Ensuring a Rosy Future

Beautiful, resilient roses emerge from tough trials.

In midsummer, the A.R.T.S. test garden is in full bloom.

RANDY NELSON

By Randy Nelson and David Zlesak

NESTLED IN THE NORTHWEST CORNER of Oak Tree Park in Dilworth, Minn., lies a bed of roses that visitors have enjoyed since 2010. The roses provide more than just beauty, however. They also provide critical data on disease and insect tolerance and winter survival in the harsh conditions of northern and western Minnesota.

Roses are the most popular flowering plant in the world. Yet, if you ask a room full of northern gardeners whether they grow roses, you'll often hear "No, roses take too much time and energy to keep them healthy." While that is true for some roses, many roses grow well and produce abundant blooms in our region. The key is to select the right ones. And the best way to determine which are the right roses is to set up a trial garden, just like the one in Dilworth, a city of 4,500 just east of Fargo.

Because of trial programs in the harsh Minnesota climate, researchers (helped by dozens of master gardener volunteers) have identified 14 rock-star roses that thrive here with minimal maintenance and will probably grow well in your garden, too.

Making a Trial Garden

During the fall of 2009, the late Don Vogel, maintenance supervisor for the city of Dilworth, was approached about putting in a trial garden for roses at one of Dilworth's many parks. Don embraced the idea and, within a week, city officials approved the garden. That spring, city maintenance workers tilled a 4,000-square-foot sunny area, which was spread with 40 yards of plant-based compost and covered with 40 yards of wood mulch, enough to cover the planting bed with a 3-inch layer. By early May, it was time to plant.

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The first trial roses were part of the Earth-Kind® Environmental Landscape Management System, developed by horticulture specialists at Texas AgriLife Extension Service. Earth-Kind rose trialing started in the 1990s with the goal of identifying roses that grow well in specific regions with little maintenance. The Dilworth trial consisted of 26 rose cultivars with four plants of each.

During the four-year trial, roses were not sprayed for insects or diseases and received no winter cover other than snow. Roses were watered as needed during the first year only and they received no additional fertilizer. The roses were not pruned, other than to remove canes that died over winter, and were not deadheaded. The trial was intentionally tough—yet many roses thrived.

The Earth-Kind® trial ended in 2014 and a new trial through the American Rose Trials for Sustainability (A.R.T.S.)® program was started. This program has trial sites all across the United States, including Dilworth, and follows strict protocols similar to those of the Earth-Kind program: a 3-inch layer of wood mulch, no pesticides or supplemental fertilizers, no deadheading

or pruning to alter growth form and no winter protection. (It should be noted that Dilworth has not been invaded by Japanese beetles.) The trial did allow roses to be watered after the first year but only up to the equivalent of 1 inch of rainfall a week.

Starting the first year, roses were rated monthly during the growing season using a 10-point scale. Roses were rated for floral attributes (4.25 points), foliage health and quality (4.5 points) and plant growth form (1.25 points). Control cultivars—known good performers, such as Double Knock Out® ('RADtko') and Sunrise Sunset™ ('BAIset')—were also rated for comparison purposes. Depending on the month, it took 20 minutes to evaluate one rose.

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Each trial had a maximum of 20 rose cultivars with three plants of each, planted in three different areas. Rating 60 roses each month and compiling the data required hundreds of hours of work. Fortunately, skilled volunteers from extension master gardener programs at both North Dakota State University and the University of Minnesota assisted with the evaluations. Their passion for plants and desire to learn made the evaluations possible.

Results and More Trials

At the end of each two-year trial, roses that scored equal to or higher than the average of the two control cultivars for a given region are given the A.R.T.S. Local Artist award.

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As part of the trial, roses received no cover during Dilworth's windy winters.

Roses that earn the award in four or more regions are named Master Roses to highlight their adaptability.

So far 14 roses have earned A.R.T.S. Local Artists awards from four trials in our region. The roses were trialed as own-root plants and they all survived the winter and grew well the second year of the trial. For gardeners in our region, any of these roses are worth growing. →

Earth-Kind Results

BAILEY NURSERIES

Sunrise Sunset™

The Earth-Kind® trials of northern hardy roses tested 20 cultivars at five sites around the country, with two in Minnesota and one in Iowa. Six roses had more than 75% plant survival at the end of the study and were in the top 50% of performers for overall mean horticultural rating at each of the three north-central U.S. sites. They were 'Frontenac', Polar Joy™, Sunrise Sunset™ and the three Northern Accent™ roses: 'Lena', 'Ole' and 'Sven'. For full results go to: https://doi.org/10.21273/HORTTECH03681-17.

While the 'Lena', 'Ole', and 'Sven' roses have been unavailable commercially for several years, the University of Minnesota is relicensing the roses now and they will be sold at Schulte's Greenhouse and Nursery in St. Michael in 2020.

—Eds.

Climate and Roses

Gardeners know that plants need a specific growing environment to flourish and no plant will flourish everywhere. With that in mind, A.R.T.S. uses a climate-based system called the Köppen Climate Region system in trialing roses. This system divides the globe into climate zones based on temperature, moisture and elevation. All of Minnesota is located in what is called a deciduous forest biome or Dfb. These climates are humid and have cool summers. For more information on the Köppen system, go to thesustainabilitycouncil.org/resources/the-koppen-climate-classification-system.

Results from other rose trialing sites can be found at trustedroses.com.

—R.N. and D.Z.

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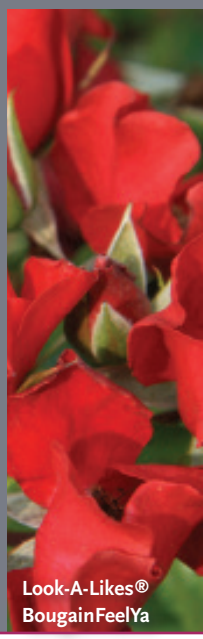
And the Winners Are . . .


Highwire Flyer™
STAR® ROSES AND PLANTS


Icecap™
STAR® ROSES AND PLANTS


Look-A-Likes® Apple Dapple
STAR® ROSES AND PLANTS


Look-A-Likes® BougainFeelYa

Highwire Flyer™ (‘RADwire’) This very vigorous, yet relatively compact and dense climbing rose produces a wealth of semi-double to double hot pink blooms. Introduced by Star® Roses and Plants.

Icecap™ (‘MEIradena’) This densely growing, double white shrub rose produces masses of blooms throughout the growing season. Introduced by Star® Roses and Plants.

Look-A-Likes® Apple Dapple (‘MEIplumty’) This low, spreading shrub rose has large masses of blush-pink, single blooms reminiscent of apple blossoms. Introduced by Star® Roses and Plants.

Look-A-Likes® BougainFeelYa (‘MEIckinava’) This very compact, spreading shrub rose produces masses of vibrant red single blooms in clusters. Petals are thick and long lasting. Introduced by Star® Roses and Plants.

Miracle on the Hudson® (‘Bartholomew’) Mounded, well-branched plants produce relatively large, single, velvety red blooms with bright golden stamens. New foliage growth on this shrub rose starts out a deep shade of burgundy, turning green as it matures. Introduced by Certified Roses.

Music Box™ (‘BAIbox’) Each multi-colored double bloom is distinct as the buttercream-colored petals transition to warm pink in sunlight. This shrub rose has glossy foliage and plants are symmetrical and floriferous. Introduced by Bailey Nurseries.

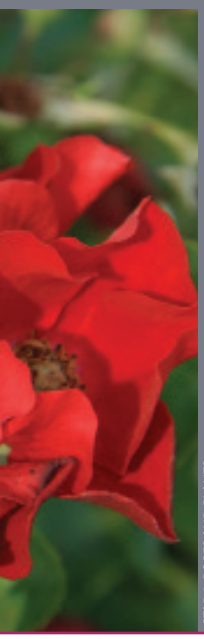
Peachy Knock Out® (‘RADgor’) Beautiful, relatively large, semi-double, shell-pink blooms are generously produced on a mounded, symmetrical plant. Introduced by Star® Roses and Plants.


Peppermint Pop™
STAR® ROSES AND PLANTS


Petaluma Cover®
Towne & Country®
POULSEN ROSER AS


Phloxy Baby™
STAR® ROSES AND PLANTS


Raspberry Kiss™


STAR® ROSES AND PLANTS


Miracle on the Hudson®

CERTIFIED ROSES


Music Box™

BAILEY NURSERIES


Peachy Knock Out®

STAR® ROSES AND PLANTS

Peppermint Pop™ ('RADcarn') Very double, multicolored blooms of cream through deep pink are generously produced on this mounded shrub rose. Introduced by Star® Roses and Plants.

Petaluma Cover® Towne & Country® (POUltc004) This compact, spreading shrub rose has semi-double, vibrant, orange-pink blooms. Introduced by Poulsen Roses.

Phloxy Baby™ ('RADcleome') This compact, densely branched shrub rose delivers an abundance of petite, single, soft-pink blooms. Small scarlet hips add fall and winter interest. Introduced by Star® Roses and Plants.

Raspberry Kiss™ ('CHEwsumsigns') Clusters of single soft-pink blooms open to display a rich raspberry-pink eye framing golden stamens. This shrub rose has a spreading habit and the leaves are glossy. Introduced by Certified Roses.

Screaming Neon Red™ ('BAIneon') The vibrant, neon-red, single blooms have wavy edges and bright gold stamens. The leaves on this vigorous, large shrub rose are thick and leathery and typically have good fall color. Introduced by Bailey Nurseries.

True Passion™ ('LIM10') This petal-packed, vibrant orange hybrid tea rose is complemented well by its dark green, glossy foliage. Introduced by Altman Plants.

True Integrity™ ('LIMbird') The bright salmon double blooms of this floribunda stand out against the backdrop of its dark green glossy foliage. Introduced by Altman Plants.

—R.N. and D.Z.

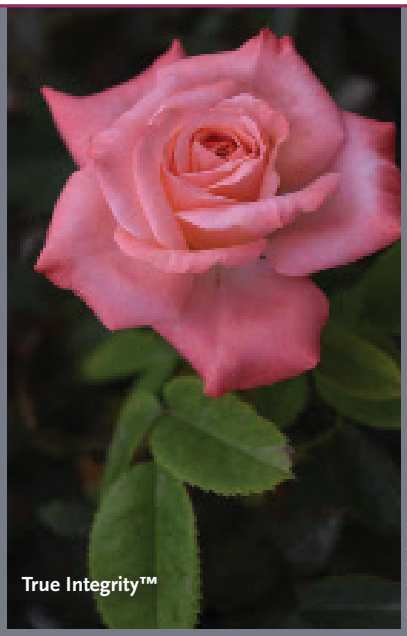

CERTIFIED ROSES


Screaming Neon Red™

BAILEY NURSERIES


True Passion™

ALTMAN PLANTS


True Integrity™

ALTMAN PLANTS