

Plant Factory Market by Growing System (Non-soil-based, Soil-based, Hybrid), Crop Type (Fruits, Vegetables, Flowers & Ornamentals, Other Crop Types), Facility Type (Greenhouses, Indoor Farms), Light Type and Region - Global Forecast to 2028

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Report description:

The plant factory market is projected to grow from USD 138 Million in 2023 to USD 196 Million by 2028, at a CAGR of 7.3% during the forecast period. Climate change is causing more frequent and severe weather events, which can damage crops and disrupt traditional farming methods. Plant factory systems offer a way to produce crops in a controlled environment, which is less vulnerable to weather-related disruptions.

The greenhouse segment is expected to account for the largest share in 2023.

Based on facility type, the greenhouse segment is projected to lead the plant factory market during the forecast period. As consumers become more interested in locally grown and sustainably produced food, the demand for indoor-grown produce is increasing. Advanced greenhouse facilities can meet this demand by producing high-quality crops year-round in a controlled environment, and plant factory systems can complement these facilities by providing a source of seedlings or young plants for transplanting into the greenhouse.

The Vegetables Segment is projected to dominate the market share in the crop type segment during the forecast period.

Based on the crop-type segment, the vegetables segment is projected to dominate the market share during the forecast period. Plant factories can also help improve the sustainability and efficiency of vegetable production. By using hydroponic or aeroponic systems, growers can reduce water usage, minimize fertilizer runoff, and optimize energy use. Additionally, plant factories can be located close to urban centers, reducing transportation costs and carbon emissions associated with long-distance food transport. Europe is expected to account for the largest market share in 2023.

The Plant Factory market industry has been studied in North America, Europe, Asia Pacific, South America and Rest of the World. Europe accounted for the largest market share in 2023. According to the World Bank 2020, the EU's percentage of arable land has been consistently dropping since 1960. Today, less than 25% of the region's land area is arable. With less than 15 percent of

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their land being arable, countries like Croatia, Estonia, and Slovenia are particularly affected by this problem. Companies and cities are turning to CEA in response to the problem of a lack of available space and land suitable for crop cultivation. As the amount of arable land in Europe decreases, it becomes more difficult to produce enough fresh, high-quality produce to meet local demand. Plant factories can help fill this gap by producing fresh, locally grown produce in urban areas, which can then be distributed to nearby communities. This can help to ensure a reliable supply of fresh produce even as the amount of arable land in Europe declines.

The break-up of the profile of primary participants in the plant factory market:

- By Company Type: Tier 1 - 60%, Tier 2 - 25%, and Tier 3 - 15%
- By Designation: C Level - 35%, Director Level - 45%, Others-20%
- By Region: Asia Pacific - 45%, Europe - 25%, North America - 10%, South America - 5%, and Rest of the World - 15%

Prominent companies include AeroFarms (US), Gotham Greens (US), BOWERY FARMING INC. (US), Oishii (US), Plenty Unlimited Inc. (US) among others.

Research Coverage:

This research report categorizes the plant factory market by Growing System (Soil-based, non-soil-based, and Hybrid), Facility Type (Greenhouses, Indoor Farms, Other Facility Types), Light Type (Sunlight, Full Artificial Light), Crop Type (Vegetables, Fruits, Flowers & Ornamentals, other crop type), and Region (North America, Europe, Asia Pacific, South America, and Rest of the World). The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the plant factory market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements, new product & service launches, mergers and acquisitions, and recent developments associated with the plant factory market. Competitive analysis of upcoming startups in the plant factory market ecosystem is covered in this report.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall plant factory market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and to plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Higher yield as compared to traditional agriculture practices, Plant factories have lesser impact of external weather conditions), restraints (High capital investments, Requirement of high-precision environment), opportunity (Increased adoption of plant factories by restaurants and grocery stores amid the COVID-19 pandemic, Rise in demand for floriculture and ornamental horticulture), and challenges (Tapping into the organic food market, Risk of equipment failure and delay in the learning curve among growers, Spread of waterborne diseases and algae in closed systems) influencing the growth of the plant factory market.

- ☐ Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the plant factory market.

- ☐ Market Development: Comprehensive information about lucrative markets - the report analyses the plant factory market across varied regions.

- ☐ Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the plant factory market.

- ☐ Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like AeroFarms (US), Gotham Greens (US), BOWERY FARMING INC. (US), Oishii (US), Plenty Unlimited Inc. (US) among others in the plant factory market strategies. The report also helps stakeholders understand the plant factory market and provides them with information on key market drivers, restraints, challenges, and opportunities.

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