

Agricultural Insect Pheromones Market Forecasts to 2032 – Global Analysis By Type (Sex Pheromones, Aggregation Pheromones and Other Product Types), Function (Mating Disruption, Mass Trapping and Monitoring & Detection), Crop Type, Species, Mode of Application, End User and By Geography

<https://marketpublishers.com/r/A3D6AF97D29FEN.html>

Date: May 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: A3D6AF97D29FEN

Abstracts

According to Statistics MRC, the Global Agricultural Insect Pheromones Market is accounted for \$4.7 billion in 2025 and is expected to reach \$7.4 billion by 2032 growing at a CAGR of 6.5% during the forecast period. Agricultural insect pheromones are natural or synthetic chemical substances used to manipulate insect behavior for pest management in farming. Mimicking insects' natural communication signals, they are primarily used for mating disruption, monitoring pest populations, and mass trapping. These eco-friendly solutions help reduce reliance on chemical pesticides, promoting sustainable agriculture by targeting specific pests without harming beneficial organisms or the environment, thereby supporting integrated pest management (IPM) strategies for crop protection.

According to the California Department of Food and Agriculture, in April 2023, \$1.1 million was granted to support two integrated pest management (IPM) technical assistance initiatives.

Market Dynamics:

Driver:

Rising adoption of integrated pest management (IPM) practices

The increasing adoption of IPM practices is a primary driver for the agricultural insect pheromones market. IPM emphasizes eco-friendly pest control, reducing reliance on chemical pesticides. Pheromones, as non-toxic alternatives, disrupt pest mating cycles, aligning with sustainable farming trends. Regulatory pressures to minimize pesticide residues and consumer demand for organic produce further propel adoption. Additionally, advancements in pheromone synthesis technologies enhance cost-effectiveness, encouraging farmers to integrate these solutions. This shift toward sustainable agriculture solidifies pheromones' role in modern pest management strategies, driving market growth.

Restraint:

Narrow target spectrum

Unlike broad-spectrum chemical pesticides, pheromones are species-specific, limiting their effectiveness to particular pests. Farmers managing diverse infestations often require supplementary methods, increasing operational complexity and costs. This specificity also hinders adoption in regions with varied pest populations. Furthermore, limited awareness among small-scale farmers about integrating pheromones with other IPM tools exacerbates challenges.

Opportunity:

Government subsidies and support programs

Policies promoting sustainable agriculture, such as the EU's Farm to Fork Strategy, incentivize pheromone adoption through financial aid and training initiatives. Emerging economies are launching schemes to reduce chemical pesticide reliance, offering grants for eco-friendly alternatives. Additionally, collaborations between governments and agro-research institutions accelerate product development and farmer education. These programs lower entry barriers for smallholders, expanding market reach. Such systemic support fosters long-term adoption, positioning pheromones as a cornerstone of global pest management transitions.

Threat:

Low-quality pheromone products

The proliferation of low-quality pheromone products threatens market credibility. Substandard formulations, often from unregulated manufacturers, compromise efficacy, leading to crop losses and farmer distrust. Counterfeit products, particularly in price-sensitive regions, undermine brand loyalty and slow market penetration. Moreover, inconsistent quality hampers regulatory compliance, risking legal repercussions for legitimate players.

Covid-19 Impact:

The Covid-19 pandemic disrupted supply chains, delaying raw material procurement and pheromone production. Labor shortages and logistical bottlenecks hampered distribution, particularly in Asia-Pacific. However, heightened focus on sustainable agriculture during recovery phases bolstered demand. Governments prioritized eco-friendly farming in stimulus packages, aiding market rebound. While initial lockdowns slowed sector growth, post-2020 investments in IPM and organic practices accelerated adoption. The crisis underscored the need for resilient pest control systems, positioning pheromones as a strategic solution in post-pandemic agricultural frameworks.

The sex pheromones segment is expected to be the largest during the forecast period

The sex pheromones segment is expected to account for the largest market share during the forecast period due to their widespread use in mating disruption. These pheromones effectively reduce pest populations by preventing reproduction, minimizing crop damage. High adoption in high-value crops like fruits, nuts, and vineyards drives demand. Additionally, advancements in slow-release dispensers and aerosol technologies enhance their field efficacy. Regulatory approvals for sex pheromones in North America and Europe further solidify their dominance. Their compatibility with organic farming certifications ensures sustained preference, securing the segment's leading market position.

The fruit flies segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the fruit flies segment is predicted to witness the highest growth rate due to escalating infestations in tropical and subtropical regions. Climate change and global trade have expanded fruit fly habitats, threatening crops like mangoes, citrus, and berries. Pheromone traps and lures offer targeted control, reducing pesticide use in export-oriented horticulture. Furthermore, government initiatives in Asia Pacific and Latin America to combat fruit fly outbreaks boost adoption. The segment's alignment with IPM principles and high economic impact of fruit fly

damage drive its exceptional CAGR.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, driven by advanced agricultural practices and robust IPM adoption. The U.S. and Canada prioritize reducing chemical pesticide use, supported by stringent regulations and R&D investments. High-value specialty crops, such as almonds and apples, rely heavily on pheromones for pest control. Moreover, partnerships between agrochemical firms and research institutions accelerate product innovation. Government extensions and farmer education programs further enhance uptake. These factors, combined with a mature organic farming sector, ensure North America's continued dominance in the agricultural pheromones market.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, fueled by expanding agricultural sectors and rising pest resistance to conventional pesticides. Countries like India and China are investing in sustainable practices to meet export quality standards and domestic food security goals. Government subsidies for bio-based pest control and growing awareness of IPM benefits drive adoption. Additionally, increasing horticulture production and climate-induced pest outbreaks create urgent demand. Collaborations with global agrochemical companies and localized pheromone solutions further propel growth, positioning Asia Pacific as the fastest-evolving regional market.

Key players in the market

Some of the key players in Agricultural Insect Pheromones Market include Russell IPM, Shin-Etsu Chemical Company, Isagro, Biobest Group, SEDQ Healthy Crops SL, BASF SE, Gowan Company, Suterra LLC, Provivi Inc., Mitsui & Co., Ltd., The Wonderful Company LLC, ISCA Technologies, Koppert Biological Systems, Pherobank, Pacific Biocontrol Corporation, ATGC Biotech Pvt Ltd, Bio Controle, Novagrica and Trece Inc.

Key Developments:

In March 2025, Shin-Etsu Chemical Co., Ltd will make investments at two of its bases, the subsidiary SE Tylose GmbH & Co. KG (Wiesbaden, Germany) and the Naoetsu Plant to strengthen its pharmaceutical cellulose business. In Germany, a new

production facility for the pharmaceutical excipient L-HPC® *1 will be built adjacent to the existing facility, creating a dual base with the Naoetsu Plant. Completion of the new production facility is targeted within the second half of 2026.

In September 2024, Syngenta Biologicals and Provivi have announced a collaboration to develop and commercialize new pheromone-based biological solutions to effectively and more safely control detrimental pests in corn and rice – crops that serve as a primary food source for 3.5 billion people globally.

In April 2024, Biobest Group has changed its name to BioFirst Group, revealing the news, along with the global sustainable crop production company's new structure and logo, at the opening of its new cutting-edge, predatory mite production facility in Westerlo, Belgium. 'Our 12m EUR investment in this new state-of-the-art, 4000sqm mite-rearing facility will greatly boost our production capabilities and house up to 50 employees,' said CEO Jean-Marc Vandoorne.

Types Covered:

Sex Pheromones

Aggregation Pheromones

Other Product Types

Functions Covered:

Mating Disruption

Mass Trapping

Monitoring & Detection

Crop Types Covered:

Fruits & Vegetables

Cereals & Grains

Oilseeds & Pulses

Other Crop Types

Species Covered:

Moths

Beetles

Fruit Flies

Other Species

Mode of Applications Covered:

Dispensers

Sprays

Traps

Aerosols

Other Mode of Applications

End Users Covered:

Open Field Agriculture

Protected Cultivation (Greenhouses)

Forestry

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

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free

customization options:

Company Profiling

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

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 End User Analysis
- 3.7 Emerging Markets
- 3.8 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY TYPE

- 5.1 Introduction
- 5.2 Sex Pheromones
- 5.3 Aggregation Pheromones
- 5.4 Other Product Types

6 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY FUNCTION

- 6.1 Introduction
- 6.2 Mating Disruption
- 6.3 Mass Trapping
- 6.4 Monitoring & Detection

7 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY CROP TYPE

- 7.1 Introduction
- 7.2 Fruits & Vegetables
- 7.3 Cereals & Grains
- 7.4 Oilseeds & Pulses
- 7.5 Other Crop Types

8 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY SPECIES

- 8.1 Introduction
- 8.2 Moths
- 8.3 Beetles
- 8.4 Fruit Flies
- 8.5 Other Species

9 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY MODE OF APPLICATION

- 9.1 Introduction
- 9.2 Dispensers
- 9.3 Sprays
- 9.4 Traps
- 9.5 Aerosols
- 9.6 Other Mode of Applications

10 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY END USER

- 10.1 Introduction
- 10.2 Open Field Agriculture
- 10.3 Protected Cultivation (Greenhouses)
- 10.4 Forestry

11 GLOBAL AGRICULTURAL INSECT PHEROMONES MARKET, BY GEOGRAPHY

- 11.1 Introduction
- 11.2 North America
 - 11.2.1 US
 - 11.2.2 Canada
 - 11.2.3 Mexico
- 11.3 Europe
 - 11.3.1 Germany
 - 11.3.2 UK
 - 11.3.3 Italy
 - 11.3.4 France
 - 11.3.5 Spain
 - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
 - 11.4.1 Japan
 - 11.4.2 China
 - 11.4.3 India
 - 11.4.4 Australia
 - 11.4.5 New Zealand
 - 11.4.6 South Korea
 - 11.4.7 Rest of Asia Pacific
- 11.5 South America
 - 11.5.1 Argentina
 - 11.5.2 Brazil
 - 11.5.3 Chile
 - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
 - 11.6.1 Saudi Arabia
 - 11.6.2 UAE
 - 11.6.3 Qatar
 - 11.6.4 South Africa

11.6.5 Rest of Middle East & Africa

12 KEY DEVELOPMENTS

12.1 Agreements, Partnerships, Collaborations and Joint Ventures

12.2 Acquisitions & Mergers

12.3 New Product Launch

12.4 Expansions

12.5 Other Key Strategies

13 COMPANY PROFILING

13.1 Russell IPM

13.2 Shin-Etsu Chemical Company

13.3 Isagro

13.4 Biobest Group

13.5 SEDQ Healthy Crops SL

13.6 BASF SE

13.7 Gowan Company

13.8 Suterra LLC

13.9 Provivi Inc.

13.10 Mitsui & Co., Ltd.

13.11 The Wonderful Company LLC

13.12 ISCA Technologies

13.13 Koppert Biological Systems

13.14 Pherobank

13.15 Pacific Biocontrol Corporation

13.16 ATGC Biotech Pvt Ltd

13.17 Bio Controle

13.18 Novagric

13.19 Trece Inc.

List Of Tables

LIST OF TABLES

- 1 Global Agricultural Insect Pheromones Market Outlook, By Region (2024-2032) (\$MN)
- 2 Global Agricultural Insect Pheromones Market Outlook, By Type (2024-2032) (\$MN)
- 3 Global Agricultural Insect Pheromones Market Outlook, By Sex Pheromones (2024-2032) (\$MN)
- 4 Global Agricultural Insect Pheromones Market Outlook, By Aggregation Pheromones (2024-2032) (\$MN)
- 5 Global Agricultural Insect Pheromones Market Outlook, By Other Product Types (2024-2032) (\$MN)
- 6 Global Agricultural Insect Pheromones Market Outlook, By Function (2024-2032) (\$MN)
- 7 Global Agricultural Insect Pheromones Market Outlook, By Mating Disruption (2024-2032) (\$MN)
- 8 Global Agricultural Insect Pheromones Market Outlook, By Mass Trapping (2024-2032) (\$MN)
- 9 Global Agricultural Insect Pheromones Market Outlook, By Monitoring & Detection (2024-2032) (\$MN)
- 10 Global Agricultural Insect Pheromones Market Outlook, By Crop Type (2024-2032) (\$MN)
- 11 Global Agricultural Insect Pheromones Market Outlook, By Fruits & Vegetables (2024-2032) (\$MN)
- 12 Global Agricultural Insect Pheromones Market Outlook, By Cereals & Grains (2024-2032) (\$MN)
- 13 Global Agricultural Insect Pheromones Market Outlook, By Oilseeds & Pulses (2024-2032) (\$MN)
- 14 Global Agricultural Insect Pheromones Market Outlook, By Other Crop Types (2024-2032) (\$MN)
- 15 Global Agricultural Insect Pheromones Market Outlook, By Species (2024-2032) (\$MN)
- 16 Global Agricultural Insect Pheromones Market Outlook, By Moths (2024-2032) (\$MN)
- 17 Global Agricultural Insect Pheromones Market Outlook, By Beetles (2024-2032) (\$MN)
- 18 Global Agricultural Insect Pheromones Market Outlook, By Fruit Flies (2024-2032) (\$MN)
- 19 Global Agricultural Insect Pheromones Market Outlook, By Other Species

(2024-2032) (\$MN)

20 Global Agricultural Insect Pheromones Market Outlook, By Mode of Application

(2024-2032) (\$MN)

21 Global Agricultural Insect Pheromones Market Outlook, By Dispensers (2024-2032)

(\$MN)

22 Global Agricultural Insect Pheromones Market Outlook, By Sprays (2024-2032)

(\$MN)

23 Global Agricultural Insect Pheromones Market Outlook, By Traps (2024-2032) (\$MN)

24 Global Agricultural Insect Pheromones Market Outlook, By Aerosols (2024-2032)

(\$MN)

25 Global Agricultural Insect Pheromones Market Outlook, By Other Mode of Applications (2024-2032) (\$MN)

26 Global Agricultural Insect Pheromones Market Outlook, By End User (2024-2032)

(\$MN)

27 Global Agricultural Insect Pheromones Market Outlook, By Open Field Agriculture

(2024-2032) (\$MN)

28 Global Agricultural Insect Pheromones Market Outlook, By Protected Cultivation

(Greenhouses) (2024-2032) (\$MN)

29 Global Agricultural Insect Pheromones Market Outlook, By Forestry (2024-2032)

(\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Agricultural Insect Pheromones Market Forecasts to 2032 – Global Analysis By Type (Sex Pheromones, Aggregation Pheromones and Other Product Types), Function (Mating Disruption, Mass Trapping and Monitoring & Detection), Crop Type, Species, Mode of Application, End User and By Geography

Product link: <https://marketpublishers.com/r/A3D6AF97D29FEN.html>

Price: US\$ 4,150.00 (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/A3D6AF97D29FEN.html>