

AGROCHEMICALS SECTOR

The Agrochemicals sector in India comprises companies that are involved in manufacturing/trading various types of herbicides, insecticides, fungicides, pesticides, crop seeds, bio-pesticides, etc. for agricultural use. The sector also includes manufacturers of pesticides/insecticides for household uses. The sector comprises several large and small players and is quite fragmented. There are 25+ listed companies in the sector currently.

KEY PRODUCT SEGMENTS

The companies operating in this sector have broadly two product segments

1. **Technical**s- which are active ingredients developed through research, similar to the process followed in the pharmaceuticals industry. Building a portfolio of technicals require significant investment in R&D and also requires several regulatory approvals. Chemicals used in agriculture may adversely impact end consumers, and hence, there is a stringent approval process for registering technicals in any country.
2. **Formulations**- are final products that are meant for use by the farmers. These products are created by processing the technicals and intermediate products.

INDUSTRY OUTLOOK

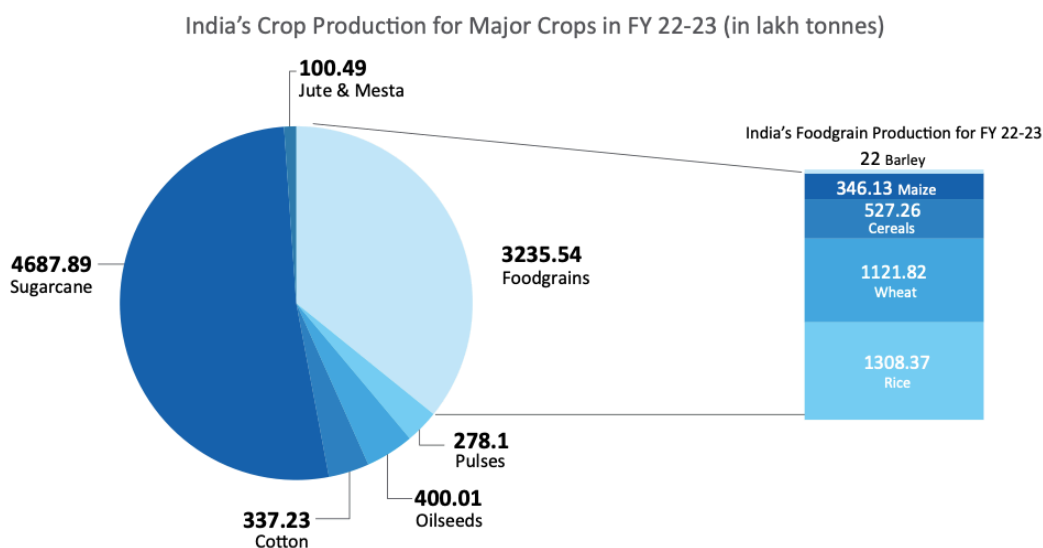
[The global market for agrochemicals is estimated to reach ~ \\$240 billion in 2023](#)

“India, the second most populous nation in the world with a large population economically dependent on agriculture, also has the largest arable land resources in the world. The country is endowed with 15 agro-climatic regions, six major climates, and six major soil types, and is renowned for its rich biodiversity. India is the leading producer of spices, pulses, tea, cashews, milk, and jute, the second- leading producer of wheat, rice, fruits and vegetables, sugarcane, cotton, and oilseeds, and has the largest area under wheat, rice, and cotton. In addition to being the world's largest producer of mangoes and bananas, the country also has the largest livestock population.

Having already achieved food security for its 1.4 billion people through the Green Revolution, Indian agriculture is now focusing on nutritional security – for a rapidly expanding urban population in the domestic market, as well as lucrative export markets. Therefore, the country's agriculture sector offers substantial room for long-term, sustainable growth

India's agricultural sector has grown at a rate of 4.6 percent annually on average. In fiscal policy statements, it was noted that the Indian agriculture sector is projected to expand by 3.5 percent in FY 2023.”- PI Industries Annual report FY23

As per Ministry of Agriculture and Farmers Welfare estimates, India is likely to produce 323.55 million tonnes of food grains in FY23, an increase of 7.5 million tonnes over the previous year’s output. The crop production is divided into the following:



The growth rate of the agro-chemicals industry is directly linked to the growth rate of agricultural production in India. While there are some sections of society moving towards organic farming, it is still a very minuscule portion of the overall population. Organic farming typically has lower acreage and hence, the end products become too expensive and unaffordable for the masses. The use of genetically- modified seeds, which are more resistant to pests/insects, etc. are also less in use in India as compared to some of the other developed nations.

Indian farmers still largely depends on monsoons. The sector comprises of several millions of small farmholders who lack the awareness and financial resources to deploy the most advanced methods/ agricultural practices. As population increases, the country will face a dual challenge- both on demand and supply side. The country is currently grappling with high food inflation on account of increasing demand. On the other hand, supply is getting impacted by several factors such as shortage of funds/resources, uncertain monsoons, El Nino impact, etc. Agro-Chemicals industry plays a pivotal role in bridging this gap by enabling farmers to improve acreage.

OPPORTUNITIES

While country is focused on achieving food security, a lot of emphasis is now being placed on improving the nutritional value and adopting greener options/replacements for the crop protection products.

New opportunities exist in chemistry (e.g., biopesticides, bio- stimulants) as well as in technologies and practices (e.g., artificial intelligence, robotics, advanced hybrids, gene editing, etc.) in addition to the more established IPM practices, such as resistance traits and effective cultural practices. Green chemistry encompasses the entire life cycle of a chemical product, including its design, production, use, and eventual disposal. The future of the agrochemical industry will be primarily driven by digital technology. Utilizing Industry 4.0, IoT, AI, and digitalization of processes using various IT platforms for various business processes in the value chain has become essential for making fact-based decisions in the modern world. The digital world in the agrochemical industry is a differentiator that is leveraged across all business aspects.- PI Industries Annual report FY23

Continuous product innovation is necessitated on account of the following:

1. As pests/insects develop resistance/immunity against the earlier used products, new/ enhanced products are required in order for them to be effective against pest attacks
2. Regulators are increasingly requiring greener products/ bio pesticides that use less harmful ingredients

In order to take advantage of the changing agricultural landscape, many Indian players enter into partnerships with international players for R&D/ know-how/ regulatory approvals since new product innovations require significant time and resources.

Following are some of the players working with foreign partners for product innovations.

Company	Foreign partnerships
PI Industries	The company has entered into Custom Synthesis & Manufacturing (CSM) contracts with foreign partners, wherein the company facilitates further development & scale-up of a newly discovered technical. It also partners with global innovators to introduce new products/enhanced products
UPL	Partnerships with Mitsui Chemicals Agro Inc, Christian Hansen and FMC
Bayer Crop Science	Receives R&D support, new product pipeline from German parent
Sumitomo Chemicals	Markets products owned by Japanese parent Sumitomo Chemical Company,

There are also several companies that rely on the import of technicals from China, and are largely focused on contract manufacturing/ manufacturing of formulations under their own brand name.

Some such companies are listed below:

Company	
Rallis India	It is a TATA group company that focusses on crop care and seeds segment and largely relies on in-house research. (It spends around 1.8% of revenue on R&D)
Sharda Cropchem	Imports technicals from China. Mainly focussed on formulations
India Pesticides	In-house R&D with several patented products. Focussed more on formulations business.

GROWTH STRATEGIES

Companies are adopting one of the following two main growth strategies

1. Revenue growth through geographical expansion

Name	Geographical diversification
P I Industries	30 countries- 77% revenue from exports
UPL	Presence in 138 countries, inorganic growth through 40+ acquisitions
Sharda Cropchem	Agrochem- 94% revenue from exports
Bharat Rasayan	60 countries- 52% domestic- 48% exports
Astec Lifescienc	Presence in 24 countries, focus on B2B segment
Meghmani Organi.	90 countries- 89% revenue from exports, diversification into pigments business
NACL Industries	30 countries-74% exports, 26%- domestic
Heranba Inds	65+ countries, 52% domestic , 48% exports

2. Growth through product innovation/ margin expansion

Name	Region mix	Growth Strategy
Bayer Crop Sci.	Domestic agro chem- 81%, domestic corn seeds -13%	Target small farm holders, technology/mechanisation
Sumitomo Chemi.	78% domestic, 22% exports	25+ patents/200+registrations,brand development, capacity expansion, R&D, export business
Rallis India	65% domestic, 35% exports	New branded product developments/registrations
Bhagiradha Chem.	76%-domestic, 24% - exports	Backward integration to reduce reliance on China

CHALLENGES/RISKS

1. Lack of predictability in demand

Demand for crop protection/agro them products is dependent on several external factors such as expectations of normal rainfall, the possibility of pest attacks/insecticides in certain crops, etc. which are difficult to predict. Each region within India has different climatic condition and may experience higher or lower rainfall, thereby leading to volatility in demand for agro chemicals.

Most companies hold large quantities of inventory to meet uncertain demand levels. On average, companies maintain an inventory of up to 6 months (~180 days) of sales. Demand for crop protection, crop seeds, etc. occurs twice in a year- at the time of sowing Rabi crops (October-November) and Kharif crops (June- July). Also, there is a significant time gap between sale of crops and collection, since majority customers are farmers, who are only able to pay once the crop is harvested. Hence, the investment in trade receivables is also significant.

P I Industries	144	44
UPL	187	56
Bayer Crop Sci.	268	90
Sumitomo Chemi.	157	69
Rallis India	158	73
Sharda Cropchem	145	94
Bharat Rasayan	141	96
Dhanuka Agritech	123	111
Best Agrolife	207	73
Astec Lifescienc	268	51
Average	180	76

Source: www.screener.in

These industry specific dynamics make it imperative for companies to park significant amount as working capital compared to other industries. On an average, in the Agrochem industry, companies are required to invest an average of 40% of their sales value in working capital.

Sector	Average Inventory # of days	Average Receivables # of days
Auto Ancillaries	90	58
Automobile	64	20
Consumer Durables	120	70
FMCG	90	30
Pharmaceuticals	140	84

Source: www.screener.in

2. Threat from spurious products/ lack of awareness among farmers

In several cases, farmers are susceptible to spurious products which don't give any benefit in acreage/ protection from pest attacks. Since majority of the customers (farmers) are price sensitive, they look for cheaper products and are prone to become victims of purchasing fake/ wrong products. However, the government as well as some private players such as Bayer Crop Science are actively involved in collectivisation of small land holders and building Farmers' Producer Organisation (FPO) to create awareness/education regarding best agricultural practices, to aid them in funding, providing technical knowledge, marketing expertise, etc

3. Shortage of labour/manpower for agriculture

Due to inherent uncertainties in the agricultural sector, young farmers are moving to other occupations which provide them with greater income stability. The sector is witnessing a shortage of labour which might ultimately impact production volume. To address this, initiatives are being undertaken to increase the use of technology to replace labour intensive activities.

Recently Bayer Crop Science has commenced commercial usage of drone services to help farmers with crop protection and spray services. Spraying chemicals through drones not only reduces manual effort, but also helps avoid farmers' exposure to chemicals. Drones are also being used effectively to monitor and prevent snake attacks in fields. The use of drone is expected to lead to better yields/ acreage for the farmers, thereby providing them with better income.

CAPITAL STRUCTURE

Out of the top 15 companies in the segment, only NACL and Best Agro have a Debt/Equity ratio of >1. UPL has raised a high level of debt mainly to fund its acquisitions.

Barring Bayer Crop Science and Rallis India, which pay out more than 50% of their profits as dividends, the rest of the companies have a dividend payout ratio of 7-14%. Low dividend payouts could be due to working capital/ capex being funded through internal accruals.

Name	Debt / Eq	Dividend Payout %
P I Industries	0.0	12.4
UPL	0.8	21.0
Bayer Crop Sci.	0.0	77.0
Sumitomo Chemi.	0.0	11.9
Rallis India	0.1	52.9
Bharat Rasayan	0.0	0.5
Dhanuka Agritech	0.0	3.9
Best Agrolife	1.1	3.7
Astec Lifescienc	0.8	11.5
India Pesticides	0.0	6.0
Meghmani Organi.	0.5	15.0
NACL Industries	1.3	14.7
Insecticid.India	0.2	14.1
Punjab Chemicals	0.3	6.0

FINANCIALS & MARKET VALUATIONS

As of August 2023, all the listed agrochemical companies are trading at valuations significantly lower (~40%) than their lifetime high valuations.

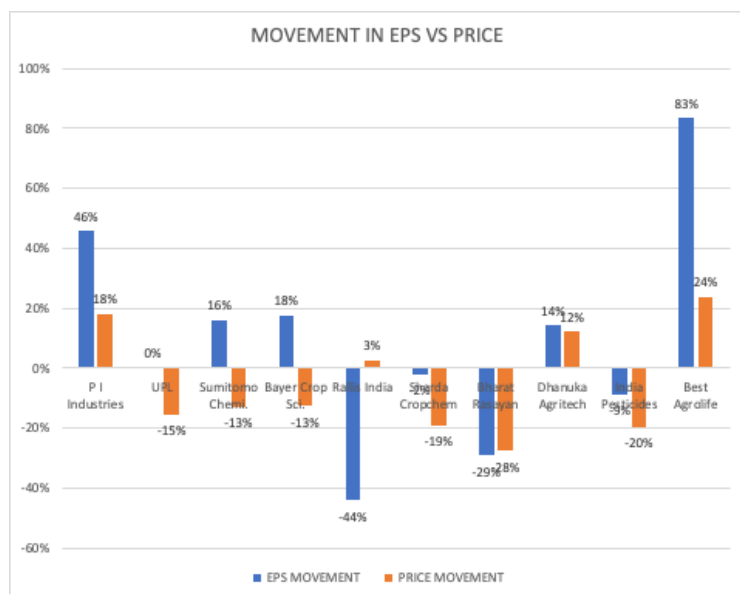
Name	CMP Rs. (29th Aug'23)	All time high Rs.	% fall in prices
P I Industries	3,634	4,011	-9%
UPL	582	865	-33%
Bayer Crop Sci.	4,677	6,601	-29%
Sumitomo Chemi.	405	541	-25%
Rallis India	226	363	-38%
Sharda Cropchem	425	769	-45%
Bharat Rasayan	9,118	15,132	-40%
Dhanuka Agritech	789	1,054	-25%
Best Agrolife	1,205	1,775	-32%
Astec Lifescienc	1,314	2,289	-43%
India Pesticides	213	364	-41%
Meghmani Organi.	80	153	-47%
NACL Industries	81	111	-27%
Insecticid.India	529	792	-33%
Punjab Chemicals	1,154	1,934	-40%
Heranba Inds	350	945	-63%
Bhagiradha Chem.	1,190	1,726	-31%
Shivalik Rasayan	777	1,197	-35%
Dharmaj Crop	212	279	-24%
Kilpest India	605	768	-21%
Aimco Pesticides	115	271	-58%
Sikko Industries	56	138	-59%
Aristo Bio-Tech	77	87	-12%
Super Crop Safe	8	38	-78%
Bhaskar Agrochem	39	101	-61%
Phyto Chem (I)	47	85	-45%
Median: 26 Co.	415	769	-46%

Source: www.screener.in

Y-o-Y drop in stock price is much steeper than the drop in earnings. Below is the comparison of EPS for companies for FY 22 & FY23 and their corresponding market price movement.

Name	EPS FY22	EPS FY23	MOVEMENT %	PRICE APR-MAY'22	PRICE APR-MAY'23	MOVEMENT
P I Industries	55.6	81.0	46%	2662	3200	20%
UPL	47.5	47.6	0%	803	706	-12%
Sumitomo Chemi.	8.7	10.1	16%	423	406.5	-4%
Bayer Crop Sci.	143.6	168.7	18%	4676	4113	-12%
Rallis India	8.5	4.7	-44%	243.5	197.5	-19%
Sharda Cropchem	38.7	37.9	-2%	662	482	-27%
Bharat Rasayan	423.5	299.9	-29%	12917.5	9742	-25%
Dhanuka Agritech	44.9	51.2	14%	733	650	-11%
India Pesticides	13.8	12.6	-9%	271.5	218	-20%
Best Agrolife	44.3	81.3	83%	899	1062.5	18%

Note: Since most companies publish their financials for the year in Apr-May, average stock prices during mid-April to mid-May have been considered above.



The current market valuation reflects investors’ apprehensions about near-term future outlook given the industry headwinds resulting from uncertain monsoons, weaker demand in other geographies, supply chain challenges, dependency on China for raw materials, etc.

Disclaimer:

The purpose of this report is to provide the readers with an overview of the agrochemicals industry. The report is purely for educational purpose and should not be construed to provide any stock specific recommendation/advice.

Source:

<https://www.screener.in/company/compare/00000001/>

https://www.bseindia.com/market_data.html

https://www.crisil.com/mnt/winshare/Ratings/RatingList/RatingDocs/UPLLimited_July%2007,%202023_RR_322425.html

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<https://www.divijaymalik.com/agrochemical-pesticide-companies/?highlight=%22AGRO%20CHEMICALS%22>

