

## PEES Power Systems

# Is it okay to install photovoltaic panels on apple trees



## Overview

---

The first-year results show that the presence of solar panels on top of apple trees improved their water status with less water applied in the period prior to harvest without any negative effects in fruit growth rates than with trees that had no solar panels. A small experimental apple orchard at Cornell's Hudson Valley Research Laboratory may soon be topped by solar panels - which would not only track the sun to capture energy but provide a warm canopy on cooler spring days and shade the trees from excessive heat. The research lab proposes to install a. This article describes a planned three-year study (2019-2022) to understand the effect of shading below solar panels in apple production. Some observations of this study also indicate that the photovoltaic panels afford protection from freeze damage and induce a less alternate bearing behavior of photovoltaic roofs are best suited for the orchard. The innovative approach of combining solar energy production with apple orchard management offers a dual benefit for farmers.

## Is it okay to install photovoltaic panels on apple trees

---

### The Benefits of Solar Panels Above Apple Trees



This innovative technology combines agricultural production and electricity generation. For this purpose, 208 bilateral photovoltaic modules with varying light transmittance were installed ...

### Shading apple trees with an agrivoltaic system: Impact on water

The installation of dynamic photovoltaic panels over apple orchards could meet the challenges of protecting orchards from climate change and drive the energetic transition. However, ...



### Harness solar power for New York's apple orchards.



Integrating solar panels into apple orchards in New York is not only a sustainable energy solution but also a way to protect the apple trees from extreme weather conditions.

## Is it feasible to grow apples under photovoltaic panels

The presence of solar panels on top of apple trees improved their water status with less water applied in the period before harvest (reduction about 30%) without any negative effect in the



## Bright Idea: How Apples and Solar Panels Can Grow Together

The research lab proposes to install a 300-kilowatt solar arrangement next spring to cover about 1,100 apple trees. The single-axis movable energy array 12 feet above the ground would ...

## Solar panels may soon shield and power apple orchards

Apple trees in New York's Hudson Valley might soon flourish under the protective shade of solar panels, merging fruit cultivation with renewable energy production.



## Sun Protection for Fruit: Dynamic Agrivoltaics Reduces Apple

The installation of dynamic photovoltaic panels over apple orchards could meet the challenges of protecting orchards from climate change and drive the energetic transition.



---

## Water Status, Irrigation Requirements and Fruit Growth of Apple Trees

This article describes a planned three-year study (2019-2022) to understand the effect of shading below solar panels in apple production. This study includes tree water status, irrigation ...



---

## Unique Solar Panel Project Aims To Boost Apple Orchard Efficiency

The goal is to study the dual-use benefits of solar panels as a form of orchard shading to reduce summer sunburn in apples and while also generating solar power for agriculture operations. ...

---

## Solar panels soon may power and protect apple orchards

"When we want to let sunlight in, we'll be able to anti-track the panels. When we want to keep the sun off the trees--apples can get sunburned--we'll be able to cover them."



---

## Contact Us

---

For catalog requests, pricing, or partnerships, please visit:  
<https://peregrine-energy.co.za>

