

Backyard Pollinator Gardens

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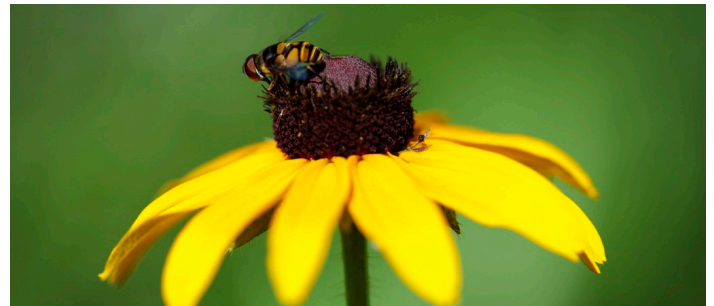
Bees and other pollinators are integral to crop production and the landscapes they inhabit. Pollinators include bees, butterflies, moths, wasps, flies, beetles, ants, bats, and hummingbirds. It is estimated that there are around 20,000 species of bees worldwide, 4,000 of which are native to the United States (Kentucky Pollinator Handbook, 2016). 308,000 species (87% of living plant species) are pollinated by animals (Ollerton et al., 2011). Due to land development and habitat fragmentation, natural habitat for these species has seen a decline over the years. Many of these animals utilize wildflowers for food gathering and shelter.

When planting native wildflowers, it is recommended to have a mixture of several different species. This increases bloom frequency (how often there are blooms available to nectar eating species), which in turn provides sources of pollen throughout the growing season. A mixture of different species of wildflowers attract a greater amount and diversity (variety of species) of pollinator insect species. The Kentucky Pollinator Handbook (2016) recommends adding at least three different pollinator species in the pollinator seed mixture. Diversity of flowering plant species increases the ecological fitness (ability of populations to compete, cooperate, or construct within their habitat) of pollinator populations. Some benefits of native pollinator gardens to homeowners include reduction of pest population, prevention of runoff induced erosion, and a more beautiful appearance (Wrat-ten, 2012). It is recommended that pollinator plantings be interspersed with one or more species of native grasses (Big Bluestem and Indiangrass) to provide habitat and protection for pollinators and wildlife.

Due to their adaptations to local soils and climate, native plants are preferred over non-native species (Armbruster, 2006; Kentucky Pollinator Handbook, 2016). Mutualistic relationships (cooperation between species) are found everywhere in nature and more likely to develop in species that are native to the same habitat (Ollerton, 2006). Many plants that are used in home gardening are annuals and would have to be replanted each year. Perennial native plants are recommended for pollinator habitat to encourage a continuous growth. These plants can be purchased from local native plant nurseries as plugs and sometimes as seed. Kentucky Native Plant Society maintains a list of native plant nurseries (<https://www.knps.org/native-plant-nurseries/>). The establishment of pollinator gardens both from plug and seed require proper maintenance and consistent moist soil.

Some preferred native wildflowers for backyard pollinator gardens are:

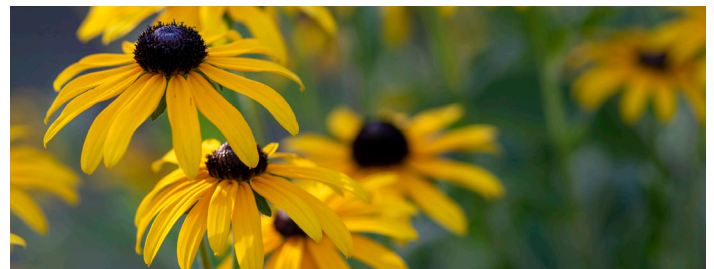
Blackeyed Susan, *Rudbeckia hirtia*



Blooming window: June – September

The biennially blooming flowers self-sow (seeds tend to fall directly below the plant) into open soil and can develop a consistent growing season stand over time. The prolonged floral display attracts butterflies and other beneficial insects. Seedheads serve as nourishment for finches and other birds later in the season. It is tolerant to a wide range of soils and moisture levels, but can suffer if in poorly drained wet soils.

Orange Coneflower, *Rudbeckia fulgida*



Blooming window: July – September

With deep green foliage and sturdy stems, this flower keeps a striking form throughout the growing season. Bold, yellow-orange flowers are found at the top of dense bunches, two to four feet from the ground covering the foliage. Their nectar is a favorite of butterflies and other pollinating insects. They thrive in full sun but can handle light shade. They prefer rich soils and will need consistent moisture until established.

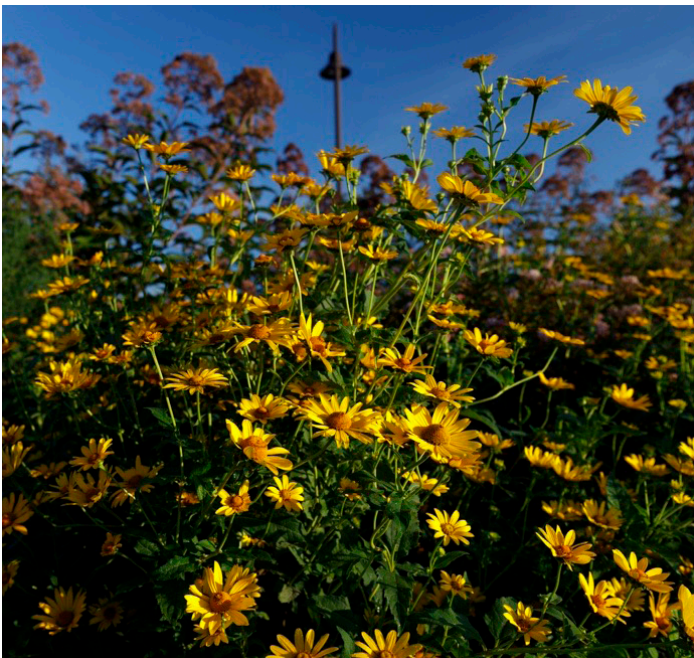
Purple Coneflower, *Echinacea purpurea*



Blooming window: June – August

Perfect for both small gardens and large prairie meadows, it blooms heavily, sometimes for two months in mid to late summer. Its nectar draws butterflies, bees, and other pollinators, including hummingbirds. In the late summer goldfinches and other birds will be drawn to its large seedheads.

Cup-plant, *Silphium perfoliatum*



Blooming window: June – September

A fantastic attractant for birds, cup-plant leaves form cups against the plant stems that catch rainwater which can be a water source for a variety of songbird, butterfly, and hummingbird species. They thrive in medium to wet soils and can grow anywhere from three to 10 feet tall.

False Sunflower (Ox Eye Sunflower), *Heliopsis helianthoides*



Blooming window: June – August

This plant is excellent for clay soils and does not spread by its roots, but self-sow in open soil. Expect bright yellow flowers in early to mid-summer on leafy stalks. This plant is a welcome addition to many nectar and seed eating organisms.

Ohio Spiderwort, *Tradescantia ohioensis*



Blooming window May – July

They have a light violet to blue flowers that bloom in the mornings and tend to close up in the afternoon heat. Their spikey foliage makes them visually intriguing even when the flowers are closed. The most important pollinators of these flowers are bumblebees. They have been known to form hybrids with at least nine different species of spiderwort.

Milkweeds

Monarch butterflies exclusively lay their eggs on milkweed species. The cardiac glycosides in Milkweed foliage makes the caterpillars and adult butterflies toxic to birds and other predators. The seed pods split when ripe and release haired seeds that are carried by the wind.

Butterfly Milkweed (Butterfly weed), *Asclepias tuberosa*



Blooming window: June – August

With long lasting bright orange flowers, it is one of the most popular milkweeds in home gardens. It is an important host plant for both Monarchs and Grey Hairstreaks butterflies. Mature plants can have a tap root that can extend a foot into the soil. They thrive in sandy and well drained loam soils and can be transplanted during dormancy.

Swamp Milkweed (Red Milkweed), *Asclepias incarnata*



Blooming window: July – August

The fragrant pink flowers are known to attract hawk moths, swallowtail butterflies, greater fritillaries, monarch butterflies, skippers, bumble bees, and other numerous nectar-seekers - even an occasional hummingbird. It can grow well in moist-wet soils and is a welcome addition to sunny border gardens and water features. It can find a natural home in moist areas in yards.

Common Milkweed, *Asclepias syriaca*



Blooming window: June – August

Midsummer brings on a profusion of lavender-pink flowers. The sweet scented flowers attract and feed a large amount of pollinators. Its root rhizomes spread rapidly from seed and it is one of the fastest milkweeds to establish.

References

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