

Middle East & Africa Desert Farming Market By Technique (Greenhouse, Hydroponics, Nano clay, Hydrogels, Others), By Crop Type (Dates, Alfalfa, Eggplant, Peppers, Tomatoes, Melon, Others), By Country, Competition, Forecast and Opportunities, 2020-2030F

Market Report | 2025-03-24 | 120 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License \$4000.00
- Multi-User License \$5000.00
- Custom Research License \$7500.00

Report description:

Middle East & Africa Desert Farming Market was valued at USD 231.32 Million in 2024 and is expected to reach USD 323.56 Million by 2030 with a CAGR of 5.71% during the forecast period. The Middle East & Africa Desert Farming Market is driven by rising food security concerns, climate change, and the need for efficient water management solutions. With vast desert landscapes and limited arable land, countries in the region are adopting advanced farming technologies such as hydroponics, aeroponics, and drip irrigation to maximize agricultural output. Government initiatives, foreign investments, and research in salt-tolerant crops are further accelerating growth. Additionally, the increasing demand for organic and locally produced food is pushing innovation in controlled-environment agriculture. The integration of AI, IoT, and desalination technologies is enhancing productivity, making desert farming a sustainable solution for future food production in arid regions.

Key Market Drivers

Water Scarcity and the Need for Efficient Water Management

Water scarcity is one of the most pressing challenges in the Middle East & Africa (MEA) region, where vast desert landscapes and arid climates limit access to natural freshwater resources. With rising population growth and increasing demand for food production, governments and private investors are heavily focused on sustainable water management technologies to support desert farming. Drip irrigation, hydroponics, aeroponics, and desalination have emerged as vital solutions, significantly reducing water wastage and enabling agriculture in extreme environments. Countries like Saudi Arabia, UAE, and Egypt are investing in large-scale desalination plants to convert seawater into irrigation water, ensuring a sustainable water supply for farming. Innovations such as solar-powered irrigation systems and smart water sensors that monitor moisture levels in real-time are also helping farmers optimize water usage, making desert farming more viable.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Key Market Challenges

High Initial Investment and Operational Costs

One of the biggest challenges in desert farming is the high initial capital investment required for setting up advanced farming systems. Technologies such as hydroponics, aeroponics, vertical farming, and controlled-environment agriculture (CEA) require specialized infrastructure, climate control systems, and automated irrigation technologies, all of which demand significant financial resources.

Setting up a hydroponic or aeroponic farm in the desert involves costs associated with greenhouses, LED lighting systems, water filtration units, and nutrient delivery mechanisms, making it an expensive venture compared to traditional soil-based farming. Even though governments and private investors are promoting desert farming through funding and subsidies, small-scale farmers struggle to access capital due to high interest rates and limited financial support.

In addition to setup costs, operational expenses remain high due to the energy-intensive nature of controlled farming systems. Greenhouses and vertical farms require constant electricity supply for cooling, heating, and lighting, which is a challenge in regions where energy infrastructure is underdeveloped or unreliable. Solar-powered farming systems offer a potential solution, but they too require substantial upfront investment.

Moreover, the cost of importing high-quality seeds, specialized nutrients, and advanced farming equipment adds to the financial burden. Countries in North America, Europe, and Asia manufacture most of the desert farming technologies, making importation costly due to tariffs, taxes, and logistical expenses. Until local production of desert farming equipment becomes widespread, cost-related barriers will continue to hinder the expansion of desert agriculture in the MEA region.

Key Market Trends

Foreign Direct Investments (FDI) and Agribusiness Expansion in the Region

The market is attracting significant Foreign Direct Investment (FDI) from international agritech companies and venture capital firms. With global interest in sustainable food production and climate-adaptive agriculture, major investors are pouring funds into desert farming startups, hydroponic projects, and vertical farming companies in the region. In March 2022, Under the patronage of His Highness Sheikh Khalifa bin Zayed Al Nahyan, President of the United Arab Emirates, regional ministers of agriculture, NARS representatives, and key stakeholders endorsed the Integrated Desert Farming Innovation Platform presented by Mr. Aly Aousabaa, CGIAR Regional Director of CWANA and Director General of ICARDA. The platform was introduced during a KIADPAI / CGIAR side-event held on March 14-15 as part of the 7th International Date Palm Conference in Abu Dhabi, highlighting innovative solutions for sustainable desert agriculture.

Leading agribusiness corporations from Europe, North America, and Asia are forming joint ventures with MEA-based firms, bringing advanced farming techniques, AI-driven automation, and data analytics into the sector. Countries like Saudi Arabia, the UAE, and Egypt are also leasing agricultural land abroad while simultaneously developing desert farming solutions to strengthen domestic food security.

Key Market Players

- [] Red Sea Farm Cooperative
- [] Desert Hydroponics (Aljoaib Holdings)
- [] Vertical Farms Company
- [] Desert Growing
- [] Elite Agro LLC
- [] Emirates Hydroponics Farms
- [] Farminova Plant Factory
- [] Future Farms South Africa
- [] FlowGrow Hydroponics
- [] Hydroponics Africa Limited

Report Scope:

In this report, the Middle East & Africa Desert Farming Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- [] Middle East & Africa Desert Farming Market, By Technique:

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- o Greenhouse
- o Hydroponics
- o Nano clay
- o Hydrogels
- o Others

-□Middle East & Africa Desert Farming Market, By Crop Type:

- o Dates
- o Alfalfa
- o Eggplant
- o Peppers
- o Tomatoes
- o Melon
- o Others

-□Middle East & Africa Desert Farming Market, By Country:

- o Israel
- o UAE
- o Saudi Arabia
- o Algeria
- o Egypt
- o Oman
- o Turkey
- o South Africa
- o Kuwait
- o Qatar

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Middle East & Africa Desert Farming Market.

Available Customizations:

Middle East & Africa Desert Farming 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:

Company Information

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

Table of 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 & Validations
 - 2.7. Assumptions and Limitations

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 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. Middle East & Africa Desert Farming Market Outlook
 - 5.1. Market Size & Forecast
 - 5.1.1. By Value
 - 5.2. Market Share & Forecast
 - 5.2.1. By Technique (Greenhouse, Hydroponics, Nano clay, Hydrogels, Others)
 - 5.2.2. By Crop Type (Dates, Alfalfa, Eggplant, Peppers, Tomatoes, Melon, Others)
 - 5.2.3. By Country
 - 5.2.4. By Company (2024)
 - 5.3. Market Map
- 6. Country Analysis
 - 6.1. Israel Desert Farming Market Outlook
 - 6.1.1. Market Size & Forecast
 - 6.1.1.1. By Value
 - 6.1.2. Market Share & Forecast
 - 6.1.2.1. By Technique
 - 6.1.2.2. By Crop Type
 - 6.2. UAE Desert Farming Market Outlook
 - 6.2.1. Market Size & Forecast
 - 6.2.1.1. By Value
 - 6.2.2. Market Share & Forecast
 - 6.2.2.1. By Technique
 - 6.2.2.2. By Crop Type
 - 6.3. Saudi Arabia Desert Farming Market Outlook
 - 6.3.1. Market Size & Forecast
 - 6.3.1.1. By Value
 - 6.3.2. Market Share & Forecast
 - 6.3.2.1. By Technique
 - 6.3.2.2. By Crop Type
 - 6.4. Algeria Desert Farming Market Outlook
 - 6.4.1. Market Size & Forecast
 - 6.4.1.1. By Value
 - 6.4.2. Market Share & Forecast
 - 6.4.2.1. By Technique
 - 6.4.2.2. By Crop Type
 - 6.5. Egypt Desert Farming Market Outlook
 - 6.5.1. Market Size & Forecast
 - 6.5.1.1. By Value
 - 6.5.2. Market Share & Forecast
 - 6.5.2.1. By Technique
 - 6.5.2.2. By Crop Type

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.6. Oman Desert Farming Market Outlook
 - 6.6.1. Market Size & Forecast
 - 6.6.1.1. By Value
 - 6.6.2. Market Share & Forecast
 - 6.6.2.1. By Technique
 - 6.6.2.2. By Crop Type
- 6.7. Turkey Desert Farming Market Outlook
 - 6.7.1. Market Size & Forecast
 - 6.7.1.1. By Value
 - 6.7.2. Market Share & Forecast
 - 6.7.2.1. By Technique
 - 6.7.2.2. By Crop Type
- 6.8. South Africa Desert Farming Market Outlook
 - 6.8.1. Market Size & Forecast
 - 6.8.1.1. By Value
 - 6.8.2. Market Share & Forecast
 - 6.8.2.1. By Technique
 - 6.8.2.2. By Crop Type
- 6.9. Kuwait Desert Farming Market Outlook
 - 6.9.1. Market Size & Forecast
 - 6.9.1.1. By Value
 - 6.9.2. Market Share & Forecast
 - 6.9.2.1. By Technique
 - 6.9.2.2. By Crop Type
- 6.10. Qatar Desert Farming Market Outlook
 - 6.10.1. Market Size & Forecast
 - 6.10.1.1. By Value
 - 6.10.2. Market Share & Forecast
 - 6.10.2.1. By Technique
 - 6.10.2.2. By Crop Type
- 7. Market Dynamics
 - 7.1. Drivers
 - 7.2. Challenges
- 8. Market Trends & Developments
 - 8.1. Recent Development
 - 8.2. Mergers & Acquisitions
 - 8.3. Product Launches
- 9. Middle East & Africa Desert Farming Market: SWOT Analysis
- 10. Porter's Five Forces Analysis
 - 10.1. Competition in the Industry
 - 10.2. Potential of New Entrants
 - 10.3. Power of Suppliers
 - 10.4. Power of Customers
 - 10.5. Threat of Substitute Products
- 11. Competitive Landscape
 - 11.1. Red Sea Farm Cooperative
 - 11.1.1. Business Overview

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 11.1.2. Company Snapshot
- 11.1.3. Products & Services
- 11.1.4. Financials (As Reported)
- 11.1.5. Recent Developments
- 11.1.6. Key Personnel Details
- 11.1.7. SWOT Analysis
- 11.2. Desert Hydroponics (Aljoaib Holdings)
- 11.3. Vertical Farms Company
- 11.4. Desert Growing
- 11.5. Elite Agro LLC
- 11.6. Emirates Hydroponics Farms
- 11.7. Farminova Plant Factory
- 11.8. Future Farms South Africa
- 11.9. FlowGrow Hydroponics
- 11.10. Hydroponics Africa Limited
- 12. Strategic Recommendations
- 13. About Us & Disclaimer

Middle East & Africa Desert Farming Market By Technique (Greenhouse, Hydroponics, Nano clay, Hydrogels, Others), By Crop Type (Dates, Alfalfa, Eggplant, Peppers, Tomatoes, Melon, Others), By Country, Competition, Forecast and Opportunities, 2020-2030F

Market Report | 2025-03-24 | 120 pages | TechSci Research

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4000.00
	Multi-User License	\$5000.00
	Custom Research License	\$7500.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

☐** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Date

2025-05-08

Signature



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com