



Bee-Friendly Flowers: Goldenrod

If you suffer from the misery of seasonal allergies, just the sight of these late-season bloomers may make your eyes water and your sinuses drip. But have no fear, these beautiful golden bouquets are not the cause of your hay fever! The maligned goldenrods have gotten a bad rap over the years with the misguided notion that it is their pollen that makes people sneeze. Goldenrod (*Solidago spp.*) is not a wind-pollinated plant. The pollen is sticky, heavy and does not blow into your eyes and nose. It needs a pollinator to carry it from one flower to another.



Showy goldenrod

The plant to blame for your nasal suffering is ragweed, which blooms at the same time as the goldenrods. The pollen of ragweed is light and minuscule and blows everywhere the wind blows, including up your nose. This dusty pollen is born in mass quantities on nondescript green spikes. Because ragweed flowers don't need the service of insects, they don't have to put on a colorful show to attract passing pollinators. They spew pollen into the air, but nobody notices them.



Ragweed

Goldenrods, on the other hand, light up meadows and roadsides with their sun-colored blooms from late summer till November. There are nearly 100 species of goldenrod in North America, so identifying them can be a real botanical challenge. No matter what the species, their abundant blooms are critical nectar and pollen sources for late-season pollinators. Butterflies, moths, beetles, flies, bumblebees, honeybees, and a myriad of other native bees seek them out as fall food resources begin to dwindle. It is also one of the critical nectar sources for migrating monarch butterflies on their harrowing journey back to Mexico.

Goldenrods are unusual in that they bloom from the top down. In most other plants, the bottommost blossoms open first. This is probably connected to competition for insect pollinators. When the plants first begin to bloom, there are still many summer flowers vying for attention, so the top-down flowering makes a showier display to attract the insects. Later as other flowers fade, goldenrod is one of the last flowers still blooming late into fall and then has no problem attracting hungry pollinators.



Goldenrod gall

Another fascinating insect that makes a home in goldenrod is the goldenrod gall fly, *Eurosta solidaginus*. The female fly lays eggs at the base of the goldenrod flower buds. Upon hatching, the larvae eat into the stem, causing the plant to form a ball-like growth called a gall. The larva eats the tissue inside the gall and will have no other food throughout its whole life cycle, as adults lack mouthparts and do not eat at all.

The scientific name of the genus, *Solidago* means "to make whole", referring to their medicinal properties. Old World herbals recommended goldenrod as a cure-all to treat ailments like stomachaches, nausea, wounds, bronchitis, and tuberculosis. The 17th-century European herbalist and physician, Nicolas Culpeper called it a "sovereign wound herb inferior to none." During the American Revolution, tea made from anise-scented or sweet goldenrod was



used as a substitute for British teas as well as a health tonic. In the 19TH century, leaves of the same sweet goldenrod were exported to China where the tea made from them was coveted. In the Great Lakes region and Dakotas in North America, the many Chippewas had a wonderful name to describe the healing properties of goldenrod. They called it *gizisomukiki*, which translates as “sun medicine”.

Duke Farms Connection

At Duke Farms, goldenrods grow in every meadow and open space. Some of the more common ones include Canada goldenrod (*S. canadensis*), rough stemmed (*S. rugosa*), stiff (*S. rigida*), and narrow (*S. odora*). Look for the less common showy goldenrod (*S. speciosa*) in the Duke Farms Pollinator Hoop House.

Check out some of the goldenrod species growing on the property!

**Photos courtesy of Lady Bird John Wildflower Center and Mrs. Bird*



Stiff goldenrod



Canada goldenrod



Rough stemmed goldenrod



Sweet goldenrod



Want to grow goldenrods in your garden? Goldenrods are deer-resistant and can withstand extreme weather conditions. They are drought-resistant and able to grow in poor soils. In this age of climate change, adding goldenrods to your garden will provide late-season resources for pollinators and an easy-to-care, resilient garden for you. Buy plants or seeds from native nurseries and **never collect them from the wild!** [The Native Plant Society of New Jersey](#) is a great resource to help you find where to buy them or to get more information.

Additional Resources

- [Lady Bird Johnson Wildflower Center](#)
- [Rutgers Weed Guide](#)
- [NJ Beekeepers Pollinator Plant List](#)
- [Penn State- Goldenrod for Pollinators](#)
- The Secrets of Wildflowers, Jack Sanders, Lyons Press, Guilford Connecticut, 2003
- [Herb Society of America, Ethnobotany of Goldenrod](#)

Questions

1. Is goldenrod the main cause of fall hay fever? Why or why not?
Answer: No, it is not wind-pollinated. Insects move the heavy sticky pollen from flower to flower.
2. What plant is the main source of fall allergies?
Answer: Ragweed.
3. What pollinators are attracted to goldenrod?
Answer: Butterflies, moths, beetles, flies, and all kinds of bees seek goldenrod as food resources dwindle.
4. What migratory butterfly depends on goldenrod as a food source in the fall?
Answer: The monarch butterfly.
5. What is unusual about how goldenrods bloom?
Answer: The flowers open from the top down instead of from the bottom up.
6. What insect commonly lays its eggs in goldenrod?
Answer: The goldenrod gall fly.
7. What is the growth called that the plant makes around the larvae of the flies?
Answer: Goldenrod gall.
8. Which goldenrod was used to make a tea as a substitute to British tea?
Answer: The anise-scented or sweet goldenrod.
9. Why are goldenrods such a good plant to add to your garden?
Answer: They are important pollinator plants. They are deer and drought resistant and grow well in poor conditions. They make a good addition to a climate change-resilient garden.