

Tough (Plant) Guy

There are no wimps allowed in Harold Pellett's test gardens—at least not for long. The plants he breeds and grows must be able to handle the tough conditions that affect urban landscapes: salt, poor soil, cold temperatures, even air pollution. They also need to be pretty, petite, and largely sterile. He does not think that's too much to ask.

In the more than 15 years he has been executive director of the Landscape Plant Development Center, a national nonprofit research institute he leads from his home in Mound and

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a recently established 6.75-acre test garden in Lake Elmo, the center has introduced three plants: Center Star clematis, Center Glow ninebark, and Silver Ball™ ornamental pear. More are in development, including promising cultivars of butterfly bush (*Buddleia*), ninebark, weigela, dogwood, and Hornbeam (*Carpinus*). The center's affiliation with 80 research scientists working at universities, arboreta, and plant companies from Oregon to New York results in a one-of-kind network for developing woody plants for urban landscapes.

Creating Hardy Stock

During a tour of his home test gardens recently, Pellett's enthusiasm for the plants and his tough-minded practicality were evident. Around the yard dozens of shrubs and trees in various stages of testing were exposed to what Minnesota's climate has to offer: heat, cold, wind, and this year, near drought. Most new cultivars get to Pellett's gar-

den only after spending a winter in Oregon's relatively balmy climate. Some plants in Pellett's garden clearly won't make it to the next stage—they are drooping or tiny or just stressed looking. But others are thriving and may become the next big thing in landscape plants. One of the center's main goals is to create plants that are less fussy—ones that tolerate environmental and biological stresses, require less maintenance, and less chemicals, and that grow well in a wider range of climates. As yards shrink, compact plants are preferable, Pellett thinks, as are those that are sterile or highly infertile to reduce threats from invasive species.

Being able to test plants in a variety of environments is one of the center's efficiencies. When a researcher has an idea for a new plant, the crosses are made, and the first generation plants are sent to Oregon, where they grow at a 24-acre station that was donated to the center. Those plants that pass this initial test come back to Minnesota—or to New York, Washington state, or North Dakota, Canada, or even Arizona—to face tougher conditions. The survivors may be crossed and recrossed, tested and retested until they achieve the landscape qualities the center's scientists desire.

The effort requires patience and time. A current project has the goal of developing a small maple with the ornamental properties of Japanese maples but greater hardiness. The effort began with a maple native to northern China, (*Acer pseudo-sieboldianum*) crossed with Japanese maple species (*Acer japonica* and *A. palmatum*). Seedlings of the second generation are growing in Minnesota to select ones that may survive winters here. Pellett is hopeful, but realistic: "Ask me about it in five years," he says.

Projects closer to completion include new cultivars of butterfly bush with showy flowers, different plant forms, and reduced sterility, since butterfly



Harold Pellett

bush can be invasive in southern climates. These new cultivars may not be tough enough for Minnesota climates, Pellett says, though the ones in his test plots are surviving. "There's a lot of potential," he says.

He's also excited about crosses that have been made between bush honeysuckle (*Diervilla*) and *Weigela*. It's one of several efforts the center has made to cross plants from related genera, hoping to pick up the best qualities of each. With this cross, the result is a plant with the form of bush honeysuckle, and attractive, variegated foliage and pink flowers.

Pellett spent 36 years as a research scientist at the University of Minnesota, breeding plants for northern climates. As he approached retirement, he decided that plant research could be done more efficiently if universities, public arboreta, and companies worked cooperatively. Too often, good plant ideas were stifled in bureaucracy and competitiveness. The center relies on funding from nursery companies, individual gardeners, and associations. The Washington, D.C.-based Horticulture Research Institute is a major funder, as is the Robert Engstrom Cos., Bailey Nurseries Inc., the Minnesota Nursery and Landscape Association. "Considering we started in 1990 from nothing, we've come a long way," he says. **[LH]**

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