

Vertical Farming Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Indoor Farming & Farm Mechanization (Agriculture & Agribusiness)
> **Source:** <https://www.mordorintelligence.com/industry-reports/vertical-farming-market>
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 7.53 billion
Projected Forecast (2031)	USD 7.53 billion
Growth Rate (CAGR)	9.98 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2021 - 2031 |
Market Size (2026) | USD 7.53 Billion |
Market Size (2031) | USD 12.11 Billion |
Growth Rate (2026 - 2031) | 9.98 % |
Fastest Growing Market | Asia Pacific |
Largest Market | North America |
Market Concentration | Low |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Vertical Farming Market Analysis by Mordor Intelligence The vertical farming market size was valued at USD 6.27 billion in 2025 and estimated to grow from USD 7.53 billion in 2026 to reach USD 12.11 billion by 2031, at a CAGR of 9.98% during the forecast period (2026-2031). The vertical farming market is moving deeper into controlled-environment food production as climate volatility, urban food safety expectations, and maturing light-emitting diode (LED) and robotics systems reshape commercial growing models. The vertical farming market is also benefiting from a shift in public food security policy, especially in Asia-Pacific and the Middle East, where indoor farming is increasingly treated as a resilience asset rather than a discretionary agriculture technology project. The vertical farming market has become more selective following the closures and restructurings in 2024 and 2025, pushing capital toward operators with retailer links, institutional backing, and greater control over operating economics. The vertical farming market is now being assessed less by headline expansion and more by unit profitability, energy efficiency, and the ability to combine crop revenue with environmental, social, and governance (ESG) premiums, carbon-accounting benefits, and public co-investment support. The vertical farming market, therefore, enters 2026 with a different operating base than the earlier venture-led cycle, with scale still important but disciplined deployment and supply certainty carrying more weight.

Key Report Takeaways* By growing mechanism, hydroponics held 56.7% of the vertical farming market share in 2025, while aeroponics is projected to be the fastest-growing segment, with a 13.1% CAGR during 2026-2031.

* By farm structure, building-based farms accounted for 72.4% of the vertical farming market in 2025, while shipping-container-based farms are the fastest-growing segment, anticipated to grow at a 12.3% CAGR during 2026-2031.

* By component, lighting systems captured 34.3% of the vertical farming market in 2025, while software and control platforms are the fastest-growing segment, with a projected CAGR of 13.8% during 2026-2031.

* By crop type, lettuce and leafy greens led with a 36.1% share in 2025, while microgreens will be the fastest-growing segment, posting a 13.3% CAGR during 2026-2031.

* By geography, North America accounted for 41.8% of revenue in 2025, while Asia-Pacific is anticipated to be the fastest-growing region with a 12.8% CAGR during 2026-2031.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of Vertical Farming Market* Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline | Urban Demand for Local Pesticide-Free Produce | +2.50% | Global, with highest intensity in North America, Japan, Singapore, and United Arab Emirates | Medium term (2-4 years) |

Falling LED, Robotics, and Sensing Costs | +2.20% | Global, with strongest absorption in North America, the Netherlands, Japan, and China | Long term (≥ 4 years) |

Climate-Resilient Year-Round Production | +1.80% | Global, with acute relevance in the Middle East, Southeast Asia, and coastal United States supply chains | Medium term (2-4 years) |

Government Food-Security Incentives and Ag-Tech Funding | +1.50% | Asia-Pacific, the Middle East, and North America | Short term (≤ 2 years) |

Carbon-Credit and ESG Premium Revenue Stacking | +0.90% | North America and Europe, with early signals in Asia-Pacific | Long term (≥ 4 years) |

Waste-Heat and Low-Cost Power Co-Location Economics | +0.70% | North America, the

e Netherlands, and Japan, with emerging relevance across data-center corridors globally | Long term (≥ 4 years) |
Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The vertical farming market is highly fragmented, comprising crop producers, technology suppliers, and hybrid platforms that integrate farm operations with technology licensing. Prominent crop production companies in North America include 80 Acres Farms Inc. and Gotham Greens Holdings LLC, while companies such as Signify N.V., ams-OSRAM AG, and Intelligent Growth Solutions Limited focus on enabling systems. Consequently, the vertical farming market does not function as a single-format produce category, as competition spans crop output, equipment sales, software control, environmental systems, and project development. This creates a diverse and uneven competitive landscape where operational efficiency and commercial sustainability are more critical than valuation alone.

The current strategic focus in the vertical farming market emphasizes discipline d expansion, adaptable infrastructure, and stronger downstream partnerships. In July 2025, Canadian vertical farming company Growcer acquired the assets of Freight Farms after the U.S.-based container farming pioneer filed for Chapter 7 bankruptcy earlier that year. The acquisition included Freight Farms' software platform, intellectual property, customer network, and inventory spanning over 500 global farm locations, highlighting the ongoing consolidation within controlled-environment agriculture. Additionally, technology optimization is gaining prominence over aggressive footprint expansion. In 2026, Signify N.V. advanced its Philips GreenPower horticultural lighting systems, prioritizing energy efficiency and spectrum optimization for leafy-green production. Such trends indicate that the vertical farming market increasingly values operational discipline, energy efficiency, and scalable deployment models over rapid, unchecked growth strategies.

Smaller and mid-sized operators still have opportunities in the vertical farming market, though the landscape has become more challenging compared to earlier investment cycles. Smaller and mid-sized operators continue to find opportunities in the vertical farming market, though these opportunities have become more limited following several high-profile restructurings. Jones Food Company, previously one of the largest vertical farming operators in the United Kingdom, entered administration in April 2025 due to high operating costs and challenges in achieving long-term profitability, despite significant investment from Ocado Group. Such trends indicate while the vertical farming market remains accessible to new entrants, factors such as financial stability, energy efficiency, and strong buyer relationships are increasingly critical for sustaining viable commercial operations.

Vertical Farming Industry Leaders* 80 Acres Farms Inc.

* Gotham Greens Holdings LLC

* Local Bounti Corporation

* Signify N.V.,

* ams-OSRAM AG

* *Disclaimer: Major Players sorted in no particular order

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Scope Methodology P Space

Our study defines the vertical farming market as all revenue generated from crop

s grown in vertically stacked layers inside controlled-environment facilities that rely on soil-less techniques such as hydroponics, aeroponics, and aquaponics, together with the associated lighting, climate, nutrient, and sensing systems that enable year-round production.

Scope exclusions: outdoor greenhouses, rooftop poly-houses, and traditional soil-based indoor farms are not considered.

Segmentation Container

- * By Growing Mechanism* Hydroponics
- * Aeroponics
- * Aquaponics

- * By Farm Structure* Building-based Vertical Farms
- * Shipping-container-based Vertical Farms

- * By Component* Lighting Systems
- * Climate Control Systems
- * Sensors and Monitoring Devices
- * Irrigation and Fertigation Systems
- * Software and Control Platforms
- * Farm Structure Materials and Growing Racks

- * By Crop Type* Lettuce and Leafy Greens
- * Herbs
- * Tomatoes
- * Berries
- * Cucumbers
- * Peppers
- * Microgreens
- * Other Crops

- * By Geography* North America* United States
- * Canada
- * Mexico
- * Rest of North America

- * Europe* Germany
- * United Kingdom
- * France
- * Netherlands
- * Spain
- * Russia
- * Rest of Europe

- * Asia-Pacific* China
- * Japan
- * India
- * Singapore
- * South Korea
- * Australia
- * Rest of Asia-Pacific

- * South America* Brazil
- * Argentina
- * Chile
- * Rest of South America

- * Middle East* United Arab Emirates
- * Saudi Arabia
- * Israel

- * Turkey
- * Rest of Middle East
- * Africa* South Africa
- * Kenya
- * Egypt
- * Rest of Africa

Frequently Asked Questions

What is the projected value of the vertical farming market by 2031?

The vertical farming market is forecast to reach USD 12.11 billion by 2031, rising from USD 7.53 billion in 2026 at a 9.98% CAGR during 2026-2031.

Which growing mechanism holds the largest share in vertical farming?

Hydroponics was the largest segment, accounting for 56.7% of total value in 2025 because of its long commercial track record and broad crop compatibility.

Which farm format is expanding the fastest in vertical farming?

Shipping-container-based farms are the fastest structure, with a projected 12.3% CAGR during 2026-2031 due to their flexible and rapid deployment model.

Which crop category is growing the fastest in vertical farming?

Microgreens are the fastest crop type, with a projected 13.3% CAGR during 2026-2031, supported by short harvest cycles and strong premium food-service demand.

Which region leads vertical farming today and which one is growing the fastest?

North America was the largest region with 41.8% share in 2025, while Asia-Pacific is the fastest region with a projected 12.8% CAGR during 2026-2031.

What is the main barrier to profitability in vertical farming?

High electricity use and capital intensity remain the main barrier, since lighting, cooling, and dehumidification create a heavy operating cost base in enclosed farms.