

# **Fumigant Products Market Forecasts to 2032 – Global Analysis By Product Type (Methyl Bromide, Phosphine, Chloropicrin, Metam Sodium and Other Product Types), Crop Type, Form, Pest Control Method, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Fumigant Products Market is accounted for \$6.02 billion in 2025 and is expected to reach \$10.2 billion by 2032 growing at a CAGR of 7.8% during the forecast period. Fumigant products are chemical agents used in gaseous form to disinfect soil, stored products, or enclosed spaces by eliminating pests, pathogens, and weeds. These volatile compounds penetrate deeply into the treated area, making them effective against a wide range of insects, nematodes, fungi, and bacteria. Commonly used in agriculture and storage facilities, fumigants like methyl bromide and phosphine help protect crop yield and quality. Their use is often regulated due to potential environmental and health risks, necessitating careful handling and application.

According to the United States Department of Agriculture, Aluminum fumigants are used to eliminate moles, rodents, pests, and insects in every growth stage (eggs, larvae, pupae, adults).

Market Dynamics:

Driver:

Increasing global grain production and storage needs

Rising global agricultural output is generating substantial demand for fumigants to

protect harvested grains during storage. With increasing grain exports and intercontinental trade, fumigation ensures compliance with phytosanitary standards and prevents infestations. Countries with large-scale grain reserves are investing in fumigation solutions to minimize post-harvest losses. The growth of centralized storage infrastructure, including silos and warehouses, supports the widespread use of fumigants. Moreover, climatic fluctuations have elevated the risks of pest proliferation in stored grains, reinforcing the need for effective fumigation practices. This expanding demand from agribusinesses is propelling market growth for fumigant products.

#### Restraint:

##### High toxicity and handling risks

Fumigants are highly toxic substances, and improper handling can pose serious health risks to operators and nearby populations. Stringent safety protocols and licensing requirements increase operational complexity for applicators. The need for specialized training and personal protective equipment (PPE) adds to compliance costs. Additionally, accidental exposure incidents have led to greater public scrutiny and regulatory restrictions on usage. These challenges hinder market adoption, particularly among small-scale farmers with limited safety infrastructure. The evolving regulatory landscape around occupational health standards continues to restrain the widespread deployment of traditional fumigants.

#### Opportunity:

##### Development of eco-friendly and bio-based fumigants

Growing environmental concerns and restrictions on synthetic fumigants are driving innovation toward sustainable alternatives. Companies are actively developing plant-derived and microbial-based fumigants that offer pest control without long-term toxicity. These bio-based solutions are gaining regulatory favor due to their low environmental impact and biodegradable nature. Rising demand from organic and sustainable farming sectors further amplifies market potential. Governments and research institutions are also funding the development of safer fumigation agents. This shift presents a transformative opportunity for manufacturers to differentiate their portfolios and align with green agriculture trends.

#### Threat:

## Ban on certain chemical fumigants (e.g., methyl bromide)

Regulatory bans and phase-outs of ozone-depleting fumigants like methyl bromide have disrupted market stability. Replacement compounds often lack the same level of efficacy, leading to pest management challenges in certain regions. The search for equally effective yet compliant alternatives has increased R&D expenditures for manufacturers. Resistance from pests to newer fumigants also threatens efficacy over time. Furthermore, inconsistencies in regulatory approvals across countries complicate product commercialization strategies. These bans introduce significant uncertainty for stakeholders relying on traditional fumigants, affecting supply chain continuity and product adoption.

## Covid-19 Impact:

The pandemic initially disrupted fumigant supply chains due to logistical constraints and raw material shortages. Lockdowns delayed pest control activities in warehouses and storage facilities, increasing post-harvest losses. However, the essential nature of agricultural and food supply chains led to the gradual resumption of fumigation operations. Heightened hygiene and biosecurity concerns have since fueled demand for fumigants in non-agricultural settings such as healthcare and food processing. Moreover, regulatory authorities recognized fumigation as a critical activity to ensure food safety and export quality. The renewed focus on supply chain resilience has strengthened long-term demand for fumigant solutions.

The methyl bromide segment is expected to be the largest during the forecast period

The methyl bromide segment is expected to account for the largest market share during the forecast period, due to its high effectiveness in eliminating a wide range of pests. It is widely used for quarantine and pre-shipment treatments, particularly in regions with lenient usage restrictions. Its broad-spectrum action and rapid application make it suitable for various storage conditions. The fumigant's established infrastructure and operator familiarity also support its ongoing use. Additionally, temporary exemptions in some countries maintain demand for methyl bromide in niche applications. Its continued utility across critical pest control operations ensures its leading market share.

The cereals & grains segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the cereals & grains segment is predicted to witness the

highest growth rate, owing to their vulnerability to pests during long-term storage. Increasing global consumption of rice, wheat, and maize necessitates effective protection throughout the supply chain. Export requirements for residue-free commodities are intensifying the use of fumigants in grain storage and transport. Technological advancements in application methods are enhancing the precision and efficacy of fumigants in silos and containers. The expansion of grain storage facilities in emerging economies is also fueling segmental growth. These factors collectively position cereals and grains as the most dynamic application area.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share due to its vast agricultural base and extensive grain production. Countries like India, China, and Indonesia rely heavily on fumigation to preserve food security and meet export standards. The region's growing population and increasing food demand further accelerate storage-related pest control needs. Government-led grain procurement and warehousing initiatives support large-scale fumigant usage. Moreover, regional manufacturers benefit from cost-effective production and favorable regulatory environments. These factors contribute to the region's commanding market share.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, due to stringent food safety regulations and the rapid adoption of sustainable fumigation solutions. The U.S. and Canada are witnessing a shift toward eco-friendly and bio-based fumigants amid rising environmental awareness. Increased grain export activities and investments in advanced storage facilities are enhancing market growth. Regulatory support for integrated pest management practices is also boosting fumigant demand. The presence of key industry players and technological innovators adds to regional momentum. Collectively, these trends are driving robust market expansion in North America.

Key players in the market

Some of the key players in Fumigant Products Market include Pigeon Control India, Ultra Pest Solution Pvt. Ltd., Deluxe Logistics & Packaging, Vighnagar Enterprises, Logicare Packaging Pvt Ltd., A & B Pest Control, Nation Techno Pest Control, Rentokil Initial plc, Indo Gulf Pest Control Private Limited, Solvay S.A., Detia Degesch GmbH, Royal Agro Organic Pvt. Ltd., UPI-USA, National Fumigants, Corteva Agriscience, and

JAFFER Group of Companies.

#### Key Developments:

In May 2025, Rentokil Initial plc launched an eco-friendly fumigant solution for stored grain protection, designed to minimize chemical residues while ensuring effective pest control. The product targets agricultural storage facilities in Europe and Asia-Pacific.

In April 2025, Corteva Agriscience introduced a new soil fumigant for high-value crops, focusing on nematode and pathogen control. The product integrates with precision agriculture systems for targeted application, reducing environmental impact.

In December 2024, Royal Agro Organic Pvt. Ltd. introduced a bio-based fumigant for organic farming, targeting soil pests in vegetable crops. The product is certified for use in organic agriculture and emphasizes environmental safety.

#### Product Types Covered:

Methyl Bromide

Phosphine

Chloropicrin

Metam Sodium

Other Product Types

#### Crop Types Covered:

Cereals & Grains

Oilseeds & Pulses

Fruits & Vegetables

Other Crop Types

Forms Covered:

Solid

Liquid

Gas

Control Methods Covered:

Tarpaulin Fumigation

Structural Fumigation

Vacuum Chamber Fumigation

End Users Covered:

Agricultural

Commercial

Industrial

Other End Users

Regions Covered:

North America

US

Canada

Mexico

## Europe

Germany

UK

Italy

France

Spain

Rest of Europe

## Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

## South America

Argentina

Brazil

Chile

Rest of South America

## Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

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Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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