



SECTOR BRIEF

Sector Brief & SWOT Analysis of Agrochemicals Sector in Pakistan

By ICMA Research and Publications Department

Historical Background

Agrochemicals encompasses pesticides i.e. insecticides, herbicides, fungicides, nematicides, synthetic fertilizers, growth agents, and raw manure that is used to manage agricultural ecosystems. In Indo-Pak subcontinent, the plant quarantine work was formally initiated with promulgation of **Destructive Insect and Pests Act, 1914**. With the inception of Pakistan in 1947, the pesticide distribution and procurement have been under Federal Government control. The Department of Plant Protection, under the Ministry of National Food Security and Research, oversees pesticide import, standardization, and regulations till date.

- On 7 September 1947, Pakistan became member of Food and Agriculture Organization (FAO).
- In 1950, Chemical pesticides were introduced in Pakistan to combat locust infestations.
- In November 1954, Pakistan became a signatory to the International Plant Protection Convention (IPPC), a multilateral treaty under the Food and Agriculture Organization (FAO).
- In 1954, The pesticide business in Pakistan started with the import of **254 metric tons** which increased to a maximum of **20,648 metric tons** in 1986-87.
- In the mid-1960s, Green Revolution started in Pakistan that significantly boost food grain output by threefold through various factors including use of chemical fertilizers. This success placed Pakistan ahead of other South Asian nations at the time.
- During Green Revolution period, thousands of tons of pesticides was imported from Europe and the USA to control crop pest infections, locust and malaria suppression in Pakistan with estimated consumption of **7,000 tons** per annum.
- In 1963, Bayer Pakistan Pvt Ltd was established in Karachi having headquarters globally. By 2002, Crop Science was launched as Bayer's first independent subgroup, providing crop protection products and seeds.
- In 1967, Pakistan developed the Pakistan Plant Quarantine Rules building upon the framework of the Destructive Insect and Pests Act of 1914.
- In 1970, Central Cotton Research Institute (CCRI) in Multan was established to play vital role in cotton protection research, including pest management and resistant variety development, while educating cotton growers about cotton varieties resistant to diseases like cotton leaf curl virus.
- The Agricultural Pesticides Ordinance of 1971 was enacted to regulate the import, manufacture, formulation, and sale of pesticides in Pakistan. The Punjab assembly passed the Agricultural Pesticides Act 2012 but its implementation is pending.
- In 1971, Pakistan Agricultural Research Council's (PARC) initiated an institutional support project on Integrated Pest Management (IPM) funded by the Asian Development Bank

having a seven-year PL-480 project on bollworms, followed by a 3-year PL-480 project on the whitefly.

- In 1973, Dichloro-Diphenyl-Trichloroethane (DDT) manufacturing unit was established at Ittehad Pesticides, later merged into Ittehad Chemical Industries, Kalashah Kaku, Lahore with annual production of **2,020 metric tons**.
- In 1976, Pakistan developed its own legislation titled the Pakistan Plant Quarantine Act, further strengthening its regulatory framework for plant quarantine measures during which agrochemical consumption peaked at **16,226 metric tons**.
- In 1980, Pakistan's liberalization policy shifted pesticide distribution, sales and import to the private sector resulting in five-fold increase in consumption that raise concerns about overuse and environmental impact.
- In 1981, Jaffer Group began pesticide marketing contributing to agricultural output it was later renamed as Jaffer Argo Services Pvt Ltd.
- In 1982, ICI Pakistan [now renamed as Lucky Core Industries Ltd.] established a Polyester Plant in Sheikhupura. By 2017, they integrated the Agri Sciences Division within the Chemicals & Agri Sciences Business.
- In 1983, Pakistan Environmental Protection Ordinance initiated pesticide regulations, that stabilized consumption to **14,848 tons** per annum followed by a government ban on **22** pesticides from 1989 to 1993.
- In the early 1990s. Swat Agro Chemicals Company was founded as a major national crop protection company with extending their business to Peshawar, Baluchistan, Punjab and Sindh by 2004.
- In 2000, Suncrop Pesticides Group emerged as a leading national organization, aiding farmers with modern solutions for improved agricultural production. By 2020, it became the major stockholder of Ali Akber Group, marking the largest partnership in Pakistan's agrochemical business.
- In 2015, Dharmaj Crop Guard Ltd started manufacturing, distributing, and marketing agrochemical formulations worldwide through B2C and B2B sales, exporting products to over **20** countries including Latin America, East Africa, Middle East, and Far East Asia.
- In September 2020, an outbreak of **Fall Armyworm (FAW)** was reported in Pakistan, with occurrences noted in corn-growing belts of Districts Okara, Sahiwal, and Khanewal in Punjab Province, and Districts Tando Allah Yar and Mirpur Khas in Sindh Province.
- In February 2023, Bayer joined forces with Kimitec to introduce cutting-edge biological solutions these include crop protection and bio stimulant products formulated from natural source-derived molecules.

Agrochemicals Sector Overview

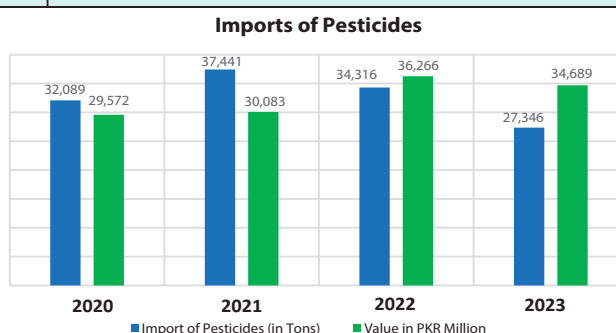
- Over **108** types of insecticides, **30** fungicides, **39** weedicides, **5** acaricides, and **6** rodenticides are used in Pakistan. As of FY23, the total number of registered/permitted pesticides stood at around **747**.
- Punjab leads with **416** registered pesticide distributors, followed by Sindh, KPK, and Baluchistan.
- Insect pests are major cause of crop damage in Pakistan making agrochemicals crucial for crop protection, sustainable farming, and socioeconomic development.
- In 2022, Pakistan exported **\$3.9M** worth of pesticides, ranking **84th** globally, with top destinations including Mozambique, Malaysia and South Africa.
- In 2022, Pakistan imported **\$239M** worth of pesticides, ranking **48th** globally, with primary sources including China, South Korea, and the United States. The fastest-growing import markets were South Korea, the United States, and Germany.

Year	Import of Pesticides (in Tons)	Value (in PKR Million)
2020	32,089	29,572
2021	37,441	30,083
2022	34,316	36,266
2023	27,346	34,689

Source: Mordor Intelligence Report

- Imports experienced a decline of approximately **5.7%** in value and **8.5%** in volume during the first six months of FY24.
- The Pakistan Agrochemicals Market is projected to reach **\$345.59 million** by 2024, with a compound annual growth rate (CAGR) of **7.99%** soaring to **\$507.55 million** by 2029.

S. #	Top 9 Pakistan Agrochemicals Companies (based on the 2023 & 2024 market share reports)
1	Ali Akbar Group
2	BASF SE
3	Bayer Ag
4	FMC Corporation
5	Evyol Group
6	ICI Pakistan Pvt. Ltd renamed as Lucky Core Industries Ltd.
7	Syngenta
8	Pakistan Agro Chemicals Pvt. Ltd
9	Welcon Chemicals Pvt. Ltd



SWOT analysis of Agrochemicals Sector

Strengths

- Vital role in crop protection and yields.
- In Pakistan, agrochemicals are in steady demand due to agriculture's economic importance and need for crop protection.
- Agrochemical firms in Pakistan maintain healthy profits as their products are essential for crop yields and farmer income.
- Low import duties to meet domestic demand that results in high revenue generation.
- Technological advancements have made fertilizers more efficient.
- Agrochemicals and sustainable agriculture are increasingly knowledge-intensive.

Weaknesses

- Unorganized sector lacking corporate culture.
- Complete dependence on imported chemical compounds.
- Insufficient investment in research and development
- Farmers face challenges accessing information, financial services, and markets.
- Lengthy registration processes up to three years for license issuance hindering new investors.
- Pest management in Pakistan is government responsibility that overlooks technologies suitable for small farmers.

Opportunities

- Introduction of environment friendly biopesticides.
- Better seeds alone can improve crop yields by around **15-20%**, with optimal use of fertilizer, pesticides, and irrigation can boost productivity to **45%**.
- Expanding product portfolio across the agri-value chain by introducing new products.
- Huge export potential across various regions worldwide.
- Sustainable Crop protection solutions to maximize farmer's productivity and profitability.
- Increased demand for value-added agricultural products.

Threats

- Supply chain disruptions due to regulatory changes and economic downturns.
- Climate changed induced low crop production.
- Reduction in area under cultivation due to massive floods.
- Rising health concern due to excessive use of pesticides
- Hospital-level studies in Pakistan identified **106** cases of pesticide poisoning.
- Ignoring costs of agrochemical damages amounting in billions.