Each spring an earthly rainbow of wildflowers sweeps across fields renewed with life. Walking into a blooming meadow compares only with opening a new 64-crayon Crayola box as a child.

But while those mystical hues have spell-bound nature-lovers for centuries, they’ve only recently sent seed companies in search of the pot of gold. Wildflower mixes have become popular, and profitable, in the last few years.

Superintendents use the mixes in roughs; home-owners cultivate wildflower gardens; and highway departments scatter the seed on low-maintained rights-of-ways. But despite their popularity, naturalists argue that mixes don’t offer a crayon-box color solution in low-maintenance areas, but open a Pandora’s box of problems.

"There is a potential for the local gene pool to become polluted," says Brian Parsons, naturalist at the Holden Arboretum in Cleveland, Ohio. "That’s one argument for each state to develop its own nurseries as far as roadsides are concerned."

Natives vs. mixes
Native wildflower varieties demand less water, Parsons explains. "Using native wildflowers in the landscape conserves energy and fuel by reducing mowing," he says. "Many mixes use European species which aren’t regionally adapted. It’s a quick show, but color won’t persist in the landscape after the first couple of years."

"Very few people know which species grow in what areas," says Crystal Rose Fricker, plant breeder with Pure Seed Testing, Inc. "We’re doing research on natives. With grasses you know what’s a cool-season or warm-season grass. But there are many species of wildflowers widely adapted to different areas. I think we’re just learning."

Most seed companies market mixes to regional areas. Lofts and Jacklin share the name and advertising for their Pinto wildflower mix, but Jacklin markets only a Northern mix. Loft’s research agronomist Marie Pompei says the company has five different mixes: Northern, Southern, Canadian, Tropical and Texarkana.

Applewood Seed Co. in Arvada, Col. has nine regional mixes. Pickseed West, in Tangent, Ore., custom mixes seed depending on what distributors want, says Jerry Pepin, Ph.D. Most seed companies are willing to custom-mix large orders.

Despite the regionalization of mixes, the real controversy persists over what the mixes contain. The myth is that a mix will bloom full color year after year. But whether that will happen depends on how many annuals and perennials are in the mix. Both Parsons and Fricker agree that...
Wildflower mixes are a popular low-maintenance alternative on rights-of-ways, golf courses and home gardens. But before you go wild with color, seed companies say it’s important to learn about the mixes.

it’s a matter of public awareness.

"If a mix has 25 species, it’s not realistic to think that all 25 species will bloom," says Annie Paulson, resource botanist at the National Wildflower Research Center in Austin, Tex.

**Annuals vs. perennials**

"It depends on what the customer wants," Fricker says. "With an all-annual mix, you'll get color the first season, but it will die out. With an all-perennial mix, you won't have annuals dying out, but you won't get color until after the first winter."

Fricker explains that perennial wildflower seeds must vernalize, which means the seed must go through short day length and cold temperatures. "It's the plant's way of saying, 'I know if I flower too soon, the seed won't make it through the winter.'"

A solid wildflower mix will include annuals, perennials, biennials and tender perennials, which are annuals that can survive mild winters.

"It's advisable to see a species list and it's possible to ask for a percentage breakdown," Paulson says.

Loft's and Jacklin's Pinto mix is primarily composed of annuals. Tee-2-Green's Bloomers and most of Applewood's mixes are about 50-50. Pickseed West's Flowers 'N' Flowers is about 60 percent annuals, 40 percent perennials.

"Using more annuals holds the cost down and gives the customer something the first year," Pepin says. He adds that some annuals will re-seed if the wildflower area is mowed in the fall.

**A compromise**

Illinois has reached a compromise between mixes and native species. The state is one of the few to use native prairie grasses and wildflowers along its highways. It also is home to the Association for Use of Native Vegetation in Landscaping (ANVIL).

LaFayette Home Nurseries is one of several Chicago-area nurseries which markets both mixes and native species. Sales manager Roger Lemke, who is also on ANVIL's board of directors, says mixes serve a purpose despite their problems.

"We use those mixes and include them with our mixes," Lemke says. "The annuals give color until the native perennials start coming on."

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Low maintenance?
Another myth concerning wildflower mixes is that once planted, they need no further maintenance. "How wildflowers are maintained does make a difference," Fricker says. "Some weedy species can take over."

Because of this, Fricker is working closely with chemicals companies on herbicides which kill weeds, not wildflowers. For the past three years, Pure Seed has been looking at about 50 different chemicals and hundreds of wildflower species. "We also have 15 trials going on throughout the U.S.,” she says. “We want to see which species will be hurt and which will survive.”

Of some 25,000 species of wildflowers, only a fraction have been seriously studied.

Fricker has researched wildflowers for five years. Pure Seed Testing has 250 acres of more than 300 varieties.

The National Wildflower Research Center has been researching wildflowers since 1982. Lady Bird Johnson founded the non-profit center for the purpose of promoting wildflowers in public and private landscape design.

Current research includes looking at various seeding techniques, such as a modified drill seeder, and putting together a seedling identification booklet. The center also serves as a clearing house for information, such as fact sheets done by state. Last year, more than 24,000 inquiries poured into the center.

“We’re often the first place someone will turn to,” says Paulson. The center won’t endorse mixes, but will give recommendations concerning what to look for in a mix.

Popularity blossoms
Popularity of wildflowers has more than blossomed over the past five years. “We’ve gone from selling a few

rennials are weaker and we re-seed," Pakkala says.

Pakkala uses the wildflowers in beds he calls “desert scenes,” bordering the golf course. The flowers bloom during the winter, but the hot dry Palm Springs summers make it difficult to keep them alive.

The beds all contain manual irrigation heads for water. “In the spring we slowly cut back the water so as to not shock the plant,” Pakkala explains. “We have other desert plants, such as cacti, in the same beds, and they can’t handle the water.”

Weeds are another constant problem. “Our members and guests are purists. Sometimes we get a bed so weed-infested that we have to eradicate the whole bed,” he says. “Weeds germinate with the wildflower seed. It’s quite a job keeping them out.”

If weeds aren’t taken out, clover and thistle can shade the flowers, stunting their growth. He uses the herbicide Fusilade which gets rid of grassy weeds without damaging the flowers, but his crew must hand-weed other types.

“It’s a tough situation,” he says. “I need to do more research and find out what types of wildflowers will grow naturally here.”

Despite the problems, Pakkala whole-heartedly recommends wildflowers to other superintendents. “By all means do it,” he says. “They are low-maintenance in other areas of the country. In non-use areas, you don’t have to mow as often.”

A different perspective
The Midwest, unlike the Southwest, is known for its native prairie and wildflower species. Paul Boizelle, superintendent at the Onwentsia Club in Lake Forest, Ill. has used prairie and wildflowers in his roughs for five years.

Boizelle has experimented with three different techniques to plant the wildflowers. About 13 acres of the 200-acre course are planted in prairie.

The first year Boizelle let the rough grow wild. "Lo and behold we had wildflowers volunteer which had been there since the course was built in 1894," Boizelle says. "We were so excited about it."

The species had not had a chance to thrive because of the maintenance of the rough area.

“We started with five acres,” Boizelle explains. “In the fall, we mowed the area using a large woodsr Rory mower. Then we hydrosedeed a wildflower mix on top of the stubble. We knew the seed had to find its way into the soil.”

In the spring of the third year, Boizelle went in and burned the area. Controlled burning shocks the plant to provide renewed growth. It also eliminated vegetative competition of continued on page 22
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The species had not had a chance to thrive because of the maintenance of the rough area.

hundred pounds into the tons,” Pepin says. “I think it’s a growing self-awareness of our environment,” says Gene Milstein, president of Applewood. “People are aware that there’s a limited amount of wild country left. They want to tie into that and have a piece of it in their backyard.”

“It has a nostalgic theme for the homeowner,” Pompei says. “Instead of being like everyone else, they can have a piece of something different.”

One of the most popular uses of wildflowers is for highways. Paulson recommends planting wildflowers at visible exchanges, rather than in long strips where they might be distracting to drivers.

Golf course superintendents use wildflowers in the rough or in gardens near the clubhouse. Pompei says surrounding parking lots is a new popular use for wildflowers.

Pepin says his mixes are most popular among landscape contractors. Milstein reports his all-perennial wildflower sod is most popular with homeowners. “We’ve had an overwhelming response from consumers and the media,” Milstein says. “It’s totally amazed us.”

Wildflower innovations

Applewood has been a leader in innovative wildflower use. Besides being the only company to market wildflower sod, they have a Super Short maintenance variety which competes with beauty.

The species had not had a chance to thrive because of the maintenance of the rough area.

the professional’s partner

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has not used, is to purchase wildflower plants, rather than seed.

The roughs aren’t completely flowers. Some parts of the Prairie are non-flowering, like Big and Little Blue Stem. He has moved some of those native plants into roughs where they haven’t grown in naturally.

But, he warns, even in the Midwest where wildflowers prosper, it takes some work. “Don’t expect a panacea of color,” he says. “It could take years to achieve the ultimate goal. You don’t have to do the work, sprinkle seed and say presto. You have to plan ahead and budget for the project each year.”

His members love the new roughs. “They’re delighted,” he says. “One reason we’ve introduced the wildflowers is to replace weed growth with beauty. That beauty is no wonder wildflowers are such a popular way to break up the green monotony of golf courses.”

—Heide Aungst