POLLINATOR-FRIENDLY SITES



Carpenter Bee (*Xylocopa virginica*) enjoying the fall bloom of *Solidago speciosa* (Showy Goldenrod).

POLLINATOR MEADOWS MAY BE USED TO attract honeybees and more than 4,000 species of native pollinators in North America, including bees, butterflies, hummingbirds, and even some flies. Increased attention to the plight of such pollinators as honeybees and monarch butterflies by the government and private sector has spurred an interest in developing pollinator-friendly habitats across the North American landscape. One of the highest examples was the 2015 White House announcement of the National Strategy to Promote the Health of Honeybees and Other Pollinators.



Hummingbird Clearwing *(Hemaris thysbe)* visiting *Monarda fistulosa* (Wild Bergamot) at the Erie National Wildlife Reserve in Guys Mills, Pennsylvania.

ABOUT POLLINATOR-FRIENDLY SITES

Almost any site not intended to be mowed repeatedly during the growing season may be designed to be pollinator friendly. Pollinator-friendly meadows are often thought of as being planted on flat sites in full sun, but they can also be planted at woodland edges. Pollinator-friendly species aid in soil stabilization on steep slopes and riparian areas. Storm basins and wetlands are more aesthetically pleasing when enhanced with pollinator-friendly species. Rights-of-way under utility transmission lines, above pipelines, and along roadways can be developed to an ecologically beneficial state when functional diversity and pollinator-friendly species are incorporated into seed mix design. When planted within a solar array, transpiration from native plants can reduce panel temperatures thereby increasing panel efficiency.

The primary energy source for most adult bees, butterflies, and other flower-loving pollinators is nectar. Pollen is essential for providing proteins and lipids to developing bee larvae while leaf tissue from specific host plant families is required for butterfly caterpillars. Most native bees are nectar generalists in that, though pollen specialists, they can consume nectar from many plant families. Pollen that the larvae will consume requires a specific ratio of proteins to lipids. The best sources of pollen for native bees as well as leaf tissue for native butterflies are the native plant species with which they have co-evolved.



Solar power generation sites can be sources for pollinator habitat.

While not native to the U.S., honeybees have evolved to be able to use pollen from a wide range of species. Like native bees, honeybees feed nectar and pollen to their larvae. They also need pollen to have a particular protein-to-lipid ratio that they get by collecting pollen from a variety of plant species.

Adult pollinators do not have the same dietary needs as when in the juvenile stage. To meet the dietary needs of a wide range of pollinators, it is important to know



Tachinid Fly on *Pycnanthemum incanum* (Hoary Mountainmint).

that some pollinator species are not active for the entire growing season. During the active period, food and nesting resources must be available. The availability of flowering shrubs or trees for pollen and/or nectar before herbaceous species bloom in the spring is beneficial to some pollinator species. Continuity of bloom from as early in the season to as late in the season as possible is important. A minimum of three species should be in bloom in the spring, summer, and fall, with a total of 26 blooming species being ideal. These species should represent five or more plant families. For the benefit of monarchs, milkweeds should be planted.

While dietary needs of honeybees have much in common with that of native bees, an important difference is that honeybees are attracted to masses of bloom. For that reason, rather than planting a mix of 26 species, multiple mixes should be planted, each with three to four blooming species with no overlapping of bloom within a mix. Bloom overlap will be provided by the other mixes.

TO SUPPORT THE GREATEST DIVERSITY OF NATIVE POLLINATORS:

- **Provide continuity of bloom from as early to as late in the season as possible.**
- **Minimum of three species blooming in spring, summer, and fall.**
- **Twenty-six blooming species from 5 or more plant families.**
- **Plant milkweeds for monarchs.**

POLLINATOR-FRIENDLY SITES SEED MIXES

ERNMX-105	Mesic to Dry Native Pollinator Mix
ERNMX-125	Mesic to Dry Native Pollinator Mix without Grasses
ERNMX-153	Showy Northeast Native Wildflower & Grass Mix
ERNMX-153-1	Showy Northeast Native Wildflower Mix
ERNMX-155	Deer-Resistant Meadow Mix
ERNMX-157	Honeybee Forage Mix
ERNMX-179	Butterfly & Hummingbird Garden Mix

THESE MIXES PROVIDE FOOD FOR NATIVE POLLINATORS, AS WELL AS FOOD AND COVER FOR SONGBIRDS AND GROUND NESTING BIRDS, SUCH AS TURKEY AND QUAIL.

VISIT *ERNSTSEED.COM* FOR MORE OPTIONS.

Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.