

Sandponics/IAVs Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Produce (Fruits & Vegetables and Fishes), By Application (Commercial, Residential, and Others), By Region and Competition, 2020-2030F

<https://marketpublishers.com/r/SC19B6A8EF87EN.html>

Date: September 2025

Pages: 185

Price: US\$ 4,500.00 (Single User License)

ID: SC19B6A8EF87EN

Abstracts

Global Sandponics/IAVs Market was valued at USD 714.27 million in 2024 and is expected to reach USD 1027.48 million by 2030 with a CAGR of 6.25% during the forecast period. The global market for Sandponics/IAVs is experiencing significant growth, driven by the rising food demand, increase in research and development activities (R&D), and rapid change in the climatic conditions. Sandponics, also known as Integrated Aqua-Vegeticulture systems (IAVs), is a type of hydroponic system that uses sand as a substrate for plant growth, while integrating aquaculture and hydroponics to create a closed-loop system. It is a sustainable and promising means of cultivating a variety of crops, including vegetables, fruits, and vines.

Moreover, there are other factors which are bolstering the growth of the sandponics/IAVs market such as growing water scarcity, increasing demand for locally grown produce, growing technological advancements, increasing support from government, and others. According to the recently published Global Report on Food Crisis 2022, around 205 million individuals in 45 nations will encounter acute food insecurity and require immediate assistance.

Key Market Drivers

Water-Smart Circular Farming

Sandponics (Integrated Aqua-Vegeticulture using sand beds) creates a water-efficient

ecosystem—fish tanks feed nutrients to plant beds, and water continuously recirculates. This model responds directly to global water scarcity. UN-Water reports agriculture consumes roughly 72% of freshwater withdrawals, and about 4 billion people experience water shortages for at least one month annually. UNESCO echoes this, noting agriculture accounts for ~70% of global water use. As a food source, aquaculture contributes over 51% of global seafood production (~94 million tonnes in 2022), per FAO statistics.

Governments, particularly in arid and densely populated regions, are drawn to systems like Sandponics: they drastically reduce water use, repurpose waste resources, and deliver protein and vegetables simultaneously. Because sand is widely available and easy to source, these systems can be built locally, offering resilience against drought. Climate adaptation and urban food security plans now frequently spotlight such circular, low-emission models. Whether for community farms, school gardens, or municipal hubs, Sandponics aligns with public priorities—providing an efficient, sustainable, and aligned response to water stress and food access concerns.

Key Market Challenges

Regulatory Maze Across Multiple Sectors

Sandponics blur traditional categories—it's simultaneously agriculture, aquaculture, and (in effect) water recycling. But regulatory frameworks remain siloed: fish production requires aquaculture permits, produce must meet food-safety standards, irrigation and plumbing are separately governed, and environmental agencies regulate nutrient and water discharge.

Neither UN-Water nor UNESCO have yet produced integrated guidelines covering such hybrid systems, meaning each project must individually seek permits and approvals across multiple agencies. This slows procurement, particularly for public or funded pilot programs. Vendors often must supply compliance documentation for building codes, food safety (e.g., HACCP-style logs), biosecurity, plumbing, and environmental discharge on a case-by-case basis. Until standards evolve to encompass integrated systems, this regulatory complexity remains a major barrier to streamlined adoption and scalability.

Key Market Trends

Public Pilots in Urban & Arid Landscapes

Many cities and municipalities are now subsidizing Sandponics pilot sites—community gardens, school farms, or rooftop greenhouses—especially in drought-prone or food-insecure areas. FAO’s SOFIA (2024) underscores aquaculture’s increasing role in sustainable nutrition, while UN-Water continues to emphasize irrigation challenges.

These pilot programs showcase integrated systems that both feed communities and improve water use efficiency. Their success depends on measurable outcomes: water savings, nutrient capture, food output. Projects with built-in dashboards and audit reports are most attractive to policymakers seeking scalable, high-impact investments. As climate-aware urban planning becomes widespread, Sandponics pilots stand to gain funding and expansion opportunities across sectors.

Key Market Players

Sandponics Jordan

Sumitomo Electric Industries, Ltd.

Kiwa

Agriitecture

Sandponic Egypt

MyAquaponics PTY Ltd

AQ&SA ponics Es

HydroGarde

GrowUp Urban Farms

Practical Aquaponics

Report Scope:

In this report, the Global Sandponics/IAVs Market has been segmented into the

Sandponics/IAVs Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Produce...

following categories, in addition to the industry trends which have also been detailed below:

Sandponics/IAVs Market, By Produce:

Fruits & Vegetables

Fishes

Sandponics/IAVs Market, By Application:

Commercial

Residential

Others

Sandponics/IAVs Market, By Region:

North America

United States

Mexico

Canada

Europe

France

Germany

United Kingdom

Italy

Spain

Asia-Pacific

China

India

South Korea

Japan

Australia

South America

Brazil

Argentina

Colombia

Middle East and Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies presents in the Global Sandponics/IAVs Market.

Available Customizations:

Global Sandponics/IAVs Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Sandponics/IAVs Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Produce...

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. VOICE OF CUSTOMER

5. GLOBAL SANDPONICS/IAVS MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Produce (Fruits & Vegetables and Fishes)
 - 5.2.1.1. By Fruits & Vegetables (Kale, Tomato, Sweet Potato, Swiss Chard, and Others)
 - 5.2.2. By Application (Commercial, Residential, and Others)

- 5.2.3. By Company (2024)
- 5.2.4. By Region
- 5.3. Market Map

6. NORTH AMERICA SANDPONICS/IAVS MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Produce
 - 6.2.2. By Application
 - 6.2.3. By Country
- 6.3. North America: Country Analysis
 - 6.3.1. United States Sandponics/IAVs Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Produce
 - 6.3.1.2.2. By Application
 - 6.3.2. Canada Sandponics/IAVs Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Produce
 - 6.3.2.2.2. By Application
 - 6.3.3. Mexico Sandponics/IAVs Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Produce
 - 6.3.3.2.2. By Application

7. ASIA-PACIFIC SANDPONICS/IAVS MARKET OUTLOOK

- 7.1. Market Size & Forecast
 - 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Produce
 - 7.2.2. By Application

7.2.3. By Country

7.3. Asia-Pacific: Country Analysis

7.3.1. India Sandponics/IAVs Market Outlook

7.3.1.1. Market Size & Forecast

7.3.1.1.1. By Value

7.3.1.2. Market Share & Forecast

7.3.1.2.1. By Produce

7.3.1.2.2. By Application

7.3.2. Australia Sandponics/IAVs Market Outlook

7.3.2.1. Market Size & Forecast

7.3.2.1.1. By Value

7.3.2.2. Market Share & Forecast

7.3.2.2.1. By Produce

7.3.2.2.2. By Application

7.3.3. China Sandponics/IAVs Market Outlook

7.3.3.1. Market Size & Forecast

7.3.3.1.1. By Value

7.3.3.2. Market Share & Forecast

7.3.3.2.1. By Produce

7.3.3.2.2. By Application

7.3.4. South Korea Sandponics/IAVs Market Outlook

7.3.4.1. Market Size & Forecast

7.3.4.1.1. By Value

7.3.4.2. Market Share & Forecast

7.3.4.2.1. By Produce

7.3.4.2.2. By Application

7.3.5. Japan Sandponics/IAVs Market Outlook

7.3.5.1. Market Size & Forecast

7.3.5.1.1. By Value

7.3.5.2. Market Share & Forecast

7.3.5.2.1. By Produce

7.3.5.2.2. By Application

8. MIDDLE EAST & AFRICA SANDPONICS/IAVS MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

8.2.1. By Produce

- 8.2.2. By Application
- 8.2.3. By Country
- 8.3. MEA: Country Analysis
 - 8.3.1. Saudi Arabia Sandponics/IAVs Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Produce
 - 8.3.1.2.2. By Application
 - 8.3.2. UAE Sandponics/IAVs Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Produce
 - 8.3.2.2.2. By Application
 - 8.3.3. South Africa Sandponics/IAVs Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Produce
 - 8.3.3.2.2. By Application

9. EUROPE SANDPONICS/IAVS MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Produce
 - 9.2.2. By Application
 - 9.2.3. By Country
- 9.3. Europe: Country Analysis
 - 9.3.1. Italy Sandponics/IAVs Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Produce
 - 9.3.1.2.2. By Application
 - 9.3.2. Spain Sandponics/IAVs Market Outlook
 - 9.3.2.1. Market Size & Forecast

- 9.3.2.1.1. By Value
- 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Produce
 - 9.3.2.2.2. By Application
- 9.3.3. United Kingdom Sandponics/IAVs Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Produce
 - 9.3.3.2.2. By Application
- 9.3.4. France Sandponics/IAVs Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Produce
 - 9.3.4.2.2. By Application
- 9.3.5. Germany Sandponics/IAVs Market Outlook
 - 9.3.5.1. Market Size & Forecast
 - 9.3.5.1.1. By Value
 - 9.3.5.2. Market Share & Forecast
 - 9.3.5.2.1. By Produce
 - 9.3.5.2.2. By Application

10. SOUTH AMERICA SANDPONICS/IAVS MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Produce
 - 10.2.2. By Application
 - 10.2.3. By Country
- 10.3. South America: Country Analysis
 - 10.3.1. Brazil Sandponics/IAVs Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Produce
 - 10.3.1.2.2. By Application
 - 10.3.2. Argentina Sandponics/IAVs Market Outlook

10.3.2.1. Market Size & Forecast

10.3.2.1.1. By Value

10.3.2.2. Market Share & Forecast

10.3.2.2.1. By Produce

10.3.2.2.2. By Application

10.3.3. Colombia Sandponics/IAVs Market Outlook

10.3.3.1. Market Size & Forecast

10.3.3.1.1. By Value

10.3.3.2. Market Share & Forecast

10.3.3.2.1. By Produce

10.3.3.2.2. By Application

11. MARKET DYNAMICS

11.1. Drivers

11.2. Challenges

12. MARKET TRENDS & DEVELOPMENTS

12.1. Merger & Acquisition (If Any)

12.2. Product Launches (If Any)

12.3. Recent Developments

13. PORTERS FIVE FORCES ANALYSIS

13.1. Competition in the Industry

13.2. Potential of New Entrants

13.3. Power of Suppliers

13.4. Power of Customers

13.5. Threat of Substitute Products/Services

14. SWOT ANALYSIS: GLOBAL SANDPONICS/IAVS MARKET

15. OVERVIEW OF PREREQUISITES OF SANDPONICS

16. OVERVIEW ON BUILDING A SANDPONICS SYSTEM

17. COMPETITIVE LANDSCAPE

- 17.1. Sandponics Jordan
 - 17.1.1. Business Overview
 - 17.1.2. Company Snapshot
 - 17.1.3. Products & Services
 - 17.1.4. Financials (As Reported)
 - 17.1.5. Recent Developments
 - 17.1.6. Key Personnel Details
 - 17.1.7. SWOT Analysis
- 17.2. Sumitomo Electric Industries, Ltd.
- 17.3. Kiwa
- 17.4. Agritecture
- 17.5. Sandponic Egypt
- 17.6. MyAquaponics PTY Ltd
- 17.7. AQ&SA ponics Es
- 17.8. HydroGarde
- 17.9. GrowUp Urban Farms
- 17.10. Practical Aquaponics

18. STRATEGIC RECOMMENDATIONS

19. ABOUT US & DISCLAIMER

I would like to order

Product name: Sandponics/IAVs Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Produce (Fruits & Vegetables and Fishes), By Application (Commercial, Residential, and Others), By Region and Competition, 2020-2030F

Product link: <https://marketpublishers.com/r/SC19B6A8EF87EN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/SC19B6A8EF87EN.html>