

Agricultural Pesticide Market in the US

Industry Study with Forecasts for 2020 & 2025

Study #3484 | January 2017 | \$4900



An emphasis on value-added formulations for agricultural pesticides with blends of multiple active ingredients and improved adjuvants will support faster demand growth for formulated products than for active ingredients. Since many of these active ingredients can be utilized in lower volumes, pesticide demand growth in volume terms will be restrained.

Glyphosate resistance to drive new herbicide formulations

Going forward, herbicides will continue to represent the largest share of active ingredient demand. Glyphosate will remain the largest product type by far, particularly as glyphosate-tolerant crop varieties will continue to be ubiquitous. However, increased resistance to glyphosate in many weed populations has forced pesticide producers to formulate new herbicide products, and the introduction of crops with tolerance for multiple herbicides (such as dicamba or glufosinate in addition to glyphosate) will aid increased demand for new herbicides.

Environmentally friendly active ingredients to offer best growth

Demand for insecticide active ingredients in dollar terms will benefit from the continued shift away from lower-cost, older insecticides that are viewed as more hazardous. Demand for fungicide active ingredients and other types of pesticides will also benefit from the adoption of higher-value products that are both more efficient and less dangerous to human and environmental health.

Large field crops remain dominant

Corn and soybeans will remain the most widely planted crops in the US through 2020 and will accordingly account for the largest share of pesticide demand in volume terms. However, field crops such as corn and soybeans use fewer pounds of pesticides per acre than other types of crops. Most of the remaining demand for pesticides will go to relatively low-acreage crops such as vegetables and melons, fruit and nut trees, and cotton. These crops tend to be particularly susceptible to insects and plant diseases, and therefore require more significant insecticide and fungicide applications in addition to herbicides. Along with requiring more significant amounts of pesticides on a per acre basis, planted acreage for key crops such as cotton and fruit is expected to increase going forward, while planted acreage for soybeans is expected to fall.

Study coverage

This Freedonia industry study analyzes the \$7.8 billion US agricultural pesticide market. It presents historical demand data (2005, 2010 and 2015) plus forecasts (2020 and 2025) by product (herbicides, insecticides, fungicides) and crop (corn, soybeans, vegetables and melons, fruit and nuts, and cotton). Demand is presented for both formulated and active ingredient products. Active ingredient data is also presented in pounds. In addition, the study assesses market environment, analyzes company market share and offers competitive analysis on industry players such as ADAMA, BASF, Bayer, Dow, DuPont, Monsanto, GMC, Nufarm, and Syngenta.



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HERBICIDES

Herbicide Demand by Active Ingredient

Herbicides, the most significant type of pesticide, are chemicals used to kill unwanted plants. Demand for these products is expected to reach 1.5 billion pounds in 2025, up from 1.2 billion pounds in 2020. This growth is driven by the need for herbicides to fight herbicide-resistant weeds and the use of lower active ingredients.

Herbicides are typically classified in two ways: by the mode of action and by the type of chemical. Pre-emergent herbicides prevent a weed from germinating, while post-emergent herbicides kill a weed after it has germinated.

The market is dominated by pre-emergent herbicide use, as the majority of farmers will treat their fields with pre-emergent herbicides before their crops have started to grow. Post-emergent herbicides are generally used on an as-needed basis, to kill any weed infestations that were not addressed by the pre-emergent herbicides.

Herbicides can also be classified as selective or non-selective. Selective herbicides will only target specific types of plants, such as broadleaf weeds. Non-selective herbicides will kill a wide range of plants, including weeds and sometimes the crop itself. Non-selective herbicides are generally used as pre-emergent herbicides, or during post-harvest burndown, in order to minimize damage to crops. The most significant example of a non-selective herbicide is glyphosate, which was originally used as a burndown herbicide before planting or after harvest. Post-emergent herbicides are almost always selective herbicides, such as 2,4-D and atrazine.

The most commonly used herbicide in the US is glyphosate, mainly based on the widespread adoption of glyphosate-tolerant crops. After the

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Table 8-1

Pesticide Active Ingredient Demand by Type & Crop (million pounds)

| Item | 2005 | 2010 | 2015 | 2020 | 2025 |
|---|------|------|------|------|------|
| Resident Population (mil persons) | | | | | |
| lb pesticide/person | | | | | |
| Pesticide Active Ingredient Demand | | | | | |
| By Type: | | | | | |
| Herbicides | | | | | |
| Insecticides | | | | | |
| Fungicides | | | | | |
| Other Pesticides | | | | | |
| By Crop: | | | | | |
| Corn | | | | | |
| Soybean | | | | | |
| Vegetables & Melons | | | | | |
| Fruit & Nuts | | | | | |
| Cotton | | | | | |
| Other Crop Breakouts | | | | | |
| \$/lb | | | | | |
| Pesticide Active Ingredient Demand (mil \$) | | | | | |

Source: The Freedonia Group

Table 6-3

Fungicide Demand by Crop (million pounds)

| Item | 2005 | 2010 | 2015 | 2020 | 2025 |
|--|------|------|------|------|------|
| Ag Pesticide Active Ingredient Demand | | | | | |
| % fungicides | | | | | |
| Ag Fungicide Active Ingredient Demand | | | | | |
| Corn | | | | | |
| Soybeans | | | | | |
| Other Crop Breakouts | | | | | |
| \$/lb | | | | | |
| Ag Fungicide Active Ingredients (mil \$) | | | | | |
| Corn | | | | | |
| Soybeans | | | | | |
| Other Crop Breakouts | | | | | |

Source: The Freedonia Group

This study can help you:

- Determine your market & sales potential
- Learn more about industry competitors
- Assess new products & technologies
- Identify firms to merge with or acquire
- Complement your research & planning
- Gather data for presentations
- Confirm your own internal data
- Make better business decisions

Related Studies

Global Amines Market

Global demand for amines will grow 3.5 percent per year to 7.3 million metric tons in 2020. The best prospects will be in consumer-oriented markets, such as cleaning and personal care products. As consumers in the developing world gain additional spending power, they will demand higher quality amines for such products. This study presents historical data and forecasts (2020, 2025) for supply and demand, plus demand by product and market, in 6 regions and 15 countries. The study also assesses the industry structure and evaluates company market share.

#3475..... November 2016 \$6200

Solvents

US demand for solvents is forecast to rise just over one percent per year through 2020 to 9.6 billion pounds. Environmental regulations will continue to drive a shift toward less hazardous solvents. Public perception and consumer preference will also favor green products derived from renewable sources such as soy methyl ester and terpenes. This study offers historical demand data as well as forecasts for 2020 and 2025 by product and market. The study also details market environment factors, evaluates company market share and profiles US industry competitors.

#3429..... July 2016 \$5300

Home & Garden Pesticides

US demand for home and garden pesticides will grow 3.1 percent yearly to \$2.4 billion in 2020. Insecticides will remain dominant while fungicides and other products such as animal repellents and rodenticides will grow the fastest. Household applications will remain the largest segment, but will be slightly outpaced by lawn and garden uses. This study analyzes the \$2.1 billion US home and garden pesticide industry, with forecasts for 2020 and 2025 by product, application, and raw material. The study also evaluates company market share and profiles industry players.

#3384..... February 2016 \$5200

Amines

US demand for amines will expand 2.1 percent per year to 3.2 billion pounds in 2019, valued at \$3.8 billion. Agricultural chemicals will remain the fastest growing market, driven by increased use of herbicide-resistant crops that require greater amounts of amine-based pesticides. Polyetheramines and alkylamines will be the fastest growing products. This study analyzes the 2.9 billion pound US amines industry, with forecasts for 2019 and 2024 by product and market. The study also evaluates company market share, and profiles industry players.

#3330..... October 2015 \$5200

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Freedonia's methods

- Establishing consistent economic & market forecasts
- Using input/output ratios, flow charts & other economic methods to quantify data
- Employing in-house analysts who meet stringent quality standards
- Interviewing key industry participants, experts & end users
- Researching a proprietary database that includes trade publications, government reports & corporate literature

About The Freedonia Group

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