

# **Inoculants Market by Type (Agricultural Inoculants and Silage Inoculants), Microbe (Bacterial and Fungal), Crop Type (Cereals & Grains, Oilseeds & Pulses, Fruits & Vegetables, and Forage Crops), Form (Liquid and Dry) and Region - Global Forecast to 2027**

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## **Abstracts**

According to MarketsandMarkets, the global inoculants market size is estimated to be valued at USD 1.1 Billion in 2022. It is anticipated to reach USD 1.7 Billion by 2027, recording a CAGR of 8.1% in value. Agricultural inoculants consist of living organisms as their main mode of action that help in nitrogen fixation, biocontrol of soil-borne diseases, enhancement of mineral uptake, weathering of soil minerals, and providing nutritional or hormonal effects. Agricultural inoculants improve the quality of the soil, enhance the growth of crops, and also increase their yield. These are formulations of bacteria or fungi and are used for remediation and enhancement of the productivity of crops.

“By type, agricultural inoculants is forecasted to gain the largest market share in the inoculants market during the study period.”

The agricultural inoculants segment is projected to account for the largest market share during the projected period. Increased usage of bacterial and fungal cultures has resulted in the efficient functioning of the physiological functions of crops, resulting in higher productivity. Agricultural inoculants also allow for increasing farm productivity in areas with adverse conditions by increasing abiotic resistance in crops. Due to the high growth rate of the market, key players are investing huge amounts in R&D activities to develop new multi-functional strains for the formulation of inoculants.

“By microbe, bacterial is anticipated to acquire the largest market share in the

inoculants market during the review period.”

Bacteria is the most widely used microbe in inoculants. Bacteria belonging to *Rhizobium* species are usually used as inoculants for legumes. It has been discovered that inoculating legumes with these microbes is an efficient biocontrol method for several plant diseases. Rhizobial strains have been discovered to generate plant resistance to several illnesses and lessen the severity of various diseases in leguminous and non-leguminous plants; however, the primary goal of rhizobial inoculation on crops is to enhance nitrogen availability. Moreover, most commercial inoculants for silage contain homofermentative lactic acid bacteria that help to enhance lactic acid production.

“By crop type, cereals & grains is projected to account for the largest market share in the inoculants market during the study period.”

Cereal crops comprise wheat, corn, barley, and rice. Cereals & grains form a key segment of the agricultural inoculants market, as corn and wheat are grown abundantly in different regions of the world. The growing demand for corn and wheat has contributed to the growth of the agricultural inoculants market. The US is one of the major countries to adopt microbial solutions for the cultivation of cereals & grains. Growing support by governments of different countries to encourage sustainable agricultural practices in cereals & grains farm is projected to drive the growth of agricultural inoculants.

“The North America region is projected to account for the largest market share in the inoculants market during the forecast period.”

North America is one of the major consumers of agricultural inoculants. Agricultural land in North America has been declining over time due to heavy industrialization, mining, and rapid urbanization. Due to the excessive usage of chemical fertilizers, the fertility of the soil is decreasing significantly. An increase in demand for high yield and production with limited usage of agrochemicals is projected to increase the consumption of plant growth regulators in North America, which in turn, is expected to drive the growth of the inoculants market.

#### Break-up of Primaries

By Company Type: Tier 1 – 30%, Tier 2 – 25%, and Tier 3 – 45%

By Designation: Manager- 25%, CXOs– 40%, and Executives – 35%

By Region: Asia Pacific – 40%, Europe - 30%, North America- 16%, and RoW- 14%

Leading players profiled in this report include the following:

Corteva Agriscience (US)

BASF SE (Germany)

Bayer AG (Germany)

Novozymes A/S (Denmark)

Cargill, Incorporated (US)

Archer Daniels Midland Company (US)

DSM (Netherlands)

Chr. Hansen Holding A/S (Denmark)

Lallemand Inc. (Canada)

Kemin Industries, Inc (US)

Verdesian Life Sciences (US)

BIO-CAT (US)

Microbial Biological Fertilizers International (South Africa)

Agrauxine (US)

Provita Supplements GmbH (Germany)

## Research Coverage

*Inoculants Market by Type (Agricultural Inoculants and Silage Inoculants), Microbe (Bacterial and Fungal), Cro...*

This report segments the inoculants market on the basis of type, microbe, crop type, form, and region. In terms of insights, this research report focuses on various levels of analyses—competitive landscape, pricing insights, end-use analysis, and company profiles—which together comprise and discuss the basic views on the emerging & high-growth segments of the inoculants market, high-growth regions, countries, industry trends, drivers, restraints, opportunities, and challenges.

#### Reasons to buy this report

To get a comprehensive overview of the inoculants market

To gain wide-ranging information about the top players in this industry, their product portfolio details, and the key strategies adopted by them

To gain insights about the major countries/regions in which the inoculants market is flourishing

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## About

The report “Agricultural Inoculants Market by Type (PGPMs, Bio-Control Agents, & Plant Resistance Stimulants), Source (Bacterial & Fungal), Mode of Application, Crop Type, & Geography - Global Trends & Forecasts to 2019”, defines and segments of the agricultural inoculants market with analyses and projection of the size and trends in terms of value.

The agricultural inoculants market, in terms of value, is projected to reach \$398.56 million by 2019, at a CAGR of around 9.5% from 2014.

The market has been segmented on the basis of major regions such as North America, Europe, Asia-Pacific, Latin America, and Rest of the World (ROW); and their value has been projected. The size of the markets in the key countries have also been covered and projected for each region. The market has further been segmented on the basis of mode of application, by type, by source, by crop type and their size has been projected.

Agricultural inoculants are the formulations of beneficial living organisms that when added to the soil, directly or indirectly improve their nutrient availability to the host plant and promote plant growth and development. Sustainable agriculture is configured on use of a variety of prophecies, phenomena, and products stressing on land reclamation, and awareness towards hazards of over fertilization and pollution on health and ecosystem. This concept urges the utilization of an array of techniques as organic farming, biofertilizers, and biocontrol agents. Seed or soil inoculation with agricultural inoculants has the potential to offer more eco-friendly agricultural production than the use of mineral fertilizer and chemical pesticides intensive crop production system. Organic supplementation with organic sources such as manure, compost or vermiculite, along with agricultural inoculants such as Rhizobacteria and Azotobacter could further enhance crop yield and development.

The global market for agricultural inoculants was valued at around \$232.22 million in 2013. This market is projected to grow at a CAGR of 9.5% from 2014 to reach \$398.56 million by 2019. North America dominated the global agricultural inoculants market in 2013. The Latin American demand for these compounds is projected to emerge as the fastest growing at a CAGR growth rate of ~10% from 2014 to 2019. Agricultural inoculants consumption and developments varies according to the regional popular crops such as soybean crop in the U.S., Brazil, and Argentina, pea and lentil crops in Canada, rice crop in India, China, Thailand, Philippines, and Vietnam.

The agricultural inoculants market is highly fragmented with key market players driving the growth with agreements, expansions, acquisitions and new product launches. Numerous manufacturers, mainly small to medium size, exists worldwide and have been producing inoculant products similar in quality and quantity for decades. The market is competitive with leading players being involved in the research & development of new agricultural inoculants. The market caters to the applications such as plant growth promoting micro-organisms, bio-control agents, and plant resistance stimulants. Lack of awareness among the farmers and prevailing problems with manufacturers, marketing, and distribution issues are restricting the availability of inoculants at farm level and thus hindering the growth of the agricultural inoculants market.

Novozymes A/S (Denmark)

BASF SE (Germany)

DuPont (U.S.)

Advanced Biological Marketing, Inc. (U.S.)

collectively account for around 70% of the total agricultural inoculants market share. Other players such as Bayer CropScience (Australia), BrettYoung (Canada), XiteBio Technologies Inc. (Canada), Verdesian Life Sciences, LLC. (U.S.), Precision Laboratories, LLC (U.S.), and Queensland Agricultural Seeds Pty. Ltd. (Australia) also have a strong presence in the market.

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