

In the Garden | Early risers

Sat, 03/23/2019 - 7:00am | [Ryan Pankau](#)



Photo by: [Amanda Pankau](#)

Naturalized populations of daffodils are common along country roads in southern Illinois, providing an awe-inspiring remnant of past flower farms in the region.



Nothing signals the coming of spring quite like a daffodil (*Narcissus psuedonarcissus*) in full bloom. After winter slumber as bulbs beneath the ground, these tiny plants emerge very early in the year to put on a spectacular flowering display each spring. These delightful harbingers of the spring season actually have some interesting evolutionary adaptations that allow them to thrive in a wide variety of environments, making them such great performers in our landscapes and gardens.

Last weekend, I was in southern Illinois and was fortunate enough to experience the height of daffodil blooms. Many counties in the southern part of our state have a particularly wonderful display each spring due to a large, naturalized population of daffodils. The tiny golden flowers appear everywhere from open areas to woodlands, adorning stream banks in bottomlands, as well as hilltops in the uplands. They are truly everywhere, with one of the best displays occurring along ditches of country roads that can easily be taken in on a leisurely drive through the countryside.

Much of the reason for the large daffodil population is that southern Illinois used to have a booming flower production industry in times past. One account from *The Southern Illinoisan* notes that the train station in tiny Cobden (about 15 miles southwest of Carbondale) had a record number of flower shipments in the spring season of 1952. The Illinois Central railroad agent for Cobden is quoted in the article saying that shipments in March and April exceeded all past years totaling 1,705 individual shipments comprising 67,000 pounds of flowers, primarily daffodils.

Throughout the 1940s and 1950s, production of daffodils, peonies, lilies, lilacs and other flowers was widespread across southern Illinois with, literally, tons of flowers shipped to distant cities each year. Many of these beautiful blooms were bound for other Midwestern states, but some wound up traveling as far as New York, Texas or Florida.

Today, flower production in southern Illinois has waned to almost non-existence. So, why have the daffodils persisted in such numbers nearly 70 years after their heyday? Since they are native to Western Europe, should they be considered an invasive species?

Although a solitary daffodil may seem like somewhat of a meager plant, easily dug up with a hand trowel, in the wild they are quite hardy. The ability to persist as a bulb during times of dormancy is an important evolutionary adaptation that lends to their hardiness. Essentially, bulbs are storage organs. They are made up of layers of fleshy tissue to store abundant energy that can be tapped when needed for rapid growth.

In the case of daffodils, stored energy fuels rapid growth very early in the season. Since trees and other large, tall competitors are in dormancy, it allows daffodils to persist in woodlands and other areas that would otherwise have too much shade or competition. In addition, daffodils skip some very energy demanding times of extreme heat and cold by going dormant.

This ability to save up energy and rapidly deploy shoots in order to capitalize on a very short growing season has allowed them to persist in such a variety of forested environments in southern Illinois. It has also allowed them to persist in

mowed areas, such as lawns and road ditches, since they complete most of their life cycle prior to annual mowing.

Adding to their super-saving abilities is the fact that daffodils, when ingested, exhibit high toxicity to most of the animal kingdom, other than insects. Although all plant parts are toxic, the deadly alkaloids that create this toxicity are concentrated in their bulbs, which makes sense. They have to protect their savings. This important adaptation has eliminated pressure from herbivores, like deer, and allowed southern Illinois populations to flourish.

Although human poisoning from daffodils is rare, it has occurred in the past primarily from ingestion of the highly toxic bulbs, mistaken for onion or some other edible bulb. Skin irritation from contact with toxic sap is a much more common ailment among humans that pick daffodils, but easily remedied with protective gloves.

Despite these amazing adaptations, daffodils are not considered invasive in southern Illinois since they don't threaten high-quality natural areas. They typically persist on the fringe of natural areas preferring locations with more human disturbance. Many of the patches we see today have persisted from past plantings, reproducing vegetatively by producing more underground bulbs. Although they can and do reproduce from seed, seed dispersion just isn't great enough to threaten nature.

Within their native range, daffodils inhabit a wide variety of environments, making them quite adaptable. When you combine that with their impressive evolutionary adaptations, they make a hearty garden plant worth consideration in almost any landscape.

Ryan Pankau is a horticulture educator with the University of Illinois Extension, serving Champaign, Ford, Iroquois and Vermilion counties.