



How Can You Support Pollinators?

Grow food (pollen and nectar plants) from early spring to late fall and provide pollinators with places to nest and hibernate.

Pollinators need at least three different flowering plants blooming at the same time from early spring through late fall. Expand the amount of garden habitat in your yard and/or allow dandelions and clover to bloom for pollinators before cutting or treating the lawn. Add more native species to your gardens. They require less maintenance once established, often have more nectar, and have co-evolved to provide the best food for local pollinators. If you leave some areas bare (without mulch), undisturbed, and a little messy, ground-nesting bees will use the soil to nest. Cavity-nesting bees will use broken plant stems, dead wood and burrows left by other animals. Butterflies and caterpillars also hibernate in leaf and stem piles. During dry periods provide shallow water, such as a saucer with a flat rock.



Why Should You Avoid Pesticides?

Pesticides can kill pollinators or their larvae/caterpillars and can weaken these pollinators and their immune systems.

Pollinators thrive best without insecticide, herbicide, or fungicide use. Although there are multiple factors in the decline of pollinators, a contributing factor may be use of pesticides. Herbicides can kill pollinator habitat plants, including milkweed. Before using pesticides, identify the pest and decide if the plant damage is tolerable. Apply the principles of Integrated Pest Management (IPM). Pesticides should only be used when needed (not routinely) and ONLY in amounts and methods prescribed on the label. Avoid applying pesticides to flowers or areas where pollinators may be nesting or are active. Be especially careful to buy butterfly host plants that have not been treated with systemic or sprayed insecticides. Ask where you purchase plants!

Wisconsin has a Pollinator Protection Plan with Best Management Practices (BMP's) available on the web at:

https://datcp.wi.gov/Pages/Programs_Services/PollinatorProtection.aspx

WHAT'S THE BUZZ ABOUT POLLINATORS?



Why Are Pollinators Important?

To eat healthy and local and to support the Wisconsin economy, we need to feed and provide for pollinators, especially our local native bees.

About 1/3 of the food we eat needs animal pollination, including almonds, apples, berries, cherries, melons, squashes, and tomatoes. Approximately 75% of the world's major food crops require or benefit from pollinators. More quantity and diversity in bee populations results in better crop yields and fruit set. In Wisconsin, pollinator-dependent crops account for over \$55 million in annual production. Honeybees also contribute \$3.5 to \$4 million annually in honey and beeswax production.



What Is a Pollinator?

Pollinators are animals (primarily insects) that help transfer pollen.

Bees are the most important and efficient pollinators because they purposefully seek out and gather pollen as well as nectar to eat. Most pollinators drink nectar and only incidentally transfer pollen (beetles, butterflies, flies, hummingbirds, moths, and wasps). Although non-native honeybees are better known, wild native bees are often better pollinators and can meet the pollination needs of most home gardeners and some commercial crops. It takes about 20,000 honeybees to pollinate an acre of apple trees but only 250 native mason bees to do the same job. While honeybees live socially in hives, 90% of native bees are solitary and nest in the ground, in plant stems, or in dead wood.

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SouthEast Wisconsin Master Gardeners
POLLINATOR GROUP**

PLANTS FOR POLLINATORS

The goal in gardening for pollinators is to have a succession of blooms available throughout the season – a minimum of three different plants blooming at all times from early spring to late fall; this includes trees, shrubs, perennials, annuals, and herbs. Different pollinators prefer different colors of flowers, so the blooms should have different colors. Ideally, group three to five plants together for best pollinator visibility and efficiency.

The best flower shapes include: (A) large clusters of small flowers in a rod shape (butterfly bush, goldenrod) or an umbel shape (dill, milkweed); and (B) flat, daisy-like flowers whose center is a large group of nectar spots (zinnia, apple blossoms).



HERBS provide food for caterpillars as well as flower nectar for bees/other pollinators; favorites include dill, cilantro, fennel, hyssop, lavender, mint, oregano, sage, and thyme.

ANNUALS - Alyssum, Lantana, Marigold, Mexican Sunflower (Tihonia), Pentas, Rudbeckia, Salvia, Sunflower, Sweet William, Verbena, Zinnia.

PERENNIALS, SHRUBS AND TREES BY BLOOM TIME:

Spring: Plum and Cherry trees; Blueberry, Columbine, Creeping and Wild Phlox, Spiderwort.

Summer: Bee Balm, Blazing Star, Butterfly Bush, Catmint, Milkweed, Purple Coneflowers.

Late Summer/Fall: Aster, Cardinal Flower, Goldenrod, Joe-Pye Weed, Sedum.

AVOID fancy, double flowers, which often have less nectar and whose nectar is harder to reach.



MILKWEED leaves are the only food eaten by Monarch caterpillars. Monarchs and other butterflies/pollinators also feed on the nectar of the flowers. Birds use the seed floss in their nests, and Orioles use native milkweed stems for their nests.



Swamp Milkweed, *Asclepias incarnata*

Perennial, full sun; grows best and longer-lived in damp or marshy areas but also grows in medium soil.



Common Milkweed, *Asclepias syriaca*

Perennial, full sun; dry or medium, well-drained soil. Can spread underground, often best in separate back sections rather than in cultivated garden areas.



Butterfly Milkweed, *Asclepias tuberosa*

Perennial, full sun; dry, well-drained soils. Does not survive winter well in clay soil.



Whorled Milkweed, *Asclepias verticillata*

Perennial, full sun; dry, open areas.



Tropical Milkweed, *Asclepias curassavica*

Annual, full sun; dry to medium soil. Not native to Wisconsin. The flowers are available in yellow-red and gold colors.

BUTTERFLY

American Lady
Black Swallowtail
Comma
Common Buckeye
Monarch
Painted Lady
Question Mark
Sulphur
Tiger Swallowtail
Variegated Fritillary
White Cabbage

HOST PLANTS

Ironweed, Pearly Everlasting, Pussytoes
Carrot Family (Dill, Parsley, Fennel)
Elm, False Nettle, Hop Vine, Nettle
Snapdragon Family, Plantain
Milkweed, including Butterfly Milkweed
Borage, Hollyhock, Mallows, Thistle
Elm, False Nettle, Hop Vine, Nettle
White Clover, Wild Senna
Ash, Birch, Cottonwood, Tulip Poplar, Wild Cherry, Willow
Passion Vine, Violets (caterpillars emerge in spring)
Brassica Family (Cabbage, Broccoli, Kale), Cleome