Good Stays

Solar container substances in soybeans

Overview

This study aims to investigate the process and pathways through which agrivoltaic systems influence soybean protein concentration by examining crop responses to three types of photovoltaic structures: traditional photovoltaic panels, checkerboard photovoltaic panels, and. Efficiency of light interception, Radiation use efficiency and harvest index can be used as targets to improve grain yield potential in soybean. Italian researchers have looked at how soybeans could be grown in agrivoltaic installations and have found that the impact of shading is less significant than previously believed. Image: Università Cattolica del Sacro Cuore Scientists from Università Cattolica del Sacro Cuore in Italy have. This article focuses on the fundamental principles and management strategies that can increase soybean productivity, transforming sunlight into abundant harvests. The objective of this study was to observe whether the increase in solar radiation input. Soybeans contain approximately 40 % protein, 20 % oil, 25 % carbohydrate and 5 % crude fiber and are rich in multiple bioavailable nutrients such as isoflavones, minerals, lecithin and phytosterols [13].

Solar container substances in soybeans

Energy storage substances in soybeans

Isoflavones, a class of substances with high biological activity, are abundant in soybeans. This study investigated isoflavone biosynthesis in soybean cell suspension cultures under UV-B radiation.

Soybean storage and Preservation: A comprehensive review of post

Soybean (Glycine max) is widely regarded as one of the most important oilseeds crops worldwide, valued for its critical source of protein, oil, and feed. However, its high lipid content and sensitivity to ...

Physiological breeding for yield improvement in soybean: solar

Low yield in soybean is genetically associated with reduced capability to transform solar energy into biomass and poor reproductive effort rather than limited ability to capture solar radiation.

Contribution of incident solar radiation on leaves and pods to soybean

The weight and composition of soybean seeds (Glycine Max L. Merrill) depend on changes in carbon and nitrogen assimilate supply during

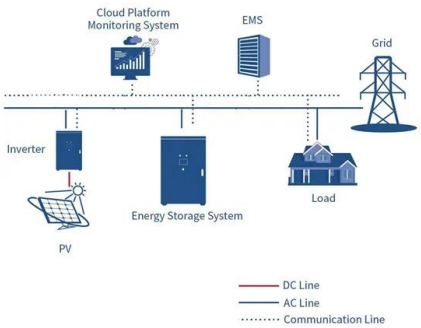
grain filling. Soybean pods and seeds are green, ...

Synthesis of Fluorescent Carbon Dots from Soybean Residuals Using

The presence of these substances makes soybean residuals have potentials precursor for the synthesis of C-Dots. In this study, C-Dots from soybean residuals was carried out by using facile hydrothermal ...

The Effect of Soybean Wax as a Phase Change Material on the ...

nts and low emissions. The work of the solar panel is affected by the increase in its working temperatures. In this study, 50 Wp polycrystalline solar panel with and without soybean wax placed ...



Soybean seed storage: Packaging technologies and conditions of ...

This research aimed to evaluate different storage conditions and technological packaging for soybean seeds. The first stage evaluated the quality of soybean seeds stored at different ...

Dynamics of solar radiation and soybean yield in agroforestry systems

The aim of this study was to evaluate the effect of different arrangements of agroforestry systems of the species E. urophylla x E. grandis and P. dubium and the pruning of the trees on the dynamics of ...

Source-sink relationship of soybean accessed by increasing in solar

The objective of this study was to observe whether the increase in solar radiation input in the canopy of soybean plants improves their yield performance.

Impact of solar ultraviolet-B on the proteome in soybean lines

Two-dimensional polyacrylamide gel electrophoresis (2-D PAGE) was used to systematically investigate the impact of solar ultraviolet-B (UV-B) radiation on the soybean leaf proteome. In order to ...

Far-red light mediates light energy capture and distribution in soybeans

However, soybean suffers from inter- or intraspecies shading when grown under high-density planting and intercropping, which reflect the low light intensity and low R/FR ratio to the ...

Agrivoltaics for soybeans - pv magazine International

Italian researchers have looked at how soybeans could be grown in agrivoltaic installations and have found that the impact of shading is less significant than previously believed.

Impact of solar ultraviolet-B radiation on the antioxidant defense

Impact of solar ultraviolet-B radiation on the antioxidant defense system in soybean lines differing in flavonoid contents Chenping Xu a, Savithiry Natarajan b, Joe H. Sullivan a Show more ...

Soybean Architecture Plants: From Solar Radiation

We believe that the soybean plant architecture directly affects the final yield of the culture through the low efficiency in interception of solar radiation and the difficulty of controlling disease, ...

Growth enhancement of soybean (Glycine max) upon exclusion of UV ...

Exclusion of UV (280-380 nm) radiation from the solar spectrum can be an important tool to assess the impact of ambient UV radiation on plant growth and performance of crop plants. The effect of ...

Agrivoltaics with semitransparent panels can maintain ...

This study tested the feasibility of using semitransparent photovoltaic panels with 40 % solar transmittance to improve soybean yield and quality in a field environment.

Soybeans - Transport Informations Service

The self-heating of soybeans requires only a small seat of moisture, so that within just a few hours heating may occur at moist points for which weeks or months would be required in goods dry on ...

Maximizing Soybean Production: From Solar to Grain

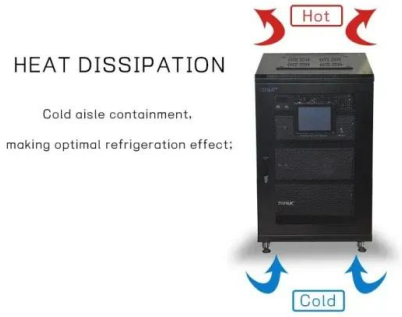
Successful soybean production requires an integrated approach that considers the fundamentals of converting solar energy into biomass, careful management of water and nutrients, ...

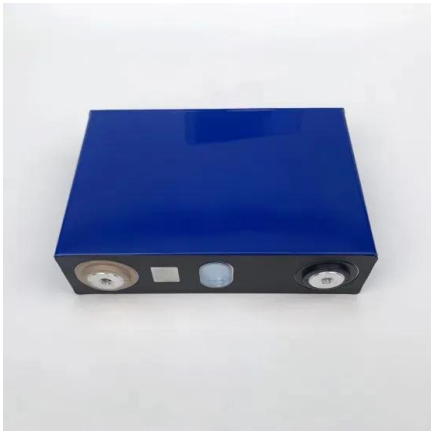
Soybean growth, solar energy conversion and seed vigour affected by

PDF , The objective of this study was to evaluate soybean growth, conversion of solar energy and seed vigour of plants cultivated with different , Find, read and cite all the research you ...

The influencing pathway of agrivoltaics on soybean protein

Soybeans containing more than 42% protein are classified as high-quality. Meanwhile, photovoltaic installations reduce photosynthetically active radiation (PAR), potentially affecting ...



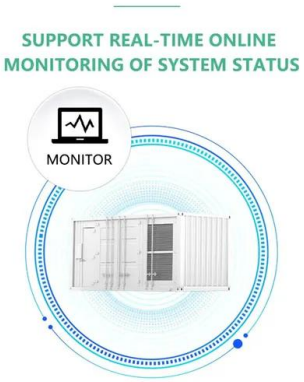


Energy storage substances in soybeans

To understand how the biosynthesis of soybean storage substances in seeds is regulated, we cloned soybean TFs that are homologs to these functionally characterized counterparts from Soybean ...

Contribution of incident solar radiation on leaves and pods to soybean

The weight and composition of soybean seeds (Glycine Max L. Merrill) depend on changes in carbon and nitrogen assimilate supply during grain filling. Soybean pods and seeds are green, evidencing ...

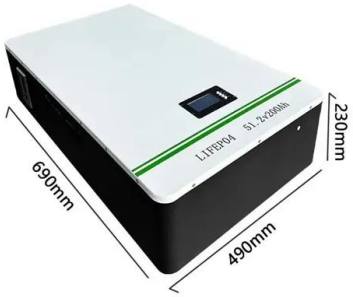


Source-sink relationship of soybean accessed by increasing in solar

The objective of this study was to observe whether the increase in solar radiation input in the canopy of soybean plants improves their yield performance. Three experiments were carried out during the ...

The Effect of Soybean Wax as a Phase Change Material on the ...

In this study, 50 Wp polycrystalline solar panel with and without soybean wax placed on backplate solar panels using PCM container as a passive cooling system were simulated on the solar simulator with ...



Characterization of Phenolic Substances and Antioxidant Properties of

Both isoflavones and phenolic acids contributed to the ORAC values of yellow soybeans. These data suggest that some selected soybean cultivars may be used as high-quality food-grade soybeans for ...

Solar Water Disinfection in high-volume containers: Are naturally

The potential role of the external substances in electron transfer mechanisms is completely overshadowed by the loss of radiation in the total volume of the container. Keywords

Functional Significance and Induction by Solar Radiation of Ultraviolet

Most of the phenylpropanoid response to solar UV in field-grown soybeans was induced by the UV-B component (? <= 315 nm). Our results indicate that phenolic sunscreens in soybean are ...

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