

THE BIRTH OF A ROSE

> When the 'Toffee' rose was introduced in 2018, brides were ecstatic. One wholesaler called the creamy, caramel brown flower "the most requested rose on Planet Earth." But bringing it to market required years of cross breeding, testing, and months of propagation, says Santiago Brown, director of research and development at Ball FloraPlant, who bred the 'Toffee' rose and a peach rose called 'Kahala.'

"Plant breeding is an art and science," Brown said at the Society of American Florists' Next Gen LIVE! event in Miami, where he spoke about breeding.

Breeders such as Brown aren't always just looking for the next best color. They take into consideration dozens of other factors such as resistance to disease, flower angle, vase life, scent, height, yield, drought tolerance, stem thickness, and cold tolerance — among other factors. "There are endless traits we breed for," said Brown.

A Numbers Game

Breeding requires many phases that stretch out over years to find the best varieties. A breeder might start with up to 100,000,000 seeds which produce 700,000 viable seedlings, Brown said. From there, seedlings are evaluated and eliminated based on whether they meet the criteria the breeder is looking for, which in Brown's creation of 'Toffee' was the neutral brown color on a strong specimen.

"It's a lot of patience and resources — not only time but also the amount of populations you have to screen to achieve that color," Brown said. "It's not a few shots at goal, it's many shots, many different strategies and techniques."

Testing, Testing

When the selections have been reduced to about 20, the breeders present the flowers' genetic "codes" to growers so they can test the flowers. Rosaprima,

which this year introduced 'RP Moab,' a gold, dusty pink rose, grew the flower for two years in a testing area to observe it, says María José Sotomayor, marketing manager for Rosaprima.

Growers want to see that the plant has a consistent production cycle that yields many stems. They also evaluate the flower to make sure it is resistant to disease, has good bud size, stem length, attractive foliage, long vase life, and they consider how well it will be received in the market. They also determine at which stage the rose is best harvested.

'RP Moab' performed so well that Rosaprima acquired exclusive rights to grow the rose, Sotomayor says.

Growing Strong

It takes about eight months to harvest the new variety from the time the rootstock is planted, Sotomayor says. The rootstock, from a hardy variety of rose, must rest in the ground for about six weeks after it is planted. Then, stems of the new variety are grafted on. For the next six months, the plant grows and eventually produces stems and buds.

Big Payback

The work that goes into creating a new variety is extensive, expensive, time consuming and comes with many, many failures, said Brown.

"There are so many frustrations, but it's all worth it when you hit 'the one,'" he said. "You need to push through [the failures] because if you don't, everything you learned until that point is lost. All the effort and sweat and tears are never going to have a payback."

And for Brown, the payback is big. When he took the stage at Next Gen LIVE!, he commented that two of the flowers he bred were in the room, brought by farms who were part of the event's supplier exhibition.

"It's really emotional every time I see them," he said. 🌹

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