

Agrivoltaics Market Forecasts to 2034 – Global Analysis By System Design (Fixed Agrivoltaic Systems and Dynamic Agrivoltaic Systems), Installation Type, Solar Cell Type, Crop Type, System Capacity, Component, Application, End User, Ownership Model, and By Geography

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Abstracts

According to Statistics MRC, the Global Agrivoltaics Market is accounted for \$5.9 billion in 2026 and is expected to reach \$13.5 billion by 2034 growing at a CAGR of 10.9% during the forecast period. Agrivoltaics, also known as agriphotovoltaics or solar sharing, refers to the co-location of agricultural production and solar photovoltaic energy generation on the same land area. This innovative approach enables dual land use, where crops are grown beneath or between solar panels while simultaneously generating renewable electricity. The market encompasses various system capacities including up to 250 kW, 250 kW–1 MW, and above 1 MW, with components including solar modules, mounting structures, solar trackers, inverters, energy storage systems, monitoring and control systems, and other components. Growing demand for land-use efficiency, increasing renewable energy targets, rising need for sustainable agriculture, and government incentives for dual-use systems are key drivers of market expansion across all regions.

Market Dynamics:

Driver:

Growing need for land-use efficiency and sustainable agriculture

The increasing competition for land resources between food production and renewable energy development is a primary driver for the agrivoltaics market. Agrivoltaics enables dual land use, maximizing productivity per unit area and addressing land scarcity concerns. The approach offers benefits including improved water efficiency through shading, reduced crop stress, and enhanced agricultural yields for certain crop types. Farmers and landowners are recognizing the economic benefits of combining crop production with solar energy revenue. As global population grows and land becomes increasingly scarce, the efficiency gains offered by agrivoltaics become more valuable, driving investment and adoption across agricultural regions.

Restraint:

High initial investment costs and long payback periods

The significant capital expenditure required for agrivoltaic system installation and extended payback periods represent a major restraint for the market. Agrivoltaic systems require specialized mounting structures, solar panels, and tracking systems designed for agricultural compatibility, increasing costs compared to conventional solar installations. Farmers may lack access to sufficient capital for system investment. Returns depend on both crop yields and energy generation, creating revenue uncertainty. Financing challenges may limit adoption, particularly among small-scale farmers and in developing regions with limited access to agricultural credit.

Opportunity:

Government incentives and renewable energy policies

Growing government support for renewable energy and sustainable agriculture presents significant opportunities for agrivoltaics market expansion. Various countries are implementing feed-in tariffs, tax incentives, and grants specifically for dual-use solar systems. Renewable energy targets are driving investment in solar capacity, with agrivoltaics offering a politically attractive solution that addresses land-use concerns. Agricultural subsidies and rural development programs are increasingly supporting sustainable farming practices. As policy frameworks evolve to recognize and reward the benefits of agrivoltaic systems, adoption is expected to accelerate, expanding market reach.

Threat:

Competition from conventional solar and agricultural land uses

Intense competition from conventional solar installations and traditional agricultural land use poses significant threats to the agrivoltaics market. In areas with abundant land, conventional solar may be simpler and more cost-effective. Farmers may prefer traditional farming methods over the complexity of dual-use systems. Real estate developers may compete for land with solar developers and farmers. The limited number of crop types proven compatible with agrivoltaics may restrict adoption. These competing land-use pressures may limit agrivoltaics market growth in regions with alternative options.

Covid-19 Impact:

The COVID-19 pandemic had a mixed impact on the agrivoltaics market. Initial disruptions included supply chain interruptions, project delays, and reduced investment in renewable energy projects. However, the pandemic reinforced focus on sustainable agriculture and renewable energy as critical infrastructure. Government stimulus packages included support for renewable energy and agricultural sustainability. Growing awareness of food and energy security supported interest in integrated approaches. Post-pandemic, recovery across renewable energy and agricultural sectors has supported market growth.

The Above 1 MW segment is expected to be the largest during the forecast period

The Above 1 MW segment is expected to account for the largest market share during the forecast period, driven by the economies of scale achievable with large-scale agrivoltaic installations and the investment focus on utility-scale projects. Above 1 MW systems offer lower per-unit costs for solar modules, tracking systems, and inverters, making them economically attractive for commercial agriculture operations. The segment benefits from utility-scale project financing, streamlined permitting, and significant land requirements. Larger projects offer improved economic returns from energy generation revenues. As investment in large-scale agrivoltaic projects accelerates, this capacity segment maintains the largest market share.

The Energy Storage Systems segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the Energy Storage Systems segment is predicted to witness the highest growth rate, fueled by the increasing need for energy storage to manage

solar intermittency, optimize energy usage, and maximize economic returns from agrivoltaic systems. Energy storage enables captured solar energy to be stored and used during non-sunlight hours, increasing system value and grid stability. The segment benefits from declining battery costs and growing battery technology investment. Integrating storage enhances the economics of agrivoltaic projects. As storage technology advances and costs decline, adoption grows, delivering the fastest component segment growth.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by significant renewable energy investment, established agricultural sector, and supportive policy frameworks. The United States leads regional growth with substantial solar capacity additions and growing interest in dual-use systems. Federal and state incentives for solar development and sustainable agriculture support adoption. Strong agricultural sector provides market access. Research institutions and demonstration projects are advancing technology. With established infrastructure and policy support, North America maintains its dominant market position.

Region with highest CAGR:

Over the forecast period, the Asia-Pacific region is anticipated to exhibit the highest CAGR, driven by rapid solar capacity expansion, growing food security concerns, and increasing government support for sustainable agriculture across countries including China, India, Japan, and Australia. Japan has pioneered agrivoltaics with supportive policies and demonstration projects. India's large agricultural sector and solar capacity targets create substantial opportunities. China's solar manufacturing leadership supports cost-effective deployment. Growing populations and land constraints drive interest in dual-use systems. As policy support and awareness increase across the region, Asia Pacific delivers the fastest agrivoltaics market growth globally.

Key players in the market

Some of the key players in Agrivoltaics Market include BayWa r.e. AG, Next2Sun AG, Sun'Agri SAS, REM TEC S.r.l., Akuo Energy SAS, TotalEnergies SE, EDF Renewables, ENGIE SA, Iberdrola, S.A., Trina Solar Co., Ltd., LONGi Green Energy Technology Co., Ltd., JinkoSolar Holding Co., Ltd., Canadian Solar Inc., First Solar, Inc., Insolight SA, Enel Green Power S.p.A., Solarig Global Services S.A., and Cero Generation Limited.

Key Developments:

In June 2026, Next2Sun expanded its vertical agrivoltaic portfolio by officially launching Fields2Sun Max, a vertical mounting system engineered specifically for utility-scale power plants and heavy agricultural dual-use environments.

In May 2026, BayWa r.e. expanded its clean energy deployment portfolio by successfully executing the sale of a 16.8 MWp solar facility to a local infrastructure consortium in France.

In March 2026, Boralex announced the formal expansion of its strategic partnership with Sun'Agri to co-develop smart dynamic agrivoltaic installations across Europe, utilizing Sun'Agri's responsive tracking algorithms to protect crops from severe weather variations.

System Designs Covered:

Fixed Agrivoltaic Systems

Dynamic Agrivoltaic Systems

Installation Types Covered:

Ground-Mounted Systems

Agrivoltaic Greenhouses

Shading Net Systems

Elevated Canopy Systems

Vertical Agrivoltaic Systems

Solar Cell Types Covered:

Monocrystalline

Polycrystalline

Thin-Film

Crop Types Covered:

Vegetables

Fruits

Cereals and Grains

Root Crops

Oilseeds and Pulses

Vineyards

Fodder Crops

Other Crops

System Capacities Covered:

Up to 250 kW

250 kW–1 MW

Above 1 MW

Components Covered:

Solar Modules

Mounting Structures

Solar Trackers

Inverters

Energy Storage Systems

Monitoring and Control Systems

Other Components

Applications Covered:

Crop Production

Livestock Grazing

Aquaculture

Pollinator Habitat

Agricultural Research

End Users Covered:

Farmers and Agricultural Producers

Renewable Energy Developers

Agricultural Cooperatives

Research Institutes and Universities

Government Organizations

Ownership Models Covered:

Farmer-Owned Systems

Utility-Owned Systems

Third-Party Owned Systems

Public-Private Partnership (PPP)

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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