



Rutgers Agrivoltaics Program (RAP)

The Rutgers Agrivoltaics Program (RAP) consists of a multidisciplinary group of faculty and staff committed to conducting applied agrivoltaics research and outreach. RAP is part of the New Jersey Agricultural Experiment Station and Rutgers Cooperative Extension, which provide research, outreach and education resources to residents, communities, and businesses in New Jersey and beyond.

RAP Mission

Our mission is to investigate the opportunities and challenges associated with agrivoltaics in New Jersey and to conduct research and outreach that focuses on combining agricultural production and solar power generation simultaneously on the same plot of land.

GOAL 1: Keeping New Jersey's Farmland in Agricultural Production

Agrivoltaics can play a key role in keeping New Jersey's farms viable by providing an additional revenue stream for farmers. Agrivoltaic systems can be designed to be compatible with a large variety of agricultural production systems.

GOAL 2: Increasing New Jersey's Renewable Energy Capacity

Agrivoltaics can contribute to New Jersey's renewable energy goals, while minimally impacting the State's approximately 700,000 acres of farmland. New Jersey is home to more than 10,000 farms, with around one third of these farms on preserved land. Agrivoltaics can help keep New Jersey's agricultural industry viable, while adding much needed renewable electricity production capacity.

Is the simultaneous dual-use of land for agriculture and solar energy production a good fit for New Jersey?

Field 1

Field 2



+



Agriculture
and solar
energy
generation
on separate
fields

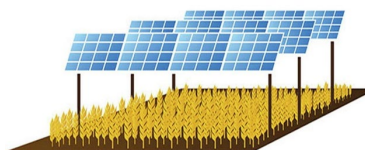
Agriculture

Solar Farm

Using land for traditional solar power generation to meet New Jersey's renewable energy goals will reduce the amount of productive farmland since it can no longer be farmed

Field 1

Field 2



+



Agriculture
and solar
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Agrivoltaics

Agrivoltaics

Agrivoltaics can increase the profitability of the land, while maintaining its agricultural productivity and contributing to New Jersey's renewable energy goals

Rutgers Agrivoltaics Program Sites

Animal Farm New Brunswick



170 kW_{DC} Installed

Large Animal Grazing and Forage Production



Vertical bifacial panels for beef cattle grazing and forage production



Grass evaluation to better understand how solar panels affect forage growth

Cook Campus Animal Farm
College Farm Rd.
New Brunswick, NJ 08901

RAREC Upper Deerfield



255 kW_{DC} Installed

Staple and Specialty Crop Production



Tomato, eggplant & pepper under double wide single-axis tracker arrays



Soybeans under single wide single-axis tracker arrays

Rutgers Agricultural Research and Extension Center
121 Northville Rd.
Bridgeton, NJ 08302

Snyder Farm Pittstown



95 kW_{DC} Installed

Hay Production



Hay production under single wide single-axis tracker arrays



Processing hay between single-axis tracker arrays

Clifford E. & Melda C. Snyder Research & Extension Farm, 140 Locust Grove Rd.
Pittstown, NJ 08867