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Biofertilizers in Asia: Trends, prospects, and Growth Potential

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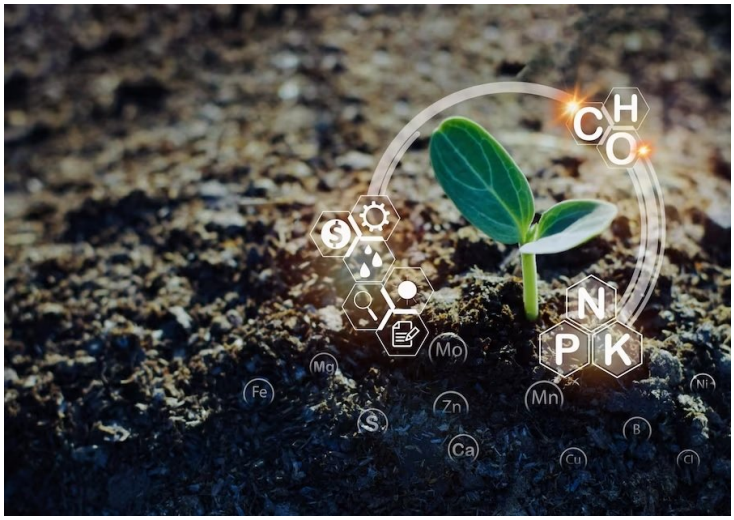

Over the past few years, organic food has gained popularity due to health-conscious consumers, environmental awareness, and a desire to make more sustainable and high-quality choices. Agricultural practices that are innovative and sustainable are becoming increasingly important as the organic industry gains traction.

Nitrogen-fixing microorganisms are expected to display the highest CAGR during the forecast period. Chemical fertilizers pose a number of health hazards, the increase in government initiatives and an increasing awareness of the importance of sustainability in modern agriculture are some of the reasons for the growth of this segment. Advanced farming with drip irrigation and sprinklers is becoming increasingly popular, as are health concerns. Furthermore, nitrogen-fixing microbes are an environmentally friendly and economically beneficial method of providing nitrogen to plants.

Growing organic farming and the growing demand for organic food are contributing factors to the growth of the biofertilizers market. As environmental concerns grow, government initiatives are increasing to promote the use of biofertilizers, and market players are increasingly focusing on inorganic growth strategies. A high demand for synthetic fertilizers and a high cost of biofertilizer production may, however, restrain the growth of this market to some extent.Â

Market Potential and forecast

Organic products are becoming increasingly popular among consumers, which has led to a greater awareness among farmers of the disadvantages of using agricultural chemicals in their operations. Asia-Pacific's demand for biofertilizers will increase 8.6% CAGR during the forecast period.

The global Biofertilizers market size was valued at $2685.6 million in 2022 and is expected to expand at a CAGR of 12.26% during the forecast period, reaching USD 5373.87 million by 2028. During the forecast period 2022-2029, the biofertilizers market is expected to reach $3.2 billion at a CAGR of 11.5%.

The Asia-Pacific region is expected to grow at the fastest rate during the forecast period. There are several factors driving the growth of this regional market, including the rapid growth of its population and income, increased mechanization, and irrigation facilities. The market for biofertilizers in this region is also boosted by government policies that promote and expand the organic sector.

Top Players in Global Biofertilizers Market

Global biofertilizer market has a significance for the cereals & grains industry and accounts for the largest share. A large part of the market share in this segment can be attributed to the growing demand for organic and naturally grown cereals & grains, the importance of minimizing chemical fertilizer effects on cereal & grain products, and the vast amount of land cultivated for organic cereal & grain production. Globally, dry biofertilizers are expected to account for the largest share. Dry biofertilizers have gained a large share of this market as they are widely available and highly efficient in all climatic conditions, resulting in the large market share of this segment.

Agrinos AS; Kan Biosys Pvt. Ltd; National Fertilizer Ltd; Ajay Bio-Tech (India) Ltd; China Bio-Fertilizer Group; Rizobacter Argentina S.A.; Agri Life; Gujarat State Fertilizers & Chemicals Limited; Kiwa Bio-Tech Products Group Corporation; Symborg; Madras Fertilizers Limited; EuroChem Agro GmbH; Lallemand Inc; Syngenta AG; Mapleton Agri Biotec Pty Ltd.

The Asia-Pacific Biofertilizer Market is fragmented, with the top five companies occupying 36.97%. The major players in this market are Biostadt India Limited, Gujarat State Fertilizers & Chemicals Ltd, Indian Farmers Fertiliser Cooperative Limited, Kiwa Bio-Tech and The Fertilizers and Chemicals Travancore Limited.

Biofertilizers in demand: **Mycorrhizae, Azotobacter**, **Rhizobium**

A **mycorrhizal**-based biofertilizer is at the forefront of sustainable agricultural practices in terms of balancing productivity, health of the environment, and resource efficiency. By leveraging beneficial mycorrhizal fungi, these biofertilizers enhance nutrient uptake, improve soil structure, and increase plant resilience.Â

As an important tool in promoting environmental health and organic food production, mycorrhizae-based biofertilizers are revolutionizing organic food production. Mycorrhizal fungi enhance the nutritional value of organic food by extracting nutrients from the soil and delivering them to plant roots. Mycorrhizae-based biofertilizers are growing in demand due to the increase in organic and natural food consumption.

Biofertilizers based on mycorrhizae are achieving widespread acceptance as a solution that enhances crop flavor while adhering to sustainability principles. By using biofertilizers, farmers and consumers are able to benefit from both better tasting crops and more sustainable practices. Mycorrhizae-based biofertilizers enhance flavor while supporting soil health and biodiversity in sustainable agriculture.

A number of genetic and molecular studies are providing insight into the genetic components of mycorrhizal associations, which can assist in the development of biofertilizer formulations that are effective. For specific crops, soil types, and environmental conditions, mycorrhizal fungi are being created as custom blends. Mycorrhizae Based Biofertilizers Market in the globally is growing as a result of these innovations.

Furthermore, Azotobacter is the largest nitrogen-fixing bacteria, and is not symbiotic. The product is mainly used for rice, cotton, and vegetables, as well as non-leguminous plants. The fastest-growing form of Rhizobium can replace commercial N fertilizers in leguminous plants by aiding them in removing nitrogen from the soil as Rhizobium increases agricultural productivity. The Azotobacter-based biofertilizers market is dominant in China, accounting for about 31.3% of the market value, which is valued at about USD 137.1 million in 2022.

China had 93.5% of the total value of the biofertilizer market in 2022, making it the region's dominant country. A total of 82.3% of the Chinese biofertilizer market was dominated by row crops in 2022. The organic acreage of row crops in the country was 2.1 million hectares in 2022.

Commercialization and Product Innovation:

To maximize yields and promote sustainability, integrated agriculture combines various practices. The principles of integrated agriculture are well aligned with mycorrhiza-based products. The products promoted soil health, nutrient cycling, and plant resilience, which contributed to diversified agriculture. With integrated agriculture, soil health is prioritized and chemical inputs are reduced, which further boosts mycorrhizae's demand.