



SolAgra® is a solar and agrivoltaic development company based in California. Agrivoltaics is an exciting new technology that combines solar and agriculture to revolutionize the way we produce our food and energy, while conserving the land and water. It's a technology that enables productive farmland to simultaneously generate solar power, while sustaining, or in some cases improving the productivity of the crops grown beneath the solar arrays. SolAgra® has created a patented technology called SolAgra® Farming that will transform the agrivoltaics, solar and agriculture industries.

SolAgra® Farming

Historically – “solar farms” monopolize large areas of land, often converting otherwise useful land or wildlife habitat into “gravel lots” covered with solar panels and little else. SolAgra® Farming offers an alternative to this form of solar development, one that conserves the land, continues farming operations and produces renewable energy, creating a true solar farm. The dual use of farmland allows the solar developer to avoid costly land acquisitions and it provides the farmer with a second income from their farmland. This makes agriculture more financially viable for the farmer.

Many farms are sunny, flat and near urban areas. This is the perfect place for a SolAgra® farm. Using our patented technologies: Counter Tracking™, SunSharing™ and SunShading™ - we combine dynamic elevated solar platforms with conventional farming

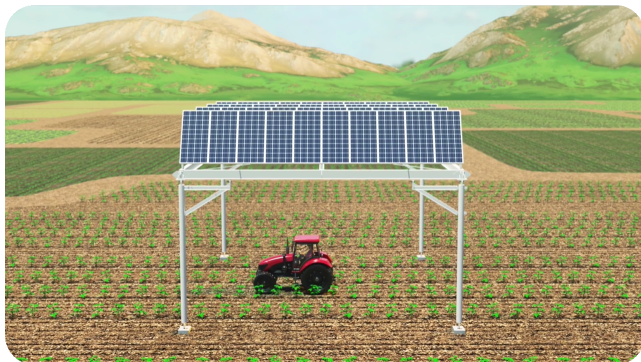


techniques beneath, this allows SolAgra® farms to be developed almost anywhere.

SolAgra® Farming uses a low impact, agriculturally compatible, and quickly constructed modular design. The array foundations have a small footprint to minimize the impact on farming. Each SolAgra® Solar Platform segment is 45 ft. long by 35 ft. wide, and 10 ft. to 16 ft. tall. The height of the solar platform accommodates the largest mechanized farm equipment like harvesters and combines. The SolAgra® Solar Platform is first assembled at ground level, then the

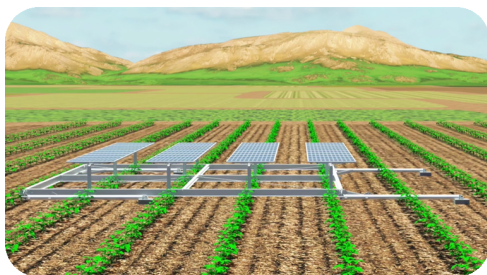
single axis tracking solar arrays, fully populated with solar panels, are bolted to the platform.

After being electrically prewired, the platform is hinged into position and secured with actuators that permit the array to travel horizontally from east to west. The hinge design allows for variable movement of the array,

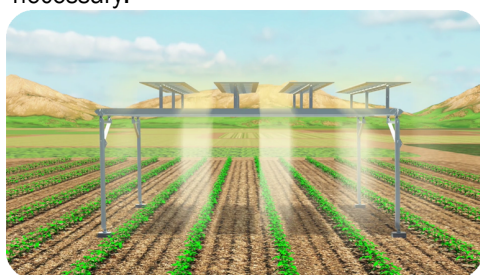


which enables the sunlight control techniques known as: SunSharing™, SunShading™ and Dynamic Shifting™. By using the hinges to physically move and tilt the array columns, we can control how much shade or sunlight reaches any part of the field beneath the array at any time of day. SunSharing™, SunShading™ and Dynamic Shifting™ are controlled by an automated tracking computer, but may also be manually controlled by the farmer using a Smartphone to satisfy the needs of whichever crop is in SolAgra® Farming production.

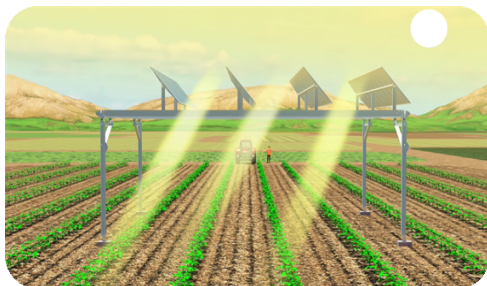
Solar panels normally track the sun. In certain conditions Counter-Tracking™ is used. This technique rotates the solar panels 90 degrees from the sun, to allow for the passage of additional sunlight to the field when needed by the crops. The east-west movement of the SolAgra® Solar Platform can also protect high value row crops and vines like grapes, berries, and tomatoes from extreme weather such as unseasonal rain and hail, or from excessive heat and sun, by protecting the crops using the “umbrella effect” which uses solar panels to shield the crops from weather when necessary.



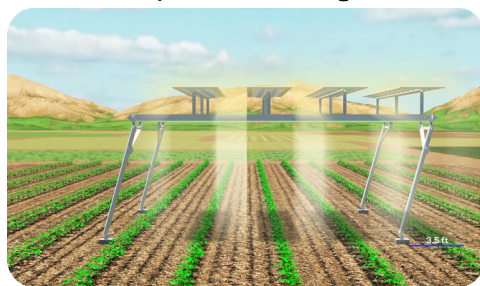
SolAgra® Solar Platform Constructed at Ground Level



SunSharing™ Panels and Crops Recieve Sunlight



Panels Track the Sun



SunShading™ Dynamic Shifting™ Crops Shaded

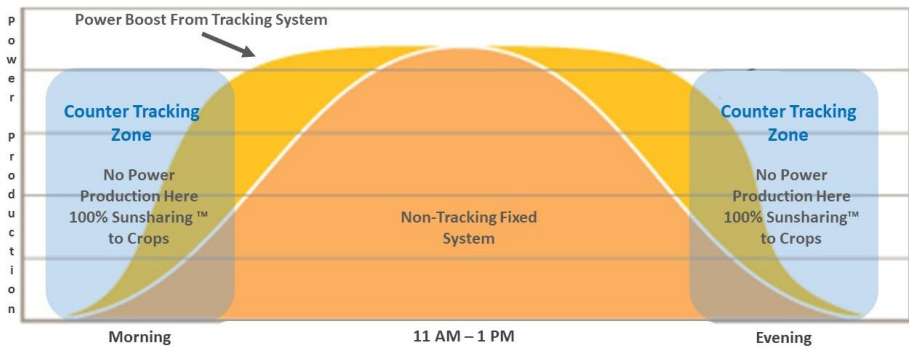


Panels Counter-Tracking™ the Sun



Dynamic Shifting™ for the Umbrella Effect

Daily Power Production Fixed, Tracking and Counter Tracking



Note 1: The counter tracking zones are not a fixed size, they can be as large or as small as the producer chooses.

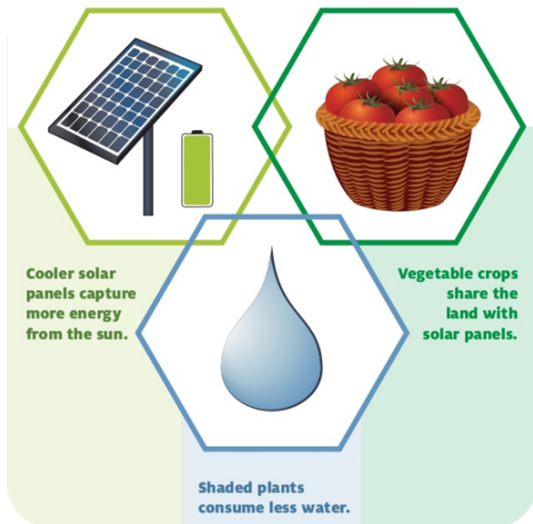
Note 2: From 11:00am to 1:00pm there is both power production and Sunsharing™ due to the space between panels

Additionally, the crops growing beneath the solar array create a cooler microclimate which cools the solar panels. Cooler solar panels have higher operating efficiency and produce more power. The cooler microclimate created by the solar array shading the crops results in reduced evapotranspiration. This lowers irrigation requirements by as much as 30%.

What grows under SolAgra® Farming?

A wide variety of crops are suitable for SolAgra® Farming depending on the regional climate. Crops such as grapes, raspberries, lettuce, wheat and alfalfa all thrive with the controlled conditions that are provided in a SolAgra® Farming environment. Our solar arrays provide an infinite number of light control adjustments to provide optimal growing conditions for many crops. This is especially useful for helping farmers adapt to climate change. For example, with grapes as the climate gets hotter, the acid and sugar content of the grapes increases proportionally, degrading the quality of the wine made from those grapes. With SolAgra® Farming we can control the microclimate and create the perfect conditions for each grape variety as macroclimate conditions change.

SolAgra® Farming can reduce irrigation requirements by as much as 30%



The Food, Water and Energy Nexus

Agrivoltaics Around the World and SolAgra

In October of 2020, the first world congress on agrivoltaic systems was held in France. More than 350 participants from 38 countries proved the relevance of this new industry and interdisciplinary research topic. Winston Friedman, SolAgra's® Director of Research attended the conference and was stunned by the breadth of adoption of agrivoltaics around the world. Also, he was struck by how well positioned SolAgra® is in this emerging industry, given our advanced concepts, patents and pending patents and the advantage our technology provides when compared to techniques used by other companies that are experimenting with this technology. Below are a few examples of agrivoltaics around the world.

In Japan there are nearly 2,000 agrivoltaic farms growing mainly rice. The technology that is used in Japan is much different from SolAgra's®, they use lightweight frames and small fixed-position solar panels. This strategy is low tech and low cost, but effective, especially given Japan's aggressive financial incentives for agrivoltaics. SolAgra's® system is more durable, energy dense (KW/acre) and adaptable.

In China an internet information technology services provider, Baofang Group created a massive 640 MW agrivoltaic facility that cultivates goji berries. This is by far the largest agrivoltaic system in the world. To read more about this project, follow [this link](#).



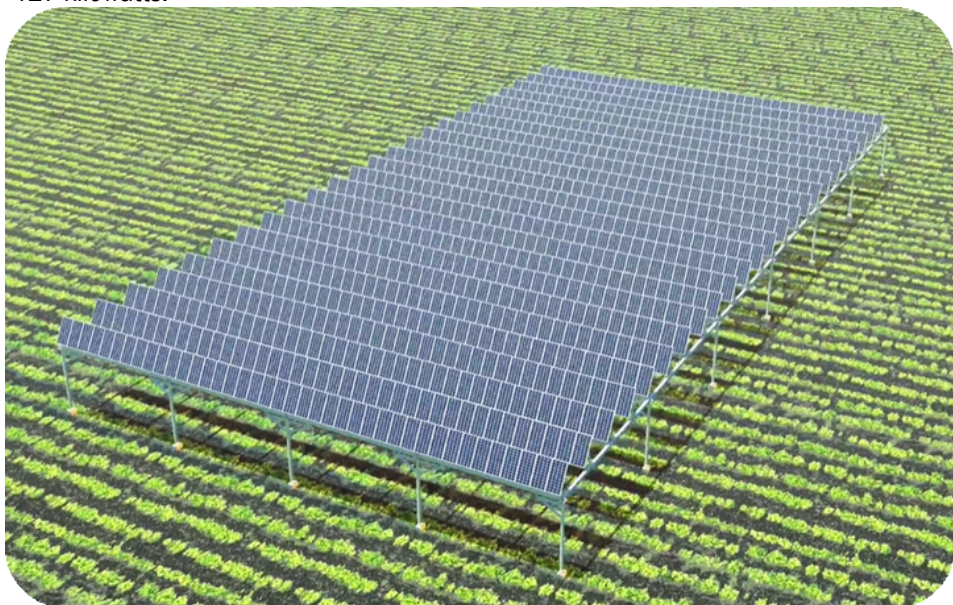
In France SunAgri is growing wine grapes and actually improving the quality of the wine using sunlight control which enables the regulation of sugar content and acidity in grapes as they near harvest by controlling the amount of sunlight that reaches the vines. The system shown in [this video](#) from SunAgri is the most similar to SolAgra's® system. SolAgra® not only has patents for counter-tracking™ in the US, we also have patents on Dynamic Shifting™, which makes SolAgra® Farming arrays far superior to SunAgri's.

In the Netherlands BayWa r.e., a German company, built a 2.7 MW agrivoltaic facility that grows raspberries. The company claims that the solar panels protect the crops from hail at a much lower cost than previous methods, while also having the benefit of producing power.

Our agrivoltaic system is more efficient and effective than any technique currently used in the agrivoltaics industry. Our system is more flexible and able to adapt to most farming environments, it allows both more sunlight to solar panels and to crops. Therefore ours system is both more productive and profitable. We believe that SolAgra® Farming will be the gold standard in agrivoltaics due to these factors.



SolAgra® solar arrays produce approximately 500 KW per acre or 1.2 Megawatts/Hectare. The 24 segment SolAgra solar array you see below produces 417 kilowatts.



We all need food, water and energy. SolAgra® Farming makes it possible to produce abundant food and energy, while reducing water consumption and conserving land. It helps farmers, serves communities and is economically viable. SolAgra® is taking this technology from the lab into the field, we hope you're as excited as we are to begin the SunSharing™ Revolution.

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