

A Gardener's Guide to Nativars



By Mary Lahr Schier



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Which new cultivars of native plants appeal to gardeners and pollinators? Let's look at the research.

Top: *Echinacea* 'Fragrant Angel'
Left: *E. purpurea*

There was a time when plants like false indigo, coneflower and certainly milkweed were considered “wildflowers,” confined to country meadows and the gardens of herbalists. No longer. Nurseries and garden centers are filled with cultivated varieties of native plants to answer gardeners’ desires for small, colorful, well-behaved plants that help bees, birds and butterflies.

You can find false indigo (*Baptisia*) with yellow, brown and every shade of purple flowers. There are coneflowers (*Echinacea*) with double blooms that look more like carnations, and milkweed (*Asclepias*) cultivars that stay petite and stay put unlike their native ancestor. So many native cultivars have en-

tered the market that they are often the only variety of native plants available at nurseries. Now, gardeners and researchers are asking how much a native plant can be changed and still perform the environmental functions that it does in the wild, such as providing food and nesting sites and being larval hosts for pollinators, birds and other wildlife.

The simple answer is: we don't know. But as more research is done into the environmental functions of native cultivars, it's clear some are better than others when it comes to attracting and serving pollinators. Few cultivars are as good as the native species at serving pollinators, though some are very close.

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“You can never say an absolute blanket statement about these,” says Alan Branhagen, director of operations at the Minnesota Landscape Arboretum and author of two books on growing native plants in the Midwest.

Species vs. Cultivar

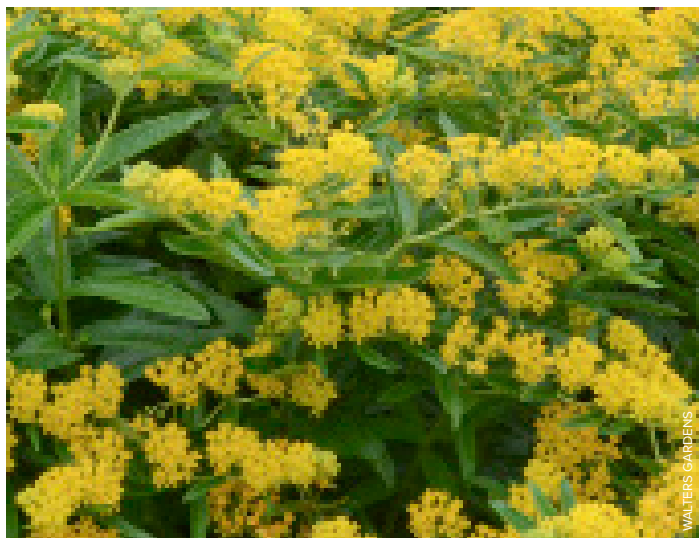
A few terms: native species are the plants that have developed in nature in an area over hundreds or thousands of years. Butterfly milkweed (*Asclepias tuberosa*) is a native species. Native cultivars (sometimes called nativars) are native plants that have been selected or bred for specific garden purposes, such as form, size, color or flower shape. *A. tuberosa* ‘Hello Yellow’ is a native cultivar. Cultivars that are “selections” were found in nature or in a garden and then are reproduced through cuttings, making them all genetically the same as the initial selection. But some selections carry the characteristic they were chosen for in their seeds. ‘Goldstrum’ rudbeckia, for example, is a seed strain that is more compact and floriferous than the native. Other native cultivars are hybrids created in a lab and reproduced through cuttings or tissue culture. Baptisias with bright yellow flowers or coneflowers with double-flowered blooms are hybrids.

Native cultivars don’t reliably function the same way native species do, which is the main concern with them. The Mt. Cuba Center in Delaware—the professional home of Douglas Tallamy, author of *Bringing Nature Home* (Workman, 2009)—studied pollinator use of woody plants, for example, and found that caterpillars didn’t care much if plants were shorter or had different blooms than the native species. But, if leaf color was changed from green to purple, they ate much less of the plant. Variegated leaves were eaten more than the green ones, which Branhagen speculates might be because variegated leaves have fewer of the nutrients caterpillars need than green leaves do.

“It’s complicated,” says Branhagen. For example, a study by Annie White of the University of Vermont compared pollinator preferences for 12 native species and a popular cultivar of each species. The study found that of the five cultivars that were selections, there was no significant difference between the species and the cultivar in pollinator preference. In one case, the cultivar was preferred over the species. Of the seven plant pairs where the cultivar was a hybrid, the species plant was preferred significantly over the cultivar in every case. White also found that the cultivars were also less likely to survive Vermont winters.

While some native plant proponents warn that nativars could cross-pollinate native species and change the genetic makeup of plants and seed, Branhagen sees the opposite happening in his own garden. “Over time, the nativars tend to die out and reseed and the new plants tend to look more like the native plant,” he says. “All the cultivars of black-eyed Susan revert to black-eyed Susan.”

Another concern with nativars is that many are sterile. They may have pollen for insects, as do nonnative plants such as spirea, catmint or sedum, but they offer no food for birds or



other wildlife. “*Monarda didyma* is not native to Minnesota but the hummingbirds don’t care,” says Branhagen. Generalist insects, such as many bees, are less affected by the loss of native species plants than specialist insects, which require specific plants to complete their lifecycle. Native plants most likely to help specialist insects include asters, goldenrods, golden Alexanders and wild geraniums.

With so many questions about nativars, more institutions are conducting research on the topic, including the University of Minnesota.

Advice for Gardeners

Do some research. When adding a plant to your garden, find out whether it was a selection or a hybrid. Is it sterile or does it produce seed for birds? Often you can see if a plant is attractive to insects by how many are on it at the garden center.

Observe. Which plants in your own garden are attractive to pollinators? Plants that work on a research site may not work in your garden. Example: ‘Lemon Meringue’ baptisia was rated highly in the Mt. Cuba trials in Delaware for its pollinator function, but it’s been a dud with pollinators in my St. Paul garden.

Plant native species, too. Find a spot in your garden where native species plants will work, especially asters and goldenrods. If you have space, create a meadow or dedicated area of native plants—you’ll be amazed at the insects and wildlife that use it.

Avoid double flowers. To create double flowers, hybridizers convert a plant’s stamens to petals. Stamens are where pollen is produced, so not having stamens makes the plant useless to pollinators.

Follow good pollinator practices. If helping pollinators is among your garden goals, do the basics. Leave plant debris up over winter as nesting sites. Don’t use pesticides. Replace some lawn with native trees, shrubs or perennials. Plant for bloom from April to October.

Gardening has always been a balancing act. Fruit trees sound wonderful, but do I want to prune and net them? A yard full of sun-loving plants is the dream of many shade gardeners. Balancing our ideas of what is beautiful with our desires to bring throngs of pollinators into our green space is a new challenge for many of us. Can nativars be part of the answer? Let’s try some and find out. 🌿

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Resource

Which native trees, shrubs and perennials are used by the largest numbers of bees, butterflies, moths and other pollinators in your neighborhood? The National Wildlife Federation’s Native Plant Finder (nwf.org/nativeplantfinder) allows you to search by zip code. In much of Minnesota, willow (*Salix*) hosts more than 350 species of insects—the top plant in trees and shrubs—while goldenrod (*Solidago*) hosts nearly 100 species. —M.L.S.

Best of the Native Cultivars

Research results from North Dakota State University (NDSU), the Mt. Cuba Center and the University of Vermont give these native cultivars high marks for attracting pollinators.

Aster (*Symphyotrichum novae-angliae*) NDSU: The only cultivar that performed even close to the native species was ‘Alma Potschke’. *S. oblongifolium* ‘October Skies’ performed as well as the species. ‘Dream of Beauty’ and ‘Raydon’s Favorite’ also scored highly.

Beebalm (*Monarda* spp.) NDSU: Native *M. fistulosa* and *M. punctata* attracted the most pollinators by far; of *M. didyma* cultivars, ‘Marshall’s Delight’ performed best.

Coneflower (*Echinacea purpurea*) Mt. Cuba Center trials rated ‘Pica Bella’ the best of the hundreds of coneflower cultivars. Others highly rated for pollinator preference and garden use were ‘Fragrant Angel’, ‘Sensation Pink’, Kismet® Raspberry, ‘Glowing Dream’, Postman and ‘Santa Fe’.



False indigo (*Baptisia* spp.) Top cultivars at NDSU: ‘American Goldfinch’, ‘Grape Taffy’ and ‘Indigo Spires’. Top cultivars at Mt. Cuba: ‘Screamin’ Yellow’, ‘Ivory Towers’, ‘Lemon Meringue’, ‘Purple Smoke’ and ‘Blue Towers’.

Joe-pye weed (*Eutrochium*) Branhagen recommends ‘Little Joe’ and ‘Gateway’ as shorter versions of this prairie plant that is a pollinator magnet.

—M.L.S.

