etc.</p>

## 2.2 Economics of Dhamtari district

Dhamtari has over 136 rice mills. Ravishankar Sagar dam (Gangrel Dam) that irrigates almost 570 square kilometers of land and also acts as a main supply unit of safe drinking water resource for state capital Raipur as well as supply to Bhilai Steel Plant lies almost 21 km from the district capital. Two

hydro-power plants of 10 MW and 1.2 MW are installed there. Asia's first ever Syphen dam was built in 1914 at Madamsilli. Besides Madamsilli, Sondhur dam, Dudhawa dam are the major projects. Approximately 52% of the geographic area is covered by forests. The district has a tropical climate.

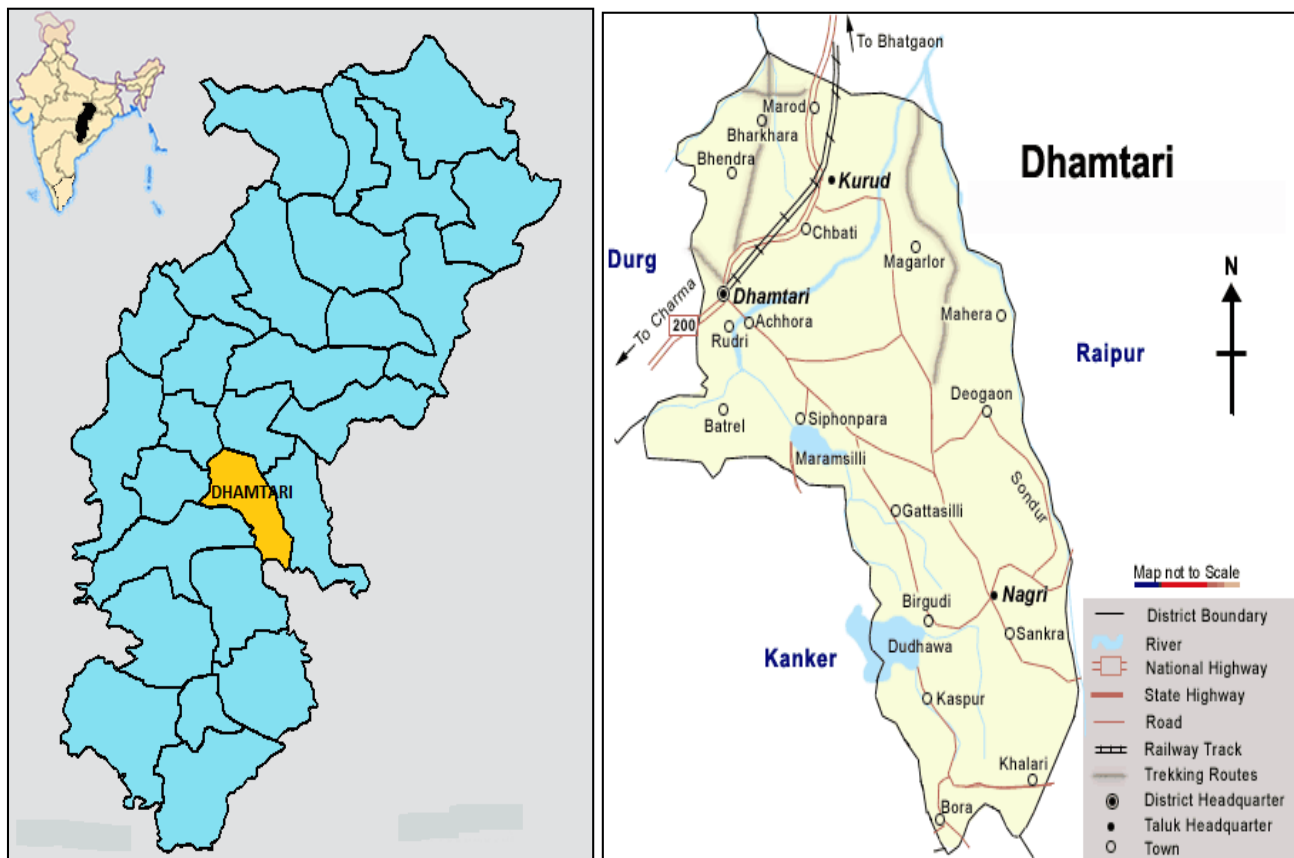


Fig 2.1: Map of Dhamtari District (C.G)

Table 2.3: Land use Pattern of Dhamtari District 2014-15 (Area in ha)

	Area (ha)	Percent
Total geographical area	408190	100
Net Cultivated Area	135000	33.07
Forest Area	8760	2.15
Fallow land	3826	0.93
Waste Land	3826	0.93
Gross cropped area	234751	

Source: Krishi Vigyan Kendra Dhamtari 2014-15.

Above data shows that the total geographical area of Dhamtari district is 408190 hectare. Net cultivated area of Dhamtari district is 135000 hectare (33.07), and gross cropped area is 234751 hectare. Dhamtari district the total kharif crops area is 143140ha and rabi crop area is 91610ha. In kharif paddy (97.21%) area was found highest in Dhamtari District i.e. 139160ha while in rabi the paddy (45.21%) again occupied highest area i.e. 41420ha. The Cropping intensity of the district was 173.89%.

### 3. Methods and Material

As per the stated objective of the study, suitable methods of the study was designed. This chapter was formulated as:

#### 3.1 Study area

The Dhamtari district is potential for fungicide marketing. Because Dhamtari district has largest paddy crop area and two crops of paddy were taken by farmers.

#### 3.2. Selection of village

After selection of study areas following 25 villages were considered for detail investigation.

Table 3.1: Name of selected villages

S. No.	Village	S. No.	Village
1	Fagundah	14	Limtara
2	Bhothipar	15	Demar
3	Parewadiah	16	Perpar
4	Khapari	17	Junwani
5	Kalartarai	18	Bagtarai
6	Bharari	19	Sorid
7	Aamdi	20	Sarangpur
8	Kharenga	21	Banjari
9	Darri	22	Bharari
10	Nawagaon	23	Bohara
11	Gagra	24	Bhendra
12	Ranwa	25	Piperchedi
13	Kurra	-	-

#### 3.3 Selection of the farmer

S. No	Blocks	Name of dealers
1	Dhamtari	Madhu Traders
		Navdeep Traders
		Dhamtari Krishi Kendra
		Mohan Traders
2	Kurud	Kisan Beej Bhandar
		Aadil Krishi Kendra
3	Nagri	Parameshwari traders
		Ankit Traders
4	Magarloud	Kailash Beej Bhandar
		Bharat Krishi Kendra

After that selection of villages, a list of paddy growers was prepared and further categories in the three size groups on the basis of size of land holding. From each village 1-5 farmers were selected for demonstration of Taspaa product of Syngenta. Thus total 52 farmers from 25 villages of different categories were considered for the study purpose.

**Table 3.2:** Number of Selected Farmers from each category.

Small Farmers (< 2 ha)	16(30.77)
Medium Farmers (2-5ha)	28(53.85)
Large farmers (>5 ha)	08(15.38)
Total	52 (100)

(Figure in parentheses shows percentage of total)

**4. Market Share**

Market share is calculated by taking the company’s sales over the period and dividing it by the total sales of the industry

over the same period. Result is used to give a general idea of the size of a company to its market and its competitors. In this section, effort has been made to estimate the market share of different companies which are engaged in the study area.

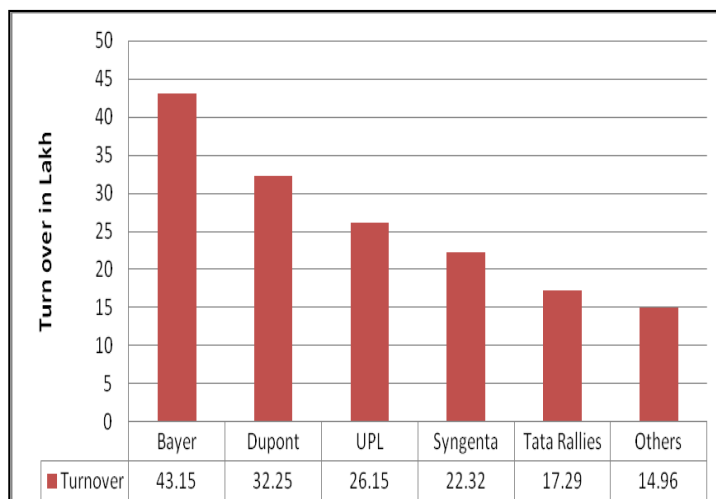
The market share of fungicide by major companies was estimated and given in this section. For estimation of market Share, the data on sale quantity and value of different fungicide of major companies were collected and presented in the table 4.1.

**Table 4.1:** Market Share of different Companies for Fungicide sales in Dhamtari District (2014-15)

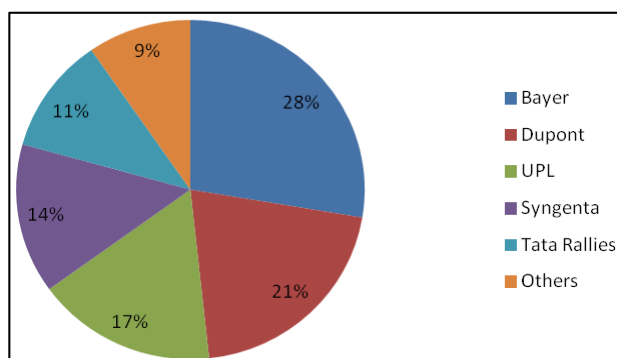
S.N	Company Name	Brand Name	Quantity Sale (lit.)	Value (In lakh)	Market Share (%)
1	Bayer	Netivo	1800	43.15	27.63
2	Dupont	Nustar40% EC	1460	32.25	20.65
3	UPL	Saaf	1190	26.15	16.74
4	Syngenta	Taspa	930	22.32	14.29
5	Tata Rallies	Blitox	860	17.29	11.07
6	Others		712	14.96	9.62
Total			6952	156.12	100

Table 4.1 shows the market share of different fungicide companies. It is observed from the data that the Bayer company (27.63%) has highest market share followed by

DuPont (20.65%), UPL (16.74%), Syngenta (14.29%), Tata Rallies (11.07%) and others (9.62%).



**Fig 5.1:** Company wise share of fungicide in Dhamtari District (2014-15)



**Fig 5.2:** Company wise Market Share of fungicide in Dhamtari District (2014-15)

maximum used in fungicides followed by Nustar40% EC product of DoPont 8(15.38%), Saaf product of BASF 8(15.38%), Taspa product of Syngenta 16(30.76%), Hexadhan product of Dhanuka 5(9.61%) and others company products 5(9.61%). The majority of selected farmer use Taspa product of syngenta.

**5. Conclusion**

- In the study area five major players (company) i.e. Syngenta, Bayer, UPL, Tata Rallies and Dupont. we’re functioning to supply fungicide.
- The observed from the data that Netivo product of Bayer company was preferred by 10(19.23%) farmer has been

- Information shows that small size group farmer generally consider the prize factor when they purchase fungicide while majority of medium and large size group farmer, mostly given the preference to quality, company brand name and effectiveness of the product (Fungicide).
- The Syngenta company has adopted following promotional activities like magazines, boarding, tour and campaigning in the study area.
- The supply chain network of syngenta ltd. in Dhamtari district starts from production unit and ends to the farmers.
- There is no fixed price at which distributor and retailers sell the products of syngenta.
- This revealed that the profit margin of distributor and retails depend on nature of competition.

- Transportation plays a major role in the supply chain management. A good transportation ensures timely supply and availability of material
- The market response of Taspas fungicide launched by Syngenta Ltd. few seasons back was not good as per the requirement of the fungicide in Dhamtari district.

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