

Agricultural Fumigants Market Assessment, By Source [Organic, Synthetic], By Type [Methyl Bromide, Hydrogen Cyanide, Chloropicrin, Phosphine, Metam Sodium, 1,3-Dichloropropene, Others], By Form [Solid, Liquid, Gaseous], By Application [Foliar Spray, Seed Treatment, Soil Treatment, Post-harvest], By Crop Type [Row Crops, Horticulture Crops, Plantation Crops, Ornamental Plants, Others], By Region, Opportunities and Forecast, 2016-2030F

<https://marketpublishers.com/r/A224A8805441EN.html>

Date: March 2025

Pages: 235

Price: US\$ 4,500.00 (Single User License)

ID: A224A8805441EN

Abstracts

Global agricultural fumigants market size was valued at USD 1.01 billion in 2022, which is expected to grow to USD 1.47 billion in 2030 with a CAGR of 4.8% during the forecast period between 2023 and 2030.

The prime determinants, such as increasing self-sufficiency targets for food crop production and the rising adoption of organic source agrochemicals, are fostering the surge in the production of food crops coupled with the growth in demand for organic source agriculture fumigants, which in turn, is driving the market size advancement. Also, the future crop output boost will be within the same area of arable land. As a result, the demand for agriculture fumigants will increase to protect the crops from pests, thereby creating a prominent potential for market growth in the upcoming years.

The increase in food crop production is accredited to factors such as increasing measures for food security, government schemes covering the minimum price rate for wheat, and the increasing deployment of modern means of agriculture practices. Additionally, the employment of organic source fumigants is increasing in agriculture as

the bio fumigants have benefits, including lower volatile organic compounds (VOC) content, superior biodegradability, and eradication of soil erosion. Henceforth, the rise in the food crop output, along with the increasing adoption of organic sourced agrochemicals are boosting the demand for agriculture fumigants to ensure superior per-yield production, it in turn, is fostering the market growth. Nevertheless, the availability of several substitutes for agriculture fumigants with superior properties is restraining the market growth.

The increase in row crop production, including cotton, sugarcane, and rice, is a major variable driving the market growth. For instance, according to the United States Department of Agriculture (USDA), in 2022, the global cotton production was 116.3, an annual growth rate of 1.5%.

The growth in the output for horticulture crops is spurring the market growth. For instance, according to the recent data published by the Turkish Statistical Institute, in 2021, the production of vegetables in Turkey increased by 1.8% as opposed to 31.8 million tons in 2020.

Recent Government Initiatives to Promote Soil Treatment

Soil treatment is ideal for contaminated soil as it helps enhance the soil's fertility and performance. The excessive utilization of synthetic agrochemicals and unsustainable farming practices are depleting soil quality, resulting in a decline in the overall agriculture product quality. Hence, governments in various countries, including the United States, India, and Germany, implementing various subsidies to treat agricultural soil.

For instance, in April 2021, the National Institute of Food and Agriculture (NIFA), a part of the United States Department of Agriculture (USDA), announced an investment of USD 21.7 million in several key programs to provide aid to agricultural producers so there is an efficient management of the impacts of climate change on the lands and production. NIFA further invested USD 6.3 million for 14 soil health grants and USD 5.4 million for seven signals in the soil grants. Thus, the increase in government initiatives to promote soil treatment is accelerating the demand for agriculture fumigants to eliminate diseases and pests from the soil before sowing crops, which is expected to continue to grow in the coming years.

The Surging Employment of Agriculture Fumigants in Row Crops

Agriculture fumigants such as methyl bromide, hydrogen cyanide, and chloropicrin are deployed in food crops such as wheat, corn, and rice in soil treatment, post-harvest, and pre-harvest applications. Determinants such as increasing measures to maintain food security and surging demand for food crops are fueling the food crops industry growth.

For instance, according to the recent statistics published by the United States Department of Agriculture (USDA), in 2021, the global wheat production was 781.0 million metric tons, and in 2022, it was 789.5 million metric tons, a year-on-year growth rate of 1.1%. Hence, the increase in food crop production, including wheat, rice, and barley is fostering the demand for agriculture fumigants to protect the crops from insects, proliferating the market growth.

Significant Share of Asia-Pacific in Agricultural Fumigants Market

The growth of agriculture fumigants industry in Asia-Pacific is primarily attributed to the surge in demand for organic food, rising intake of nutritional food intake, and government subsidies for the agriculture industry.

For instance, according to the recent 2023 World Agriculture Production report published by the United States Department of Agriculture (USDA), China's total coarse grain production was 569.2 million metric tons, representing an annual growth rate of 0.4% in 2022, as opposed to 566.8 million metric tons. In addition, in 2021, total coarse grain production in India was 290.4 million metric tons; in 2022, it was 294.5 million metric tons, an increase of 1.4%. As a result, the increase in food crop output in Asia-Pacific is boosting the demand for agriculture fumigants, which in turn, is supplementing the market growth in the region.

Future Outlook Scenario

The annual crop production will register growth within the same amount of arable land in the forecast years as the percentage of arable land is declining. For instance, according to the Food and Agriculture Organization (FAO), the global agricultural output for wheat and other coarse grain will increase by 9% between 2021-2030 and this growth will be on the same arable land area. Hence, the demand for agriculture fumigants will rise significantly to boost crop output within the same area of arable land and ensure crops with superior nutrient qualities, thereby creating a lucrative opportunity for market growth during the forecast period.

The demand for food crops will increase in future years as the population will register

growth, thereby creating a favorable potential for the agriculture fumigants market growth in the long run. For instance, according to the Food and Agriculture Organization (FAO), wheat consumption at the global level will increase by 12% in 2030.

Moreover, global maize consumption will register an average annual growth rate of 1.1% during the projected forecast period of 2021-2030.

Key Players Landscape and Outlook

The key players with a global presence in the agriculture fumigant market include BASF SE, Arkema, Solvay S.A., and Nufarm. The primary companies involved in manufacturing agriculture fumigants are leveraging their technological potential in strategies such as new product innovation, international approvals, and others.

In October 2023, MustGrow Biologics Corp., a Canada-based agrochemical manufacturer, received the United States Department of Agriculture (USDA) organic approval for soil amendment technology and biological fertilizer for under-development products such as soil fumigation, bioherbicide, and post-harvest food preservation.

Contents

1. RESEARCH METHODOLOGY

2. PROJECT SCOPE & DEFINITIONS

3. EXECUTIVE SUMMARY

4. VOICE OF CUSTOMER

4.1. Market Awareness and Product Information

4.2. Brand Awareness and Loyalty

4.3. Factors Considered in Purchase Decision

4.3.1. Brand Name

4.3.2. Quality

4.3.3. Quantity

4.3.4. Price

4.3.5. Product Specification

4.3.6. Form Specification

4.3.7. Toxicity/VOC Content

4.3.8. Availability of Product

4.4. Frequency of Purchase

4.5. Medium of Purchase

5. GLOBAL AGRICULTURAL FUMIGANTS MARKET OUTLOOK, 2016-2030F

5.1. Market Size & Forecast

5.1.1. By Value

5.1.2. By Volume

5.2. By Source

5.2.1. Organic

5.2.2. Synthetic

5.3. By Type

5.3.1. Methyl Bromide

5.3.2. Hydrogen Cyanide

5.3.3. Chloropicrin

5.3.4. Phosphine

5.3.5. Metam Sodium

5.3.6. 1,3-Dichloropropene

- 5.3.7. Others
- 5.4. By Form
 - 5.4.1. Solid
 - 5.4.1.1. Dust
 - 5.4.1.2. Granules
 - 5.4.1.3. Baits
 - 5.4.1.4. Capsules
 - 5.4.1.5. Powders
 - 5.4.1.6. Others
 - 5.4.2. Liquid
 - 5.4.2.1. Emulsifiable Concentrate
 - 5.4.2.2. Suspension Concentrates
 - 5.4.2.3. Others
 - 5.4.3. Gaseous
- 5.5. By Application
 - 5.5.1. Foliar Spray
 - 5.5.2. Seed Treatment
 - 5.5.3. Soil Treatment
 - 5.5.4. Post-harvest
- 5.6. By Crop Type
 - 5.6.1. Row Crops
 - 5.6.1.1. Cereal Grains
 - 5.6.1.1.1. Wheat
 - 5.6.1.1.2. Rice
 - 5.6.1.1.3. Barley
 - 5.6.1.1.4. Corn
 - 5.6.1.1.5. Soybeans
 - 5.6.1.1.6. Others
 - 5.6.1.2. Cash Crop
 - 5.6.1.2.1. Sugarcane
 - 5.6.1.2.2. Cotton
 - 5.6.1.2.3. Others
 - 5.6.2. Horticulture Crops
 - 5.6.2.1. Fruits
 - 5.6.2.1.1. Apples
 - 5.6.2.1.2. Grapes
 - 5.6.2.1.3. Banana
 - 5.6.2.1.4. Watermelons
 - 5.6.2.1.5. Pineapple

- 5.6.2.1.6. Others
- 5.6.2.2. Vegetables
 - 5.6.2.2.1. Tomato
 - 5.6.2.2.2. Potato
 - 5.6.2.2.3. Onions
 - 5.6.2.2.4. Carrot
 - 5.6.2.2.5. Others
- 5.6.3. Plantation Crops
 - 5.6.3.1. Tea
 - 5.6.3.2. Cocoa
 - 5.6.3.3. Others
- 5.6.4. Ornamental Plants
- 5.6.5. Others
- 5.7. By Region
 - 5.7.1. North America
 - 5.7.2. Europe
 - 5.7.3. South America
 - 5.7.4. Asia-Pacific
 - 5.7.5. Middle East and Africa
- 5.8. By Company Market Share (%), 2022

6. GLOBAL AGRICULTURAL FUMIGANTS MARKET OUTLOOK, BY REGION, 2016-2030F

- 6.1. North America*
 - 6.1.1. Market Size & Forecast
 - 6.1.1.1. By Value
 - 6.1.1.2. By Volume
 - 6.1.2. By Source
 - 6.1.2.1. Organic
 - 6.1.2.2. Synthetic
 - 6.1.3. By Type
 - 6.1.3.1. Methyl Bromide
 - 6.1.3.2. Hydrogen Cyanide
 - 6.1.3.3. Chloropicrin
 - 6.1.3.4. Phosphine
 - 6.1.3.5. Metam Sodium
 - 6.1.3.6. 1,3-Dichloropropene
 - 6.1.3.7. Others

6.1.4. By Form

6.1.4.1. Solid

6.1.4.1.1. Dust

6.1.4.1.2. Granules

6.1.4.1.3. Baits

6.1.4.1.4. Capsules

6.1.4.1.5. Powders

6.1.4.1.6. Others

6.1.4.2. Liquid

6.1.4.2.1. Emulsifiable Concentrate

6.1.4.2.2. Suspension Concentrates

6.1.4.2.3. Others

6.1.4.3. Gaseous

6.1.5. By Application

6.1.5.1. Foliar Spray

6.1.5.2. Seed Treatment

6.1.5.3. Soil Treatment

6.1.5.4. Post-harvest

6.1.6. By Crop Type

6.1.6.1. Row Crops

6.1.6.1.1. Cereal Grains

6.1.6.1.1.1. Wheat

6.1.6.1.1.2. Rice

6.1.6.1.1.3. Barley

6.1.6.1.1.4. Corn

6.1.6.1.1.5. Soybeans

6.1.6.1.1.6. Others

6.1.6.1.2. Cash Crop

6.1.6.1.2.1. Sugarcane

6.1.6.1.2.2. Cotton

6.1.6.1.2.3. Others

6.1.6.2. Horticulture Crops

6.1.6.2.1. Fruits

6.1.6.2.1.1. Apples

6.1.6.2.1.2. Grapes

6.1.6.2.1.3. Banana

6.1.6.2.1.4. Watermelons

6.1.6.2.1.5. Pineapple

6.1.6.2.1.6. Others

- 6.1.6.2.2. Vegetables
 - 6.1.6.2.2.1. Tomato
 - 6.1.6.2.2.2. Potato
 - 6.1.6.2.2.3. Onions
 - 6.1.6.2.2.4. Carrot
 - 6.1.6.2.2.5. Others
- 6.1.6.3. Plantation Crops
 - 6.1.6.3.1. Tea
 - 6.1.6.3.2. Cocoa
 - 6.1.6.3.3. Others
- 6.1.6.4. Ornamental Plants
- 6.1.6.5. Others
- 6.1.7. United States*
 - 6.1.7.1. Market Size & Forecast
 - 6.1.7.1.1. By Value
 - 6.1.7.1.2. By Volume
 - 6.1.7.2. By Source
 - 6.1.7.2.1. Organic
 - 6.1.7.2.2. Synthetic
 - 6.1.7.3. By Type
 - 6.1.7.3.1. Methyl Bromide
 - 6.1.7.3.2. Hydrogen Cyanide
 - 6.1.7.3.3. Chloropicrin
 - 6.1.7.3.4. Phosphine
 - 6.1.7.3.5. Metam Sodium
 - 6.1.7.3.6. 1,3-Dichloropropene
 - 6.1.7.3.7. Others
 - 6.1.7.4. By Form
 - 6.1.7.4.1. Solid
 - 6.1.7.4.1.1. Dust
 - 6.1.7.4.1.2. Granules
 - 6.1.7.4.1.3. Baits
 - 6.1.7.4.1.4. Capsules
 - 6.1.7.4.1.5. Powders
 - 6.1.7.4.1.6. Others
 - 6.1.7.4.2. Liquid
 - 6.1.7.4.2.1. Emulsifiable Concentrate
 - 6.1.7.4.2.2. Suspension Concentrates
 - 6.1.7.4.2.3. Others

- 6.1.7.4.3. Gaseous
- 6.1.7.5. By Application
 - 6.1.7.5.1. Foliar Spray
 - 6.1.7.5.2. Seed Treatment
 - 6.1.7.5.3. Soil Treatment
 - 6.1.7.5.4. Post-harvest
- 6.1.7.6. By Crop Type
 - 6.1.7.6.1. Row Crops
 - 6.1.7.6.1.1. Cereal Grains
 - 6.1.7.6.1.1.1. Wheat
 - 6.1.7.6.1.1.2. Rice
 - 6.1.7.6.1.1.3. Barley
 - 6.1.7.6.1.1.4. Corn
 - 6.1.7.6.1.1.5. Soybeans
 - 6.1.7.6.1.1.6. Others
 - 6.1.7.6.1.2. Cash Crop
 - 6.1.7.6.1.2.1. Sugarcane
 - 6.1.7.6.1.2.2. Cotton
 - 6.1.7.6.1.2.3. Others
 - 6.1.7.6.2. Horticulture Crops
 - 6.1.7.6.2.1. Fruits
 - 6.1.7.6.2.1.1. Apples
 - 6.1.7.6.2.1.2. Grapes
 - 6.1.7.6.2.1.3. Banana
 - 6.1.7.6.2.1.4. Watermelons
 - 6.1.7.6.2.1.5. Pineapple
 - 6.1.7.6.2.1.6. Others
 - 6.1.7.6.2.2. Vegetables
 - 6.1.7.6.2.2.1. Tomato
 - 6.1.7.6.2.2.2. Potato
 - 6.1.7.6.2.2.3. Onions
 - 6.1.7.6.2.2.4. Carrot
 - 6.1.7.6.2.2.5. Others
 - 6.1.7.6.3. Plantation Crops
 - 6.1.7.6.3.1. Tea
 - 6.1.7.6.3.2. Cocoa
 - 6.1.7.6.3.3. Others
 - 6.1.7.6.4. Ornamental Plants
 - 6.1.7.6.5. Others

6.1.8. Canada

6.1.9. Mexico

*All segments will be provided for all regions and countries covered

6.2. Europe

6.2.1. Germany

6.2.2. France

6.2.3. Italy

6.2.4. United Kingdom

6.2.5. Russia

6.2.6. Netherlands

6.2.7. Spain

6.2.8. Turkey

6.2.9. Poland

6.3. South America

6.3.1. Brazil

6.3.2. Argentina

6.4. Asia-Pacific

6.4.1. India

6.4.2. China

6.4.3. Japan

6.4.4. Australia

6.4.5. Vietnam

6.4.6. South Korea

6.4.7. Indonesia

6.4.8. Philippines

6.5. Middle East & Africa

6.5.1. Saudi Arabia

6.5.2. UAE

6.5.3. South Africa

7. SUPPLY SIDE ANALYSIS

7.1. Capacity, By Company

7.2. Production, By Company

7.3. Operating Efficiency, By Company

7.4. Key Plant Locations (Up to 25)

8. MARKET MAPPING, 2022

- 8.1. By Source
- 8.2. By Type
- 8.3. By Form
- 8.4. By Application
- 8.5. By Crop Type
- 8.6. By Region

9. MACRO ENVIRONMENT AND INDUSTRY STRUCTURE

- 9.1. Supply Demand Analysis
- 9.2. Import Export Analysis – Volume and Value
- 9.3. Supply/Value Chain Analysis
- 9.4. PESTEL Analysis
 - 9.4.1. Political Factors
 - 9.4.2. Economic System
 - 9.4.3. Social Implications
 - 9.4.4. Technological Advancements
 - 9.4.5. Environmental Impacts
 - 9.4.6. Legal Compliances and Regulatory Policies (Statutory Bodies Included)
- 9.5. Porter's Five Forces Analysis
 - 9.5.1. Supplier Power
 - 9.5.2. Buyer Power
 - 9.5.3. Substitution Threat
 - 9.5.4. Threat from New Entrant
 - 9.5.5. Competitive Rivalry

10. MARKET DYNAMICS

- 10.1. Growth Drivers
- 10.2. Growth Inhibitors (Challenges, Restraints)

11. KEY PLAYERS LANDSCAPE

- 11.1. Competition Matrix of Top Five Market Leaders
- 11.2. Market Revenue Analysis of Top Five Market Leaders (in %, 2022)
- 11.3. Mergers and Acquisitions/Joint Ventures (If Applicable)
- 11.4. SWOT Analysis (For Five Market Players)
- 11.5. Patent Analysis (If Applicable)

12. PRICING ANALYSIS

13. CASE STUDIES

14. KEY PLAYERS OUTLOOK

14.1. BASF SE

14.1.1. Company Details

14.1.2. Key Management Personnel

14.1.3. Products & Services

14.1.4. Financials (As reported)

14.1.5. Key Market Focus & Geographical Presence

14.1.6. Recent Developments

14.2. Arkema

14.3. Solvay S.A.

14.4. Nufarm

14.5. Tessenderlo Kerley Inc

14.6. Nippon Chemical Industrial Co., Ltd.

14.7. Douglas Products

14.8. MustGrow Biologics Corp.

14.9. Amvac Chemical Corporation

14.10. Detia Freyberg GmbH

*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.

15. STRATEGIC RECOMMENDATIONS

16. ABOUT US & DISCLAIMER

I would like to order

Product name: Agricultural Fumigants Market Assessment, By Source [Organic, Synthetic], By Type [Methyl Bromide, Hydrogen Cyanide, Chloropicrin, Phosphine, Metam Sodium, 1,3-Dichloropropene, Others], By Form [Solid, Liquid, Gaseous], By Application [Foliar Spray, Seed Treatment, Soil Treatment, Post-harvest], By Crop Type [Row Crops, Horticulture Crops, Plantation Crops, Ornamental Plants, Others], By Region, Opportunities and Forecast, 2016-2030F

Product link: <https://marketpublishers.com/r/A224A8805441EN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A224A8805441EN.html>