

PROGRESS

Blossoming breakthroughs



Many improvements have been made in plant breeding throughout the years, and ornamentals are no exception.

Today's plant developers can select desired traits for ornamentals right in the lab. They couldn't before, says Jeff Gibson, Landscape Business Manager for Ball Horticultural Company. "We're using a lot of advanced scientific methods today to accelerate the identification of plants we want to create," he says.

According to Ryan Contreras, an assistant professor at Oregon State University who deals in ornamental plant breeding and cultivar development, molecular biology is beginning to be used in ornamentals. "We're still in the infancy of that," he says. "The biggest opportunity is using it to identify plants that have genes for resistance, resistance to Dutch Elm Disease, anthracnose, things like that."

Molecular genetics "is the new line of plant breeding," says Rick Schoellhorn, Director of New Products for Proven Winners L.L.C. "Today's plant developers are using the lab to develop hybrids. In horticulture they're finding they can

Genetics and breeding are at the core of advances in ornamentals.

make hybrids between things they didn't know they could before.

"That to me is the future of ornamental floriculture breeding," he continues. "You're still creating a new hybrid, but you're doing it in a laboratory now, so everything can be perfect for those two parts to join. That results in plants that are sterile, so they don't produce any seed. Therefore, they will flower for as long as the season lasts."

The advancement in the genetics and breeding of ornamentals, Schoellhorn asserts, is the upshot of intensifying competition among seed and vegetative companies. "That's how the industry progresses," he says. "The progression comes from that competition. It's fascinating to watch and it's nowhere near done."

Traditionally, there was very little advancement in the perennial market, Schoellhorn says, but something happened in the past five years. "Echniacea, for example, is suddenly yellow, orange, white, pink, and now there are hundreds of cultivars on the market. It's in pursuit of a higher plant and also a higher profit for the market," he says.

Trees and shrubs have begun to show breakthroughs, too, displaying better flowering and disease resistance. Genetic attributes of trees and shrubs are being driven in part by the prefer-

To save money, today's customers are turning toward trees and shrubs such as hydrangeas, whose blossoms last multiple seasons.

ences of urban landscape customers, Gibson says, including their desire for compact shrubs that don't grow as high.

And as today's landscaping clients move toward smaller trees and shrubs, they are turning away from pricey flowers, says Gibson, explaining that commercial clients and homeowner associations looking to cut their budgets often cut extras like flowers first.

But many customers are willing to go along when landscapers suggest multiseason trees and shrubs. Customers generally perceive them to be cost effective, he explains, because their blooms last.

Take, for example, hydrangeas, Gibson adds. "If you're planting in a subdivision and your homeowners association doesn't want to plant petunias, they might be willing to plant a hydrangea that changes color over multiple seasons and gives them some color. It's a compromise plant. The idea of multi-season shrubs is very important."

The use of containers in the landscape also is becoming a trend in many markets, Gibson says. A client who is reluctant to plant big beds of colorful plants yet still desires color might opt for placing plants in containers.

"Putting plants into containers up close and personal" is not only a cost-effective compromise, Gibson says. It's also "consistent with a trend toward more compact environments."

Future trends in ornamentals will be determined by more genetic breakthroughs, Schoellhorn asserts. Heirloom varieties aren't going anywhere, he says, "but when you start to look at where the real genetics of breeding is moving, it's just fascinating."



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