Scheme for planting Ophiopogon japonicus under photovoltaic panels

What is Ophiopogon japonicus?
Ophiopogon japonicus (L. f.) Ker-Gawl.,an evergreen perennial herb in the Liliaceae family. is a typical domesticated medicinal plant whose cultivation history can trace back to Song Dynasty.

Does agrivoltaics affect cultivated crops in Japan?
Over 120 crops are grown in agrivoltaics in Japan and for 69% of cases,cultivated crop is changed upon installation of agrivoltaics,which is causing concern that it may disrupt small,fixed markets of those crops. Shading rate in agrivoltaics ranges from 10 to 100% with its median at 30 to 40%.

Does PV shading affect horticulture crop cultivation?
This mini review has reported experimental studies about the effect of PV shading on horticulture crop cultivation and a correlation between the growth parameters and the characteristics of PV installation, in terms of degree of roof coverage has been found.

Which crops can be grown under PV panels?
Tomato,lettuce,pepper,cucumbers and strawberriesare the most studied crops under PV panels (Fig. 5). The recent literatures for applications of selective shading systems on the aforementioned crops and others plants are reviewed in the following sections.

Where is Ophiopogon japonicus grown?
Ophiopogon japonicus,mainly planted in Sichuan (CMD) and Zhejiang (ZMD) province in China,has a lengthy cultivation history. During the long period of domestication,the genetic diversity of cultivated O. japonicus has substantially declined,which will affect the population continuity and evolutionary potential of this species.

Are vertically placed solar panels suitable for shade-intolerant crops?
Vertically placed Bifacial PV,transparent,and semitransparent tilted PVs can be suitable for shade-intolerant cropswhereas opaque PVs are appropriate for shade-tolerant crops. The knowledge gap between various stakeholders such as solar PV researchers,agricultural researchers,and land users needs to be more rigorous.

Yellow leaves aren"t always a reason to panic, and can be a normal part of a plant"s life cycle. Unless brand new leaves are turning yellow or all the leaves change color at once, it"s likely ...

Effect of vegetation-induced panel cooling on electricity generation are rather site-specific and depend on climate and soil properties. Our findings provide foundational data for ...

Ophiopogon japonicus "Nanus" is an evergreen perennial groundcover grass (or grassy in appearance) with

green foliage. In spring lavender and white flowers emerge followed by purple fruit. Features grassy texture. Grows well with sun ...

You could get free solar panels with the ECO4 grant. Solar panels can reduce your annual bills by more than £1,000. Zero per cent VAT on solar panels can save you almost £2,000 on a 4.5kW system ...

To provide practical information necessary for origin exploration and sustainable cultivation of O. japonicus, we used 4 chloroplast DNA regions (atpB-rbcL, rpl16, psbA-trnH and rpl20-5"rps12) ...

Ophiopogon japonicus features thin, dark-green, grass-like foliage reaching 6-9?tall and spreads by tuber roots and stolons. It blooms late in summer with pale lilac flowers that are often hidden among the foliage. This hard working, easy ...

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