

Global Semiochemicals Market Size, Share, Trends & Analysis by Type (Pheromones, Kairomones, Allomones, Others), by Crop Type (Field Crops, Orchard Crops, Vegetable Crops, Others), by Application (Pest Monitoring, Mating Disruption, Mass Trapping, Others) and Region, with Forecasts from 2025 to 2034.

<https://marketpublishers.com/r/G2D5FF062DCEEN.html>

Date: February 2026

Pages: 228

Price: US\$ 3,875.00 (Single User License)

ID: G2D5FF062DCEEN

Abstracts

The Global Semiochemicals Market is projected to witness significant growth from 2025 to 2034, driven by increasing adoption of eco-friendly pest management solutions and rising awareness of sustainable agriculture practices. Semiochemicals, which include pheromones, kairomones, and allomones, are chemical substances that facilitate communication between organisms and are extensively used for pest monitoring, mating disruption, and mass trapping. Valued at USD XX.XX billion in 2025, the market is expected to grow at a CAGR of XX.XX%, reaching USD XX.XX billion by 2034.

Definition and Scope of Semiochemicals

Semiochemicals are naturally occurring or synthesized chemicals used to modify the behavior of pests, enabling targeted and environmentally safe pest control. The market encompasses various types of semiochemicals, including pheromones, kairomones, allomones, and others, across applications such as pest monitoring, mating disruption, and mass trapping. Semiochemicals are widely used in field crops, orchard crops, vegetable crops, and other agricultural segments, promoting integrated pest management and reducing dependency on chemical pesticides.

Market Drivers

Rising Demand for Sustainable Agriculture: Growing concerns over environmental pollution and pesticide residues are driving the adoption of semiochemicals as eco-friendly pest management solutions.

Technological Advancements in Formulation and Delivery: Innovations in microencapsulation, controlled-release, and attract-and-kill technologies are enhancing the effectiveness and efficiency of semiochemicals.

Government Support and Regulatory Initiatives: Policies promoting integrated pest management (IPM) and reduced chemical pesticide usage are boosting the adoption of semiochemicals in various regions.

Increase in Crop Protection Needs: Rising incidences of pest infestations and the need to maintain crop yield and quality are accelerating demand for semiochemicals in agriculture.

Market Restraints

High Cost of Semiochemicals: The production and formulation of high-purity semiochemicals can be expensive, limiting adoption among small and marginal farmers.

Limited Shelf Life and Stability Issues: Some semiochemicals have limited stability under varying environmental conditions, affecting their efficacy in long-term applications.

Dependency on Crop Type and Pest Specificity: Semiochemicals are often species-specific, requiring precise application knowledge, which can restrict large-scale adoption in heterogeneous crop environments.

Opportunities

Expansion of Integrated Pest Management Programs: Increasing adoption of IPM practices in both developed and developing countries offers significant growth potential for semiochemical solutions.

Rising Adoption in Horticulture and High-Value Crops: Semiochemicals are

gaining popularity in orchard crops, vegetables, and other high-value crops due to their targeted action and environmental benefits.

Emerging Markets in Asia-Pacific and Latin America: Rapid agricultural expansion and increasing awareness of sustainable farming practices in emerging economies present new growth opportunities.

Innovation in Multi-Functional Semiochemicals: Development of semiochemicals with broader pest coverage and improved stability can open new market avenues.

Market Segmentation Analysis

By Type

Pheromones

Kairomones

Allomones

Others

By Crop Type

Field Crops

Orchard Crops

Vegetable Crops

Others

By Application

Pest Monitoring

Mating Disruption

Mass Trapping

Others

Regional Analysis

North America: Leading the market due to strong adoption of IPM, advanced agricultural practices, and favorable regulatory frameworks supporting reduced pesticide use.

Europe: Steady market growth driven by stringent regulations on chemical pesticides, focus on organic farming, and widespread adoption of semiochemicals in horticulture.

Asia-Pacific: Fastest-growing region, led by China, India, and Japan, due to expanding agriculture sector, rising crop protection needs, and increasing awareness of sustainable practices.

Latin America: Market growth supported by expanding field and orchard crop cultivation and increasing initiatives for integrated pest management.

Middle East & Africa: Growing adoption of sustainable farming methods and pest control solutions, particularly in horticulture and high-value crops, is driving demand for semiochemicals.

The Global Semiochemicals Market is positioned for strong growth in the coming years, fueled by sustainable agriculture initiatives, technological advancements, and increasing regulatory support for eco-friendly pest management solutions. As farmers and agribusinesses prioritize crop yield, quality, and environmental safety, semiochemicals are set to become an integral component of modern agricultural practices.

Competitive Landscape

The Global Semiochemicals Market is highly competitive, with key players focusing on product innovation, formulation technology, and strategic collaborations to strengthen their market position. Key players in the market include:

BASF SE
Sumitomo Chemical Company Ltd.
Syngenta AG
ISK Biosciences Corporation
Arysta LifeScience Corporation
Valent BioSciences LLC
Corteva Agriscience
FMC Corporation
Koppert Biological Systems
AgBioChem Inc.

Contents

1. INTRODUCTION

- 1.1. Definition and Scope of Semiochemicals
- 1.2. Objectives of the Report
- 1.3. Research Methodology
- 1.4. Assumptions and Limitations

2. EXECUTIVE SUMMARY

- 2.1. Key Market Highlights
- 2.2. Market Snapshot
- 2.3. Overview of Types, Crop Types, and Applications
- 2.4. Analyst Recommendations

3. MARKET DYNAMICS

- 3.1. Market Drivers
 - 3.1.1. Rising Demand for Sustainable and Eco-Friendly Pest Management
 - 3.1.2. Growth in Field and Orchard Crop Production
 - 3.1.3. Increasing Adoption of Integrated Pest Management (IPM) Practices
 - 3.1.4. Other Drivers
- 3.2. Market Restraints
 - 3.2.1. High Costs of Semiochemicals and Application Systems
 - 3.2.2. Regulatory Challenges and Compliance Costs
 - 3.2.3. Other Restraints
- 3.3. Market Opportunities
 - 3.3.1. Expansion of Precision Agriculture Technologies
 - 3.3.2. Innovations in Formulation and Delivery Systems
 - 3.3.3. Emerging Markets for Organic and High-Value Crops
 - 3.3.4. Other Opportunities
- 3.4. Market Challenges
 - 3.4.1. Stability and Shelf-Life Issues
 - 3.4.2. Limited Awareness Among Smallholder Farmers
 - 3.4.3. Supply Chain Constraints

4. GLOBAL SEMIOCHEMICALS MARKET ANALYSIS

- 4.1. Market Size and Forecast (2025–2034)
- 4.2. Market Share Analysis by:
 - 4.2.1. Type
 - 4.2.1.1. Pheromones
 - 4.2.1.2. Kairomones
 - 4.2.1.3. Allomones
 - 4.2.1.4. Others
 - 4.2.2. Crop Type
 - 4.2.2.1. Field Crops
 - 4.2.2.2. Orchard Crops
 - 4.2.2.3. Vegetable Crops
 - 4.2.2.4. Others
 - 4.2.3. Application
 - 4.2.3.1. Pest Monitoring
 - 4.2.3.2. Mating Disruption
 - 4.2.3.3. Mass Trapping
 - 4.2.3.4. Others
- 4.3. Technology Trends and Innovations in Semiochemicals
- 4.4. Cost Structure and Value Chain Analysis
- 4.5. Regulatory and Compliance Landscape
- 4.6. SWOT Analysis
- 4.7. Porter's Five Forces Analysis

5. REGIONAL MARKET ANALYSIS

- 5.1. North America
 - 5.1.1. Market Overview
 - 5.1.2. Market Size and Forecast
 - 5.1.3. Key Trends and Developments
 - 5.1.4. Competitive Landscape
- 5.2. Europe
 - 5.2.1. Market Overview
 - 5.2.2. Market Size and Forecast
 - 5.2.3. Key Trends and Developments
 - 5.2.4. Competitive Landscape
- 5.3. Asia Pacific
 - 5.3.1. Market Overview
 - 5.3.2. Market Size and Forecast
 - 5.3.3. Key Trends and Developments

- 5.3.4. Competitive Landscape
- 5.4. Latin America
 - 5.4.1. Market Overview
 - 5.4.2. Market Size and Forecast
 - 5.4.3. Key Trends and Developments
 - 5.4.4. Competitive Landscape
- 5.5. Middle East & Africa
 - 5.5.1. Market Overview
 - 5.5.2. Market Size and Forecast
 - 5.5.3. Key Trends and Developments
 - 5.5.4. Competitive Landscape

6. COMPETITIVE LANDSCAPE

- 6.1. Market Share Analysis of Key Players
- 6.2. Company Profiles
 - 6.2.1. BASF SE
 - 6.2.2. Sumitomo Chemical Company Ltd.
 - 6.2.3. Syngenta AG
 - 6.2.4. ISK Biosciences Corporation
 - 6.2.5. Arysta LifeScience Corporation
 - 6.2.6. Valent BioSciences LLC
 - 6.2.7. Corteva Agriscience
 - 6.2.8. FMC Corporation
 - 6.2.9. Koppert Biological Systems
 - 6.2.10. AgBioChem Inc.
- 6.3. Strategic Developments: Mergers, Acquisitions, Partnerships
- 6.4. Focus on R&D and Technological Advancements

7. FUTURE OUTLOOK AND MARKET FORECAST

- 7.1. Investment Opportunities and Market Expansion (2025–2034)
- 7.2. Trends Toward Sustainable and Eco-Friendly Pest Control Solutions
- 7.3. Innovations in Application Technologies and Formulations
- 7.4. Strategic Recommendations for Stakeholders

8. KEY INSIGHTS AND SUMMARY OF FINDINGS

9. FUTURE PROSPECTS FOR THE GLOBAL SEMIOCHEMICALS MARKET

List Of Tables

LIST OF TABLES

- Table 1: Global Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 2: Global Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 3: Global Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 4: Global Semiochemicals Market, By Region, 2025–2034 (USD Million)
- Table 5: North America Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 6: North America Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 7: North America Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 8: United States Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 9: United States Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 10: United States Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 11: Canada Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 12: Canada Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 13: Canada Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 14: Mexico Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 15: Mexico Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 16: Mexico Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 17: Europe Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 18: Europe Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 19: Europe Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 20: Germany Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 21: Germany Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 22: Germany Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 23: UK Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 24: UK Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 25: UK Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 26: France Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 27: France Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)
- Table 28: France Semiochemicals Market, By Application, 2025–2034 (USD Million)
- Table 29: Rest of Europe Semiochemicals Market, By Type, 2025–2034 (USD Million)
- Table 30: Rest of Europe Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 31: Rest of Europe Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 32: Asia-Pacific Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 33: Asia-Pacific Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 34: Asia-Pacific Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 35: China Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 36: China Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 37: China Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 38: India Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 39: India Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 40: India Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 41: Japan Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 42: Japan Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 43: Japan Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 44: South Korea Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 45: South Korea Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 46: South Korea Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 47: Australia Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 48: Australia Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 49: Australia Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 50: Rest of Asia-Pacific Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 51: Rest of Asia-Pacific Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 52: Rest of Asia-Pacific Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 53: Rest of the World Semiochemicals Market, By Type, 2025–2034 (USD Million)

Table 54: Rest of the World Semiochemicals Market, By Crop Type, 2025–2034 (USD Million)

Table 55: Rest of the World Semiochemicals Market, By Application, 2025–2034 (USD Million)

Table 56: Global Semiochemicals Market, Strategic Developments, 2025–2034

Table 57: Global Semiochemicals Market, Mergers & Acquisitions, 2025–2034

Table 58: Global Semiochemicals Market, New Product Launches, 2025–2034

Table 59: Global Semiochemicals Market, Collaborations & Partnerships, 2025–2034

Table 60: Global Semiochemicals Market, Investment Trends, 2025–2034

- Table 61: Global Semiochemicals Market, Technological Advancements, 2025–2034
Table 62: Global Semiochemicals Market, Regulatory Landscape, 2025–2034
Table 63: Global Semiochemicals Market, Future Trends & Opportunities, 2025–2034
Table 64: Global Semiochemicals Market, Competitive Landscape, 2025–2034

List Of Figures

LIST OF FIGURES

- Figure 1: Global Semiochemicals Market: Market Segmentation
- Figure 2: Global Semiochemicals Market: Research Methodology
- Figure 3: Top-Down Approach
- Figure 4: Bottom-Up Approach
- Figure 5: Data Triangulation and Validation
- Figure 6: Global Semiochemicals Market: Drivers, Restraints, Opportunities, and Challenges
- Figure 7: Global Semiochemicals Market: Porter's Five Forces Analysis
- Figure 8: Global Semiochemicals Market: Value Chain Analysis
- Figure 9: Global Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 10: Global Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 11: Global Semiochemicals Market Share Analysis, By Application, 2025–2034
- Figure 12: North America Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 13: North America Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 14: North America Semiochemicals Market Share Analysis, By Application, 2025–2034
- Figure 15: Europe Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 16: Europe Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 17: Europe Semiochemicals Market Share Analysis, By Application, 2025–2034
- Figure 18: Asia-Pacific Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 19: Asia-Pacific Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 20: Asia-Pacific Semiochemicals Market Share Analysis, By Application, 2025–2034
- Figure 21: Middle East & Africa Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 22: Middle East & Africa Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 23: Middle East & Africa Semiochemicals Market Share Analysis, By Application, 2025–2034
- Figure 24: South America Semiochemicals Market Share Analysis, By Type, 2025–2034
- Figure 25: South America Semiochemicals Market Share Analysis, By Crop Type, 2025–2034
- Figure 26: South America Semiochemicals Market Share Analysis, By Application, 2025–2034

2025–2034

Figure 27: Global Semiochemicals Market: Competitive Benchmarking

Figure 28: Global Semiochemicals Market: Vendor Share Analysis, 2025–2034

Figure 29: Global Semiochemicals Market: Key Player Strategies

Figure 30: Global Semiochemicals Market: Recent Developments and Innovations

Figure 31: Global Semiochemicals Market: Partnerships, Collaborations, and Expansions

Figure 32: Global Semiochemicals Market: Mergers and Acquisitions

Figure 33: Global Semiochemicals Market: SWOT Analysis of Key Players

I would like to order

Product name: Global Semiochemicals Market Size, Share, Trends & Analysis by Type (Pheromones, Kairomones, Allomones, Others), by Crop Type (Field Crops, Orchard Crops, Vegetable Crops, Others), by Application (Pest Monitoring, Mating Disruption, Mass Trapping, Others) and Region, with Forecasts from 2025 to 2034.

Product link: <https://marketpublishers.com/r/G2D5FF062DCEEN.html>

Price: US\$ 3,875.00 (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/G2D5FF062DCEEN.html>