A NEW "PRE-BUDDED" HYDRANGEA PROGRAM BRINGS POPULAR LANDSCAPE VARIETIES TO THE MOTHER'S DAY MARKET IN JUST 13 WEEKS.

By Shannon Springer

hile traveling abroad in Europe, Dale Deppe noticed something different about the hydrangeas being sold in garden centers — they were all in flower. As owner of Spring Meadow Nursery, the source for Proven Winners ColorChoice flowering shrubs, he has seen it all when it comes to hydrangeas, but what he found wasn't the newest breakthrough variety, it was a different view of the market. "Nurseries in Europe would never ship a bigleaf hydrangea without flowers," Deppe says.

The idea of shipping hydrangea with flowers is hardly groundbreaking. Florists force hydrangeas to deliver beautiful blooms for high spring traffic and gift-giving holidays like Mother's Day, but nurseries rarely bother because it is not that easy. Normal nursery production methods nip the blooms in the bud — literally. Pruning to build the plant's body and to maintain its height for shipping removes the flower buds which are formed between mid-summer and late fall.

"As a propagator, we weren't helping the growers either. We were shipping liners that were repeatedly trimmed to produce branching and a compact, easy-to-ship liner, sacrificing flower buds in the process," Deppe says. "After receiving liners, growers often need to care for them for an additional season to allow the plants to set bud again. It can be a long process."

Using Europe as his inspiration, Deppe returned, determined to find the key to delivering "pre-budded" hydrangeas timed to bloom for Mother's Day and thrive in the landscape when planted afterward — starting from a onequart liner. He approached Spring Meadow's head grower, Dave Joeright.

"While the process is commonplace for the florist market, we had to find which of our varieties could be growth-regulated to a height of less than 5 inches



Hydrangea trials at Spring Meadow Nursery

for shipping, perform in a forcing situation, and still produce a finished 1-gallon for retail in 13 weeks," shares Joeright. "This was our goal."

The nursery began trialing the dozen Proven Winners ColorChoice *Hydrangea macrophylla* varieties available at the time. Each were bred to be outstanding performers in the landscape but needed to be evaluated for habit, growth rate and performance in a forced setting. The timing, temperatures and other factors were perfected during a three-year trial.

The Recipe for Success

The first part of the puzzle was producing the quart-sized, pre-budded liner. Hydrangeas were propagated by cuttings in early spring. After setting roots, they were pinched back for several weeks to improve branching and habit, as is typical in the production process for all woody liners. Mid-July, however, all pruning stopped. Growth regulators were used to maintain a small size and prepare the plant for the shortened fall days and cooler evening temperatures that initiated bud development. While dormant, liners shipped in early February.

The second part of the trial perfected a step-bystep "recipe" for customers to successfully break dormancy and produce a blooming, retail-ready 1-gallon container from the quart-sized liner. Forcing needed to take just 13 weeks from its February shipment to Mother's Day to eliminate an additional year of growing. The following protocols were developed for the pre-budded hydrangeas as the result of the trial.



Pre-budded liners are timed to bloom for Mother's Day and thrive in the landscape when planted afterward.

Receive Pre-Budded Hydrangea Liners

Unpack dormant, pre-budded Quick Turn liners and place in a greenhouse with a night temperature of 60 to 65° F. It is recommended to grow plants for about two weeks before transplanting to initiate root growth.

Transplanting

Shift liner to a 1-gallon pot. A common problem with hydrangeas is poor root establishment after transplant, which can lead to water stress and poor development during forcing. To avoid this, slit bottom of liner root ball in an X pattern at time of transplanting and split apart sections making good contact with new media when planting.

Water

Grow plants on the dry side during the start of forcing to encourage root development and discourage root rot, but do not allow plants to wilt. Irrigate plants early in the day to avoid wet foliage and high humidity in the evening.

Temperature

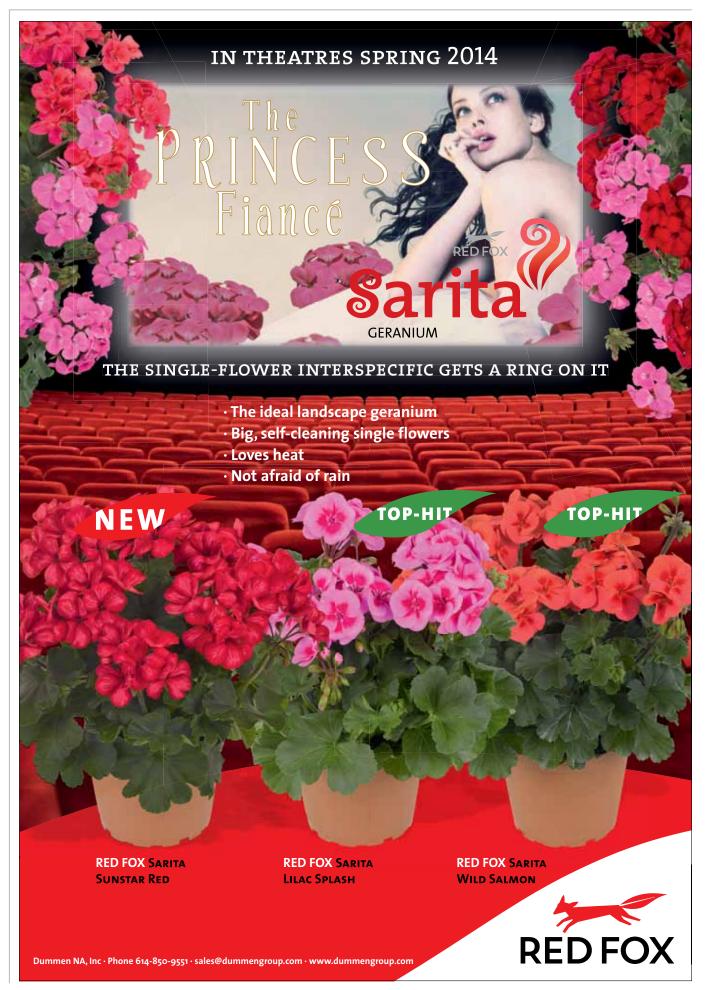
For best forcing results, plants should be grown with a nighttime heating set point of 60 to 65° F and a daytime cooling set point of 70 to 75° F. With a night temperature of 60° F, plants will be in flower in about 13 weeks. With a night temperature of 65° F, plants will be in flower in about 12 weeks. Excessively high temperatures during forcing will cause reduced flower size and plant quality.

Light

Plants should be given as much light as possible unless subject to high temperatures greater than 75° F. Once flowers show color, shading the plants is recommended to prevent sun bleaching or burn of the flower petals.

Fertilizer

Care must be taken not to over-fertilize the plants during the first few weeks of forcing. Plants coming out of dormancy need time to reactivate root growth. Fertilizing before this happens can burn the roots. Use clear water without fertilizer for the first week or two of forcing or until two pairs of leaves have unfolded. Then begin fertilization. Avoid fertilizer on a completely dry root-ball as this can also damage roots.



Growth Regulators

Traditional hydrangea forcing often requires the use of plant growth regulators (PGR) for height control. Varieties such 'Cityline Paris', 'Cityline Vienna' and 'Cityline Venice' are naturally compact plants and may not need any PGRs during forcing. Larger cultivars such as the reblooming 'Let's Dance Starlight' and 'Let's Dance Moonlight' will likely require at least one or two applications. A spray application should be made to Let's Dance cultivars three weeks after the start of forcing or after three to five leaf pairs are visible. Multiple applications may be needed (10 to 14 days apart) depending on appearance of the plants and rate of growth. All growth regulator sprays should be stopped before flower buds reach ³/₄ inches in diameter (size of a nickel) or flower size will be reduced.

Seeing Results

In 2011, the pre-budded hydrangea program rolled out





'Cityline Paris' (top) and 'Tuff Stuff

to growers, featuring five bestselling Proven Winners varieties: 'Cityline Paris', 'Cityline Venice', 'Cityline Vienna', 'Let's Dance Moonlight', and 'Let's Dance Starlight'. As trials continued and new plants were introduced, Spring Meadow added three more reblooming varieties to the pre-budded program: 'Let's Dance Rhapsody Blue' and two Hydrangea serrata varieties that also bloom on old wood, 'Tuff Stuff' and 'Tiny Tuff Stuff'. The program has quickly become a success for the nursery's customers and greenhouse growers looking to expand their mix with a quick-turning crop.

"We had tremendous success with our pre-budded hydrangeas," says Stan Picarski of Campbell's Greenhouse in Michigan. "The growing protocols were right on, and the plants were well received by our customers. We sold out in two weeks."

Garland Lewis from Bluegrass Nursery in Kentucky had a similar experience. A supplier to area garden centers and a major grocery store chain, Lewis called them, "the easiest-to-grow hydrangeas ever." For the past three years, he has annually doubled his prebudded hydrangea order, noting that he is often sold out before Mother's Day.

Spring Meadow Nursery continues to develop the pre-budded hydrangea program and trial new introductions. For more information, please visit www.springmeadownursery.com or call 800.633.8859.

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