



# SOLAR + AGRICULTURE IS AGRIVOLTAICS: CREATING MULTI-USE LAND OPPORTUNITIES

Chrysalis actively seeks ways we can work with local farmers to make space for grazing, growing crops, and planting pollinators on solar farms.

## WHAT ARE AGRIVOLTAICS?

Agrivoltaics refers to many farming practices that can take place on the same site as a solar installation. Often, it refers to the practice of grazing livestock underneath solar panels mounted on the ground but also includes growing market gardening crops or planting pollinators.

Co-locating farming and solar ensures that the land remains in use for farming, while supporting the growth of clean energy.

## LIVESTOCK GRAZING AND SOLAR: VEGETATION MANAGEMENT

Most often, livestock grazing is used for vegetation management on solar sites instead of mowing the plants. Sheep are the preferred animals to be used to graze on a solar site because of their behavior and size. They fit easily enough under solar panels without disrupting the solar site's functioning.

## GROWING CROPS UNDER SOLAR: AGRIVOLTAIC FARMING

Certain crops thrive under the shade of solar panels, protected from heat stress, water loss, and intense rain or hail. Tomatoes, carrots, squash, lettuces, berries and other market gardening crops are the preferred crops for farming under solar.

Agrivoltaic farming is mutually beneficial. A 2019 study on agrivoltaics found that the crops tested were 100 to 300% more productive and the shade provided by the panels reduced water consumption by 157%<sup>1</sup>.

## PLANTING POLLINATORS AND SUPPORTING NEIGHBORING FARMS

Planting pollinator-friendly ground cover is the best practice for solar development, benefiting nearby farms and creating suitable habitat for bees, butterflies, birds and other insects. They also help prevent erosion and improve water quality.

1. Barron-Gafford, G.A., Pavao-Zuckerman, M.A., Minor, R.L. et al. Agrivoltaics provide mutual benefits across the food-energy-water nexus in drylands. Nat Sustain 2, 848-855 (2019). <https://doi.org/10.1038/s41893-019-0364-5>

*Agriculture plus solar doubles the use of the land and proves beneficial to both. Shielding from solar panels protects plants and the plants cool the panels, increasing electricity generation.*



## HOW CAN FARMERS BENEFIT FROM SOLAR?

Farmers can benefit financially and get steady income from hosting a solar installation on their land or grazing sheep on solar sites. Steady income means that farmers are less vulnerable to volatility in prices for their product and can maintain the viability of their farm.

Chrysalis leases land from farmers for solar for 25+ years and also seeks out local farmers to graze their sheep on our solar site, or other farming opportunities.



Lease land for solar site and receive 25+ years steady income



Earn income from grazing sheep on the solar site or planting market gardening crops



Support responsible solar development and secure our food supply

## RESPONSIBLE SOLAR DEVELOPMENT: SUSTAINABLE SOLAR AND REGENERATIVE FARMING

Solar sites can actively support the health of the surrounding environment through encouraging greater diversity in plants, encouraging bee populations, and other pollinators. Whether incorporating bee colonies on the solar site or simply planting pollinator-friendly plants, solar supports regenerative farming practices that improve crop yields and turn land into carbon sinks.

### ASK US ABOUT SOLAR + FARMING

We can work with you to find the opportunity right for your farm. Call us at 1-888-556-8426 or email us at [land@chrysalis-energy.com](mailto:land@chrysalis-energy.com).