

# **Agricultural Activator Adjuvants Market Forecasts to 2032 – Global Analysis By Type (Surfactants, Oil-based Adjuvants and Ammonium Salts), Formulation, Crop Type, Adoption Stage, Functionality, Application and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Agricultural Activator Adjuvants Market is accounted for \$2.9 billion in 2025 and is expected to reach \$4.5 billion by 2032, growing at a CAGR of 6.5% during the forecast period. Agricultural activator adjuvants are substances that enhance the effectiveness of the active ingredient in pesticide or herbicide spray solutions. They work by increasing the pesticide's uptake by the target organism, enhancing its penetration of the plant surface, or decreasing its degradation. Typical examples are nitrogen fertilizers, oils, and surfactants. In the end, these adjuvants result in more efficient weed or pest management.

According to the Food and Agriculture Organization (FAO), global pesticide consumption reached 4.2 million tons in 2019, marking an 11.6% increase since 2009.

Market Dynamics:

Driver:

Increasing demand for high crop yields

To meet the demands for food, the world's expanding population requires increased agricultural output. Activator adjuvants improve crop output and quality by increasing the effectiveness of fertilizers and herbicides. By optimizing farming inputs and minimizing chemical waste, this efficiency ensures sustainable agricultural operations.

Additionally, the use of adjuvants is increased by developments in precision agriculture technology like drones and the Internet of Things, which allow for more focused applications. Activator adjuvants are becoming more in demand worldwide as farmers work to increase output in the face of declining arable land.

#### Restraint:

##### Lack of awareness and education among farmers

Lack of awareness, especially in poorer nations, hinders the adoption of agricultural activator adjuvants. Training programs that show how adjuvants increase pesticide absorption and lower costs are not readily available to many farmers. Misconceptions over their effects on the environment also limit their use. Although development is still gradual, agrochemical businesses are tackling this challenge through educational programs.

#### Opportunity:

##### Growing organic farming sector

There are many prospects for activator adjuvants, particularly bio-based varieties, as farming becomes more organic. Stricter regulations and customer expectations for sustainable agriculture are in line with these environmentally favorable alternatives. Furthermore, without leaving any negative residues, bio-based adjuvants improve the effectiveness of organic fertilizers and insecticides. Manufacturers are investing in cutting-edge formulas to serve this niche market as organic farming grows internationally. This trend has enormous growth potential, especially in areas where ecologically friendly farming methods are being adopted.

#### Threat:

##### Development of pesticide resistance

The increasing resistance of pests to conventional agrochemicals poses a considerable challenge to the market. The overuse of insecticides may compromise the efficacy of adjuvants, thereby lessening their advantages. This resistance frequently requires the reformulation of agrochemicals, leading to higher expenses for both producers and cultivators. Furthermore, the examination of regulations concerning chemical overuse could restrict the use of certain adjuvants.

### Covid-19 Impact:

The COVID-19 pandemic caused supply chain disruptions that impacted raw material availability and production processes; hence, it disrupted the market for agricultural activator adjuvants. Lockdowns caused logistical problems that delayed goods deliveries and decreased sales worldwide. Furthermore, trade restrictions affected imports in areas that relied on outside resources. However, the need for effective agricultural inputs such as activator adjuvants is gradually increasing as economies recover and governments place a higher priority on food security.

The oil-based adjuvants segment is expected to be the largest during the forecast period

The oil-based adjuvants segment is expected to account for the largest market share during the forecast period because they can increase pesticide penetration, coverage, and drift reduction; oil-based adjuvants are the most often used. These qualities reduce chemical waste while greatly increasing crop protection effectiveness. Farmers' growing awareness of their advantages has also fueled global acceptance. Manufacturers are developing advanced oil-based formulations that are more user-friendly and eco-friendly. The expansion of this sector is indicative of its vital role in tackling issues related to food security in the face of mounting population demands.

The tank-mix segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the tank-mix segment is predicted to witness the highest growth rate. Tank-mix adjuvants are expanding quickly because of their ability to combine several agrochemicals for increased effectiveness. They are essential to precision agriculture techniques because of their capacity to maximize spray retention and solubilization. Tank-mix formulations also guarantee equal distribution of active chemicals while saving farmers money and time on application. As precision farming gains global popularity, the segment is expected to grow faster.

### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share because of its extensive agricultural region and expanding population, which fuels demand for food. In the face of declining arable land, nations like China and India are implementing cutting-edge agrochemical treatments, such as activator adjuvants, to

increase productivity. Additionally, government programs that support environmentally friendly farming methods boost the expansion of the industry in this area. Asia's dominance in the Pacific is a reflection of its vital role in maintaining food security worldwide.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR due to the quick uptake of bio-based solutions and precision agricultural methods. Investments in agricultural technology and an increase in farmer awareness programs drive this growth trajectory. Moreover, growing export prospects for superior crops further encourage the employment of activator adjuvants in this region's farming operations.

Key players in the market

Some of the key players in Agricultural Activator Adjuvants Market include BASF SE, Bayer AG, Dow Chemical Company, Syngenta Group, FMC Corporation, Solvay SA, Stepan Company, Croda International PLC, Nufarm Limited, Evonik Industries AG, Clariant AG, Helena Agri-Enterprises, LLC, Wilbur-Ellis Company, Adjuvants Plus Inc., and Huntsman Corporation.

Key Developments:

In October 2024, BASF expands its BioSolutions offering by incorporating seaweed biostimulants from Acadian Plant Health™, a renowned marine plant harvesting, cultivation, and Extraction Company based in Dartmouth, Canada. Through the agreement with Acadian Plant Health, BASF will leverage the company's new biostimulant technology to complement its biological portfolio, expand the availability of the products in new markets and increase solutions that will grow more, and sustainably better crops.

In August 2023, BASF Agricultural Solutions delivered the first trait-enabled, resolved isomeric postemergence herbicide with its introduction of Liberty® ULTRA herbicide, powered by Glu-LTM Technology, to the U.S. marketplace. Liberty ULTRA herbicide will effectively control grasses and tough broadleaf weeds like waterhemp, palmer amaranth, giant ragweed and kochia in glufosinate-tolerant soybeans, cotton, canola, and corn. Registration is anticipated in late 2023, enabling a targeted launch in 2024 and a full launch in 2025.

In January 2023, Bayer launched collaboration with Oerth Bio to develop next-generation crop protection products using PROTAC® protein degradation technology. This innovation aims to create more sustainable agricultural solutions, potentially impacting adjuvant formulations..

#### Types Covered:

Surfactants

Oil-based Adjuvants

Ammonium Salts

#### Formulations Covered:

Suspension Concentrates (SC)

Emulsifiable Concentrates (EC)

Soluble Liquids (SL)

Wettable Powders (WP)

#### Crop Types Covered:

Cereals & Grains

Oilseeds & Pulses

Fruits & Vegetables

Other Crop Types

#### Adoption Stages Covered:

In-formulation

Tank-mix

Functionalities Covered:

Wetting Agents

Spreading Agents

Penetration Enhancers

Drift Control Agents

Applications Covered:

Herbicides

Insecticides

Fungicides

Plant Growth Regulators (PGRs)

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 Application 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 ACTIVATOR ADJUVANTS MARKET, BY TYPE**

- 5.1 Introduction
- 5.2 Surfactants
  - 5.2.1 Non-ionic Surfactants
  - 5.2.2 Anionic Surfactants
  - 5.2.3 Cationic Surfactants
  - 5.2.4 Amphoteric Surfactants
- 5.3 Oil-based Adjuvants
  - 5.3.1 Crop Oil Concentrates (COC)
  - 5.3.2 Methylated Seed Oils (MSO)
  - 5.3.3 Vegetable Oil-Based Adjuvants
- 5.4 Ammonium Salts
  - 5.4.1 Ammonium Sulfate (AMS)
  - 5.4.2 Urea Ammonium Nitrate (UAN)
  - 5.4.3 Other Ammonium Salts

## **6 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS MARKET, BY FORMULATION**

- 6.1 Introduction
- 6.2 Suspension Concentrates (SC)
- 6.3 Emulsifiable Concentrates (EC)
- 6.4 Soluble Liquids (SL)
- 6.5 Wettable Powders (WP)

## **7 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS MARKET, BY CROP TYPE**

- 7.1 Introduction
- 7.2 Cereals & Grains
  - 7.2.1 Corn
  - 7.2.2 Wheat
  - 7.2.3 Rice
  - 7.2.4 Other Cereals & Grains
- 7.3 Oilseeds & Pulses
  - 7.3.1 Soya beans
  - 7.3.2 Other Oilseeds & Pulses
- 7.4 Fruits & Vegetables
  - 7.4.1 Root & Tuber Vegetables
  - 7.4.2 Leavy Vegetables

- 7.4.3 Banana
- 7.4.4 Berries
- 7.4.5 Citrus Fruits
- 7.4.6 Pome Fruits
- 7.4.7 Other Fruits & Vegetables
- 7.5 Other Crop Types

## **8 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS MARKET, BY ADOPTION STAGE**

- 8.1 Introduction
- 8.2 In-formulation
- 8.3 Tank-mix

## **9 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS MARKET, BY FUNCTIONALITY**

- 9.1 Introduction
- 9.2 Wetting Agents
- 9.3 Spreading Agents
- 9.4 Penetration Enhancers
- 9.5 Drift Control Agents

## **10 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS MARKET, BY APPLICATION**

- 10.1 Introduction
- 10.2 Herbicides
- 10.3 Insecticides
- 10.4 Fungicides
- 10.5 Plant Growth Regulators (PGRs)

## **11 GLOBAL AGRICULTURAL ACTIVATOR ADJUVANTS 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 BASF SE

- 13.2 Bayer AG
- 13.3 Dow Chemical Company
- 13.4 Syngenta Group
- 13.5 FMC Corporation
- 13.6 Solvay SA
- 13.7 Stepan Company
- 13.8 Croda International PLC
- 13.9 Nufarm Limited
- 13.10 Evonik Industries AG
- 13.11 Clariant AG
- 13.12 Helena Agri-Enterprises, LLC
- 13.13 Wilbur-Ellis Company
- 13.14 Adjuvants Plus Inc.
- 13.15 Huntsman Corporation

## List Of Tables

### LIST OF TABLES

- 1 Global Agricultural Activator Adjuvants Market Outlook, By Region (2024-2032) (\$MN)
- 2 Global Agricultural Activator Adjuvants Market Outlook, By Type (2024-2032) (\$MN)
- 3 Global Agricultural Activator Adjuvants Market Outlook, By Surfactants (2024-2032) (\$MN)
- 4 Global Agricultural Activator Adjuvants Market Outlook, By Non-ionic Surfactants (2024-2032) (\$MN)
- 5 Global Agricultural Activator Adjuvants Market Outlook, By Anionic Surfactants (2024-2032) (\$MN)
- 6 Global Agricultural Activator Adjuvants Market Outlook, By Cationic Surfactants (2024-2032) (\$MN)
- 7 Global Agricultural Activator Adjuvants Market Outlook, By Amphoteric Surfactants (2024-2032) (\$MN)
- 8 Global Agricultural Activator Adjuvants Market Outlook, By Oil-based Adjuvants (2024-2032) (\$MN)
- 9 Global Agricultural Activator Adjuvants Market Outlook, By Crop Oil Concentrates (COC) (2024-2032) (\$MN)
- 10 Global Agricultural Activator Adjuvants Market Outlook, By Methylated Seed Oils (MSO) (2024-2032) (\$MN)
- 11 Global Agricultural Activator Adjuvants Market Outlook, By Vegetable Oil-Based Adjuvants (2024-2032) (\$MN)
- 12 Global Agricultural Activator Adjuvants Market Outlook, By Ammonium Salts (2024-2032) (\$MN)
- 13 Global Agricultural Activator Adjuvants Market Outlook, By Ammonium Sulfate (AMS) (2024-2032) (\$MN)
- 14 Global Agricultural Activator Adjuvants Market Outlook, By Urea Ammonium Nitrate (UAN) (2024-2032) (\$MN)
- 15 Global Agricultural Activator Adjuvants Market Outlook, By Other Ammonium Salts (2024-2032) (\$MN)
- 16 Global Agricultural Activator Adjuvants Market Outlook, By Formulation (2024-2032) (\$MN)
- 17 Global Agricultural Activator Adjuvants Market Outlook, By Suspension Concentrates (SC) (2024-2032) (\$MN)
- 18 Global Agricultural Activator Adjuvants Market Outlook, By Emulsifiable Concentrates (EC) (2024-2032) (\$MN)
- 19 Global Agricultural Activator Adjuvants Market Outlook, By Soluble Liquids (SL)

(2024-2032) (\$MN)

20 Global Agricultural Activator Adjuvants Market Outlook, By Wettable Powders (WP)

(2024-2032) (\$MN)

21 Global Agricultural Activator Adjuvants Market Outlook, By Crop Type (2024-2032)

(\$MN)

22 Global Agricultural Activator Adjuvants Market Outlook, By Cereals & Grains

(2024-2032) (\$MN)

23 Global Agricultural Activator Adjuvants Market Outlook, By Corn (2024-2032) (\$MN)

24 Global Agricultural Activator Adjuvants Market Outlook, By Wheat (2024-2032)

(\$MN)

25 Global Agricultural Activator Adjuvants Market Outlook, By Rice (2024-2032) (\$MN)

26 Global Agricultural Activator Adjuvants Market Outlook, By Other Cereals & Grains

(2024-2032) (\$MN)

27 Global Agricultural Activator Adjuvants Market Outlook, By Oilseeds & Pulses

(2024-2032) (\$MN)

28 Global Agricultural Activator Adjuvants Market Outlook, By Soya beans (2024-2032)

(\$MN)

29 Global Agricultural Activator Adjuvants Market Outlook, By Other Oilseeds & Pulses

(2024-2032) (\$MN)

30 Global Agricultural Activator Adjuvants Market Outlook, By Fruits & Vegetables

(2024-2032) (\$MN)

31 Global Agricultural Activator Adjuvants Market Outlook, By Root & Tuber Vegetables

(2024-2032) (\$MN)

32 Global Agricultural Activator Adjuvants Market Outlook, By Leavy Vegetables

(2024-2032) (\$MN)

33 Global Agricultural Activator Adjuvants Market Outlook, By Banana (2024-2032)

(\$MN)

34 Global Agricultural Activator Adjuvants Market Outlook, By Berries (2024-2032)

(\$MN)

35 Global Agricultural Activator Adjuvants Market Outlook, By Citrus Fruits (2024-2032)

(\$MN)

36 Global Agricultural Activator Adjuvants Market Outlook, By Pome Fruits (2024-2032)

(\$MN)

37 Global Agricultural Activator Adjuvants Market Outlook, By Other Fruits & Vegetables

(2024-2032) (\$MN)

38 Global Agricultural Activator Adjuvants Market Outlook, By Other Crop Types

(2024-2032) (\$MN)

39 Global Agricultural Activator Adjuvants Market Outlook, By Adoption Stage

(2024-2032) (\$MN)

- 40 Global Agricultural Activator Adjuvants Market Outlook, By In-formulation (2024-2032) (\$MN)
- 41 Global Agricultural Activator Adjuvants Market Outlook, By Tank-mix (2024-2032) (\$MN)
- 42 Global Agricultural Activator Adjuvants Market Outlook, By Functionality (2024-2032) (\$MN)
- 43 Global Agricultural Activator Adjuvants Market Outlook, By Wetting Agents (2024-2032) (\$MN)
- 44 Global Agricultural Activator Adjuvants Market Outlook, By Spreading Agents (2024-2032) (\$MN)
- 45 Global Agricultural Activator Adjuvants Market Outlook, By Penetration Enhancers (2024-2032) (\$MN)
- 46 Global Agricultural Activator Adjuvants Market Outlook, By Drift Control Agents (2024-2032) (\$MN)
- 47 Global Agricultural Activator Adjuvants Market Outlook, By Application (2024-2032) (\$MN)
- 48 Global Agricultural Activator Adjuvants Market Outlook, By Herbicides (2024-2032) (\$MN)
- 49 Global Agricultural Activator Adjuvants Market Outlook, By Insecticides (2024-2032) (\$MN)
- 50 Global Agricultural Activator Adjuvants Market Outlook, By Fungicides (2024-2032) (\$MN)
- 51 Global Agricultural Activator Adjuvants Market Outlook, By Plant Growth Regulators (PGRs) (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.

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