

Bee-Friendly Flowers: Cardinal Flower



This blazing summer beauty immediately makes us think of the cheery bird with fire engine red feathers. However, the origin of both the common and scientific name, *Lobelia cardinalis*, is really a reference to the colorful robes of the high priests in the Roman Catholic Church. A native of the New World, the first specimens of cardinal flower were collected in 1626 by a botanist named John Tradescant. He sent them back to botanical gardens and wealthy patrons in Europe, including one Cardinal Francesco Barberini of Rome who was probably the first to display the flower in his garden. Picturing the lovely bird may be a simpler mnemonic for remembering the name of this plant than the story of the Cardinal from Rome, but the real history is such a great tidbit of trivia!

Like bee balm, the cardinal flower's structure, a slender tube with a pool of sweet nectar at the base, is more attractive to long-tongued hummingbirds, butterflies, and moths than it is to bees. The tube is narrow and makes entry for insects a real challenge, but many are happy enough to chew their way to the sweet reward.

The flower's stamens and pistil project from the mouth of the tube, conveniently touching the head of any floral visitor. The pollen gets knocked off the anthers at the end of slender filaments and hitches a ride. Through this, pollen gets moved from one flower to another for pollination. [Here is a video](#). Cardinal flowers are **protandrous**, meaning the male stamens and pollen mature first followed later by the female pistils. Flowers on the bottom of the spike open first and the male to female change progresses from the bottom up. When the pollen is ripe, the nectar is the sweetest and most abundant. This helps to get a pollinator to visit the male flower phase first to get dusted with the pollen before it visits a female phase on a different flower. What an ingenious adaptation to ensure pollination!



Cardinal flower blooms in New Jersey from July until September (interestingly, when hummingbirds leave for migration). If the flowers are pollinated, each will form a small marble-like seed capsule containing numerous seeds the size of finely-ground pepper. The capsules dry out and the tiny seeds fall like dust onto the surface of the soil below the plant. They germinate the following spring, but they will not mature and bloom until the year after that. Besides seed, the plant has another way of spreading. In the spring, a mature plant will send out little shoots at the base that will grow but not bloom until the following season. Blooming every other year makes it a **biennial**, but once established, there will always be some that flower each year.

The diverse communities of Indigenous peoples of North America had many uses for cardinal flower. Some examples; the root was boiled as a treatment for fever sores, leaves and flowers were used to make a tea for upset stomachs and for menstrual cramps, an infusion was used to treat typhoid and a poultice of mashed plant parts was used to stop bleeding and to heal wounds. Ceremonially, the flowers were made into love charms and the numerous seeds for fertility blessings.

Duke Farms Connection

Cardinal flower naturally grows in sunny, wet meadows and along river bottoms. However, destruction of so many of America's wetlands has taken its toll and finding the plant growing in the wild is an increasingly rare occurrence. At Duke Farms, we can find cardinal flower growing in the Great Meadow and the Pollinator Hoop House. The plant is easy to grow in your own garden as it reproduces readily from the dust-like seeds.

The seeds need to be sown directly on the surface of moist soil, where they will be exposed to sunlight. They do not need **cold stratification** (a period of cold treatment in a refrigerator that mimics winter conditions) for germination, so they can be sown directly after collection in the fall. For fall planting, scatter the seeds directly on exposed soil in your garden bed in fall, keeping them moist until frost. You can also keep them cool and dry over winter and scatter them in May after the soil warms. It's a good idea to mark your garden bed where you spread the seed as it's easy to forget where you put them. If you leave them undisturbed, come next spring or summer, you should be pleasantly surprised with a plethora of teeny-tiny cardinal flower plants ready to grow.

Want to grow cardinal flower in your garden? 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

- [Cardinal Flower Fact Sheet](#)
- [Lady Bird Johnson Wildflower Center](#)
- [Hummingbird Pollinating Cardinal Flower Video](#)
- [Forest Service](#)

Questions and Answers

1. What bird comes to mind when we hear the name, cardinal flower?

Answer: The northern cardinal.

2. The bird is not the namesake of the flower - how did it get its common name?

Answer: It's a reference to the bright red robes of the high priests of the Roman Catholic Church.

3. Bees are not the major pollinator of the cardinal flower - what is?

Answer: Hummingbirds, butterflies, and moths.

4. Cardinal flowers have male and female reproductive organs that mature at different times, with the male stamens maturing first followed by the female pistils. What is the name of this kind of flower?

Answer: Protandrous.

5. Cardinal flower germinates readily from seed. The seed does not have to be treated for a period of cold before sowing. What is this cold treatment called?

Answer: Cold stratification.

6. Cardinal flower germinates in one season but does not mature and bloom till the following season. What kind of plant is this that blooms every other season?

Answer: It's a biennial.

7. Should cardinal flower seed be buried in the soil when planted?

Answer: No, they need exposure to sunlight and should be sown on the surface of moist soil.

8. Name three uses that Native Americans had for Cardinal flower.

Answer: To treat fever sores, upset stomachs, and for love charms.

9. Where does cardinal flower grow naturally?

Answer: In sunny, wet meadows and along river bottoms.

10. Where can you see cardinal flower growing at Duke Farms?

Answer: In the Great Meadow and the Pollinator Hoop House.