

Vertical Farming Market in US - Industry Outlook and Forecast 2019-2024

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Abstracts

The US vertical farming market is projected to reach values of around \$3 billion by 2024, growing at a CAGR of more than 24% during 2018-2024.

The vertical farming technique offers speedier supply chain for seedling production and with an eight-week turnaround time of seedling ordering system. These systems will help farmers to meet the growing demand and offer promotions and special offers to consumers in the US market. The increasing focus on plug development and reduced shrink of plants will encourage companies to introduce innovative technologies in the market. The US vertical farming market is driven by the movement of agriculture toward a more sustainable model. The use of layout and workflow optimization will enable proper optimization and highest labor efficiency in the US market. The market research report provides in-depth market analysis and segmental analysis of the US vertical farming market by growth systems, environment, and technology.

The report considers the present scenario of the US vertical farming market and its market dynamics for the period 2019-2024. It covers a detailed overview of various market growth enablers, restraints, and trends. The study covers both the demand and supply sides of the market. It also profiles and analyzes the leading companies and several other prominent companies operating in the market.

Vertical Farming Market in US – Dynamics

The growing need for sustainable agricultural operations that reduces the adverse impact on the environment will fuel the growth of the vertical farming market in US. The exponential levels of environmental pollution and production intensification with a monumental impact on earth's resources will drive the need for sustainable agricultural

practices in the US market. The inefficiencies in the supply chain amplify the scarcity effect and negatively impacts the harvesting, processing, and transportation process in the market. The implementation of vertical farming will reprocess inputs and uses resources sparingly, thereby maximizing sustainability in the vertical farming market in US. The introduction of harvesting robots, automatic seed planters, and greenhouse roof washers to reduce operating costs and boost revenues in the vertical farming market in US. The automating plant movement includes unit tasks of transplanting, seeding, transplanting, packaging, harvesting, and cleaning which are gaining immense traction in the US market. The increasing popularity of kitchen gardens that is fueling the concept of on-site farming is augmenting the growth of the vertical farming market in US. Kitchen gardens are cropping up everywhere from the lush countryside to resorts to gastropubs to community initiatives in the market. The increasing number of CSR activities that help to reduce pollution, energy consumption, and carbon footprint will propel the development of the vertical farming market in US.

Vertical Farming Market in US – Segmentation

This market research report includes a detailed segmentation of the market by growth systems, environment, and technology. The US vertical farming market by growth systems is categorized into hydroponics, aeroponics, and aquaponics. Hydroponics segment dominated around half of the total market share in 2018, growing at a CAGR of more than 22% during the forecast period. The use of hydroponics enables long-term cultivation of a wide range of crops in the market. The recent developments in the field of hydroponics to cater to the casual indoor grower, simplifying technology and economics is boosting the growth of this segment in the US market. Aquaponics is gaining ground is by eating into Hydroponic produce's market. The latter system has gained a bad reputation with chefs given that its resulting produce has tasted either watery or has a strong flavor profile that is limited to only one flavor as opposed to a balanced one.

The environment segment in the US vertical farming market is divided into indoor and outdoor. The outdoor segment is the fastest growing sector in the US market, at CAGR of approximately 26% during the forecast period. The increasing adoption of the local food movement and growing demand for fresh produce is fueling the growth of the outdoor segment in the US market. Restaurants, housing complexes, schools, and supermarkets are using outdoor vertical agriculture practices to offer nutrient-rich and fresh produce in the US market. Indoor vertical farming has primarily made more sense in resource-starved countries such as Japan (where the 2011 tsunami led to the meltdown of a nuclear power plant and contaminated its farmland); Singapore and

Netherlands where arable land is scarce. In the US however, the issue of urban density is not so prevalent and while there is a resource crunch, vertical farming is unlikely to have as disruptive an effect in the agricultural supply chain at least in the stage it currently is.

The US vertical farming market by technology is segmented into lighting devices, software, growth mechanism components, climate control, and sensing devices. Lighting devices occupied more than 1/3rd of the total market share in 2018, growing at a CAGR of around 24% during the forecast period. The development of customized lighting systems for research testing, top-lighting, inter-lighting, and tissue culture is augmenting the growth of the lighting devices segment in the US market. The increasing focus on using moisture sensors and GPS enabled tractors that aims to produce food sustainably and profitably in the US market will fuel the demand for LED lighting systems in the market. The software market is being sped up by the growing modularity of vertical farms and their individual ecosystems which warrants the use of a system and recipes that can offer optimal growing conditions across the board. There is a strong emphasis on creating the perfect synergy between software and hardware. Business models are changing, too. Indoor farming players are no longer stuck to just developing machinery or technology and adding new crops to their product line.

Market Segmentation by Growth Systems

Hydroponics

Aeroponics

Aquaponics

Market Segmentation by Environment

Indoor

Outdoor

Market Segmentation by Technology

Lighting Devices

Software

Growth Mechanism Components

Climate Control

Sensing Devices

Key Vendor Analysis

The US vertical farming market is highly fragmented, due to the presence of a various number of technology providers and produce providers. The prominent players are focusing on increasing efficient operations and good marketing to expand their businesses across countries in the world market. Smaller companies are integrating automation and other technologies to sustain the level of competition in the US market. The integration of data and analytics, sensors, and app-based technology to optimize the environment, keep a tab on the health of the crops, post-harvest technology, management of nutrient supply, and other such factors will drive revenues in the US vertical farming market.

The major vendors in the US vertical farming market are:

Aerofarm

Plenty

Green Spirit Farms

Bowery Farming

Other prominent vendors in the US vertical farming market include Acre In A Box, Altius Farms, Crop One Holdings, American Hydroponics (AMHYDRO), Dream Harvest Farming Company, Edenworks, Farm.One, Freight Farms, Green Girl Produce, Green Living Technologies International, GreenTechAgro, LA Urban Farms, Living Greens Farm, Moonflower Farms, Plant Chicago, Square Roots, Urban Crop Solutions, Urban Organics, and Oasis Biotech.

Key market insights include

1. The analysis of US vertical farming market provides market size and growth rate for the forecast period 2019-2024.
2. It offers comprehensive insights into current industry trends, trend forecast, and growth drivers about the US vertical farming market.
3. The report provides the latest analysis of market share, growth drivers, challenges, and investment opportunities.
4. It offers a complete overview of market segments and the regional outlook of the US vertical farming market.
5. The report offers a detailed overview of the vendor landscape, competitive analysis, and key market strategies to gain competitive advantage.

Contents

1 RESEARCH METHODOLOGY

2 RESEARCH OBJECTIVES

3 RESEARCH PROCESS

4 REPORT COVERAGE

4.1 Market Definition

4.2 Base Year

4.3 Scope of Study

4.3.1 Market Segmentation by Growth System

4.3.2 Market Segmentation by Environment

4.3.3 Market Segmentation by Technology

5 REPORT ASSUMPTIONS AND CAVEATS

5.1 Key Caveats

5.2 Inclusions

5.3 Exclusions

5.4 Currency Conversion

5.5 Market Derivation

6 MARKET AT A GLANCE

7 INTRODUCTION

7.1 Overview

7.2 STATE OF THE US ECONOMY

7.3 Agriculture in the US: An overview

7.3.1 Indoor Agriculture

7.4 Vertical farming market: An Overview

7.4.1 Success Factors

8 MARKET DYNAMICS

8.1 Market Growth Enablers

- 8.1.1 Archaic agricultural system threatens food security
- 8.1.2 Need for sustainable agricultural operations
- 8.1.3 Solution to food desert crisis
- 8.1.4 Intensifying farm-to-table movement
- 8.1.5 Big bets on vertical farming
- 8.1.6 YOY Impact of Market Growth Enablers
- 8.2 Market Growth Restraints
 - 8.2.1 Lack of economic and societal viability
 - 8.2.2 Massive energy usage
 - 8.2.3 Low potential to replace conventional food production
 - 8.2.4 Unproven demand for indoor-grown food
 - 8.2.5 Dearth of expertise
 - 8.2.6 YOY Impact of Market Growth Restraints
- 8.3 Market Opportunities & Trends
 - 8.3.1 Growing popularity of plug & play farms
 - 8.3.2 Scope for further automation using big data and AI
 - 8.3.3 Kitchen gardens fuel concept of on-site farming
 - 8.3.4 Crop transformations and increased variety
 - 8.3.5 YOY Impact of Market Opportunities and Trends

9 VERTICAL FARMING MARKET IN US

- 9.1 Market Size & Forecast
- 9.2 Porter's Five Forces Analysis
 - 9.2.1 Threat of New Entrants
 - 9.2.2 Bargaining Power of Suppliers
 - 9.2.3 Bargaining Power of Buyers
 - 9.2.4 Threat of Substitutes
 - 9.2.5 Competitive Rivalry

10 BY GROWTH SYSTEM

- 10.1 Market Overview
- 10.2 Hydroponics vertical farming
 - 10.2.1 Market Size & Forecast
- 10.3 Aeroponics vertical farming
 - 10.3.1 Market Size & Forecast
- 10.4 Aquaponics vertical farming
 - 10.4.1 Market Size & Forecast

11 BY ENVIRONMENT

- 11.1 Market Overview
- 11.2 Indoor Vertical farming
 - 11.2.1 Market Size & Forecast
- 11.3 Outdoor Vertical farming
 - 11.3.1 Market Size & Forecast

12 BY TECHNOLOGY

- 12.1 Market Overview
- 12.2 Lighting Devices
 - 12.2.1 Market Size & Forecast
- 12.3 Software
 - 12.3.1 Market Size & Forecast
- 12.4 Growth mechanism component
 - 12.4.1 Market Size & Forecast
- 12.5 Climate Control
 - 12.5.1 Market Size & Forecast
- 12.6 Sensing Devices
 - 12.6.1 Market Size & Forecast

13 COMPETITIVE LANDSCAPE

14 MARKET VENDOR ANALYSIS

- 14.1 Market Ranking Analysis

15 KEY COMPANY PROFILES

- 15.1 AeroFarms
 - 15.1.1 Business Overview
 - 15.1.2 Major Product Offerings
 - 15.1.3 Key Strengths
 - 15.1.4 Key Strategies
 - 15.1.5 Key Opportunities
- 15.2 Plenty
 - 15.2.1 Business Overview

- 15.2.2 Major Product Offerings
- 15.2.3 Key Strengths
- 15.2.4 Key Strategies
- 15.2.5 Key Opportunities
- 15.3 Green Spirit Farms
 - 15.3.1 Business Overview
 - 15.3.2 Major Product Offerings
 - 15.3.3 Key Strengths
 - 15.3.4 Key Strategies
 - 15.3.5 Key Opportunities
- 15.4 Bowery Farming
 - 15.4.1 Business Overview
 - 15.4.2 Major Product Offerings
 - 15.4.3 Key Strategies
 - 15.4.4 Key Strengths
 - 15.4.5 Key Opportunities

16 OTHER PROMINENT VENDORS

- 16.1 Acre In A Box
 - 16.1.1 Business Overview
 - 16.1.2 Product Offerings
 - 16.1.3 Key Strategies
 - 16.1.4 Key Strengths
- 16.2 Altius Farms
 - 16.2.1 Business Overview
 - 16.2.2 Product & Service Offerings
 - 16.2.3 Key Strategies
 - 16.2.4 Key Strengths
- 16.3 Crop One Holdings
 - 16.3.1 Business Overview
 - 16.3.2 Product Offerings
 - 16.3.3 Key Strengths
 - 16.3.4 Key Strategies
- 16.4 American Hydroponics (AmHydro)
 - 16.4.1 Business Overview
 - 16.4.2 Product & Service Offerings
 - 16.4.3 Key Strengths
 - 16.4.4 Key Strategies

- 16.5 Dream Harvest Farming Company
 - 16.5.1 Business Overview
 - 16.5.2 Product Offerings
 - 16.5.3 Key Strategies
 - 16.5.4 Key Strengths
- 16.6 Edenworks
 - 16.6.1 Business Overview
 - 16.6.2 Product Offerings
 - 16.6.3 Key Strengths
 - 16.6.4 Key Strategies
- 16.7 Farm.One
 - 16.7.1 Business Overview
 - 16.7.2 Product Offerings
 - 16.7.3 Key Strategies
 - 16.7.4 Key Strengths
- 16.8 Freight Farms
 - 16.8.1 Business Overview
 - 16.8.2 Product & Service Offerings
 - 16.8.3 Key Strengths
 - 16.8.4 Key Strategies
- 16.9 Green Girl Produce
 - 16.9.1 Business Overview
 - 16.9.2 Product Offerings
 - 16.9.3 Key Strategies
 - 16.9.4 Key Strengths
- 16.10 Green Living Technologies International
 - 16.10.1 Business Overview
 - 16.10.2 Product Offerings
 - 16.10.3 Key Strategies
 - 16.10.4 Key Strengths
- 16.11 GreenTech Agro
 - 16.11.1 Business Overview
 - 16.11.2 Product & Service Offerings
 - 16.11.3 Key Strategies
 - 16.11.4 Key Strengths
- 16.12 LA Urban Farms
 - 16.12.1 Business Overview
 - 16.12.2 Product Offerings
 - 16.12.3 Key Strengths

- 16.12.4 Key Strategies
- 16.13 Living Greens Farm
 - 16.13.1 Business Overview
 - 16.13.2 Product Offerings
 - 16.13.3 Key Strengths
 - 16.13.4 Key Strategies
- 16.14 Moonflower Farms
 - 16.14.1 Business Overview
 - 16.14.2 Product Offerings
 - 16.14.3 Key Strategies
 - 16.14.4 Key Strengths
- 16.15 Plant Chicago
 - 16.15.1 Business Overview
 - 16.15.2 Product & Service Offerings
 - 16.15.3 Key Strategies
 - 16.15.4 Key Strengths
- 16.16 Square Roots
 - 16.16.1 Business Overview
 - 16.16.2 Product Offerings
 - 16.16.3 Key Strategies
 - 16.16.4 Key Strengths
- 16.17 Urban Crop Solutions
 - 16.17.1 Business Overview
 - 16.17.2 Product & Service Offerings
 - 16.17.3 Key Strengths
 - 16.17.4 Key Strategies
- 16.18 Urban Organics
 - 16.18.1 Business Overview
 - 16.18.2 Product & Service Offerings
 - 16.18.3 Key Strategies
 - 16.18.4 Key Strengths
- 16.19 Oasis Biotech
 - 16.19.1 Business Overview
 - 16.19.2 Product Offerings
 - 16.19.3 Key Strengths
 - 16.19.4 Key Strategies

17 REPORT SUMMARY

- 17.1 Key Takeaways
- 17.2 Strategic Recommendations
- 17.3 Qualitative Summary
- 17.4 Quantitative Summary

18 APPENDIX

- 18.1 Abbreviations

List Of Exhibits

LIST OF EXHIBITS

- Exhibit 1 Segmentation of Vertical Farming Market in US
- Exhibit 2 Market Size Calculation Approach 2018
- Exhibit 3 Case for Vertical Farming
- Exhibit 4 Change in Real GDP in US 2017?2023 (%)
- Exhibit 5 Indoor Agriculture versus Conventional Agriculture
- Exhibit 6 US Crops Grown Under Cover 1998 and 2014 (million sq. ft)
- Exhibit 7 Indoor Agriculture: A Structural Overview
- Exhibit 8 Financial/Operational Overview of Indoor Agriculture (US\$ /sq ft)
- Exhibit 9 Food Security in the US 2016
- Exhibit 10 Case for Sustainability in Agriculture
- Exhibit 11 Integration of Local Food: An Overview 2016
- Exhibit 12 State Vegetable and Food Production as Share of Demand (%) 2018
- Exhibit 13 Corporate and Venture Capital Activity (US\$ million)
- Exhibit 14 Statistics and Viability of Vertical Farming 2017
- Exhibit 15 Energy Use in Vertical Farming: An Overview
- Exhibit 16 Perceptions of Vertical Farming versus Other Methods of Food Production
- Exhibit 17 Vertical Farming Market in US 2018?2024 (US\$ million)
- Exhibit 18 Five Forces Analysis 2018
- Exhibit 19 Vertical Farming Market in US by Growth System 2018 & 2024
- Exhibit 20 Vertical Farming Market in US by Growth System (US\$ million)
- Exhibit 21 Vertical Farming Market in US by Growth System 2018 & 2024
- Exhibit 22 Vertical Farming Market in US - Comparison by Contract Type 2018?2024
- Exhibit 23 Hydroponics Overview
- Exhibit 24 Vertical Farming Market in US by Hydroponics 2018?2024 (US\$ million)
- Exhibit 25 Vertical Farming Market in US by Aeroponics 2018?2024 (US\$ million)
- Exhibit 26 Vertical Farming Market in US by Aquaponics 2018?2024 (US\$ million)
- Exhibit 27 Aquaponics Overview
- Exhibit 28 Vertical Farming Market in US by Environment 2018 & 2024
- Exhibit 29 Vertical Farming Market in US by Environment (US\$ million)
- Exhibit 30 Vertical Farming Market in US by Application 2018 & 2024
- Exhibit 31 Indoor Vertical Farming Market in US 2018–2024 (US\$ million)
- Exhibit 32 Outdoor Vertical Farming Market in US 2018–2024 (US\$ million)
- Exhibit 33 Vertical Farming Market in US by Technology 2018 & 2024
- Exhibit 34 Vertical Farming Market in US by Technology (US\$ million)
- Exhibit 35 Vertical Farming Market in US by Technology 2018 and 2024

Exhibit 36 Vertical Farming Market in US - Growth Comparison by Technology
2018–2024

Exhibit 37 Vertical Farming Market in US by Lighting Devices 2018–2024 (US\$ million)

Exhibit 38 Vertical Farming Market in US by Software 2018–2024 (US\$ million)

Exhibit 39 Vertical Farming Market in US by Growth Mechanism Component 2018–2024
(US\$ million)

Exhibit 40 Vertical Farming Market in US by Climate Control 2018–2024 (US\$ million)

Exhibit 41 Vertical Farming Market in US by Sensing Devices 2018–2024 (US\$ million)

Exhibit 42 Overview of Labor in Indoor Farming

Exhibit 43 Primary Space of Focus of Indoor Farmers 2018–2024

Exhibit 44 Main Crop Type 2018

Exhibit 45 Main Crop Type by Profitability in Indoor Farming 2018

Exhibit 46 Main Goal of Indoor Farmers 2018–2024

List Of Tables

LIST OF TABLES

Table 1 Key Caveats

Table 2 Currency Conversion 2013?2017

Table 3 Lettuce Production and Sustainability Statistics Across Different Production Methods

Table 4 YOY Impact of Market Growth Enablers 2018?2024

Table 5 YOY Impact of Market Growth Restraints 2018?2024

Table 6 YOY Impact of Market Opportunities and Trends 2018?2024

Table 7 Most Common Crops Grown by Facilities 2017

Table 8 Market Ranking Analysis 2017

Table 9 Aerofarms: Product Offerings

Table 10 Plenty: Product Offerings

Table 11 Green Spirit Farms: Product Offerings

Table 12 Bowery: Product Offerings

Table 13 Qualitative Summary of Vertical Farming Market in US

Table 14 Vertical Farming Market in US by Growth System (US\$ million)

Table 15 Vertical Farming Market in US by Growth System (%)

Table 16 Vertical Farming Market in US by Environment (US\$ million)

Table 17 Vertical Farming Market in US by Environment (%)

Table 18 Vertical Farming Market in US by Technology (US\$ million)

Table 19 Vertical Farming Market in US by Technology (%)

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