

Is YOUR Solar Farm Pollinator-Friendly or Pollinator-Killing?

Fact and resources for creating safe pollinator habitats at solar installations

Pollinators Are in Trouble. Dramatic losses of Monarch butterflies, bumblebees, massive honeybee and wild bee die-offs and declines in birds who eat insects continue. Pesticides are a major cause of mortality for these crucial species.

- Since 2006, we lose 1/3 or more of the U.S. honeybee population annually
- Maryland lost 50% of bees in 2020-21, state's highest loss on record
- Public concern for saving our bees, birds and insect pollinators continues to be very high



Pollinator-SAFE Solar Installations Are a Win-Win

Your solar facility can be welcomed into communities both as a solution to the climate crisis and to the pollinator die-off crisis.

Ground mounted solar power arrays create the perfect opportunity to provide much needed safe pollinator habitat, that is perennial flowering plants that produce pollen and nectar to feed honeybees, native wild bees, butterflies, and host plants for caterpillars that become butterflies. The spaces between the panels are then dedicated to something highly useful, the flowers beautify the solar installations making them more desirable to communities, and established pollinator plantings/meadows require less maintenance than turf.

Maryland Smart on Pesticides Pollinator-SAFE Scorecard is Pollinator Protective

Maryland solar farms can qualify as “pollinator-friendly” projects by amassing points on a scorecard designed to maximize plantings for pollinators. While using a scorecard is a good idea to protect this threatened population, the current Maryland Department of Natural Resources (DNR) scorecard has a fatal flaw that the Smart on Pesticides Coalition (SOPC) has brought to the attention of DNR: **it allows projects to achieve a pollinator-friendly score even when the site is treated with pesticides that will kill those pollinators!** ***In essence, the banquet for bees becomes a killing field.***

The Smart on Pesticides **Pollinator-SAFE Solar Installation Scorecard ensures your installation is protective** by making one very critical adjustment to the current DNR scorecard. The points deducted for *synthetic chemical* Pesticide Use have been increased by 50 points, in order to ensure the site is pollinator-safe. Instead, we can recommend safe organic, bio-rational or non-toxic pesticides or mechanical controls.



Smart on Pesticides is a coalition of 109 organizations and businesses.

Plant, Maintain and Promote a Pollinator-SAFE Solar Garden

Using the Smart on Pesticides Pollinator-SAFE Solar Installation Scorecard will qualify you for both the State designation and the Smart on Pesticides Pollinator-SAFE designation—ensuring your solar installation is *truly* a safe haven for our threatened and declining bees, birds, and butterflies.

Chemical-free is best for bees! Qualify and SOPC will promote your project!

Turn the page for helpful Resources to make your solar farm a beautiful safe haven for bees, bird and butterflies >

For more information on creating a healthy haven for pollinators at your solar installation, contact: Carolyn Ricketts, Maryland Pesticide Education Network, 410-956-0382, solar@mdpestnet.org,

RESOURCES for Pollinator-SAFE Habitats for Solar Farms

SAFE Landscape Companies for Design, Installation, and Maintenance

These landscaping companies offer comprehensive services to create *pesticide-free* Pollinator-SAFE habitats for solar installations:

- Empire Landscaping*, Lynette Scaffidi 301-509-8483; Sarah Herlihy, 301-775-8651, empirelandscapellc.com, lscaffidi@empirelandscapellc.com; sherlihy@empirelandscapellc.com
- ARM Group, LLC*, Michelle Cohen, 717-533-8600, armgroup.net, mcohen@armgroup.net,
- KW Landscaping, Kevin Wengernuk, 410-729-0646, kwlandscaping.com, kevin@kwlandscaping.com

If you choose another landscaping company, be sure they will comply with the Pollinator-SAFE Habitat practices and sign the Pollinator-SAFE Agreement (linked at the bottom of page).

* DNR approved Pollinator-Friendly Site Inspectors

SAFE Seed Suppliers

Seed can be treated with pesticides that will harm pollinators. These companies provide organic wildflower mixes for our region that are pesticide-free organic seed mixes:

- FedCo – Beneficial Mix, Flower Mix, fedoseeds.com
- Harris Seeds – Wildflower NE Mix, harriseseeds.com
- Johnny's Selected Seeds, Beneficial Insect Attractant Mix, johnnyseeds.com
- Peaceful Valley – Perennial & Regional Wildflower Mix, groworganic.com
- Chesapeake Valley Seed – Peren. & Regional Wildflower Mixes, chesapeakevalleyseed.com

Avoid Synthetic Chemical Pesticides

Avoid Neonicotinoids: Imidacloprid, Clothianidin, Thiamethoxam, Acetamiprid, Dinotefuran, Sulfoxaflor. See [Neonic Products List](#)

Avoid Glyphosate, see [Glyphosate Products List](#)
For safer alternatives: solar@mdpestnet.org

RESOURCES for LANDSCAPERS

Organic Site Preparation for Pollinator Habitats at Solar Installations

- Organic Site Preparation for Wildflower Establishment - [Download](#)
- Organic Site Preparation Methods: A Comparative Overview - [Download](#)
- Estimated Costs to Establish Wildflower Plantings Using Solarization - [Download](#)

Safer Herbicide Applications

- Weed Terminator 2, <https://www.contactorganics.com/products-2/>
- Grow Organics offers many [safe herbicides](#) at groworganic.com

Selecting Plants for Pollinators

- Mid-Atlantic Pollinator Plant List – Concise - [Download](#)
- Selecting Plants for Pollinators – [Western Md & Central & Shore](#)
- Attracting Pollinators Using Native Plants - [Download](#)

Alternative Site Maintenance Methods

- Solar Grazing – Sheep on Solar Facilities, Am. Solar Grazing Association, solargrazing.org
- Agrivoltaics report – Farming & Solar Synergies - [Download](#)
- Robot Rumbas – for low mowing areas, AIR Landcare, contactair.today

HERBICIDE USE WARNING

We recommend **glyphosate-free site preparation**. If glyphosate is used, **must wait at least 60 days** after application, **before planting** wildflower mixes to reduce harm to pollinators.



Maryland lost over 50% of its honeybees 2020-2021. Dramatic losses are impacting wild pollinators and birds, too.

Why Pollinators Need SAFE Habitat

- Bees, Birds & Beneficials – How they are threatened - [Download](#)
- Pollinator Factsheet – Beneficials species needing protection - [Download](#)

"Even small doses of pesticides can impair key functions bees need to survive. And in the field, bees often encounter multiple exposures of one or more pesticides." – [Bees & Pesticides: Science Update](#)

[DOWNLOAD](#) the Pollinator-SAFE SCORECARD

[DOWNLOAD](#) the Pollinator-SAFE AGREEMENTS

[for Solar Installations](#) | [for Landscaping Companies](#)

Pollinator-SAFE Solar Farm Habitat Installation Planning & Assessment Scorecard

Circle each applicable point and then add/subtract for final score.

1. Percent of facility to be planted, seeded or maintained with native plant species:

16-30 percent	5 points
31-50 percent	10 points
51-75 percent	20 points
76 percent or greater	30 points

 2. Percent of facility to be planted, seeded or maintained with a mix of flowering plants including trees and shrubs:

16-30 percent	5 points
31-50 percent	10 points
51-75 percent	20 points
75 percent or greater	30 points

 3. Flowering plant seed mix to be used includes ten or more plant species appropriate for the region or local habitat identified in the USDA-NRCS Maryland Native Grass and Wildflower Mixes for dry, mesic or wet sites (Mixes 15, 16 or 17): 5 points

 4. Seed mix and/or plants used are pesticide-free, local ecotypes to the extent that it is possible to do so:

Yes	10 points
No	0 points

 5. Amount of seed to be planted (lbs/acre) is determined according to seed provider's recommended application rate and/or planting density for planted species in the target area: 5 points

 6. Pollinator seed mix includes species that bloom across spring, summer and fall:

Yes	15 points
No	0 points

 7. The facility follows established best management practices for site preparation prior to seeding and planting (add all that apply):

Initial herbicide treatment (chemical burn) or scraping of weeds and annual grasses	5 points
Disking or tilling soil to promote weed seed germination with follow-up herbicide treatment	5 points
Follow up maintenance as needed to control weeds	5 points

 8. Planned existing best management practices follow established USDA-NRCS Job Sheet Recommendation (Conservation Cover — 327, Herbaceous Plantings for Pollinator Habitat) and Implementation Requirements Including (add all that apply):

Pre-establishment mowing of weeds and annual grasses as needed during initial plan period	5 points
Spot herbicide or mechanical invasive species control	5 points
Spot herbicide or mechanical woody species control	5 points
Overseeding or interseeding native wildflowers	5 points

 9. Additional facility practices to support pollinators include (add all that apply):

Post-establishment mowing in dormant season only	10 points
Establishment of a detailed habitat maintenance plan	10 points
Water source	5 points
Ground nesting sites (small areas of bare ground)	5 points
Cavity nesting sites (fallen logs, shrubs, snags)	5 points
Woody stems for nesting left >2 years	5 points
Bee Boxes or Bat Boxes	5 points

 10. Minimum panel height supports native flowering plants and grasses:

12-18 inches	0 points
24-30 inches	10 points
36 inches or higher	20 points

 11. Vegetation buffer outside solar array (add all that apply):

At least 50% planted with native flowering plants	10 points
At least 50% planted with native plants	10 points

 12. Education and Signage (add all that apply):

One or more "pollinator habitat" signs	5 points
Facility is used for pollinator research	5 points
Education Event on pollinator-friendly status	5 points

 13. **Synthetic Chemical Pesticide Use:**
On-site facility pesticide use (subtract) - 90 points*
*** SUBTRACTS from score**
Synthetic chemical insecticides, herbicides, fungicides, harm pollinators and warrant point reduction. Organic, bio-rational or non-toxic pesticides are allowed with no point deduction. Contact solar@mdpestnet.org for questions about this.
- Point Summary:
- Meets Pollinator-Friendly Standards: 160
 Exceeds Pollinator-Friendly Standards: 200
 Maximum Points Available: 245
- Developer:
- Facility Location:
- Facility Size:
- Target Seeding Date:
- Send Email or Completed Forms to:**
 MD Dept. of Agriculture, MD Dept. of Natural Resources,
 Power Plant Research Program, 580 Taylor Avenue, B-3,
 Annapolis, MD 21401 PPRP@maryland.gov and to
solar@mdpestnet.org. **Questions? 410-956-0382**
- Comments: