

# Vertical Farming Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027

https://marketpublishers.com/r/V311C7DBC9FAEN.html

Date: July 2022

Pages: 145

Price: US\$ 2,499.00 (Single User License)

ID: V311C7DBC9FAEN

# **Abstracts**

The global vertical farming market reached a value of US\$ 3.66 Billion in 2021. Looking forward, IMARC Group expects the market to reach a value of US\$ 13.98 Billion by 2027, exhibiting a CAGR of 23.40% during 2022-2027. Keeping in mind the uncertainties of COVID-19, we are continuously tracking and evaluating the direct as well as the indirect influence of the pandemic. These insights are included in the report as a major market contributor.

Vertical farming refers to an innovative farming technique that involves growing food and medicinal plants in vertically stacked layers. It is adopted for producing crops with artificial control of light, temperature, humidity and gases. Vertical farming utilizes a combination of methods involving hydroponics, aeroponics and aquaponics to grow crops without soil using mineral nutrient solutions, such as peat moss and coconut husk, or aquatic animals, such as snail, fish and prawns. It is highly beneficial for crop cultivation on arid lands, mountains, unfertile lands, indoors and rooftops of the buildings. In comparison to the traditional farming practices, vertical farming is sustainable and has lower water and energy requirements.

## Vertical Farming Market Trends:

A rapid increase in the global population, along with rising scarcity of arable land, is one of the key factors driving the growth of the market. Moreover, an escalating requirement for stabilized crop production to meet the rising food demands is providing a thrust to the market growth. In line with this, the legalization of cannabis cultivation for medical and recreational purposes is also contributing to the growth of the market. Various technological advancements in light-emitting diode (LED) technology and the integration of the Internet of Things (IoT)-enabled sensors and monitoring devices are acting as



other growth-inducing factors. These novel LED top-lighting and inter-lighting solutions aid in reducing the farming costs and increasing the overall yield. Other factors, including the rising expenditure capacities of the consumers, along with the implementation of favorable government policies, are anticipated to drive the market toward growth.

# Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global vertical farming market, along with forecasts at the global, regional and country level from 2022-2027. Our report has categorized the market based on component, structure, growth mechanism and application.

# Breakup by Component:

**Irrigation Component** 

Lighting

Sensor

Climate Control

**Building Material** 

Glass Greenhouse

Plastic Greenhouse

Others

Breakup by Structure:

Building-based Vertical Farms
Container-based Vertical Farms

Breakup by Growth Mechanism:

**Hydroponics** 

Aeroponics

Aquaponics

Breakup by Application:

Indoor

Outdoor



### Breakup by Region:

North America

**United States** 

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

**United Kingdom** 

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

#### Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being AeroFarms, Agrilution Systems GmbH, AmHydro, Everlight Electronics Co. Ltd., Freight Farms Inc., Gr?nska Stadsodling, Heliospectra AB, Jones Food Company Limited, Koninklijke Philips N.V., OSRAM GmbH (ams-OSRAM AG), Signify N.V., Urban Crop Solutions and Vertical Farm Systems Pty Ltd.

## Key Questions Answered in This Report:

How has the global vertical farming market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global vertical farming market? What are the key regional markets?



What is the breakup of the market based on the component?

What is the breakup of the market based on the structure?

What is the breakup of the market based on the growth mechanism?

What is the breakup of the market based on the application?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global vertical farming market and who are the key players?

What is the degree of competition in the industry?



# **Contents**

#### 1 PREFACE

#### 2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

#### **3 EXECUTIVE SUMMARY**

#### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

#### **5 GLOBAL VERTICAL FARMING MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

#### **6 MARKET BREAKUP BY COMPONENT**

- 6.1 Irrigation Component
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Lighting
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast
- 6.3 Sensors



- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Climate Control
  - 6.4.1 Market Trends
  - 6.4.2 Market Forecast
- 6.5 Building Material
  - 6.5.1 Market Trends
  - 6.5.2 Key Segments
    - 6.5.2.1 Glass Greenhouse
    - 6.5.2.2 Plastic Greenhouse
  - 6.5.3 Market Forecast
- 6.6 Others
  - 6.6.1 Market Trends
  - 6.6.2 Market Forecast

#### 7 MARKET BREAKUP BY STRUCTURE

- 7.1 Building-based Vertical Farms
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Container-based Vertical Farms
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast

#### **8 MARKET BREAKUP BY GROWTH MECHANISM**

- 8.1 Hydroponics
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Aeroponics
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Aquaponics
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast

#### 9 MARKET BREAKUP BY APPLICATION

9.1 Indoor



- 9.1.1 Market Trends
- 9.1.2 Market Forecast
- 9.2 Outdoor
  - 9.2.1 Market Trends
  - 9.2.2 Market Forecast

#### 10 MARKET BREAKUP BY REGION

- 10.1 North America
  - 10.1.1 United States
    - 10.1.1.1 Market Trends
    - 10.1.1.2 Market Forecast
  - 10.1.2 Canada
    - 10.1.2.1 Market Trends
    - 10.1.2.2 Market Forecast
- 10.2 Asia-Pacific
  - 10.2.1 China
    - 10.2.1.1 Market Trends
    - 10.2.1.2 Market Forecast
  - 10.2.2 Japan
    - 10.2.2.1 Market Trends
    - 10.2.2.2 Market Forecast
  - 10.2.3 India
    - 10.2.3.1 Market Trends
    - 10.2.3.2 Market Forecast
  - 10.2.4 South Korea
    - 10.2.4.1 Market Trends
    - 10.2.4.2 Market Forecast
  - 10.2.5 Australia
    - 10.2.5.1 Market Trends
    - 10.2.5.2 Market Forecast
  - 10.2.6 Indonesia
    - 10.2.6.1 Market Trends
    - 10.2.6.2 Market Forecast
  - 10.2.7 Others
    - 10.2.7.1 Market Trends
    - 10.2.7.2 Market Forecast
- 10.3 Europe
  - 10.3.1 Germany



- 10.3.1.1 Market Trends
- 10.3.1.2 Market Forecast
- 10.3.2 France
  - 10.3.2.1 Market Trends
  - 10.3.2.2 Market Forecast
- 10.3.3 United Kingdom
  - 10.3.3.1 Market Trends
  - 10.3.3.2 Market Forecast
- 10.3.4 Italy
  - 10.3.4.1 Market Trends
  - 10.3.4.2 Market Forecast
- 10.3.5 Spain
  - 10.3.5.1 Market Trends
- 10.3.5.2 Market Forecast
- 10.3.6 Russia
  - 10.3.6.1 Market Trends
  - 10.3.6.2 Market Forecast
- 10.3.7 Others
  - 10.3.7.1 Market Trends
  - 10.3.7.2 Market Forecast
- 10.4 Latin America
  - 10.4.1 Brazil
    - 10.4.1.1 Market Trends
    - 10.4.1.2 Market Forecast
  - 10.4.2 Mexico
    - 10.4.2.1 Market Trends
    - 10.4.2.2 Market Forecast
  - 10.4.3 Others
    - 10.4.3.1 Market Trends
    - 10.4.3.2 Market Forecast
- 10.5 Middle East and Africa
  - 10.5.1 Market Trends
  - 10.5.2 Market Breakup by Country
  - 10.5.3 Market Forecast

#### 11 SWOT ANALYSIS

- 11.1 Overview
- 11.2 Strengths



- 11.3 Weaknesses
- 11.4 Opportunities
- 11.5 Threats

#### 12 VALUE CHAIN ANALYSIS

#### 13 PORTERS FIVE FORCES ANALYSIS

- 13.1 Overview
- 13.2 Bargaining Power of Buyers
- 13.3 Bargaining Power of Suppliers
- 13.4 Degree of Competition
- 13.5 Threat of New Entrants
- 13.6 Threat of Substitutes

#### 14 PRICE ANALYSIS

#### 15 COMPETITIVE LANDSCAPE

- 15.1 Market Structure
- 15.2 Key Players
- 15.3 Profiles of Key Players
  - 15.3.1 AeroFarms
    - 15.3.1.1 Company Overview
    - 15.3.1.2 Product Portfolio
  - 15.3.2 Agrilution Systems GmbH
    - 15.3.2.1 Company Overview
    - 15.3.2.2 Product Portfolio
  - 15.3.3 AmHydro
    - 15.3.3.1 Company Overview
    - 15.3.3.2 Product Portfolio
  - 15.3.4 Everlight Electronics Co. Ltd.
    - 15.3.4.1 Company Overview
    - 15.3.4.2 Product Portfolio
    - 15.3.4.3 Financials
  - 15.3.5 Freight Farms Inc.
    - 15.3.5.1 Company Overview
    - 15.3.5.2 Product Portfolio
  - 15.3.6 Gr?nska Stadsodling



- 15.3.6.1 Company Overview
- 15.3.6.2 Product Portfolio
- 15.3.7 Heliospectra AB
  - 15.3.7.1 Company Overview
  - 15.3.7.2 Product Portfolio
  - 15.3.7.3 Financials
- 15.3.8 Jones Food Company Limited
  - 15.3.8.1 Company Overview
  - 15.3.8.2 Product Portfolio
- 15.3.9 Koninklijke Philips N.V.
  - 15.3.9.1 Company Overview
  - 15.3.9.2 Product Portfolio
  - 15.3.9.3 Financials
  - 15.3.9.4 SWOT Analysis
- 15.3.10 OSRAM GmbH (ams-OSRAM AG)
  - 15.3.10.1 Company Overview
  - 15.3.10.2 Product Portfolio
  - 15.3.10.3 Financials
- 15.3.11 Signify N.V.
  - 15.3.11.1 Company Overview
  - 15.3.11.2 Product Portfolio
  - 15.3.11.3 Financials
- 15.3.12 Urban Crop Solutions
  - 15.3.12.1 Company Overview
  - 15.3.12.2 Product Portfolio
- 15.3.13 Vertical Farm Systems Pty Ltd
  - 15.3.13.1 Company Overview
  - 15.3.13.2 Product Portfolio



# **List Of Tables**

#### LIST OF TABLES

Table 1: Global: Vertical Farming Market: Key Industry Highlights, 2021 and 2027

Table 2: Global: Vertical Farming Market Forecast: Breakup by Component (in Million

US\$), 2022-2027

Table 3: Global: Vertical Farming Market Forecast: Breakup by Structure (in Million

US\$), 2022-2027

Table 4: Global: Vertical Farming Market Forecast: Breakup by Growth Mechanism (in

Million US\$), 2022-2027

Table 5: Global: Vertical Farming Market Forecast: Breakup by Application (in Million

US\$), 2022-2027

Table 6: Global: Vertical Farming Market Forecast: Breakup by Region (in Million US\$),

2022-2027

Table 7: Global: Vertical Farming Market: Competitive Structure

Table 8: Global: Vertical Farming Market: Key Players



# **List Of Figures**

#### LIST OF FIGURES

Figure 1: Global: Vertical Farming Market: Major Drivers and Challenges

Figure 2: Global: Vertical Farming Market: Sales Value (in Billion US\$), 2016-2021

Figure 3: Global: Vertical Farming Market Forecast: Sales Value (in Billion US\$),

2022-2027

Figure 4: Global: Vertical Farming Market: Breakup by Component (in %), 2021

Figure 5: Global: Vertical Farming Market: Breakup by Structure (in %), 2021

Figure 6: Global: Vertical Farming Market: Breakup by Growth Mechanism (in %), 2021

Figure 7: Global: Vertical Farming Market: Breakup by Application (in %), 2021

Figure 8: Global: Vertical Farming Market: Breakup by Region (in %), 2021

Figure 9: Global: Vertical Farming (Irrigation Component) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 10: Global: Vertical Farming (Irrigation Component) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 11: Global: Vertical Farming (Lighting) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 12: Global: Vertical Farming (Lighting) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 13: Global: Vertical Farming (Sensors) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 14: Global: Vertical Farming (Sensors) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 15: Global: Vertical Farming (Climate Control) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 16: Global: Vertical Farming (Climate Control) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 17: Global: Vertical Farming (Building Material) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 18: Global: Vertical Farming (Building Material) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 19: Global: Vertical Farming (Other Components) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 20: Global: Vertical Farming (Other Components) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 21: Global: Vertical Farming (Building-based Vertical Farms) Market: Sales Value (in Million US\$), 2016 & 2021



Figure 22: Global: Vertical Farming (Building-based Vertical Farms) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 23: Global: Vertical Farming (Container-based Vertical Farms) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 24: Global: Vertical Farming (Container-based Vertical Farms) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 25: Global: Vertical Farming (Hydroponics) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 26: Global: Vertical Farming (Hydroponics) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 27: Global: Vertical Farming (Aeroponics) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 28: Global: Vertical Farming (Aeroponics) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 29: Global: Vertical Farming (Aquaponics) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 30: Global: Vertical Farming (Aquaponics) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 31: Global: Vertical Farming (Indoor) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 32: Global: Vertical Farming (Indoor) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 33: Global: Vertical Farming (Outdoor) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 34: Global: Vertical Farming (Outdoor) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 35: North America: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 36: North America: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 37: United States: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 38: United States: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 39: Canada: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021 Figure 40: Canada: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 41: Asia-Pacific: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021



- Figure 42: Asia-Pacific: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027
- Figure 43: China: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 44: China: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 45: Japan: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 46: Japan: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 47: India: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 48: India: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 49: South Korea: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 50: South Korea: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027
- Figure 51: Australia: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 52: Australia: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027
- Figure 53: Indonesia: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 54: Indonesia: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027
- Figure 55: Others: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 56: Others: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 57: Europe: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 58: Europe: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 59: Germany: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 60: Germany: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027
- Figure 61: France: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 62: France: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

- Figure 63: United Kingdom: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021
- Figure 64: United Kingdom: Vertical Farming Market Forecast: Sales Value (in Million



US\$), 2022-2027

Figure 65: Italy: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 66: Italy: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 67: Spain: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 68: Spain: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 69: Russia: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 70: Russia: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 71: Others: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 72: Others: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 73: Latin America: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 74: Latin America: Vertical Farming Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 75: Brazil: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 76: Brazil: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 77: Mexico: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 78: Mexico: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 79: Others: Vertical Farming Market: Sales Value (in Million US\$), 2016 & 2021

Figure 80: Others: Vertical Farming Market Forecast: Sales Value (in Million US\$),

2022-2027

Figure 81: Middle East and Africa: Vertical Farming Market: Sales Value (in Million

US\$), 2016 & 2021

Figure 82: Middle East and Africa: Vertical Farming Market: Breakup by Country (in %),

2021

Figure 83: Middle East and Africa: Vertical Farming Market Forecast: Sales Value (in

Million US\$), 2022-2027

Figure 84: Global: Vertical Farming Industry: SWOT Analysis

Figure 85: Global: Vertical Farming Industry: Value Chain Analysis

Figure 86: Global: Vertical Farming Industry: Porter's Five Forces Analysis



#### I would like to order

Product name: Vertical Farming Market: Global Industry Trends, Share, Size, Growth, Opportunity and

Forecast 2022-2027

Product link: <a href="https://marketpublishers.com/r/V311C7DBC9FAEN.html">https://marketpublishers.com/r/V311C7DBC9FAEN.html</a>

Price: US\$ 2,499.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/V311C7DBC9FAEN.html">https://marketpublishers.com/r/V311C7DBC9FAEN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

