

Fungicides Market by Type (Chemical and Biological), Mode of Action (Contact and Systemic), Formulation (Liquid and Dry), Mode of Application (Foliar Spray, Seed Treatment, and Soil Treatment), Crop Type and Region - Global Forecast to 2029

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Report description:

The global fungicides market is estimated at USD 23.9 billion in 2024 and is projected to reach USD 32.3 billion by 2029, at a CAGR of 6.2% during the forecast period. There are several plant pathogenic organisms that cause crop damage; fungi are a primary cause of crop loss globally. The fungicides market is projected to grow at a promising rate in the coming years. This growth is driven by the changing climate conditions and the rising demand for high-value crops, particularly for fruits & vegetables. The Food and Agricultural Organization has identified hundreds of fungal diseases that strike 168 crops integral to human nutrition, with the potential threat from these diseases only rising with climate change. Higher temperatures favor the new variation of fungal pathogens, and extreme weather events such as storms and tornadoes can spread spores over larger geographic areas. For example in 2022, climatic change caused a severe outbreak of stem rust in Ireland, whose airborne spores of the pathogen have come from other regions, underscoring broader risks induced by shifting weather patterns and rising temperatures. The fungicides market is projected to grow at a promising rate in the coming years. Major players in the fungicides market include Syngenta Group (Switzerland), BASF SE (Germany), Bayer AG (Germany), FMC Corporation (US), and UPL Ltd. (India). Some popular fungicides offered by BASF include F 500, Xemium, Revysol, and Pavecto. Syngenta Group offers Amistar, Bravo, Orondis, and Revus. In the recent years, major players largely invested in the research and development activities for the launch of novel fungicide products across the globe, which further boosts the market growth. In May 2024, Syngenta Group announced a major boost in its fungicides portfolio with the launch of its patented ADEPIDYN technology globally featuring the active ingredient pydiflumetofen. The advanced fungicide is available to farmers in more than 55 countries currently.

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FIGURE 1 □GLOBAL PESTICIDE USE, BY CATEGORY, 2021 (MILLION TONS)

Source: FAO (2024)

"Rising demand for agricultural production to drive the fungicides market globally"

An increase in agricultural production, arising from the increased demand for food on a global scale, essentially increases the application of fungicides to protect crops and enhance yields. According to the State of Food Security and Nutrition in the World report published by FAO, global food production will need to grow by 70% in 2050 to cater to the increasing population. A 2022 study published in Springer Nature examined the impact of foliar fungicides on soybean yields in the north-central United States. The study highlighted that fungicides are more beneficial in high-yield environments, offering sufficient yield increases to offset their costs when soybean prices are average or higher. Nonetheless, it emphasized the ongoing importance of disease scouting and resistance management.

"In 2023, chemical fungicides stood as the major segment within the type segment of the fungicides market. "

Chemical fungicides are biocidal materials that can kill or prevent fungi and their pathogenic spores from growing. Chemical fungicides can be used to control plant fungal infections such as rusts, mildews, and blights. Fungicide activity can be both systemic and contact. Continuous research and development have led to the launch of new targeted chemicals which help to increase the market share of chemical fungicides. For instance, in February 2024, Scientists at the University of California discovered a new chemical fungicide, ebselen, that holds huge potential for fighting some of the most devastating crop diseases in the world. Not only did this new breed of fungicide stop the effects of fungal infections in apples, grapes, strawberries, tomatoes, and roses, but it also enhanced symptoms of already existing fungal infections in rice. In June 2024, BASF launched its new rice fungicide in China under the trade name Cevya, containing 400g/L mefentrifluconazole. This new product incorporates the active ingredient Revysol, mefentrifluconazole, which has good preventive and controlling effects on rice false smut.

"Within the formulation segment, liquid formulation holds the highest share."

Liquid formulations holds maximum share in the fungicides market due to wide usage and versatility. They are preferred for the ease of application, better coverage of large acres, and the possibility of mixing with other agricultural chemicals. Some active ingredients - Difenoconazole, Fludioxonil, Pydiflumetofen, and Hexaconazole - are dominant in fungicides as they are water-based. Liquid fungicides help achieve a high active content, which is required in commercial formulations as they aid with spray drifting. Companies such as BASF (Germany), Bayer (Germany), Syngenta (Basal), FMC Corporation (US), and UPL (India) provide various liquid-based fungicides targeting different diseases and crops. Due to the increasing demand for organic crops, some companies are also focusing on introducing biofungicides. In June 2024, Rovensa Next launched a new biofungicide called Milarum in Brazil. In August 2023, FMC India, a leading agricultural science company, launched the latest ENTAZIA™ biofungicide. Both are liquid-form products that bring extra versatility and value to their applications.

"In 2023, Asia Pacific holds the highest market share in the global fungicides market."

Asia-Pacific holds the largest share of fungicides in the market due to massive agricultural production, cultivation of diverse crops, and increasing demand for effective disease management solutions. The demand for better fungicides as a disease control measure and a means of yield maximization is, therefore, likely to be high in this region characterized by extensive farming and diversified crops. Many companies are investing in the development of new products in the Asia-Pacific region. For example, In June 2024, BASF introduced its new rice fungicide, Cevya, in China. Earlier, in August 2023, FMC Corporation (US), a leader in agricultural sciences, launched ENTAZIATM biofungicide in India, a groundbreaking biological crop protection product formulated with *Bacillus subtilis*. These innovations highlight the region's growing role in the fungicides market.

The Break-up of Primaries:

By Company Type: Tire 1- 35%, Tire 2- 40%, Tire 3- 25%

By Designation: CXOs - 30%, Managers - 50%, Executives - 20%

By Region: North America - 25%, Europe - 25%, Asia Pacific - 30%, South America - 10%, RoW - 10%

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Key players in this market include BASF SE (Germany), Bayer AG (Germany), Syngenta Group (Switzerland), UPL (India), Corteva (US), FMC Corporation (US), Nufarm (Australia), Sumitomo Chemical Co., Ltd. (Japan), NIPPON SODA CO, LTD. (Japan), Gowan Company (US), American Vanguard Corporation (US), Koppert (Netherlands), KUMIAI CHEMICAL INDUSTRY CO., LTD. (Japan), Albaugh LLC (US), and Sipcarn Oxon Spa (Italy).

Research Coverage:

The report segments the fungicides market based on type, crop type, mode of application, mode of action, formulation, and region. In terms of insights, this report has focused on various levels of analyses-the competitive landscape, end-use analysis, and company profiles, which together comprise and discuss views on the emerging & high-growth segments of the fungicides market, high-growth regions, countries, government initiatives, drivers, restraints, opportunities, and challenges. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, services, key strategies, Contracts, partnerships, and agreements. New product launches, mergers and acquisitions, and recent developments associated with the fungicides market. Competitive analysis of upcoming startups in the fungicides market ecosystem is covered in this report.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall fungicides market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities. The report provides insights on the following pointers:

Analysis of key drivers (rising temperature and changing climate conditions lead to outbreak of crop diseases, Increasing launches of novel fungicide products, and rise in agricultural production) restraints (growing resistance to fungicides and fungicide residue problems) opportunities (application of biofungicides to boost demand and integration of fungicides in precision agriculture) and challenges (stringent regulations on use of certain chemical fungicides and low awareness of biological fungicides among farmers).

Product Development/Innovation: Detailed insights on research & development activities and new product launches in the fungicides market.

Market Development: Comprehensive information about lucrative markets - the report analyses the fungicides market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the fungicides market

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like BASF SE (Germany), Bayer AG (Germany), Syngenta Group (Switzerland), UPL (India), Corteva (US), FMC Corporation (US), Nufarm (Australia), Sumitomo Chemical Co., Ltd. (Japan), Nissan Chemical Corporation (Japan), NIPPON SODA CO, LTD. (Japan), Gowan Company (US), American Vanguard Corporation (US), Koppert (Netherlands), KUMIAI CHEMICAL INDUSTRY CO., LTD. (Japan), Albaugh LLC (US), Sipcarn Oxon Spa (Italy), Certis USA L.L.C. (US), BioWorks, Inc. (US), STK Bio-AG (Israel), Verdesian Life Sciences (US), Vive Crop Protection (Canada), Crystal Crop Protection Ltd. (India), Atticus, LLC (US), Scimplify (India), and Botano Health (Israel) in the fungicides market.

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