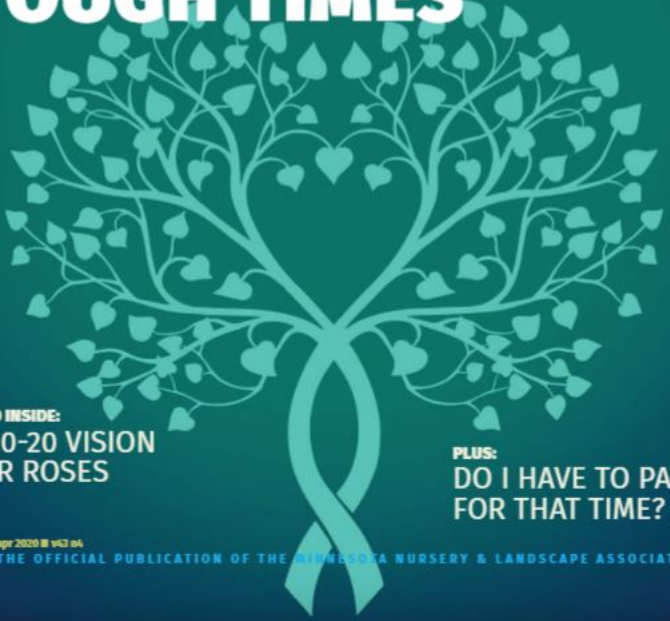
OUT & ABOUT

LEGAL QUICK TIPS

READY TO ROLL

the SCOOP

SUPPORT IN TOUGH TIMES



ALSO INSIDE:
A 20-20 VISION FOR ROSES

PLUS:
DO I HAVE TO PAY FOR THAT TIME?

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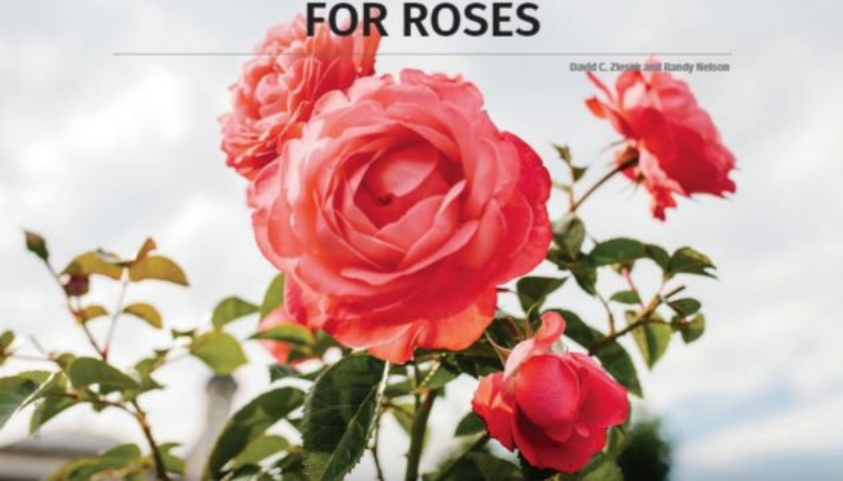
American Rose Trials for Sustainability®
Provides our Region

20-20 VISION

FOR ROSES

David C. Zlesak and Randy Nelson



A tour of the Earth-Kind® rose trials at the Dilworth site.

Local Artist

AMERICAN ROSE TRIALS SUSTAINABILITY

A.R.T.S.® MISSION: To identify, through regional evaluation and testing under low input conditions, the most disease and pest resistant, hardiest and most garden-worthy rose cultivars and to provide objective, accurate and reliable information about the cultivars tested for each region to industry professionals and the gardening public.

Our region has a rich and longstanding love of roses. Lyndale Park Rose Garden in Minneapolis (started in 1907) is the second oldest public rose garden in the nation. Additionally, Bailey Nurseries, based in Newport, MN, has been a leading supplier of hardy landscape roses throughout the north – particularly the Agriculture Canada roses and their own Easy Elegance® brand of roses. Resources to help consumers identify cultivars that do especially well in our region are important to help sort through the myriad of nationally available cultivars. Thankfully, the American Rose Trials for Sustainability® (A.R.T.S.®) program (a nonprofit 501(c)(3)) continues to gain momentum to help us in this regard.

A.R.T.S.® has quickly become the premier US rose trial/awards program due to its strong scientific rigor, regional determination of award winners, and integrity. A.R.T.S.® began in 2012 and was prompted by the disbanding of the industry-led All-America Rose Selections (AARS) program (began in 1938). Close to half of the AARS member rose producers went out of business during the recent recession and that, in part, contributed to AARS's closure. A.R.T.S.® has stepped up to fill the need of an independently run rose trial for the benefit of consumers, nursery and landscape professionals, breeders, and public gardens. The volunteer board of directors and advisors of A.R.T.S.® not only includes industry, but also scientists, public garden professionals, and rose enthusiasts. Having a diverse leadership base helps the team more effectively recognize and meet emerging needs/opportunities and identify resources to continually strengthen the program.

Inception of A.R.T.S.® — The Minnesota connection

A.R.T.S.® inception has as strong connection to Minnesota. In the mid 2000's there were multiple Earth-Kind® rose trials in Minnesota, each comparing landscape roses side by side with reputations of being good performers in our region. The trials were conducted using the strong scientific methodology developed by Earth-Kind® team members at Texas A&M AgriLife Extension, with appropriate modifications for Minnesota. Four plants of each rose cultivar were randomized across each of the four beds at a site and data was taken monthly during the growing season on each plant. Plants had ample spacing (>6'), no pesticides applied, moderate nutrition (preplant compost and then slowly decomposing organic mulch), and irrigation the first year during establishment and then only in the case of prolonged drought. The duration of a given trial was at least four years. Strong performing roses (based on years of data and multiple locations) are recommended in the geographical region. People can expect success with these cultivars when given basic care. The report on the performance of the initial 20

northern trialed roses using the Earth-Kind® protocols can be found at this url: https://doi.org/10.21273/HORTTECH03681-17

Earth-Kind® rose trials are at least a few-year investment of space and labor. Therefore, it is prudent to include only those roses that in our region show promise of being hardy, healthy, and good performers. Roses already showing signs of severe defoliation from black spot or are especially tender during our winters are avoided. In the heyday of Earth-Kind® trialing, each year rose introducers donated a dozen or more plants of each of their new landscape rose varieties to be distributed to our regional public rose gardens and parks for feedback. Gardens receiving these roses included Lyndale Park Rose Garden (by Lake Harriet in Minneapolis), Virginia Clemons Rose Garden (adjacent to Munsinger Gardens in St. Cloud), Leif Erikson Rose Garden (Duluth), and UMore Park (Rosemount). We requested that the roses were not sprayed with pesticides and not winter protected. The spacing, nutrition, watering, and pruning practices used were those standard to the garden and the data collected was a simplified version of what is used in Earth-Kind®. Those roses that showed promise in these "pretrials" were included in future Earth-Kind® trials. The A.R.T.S.® program has evolved from the prototype of our Earth-Kind® pretrials. The Earth-Kind® rose trials continue, although at a slower pace than before. Roses that earn regional A.R.T.S.® awards are encouraged to be included in the longer term and more stringent regional Earth-Kind® trials.

Table 1. Maximum points allocated to each of the contributing traits in the A.R.T.S.® standard monthly evaluation rating.

Overall category	Character trait	Maximum point value
Flowers	Bloom coverage	2.00
	Bloom shape	0.50
	Fragrance	1.00
	Shedding of spent blooms	0.50
	Hip formation	0.25
Foliage	Foliage retention	1.50
	Lack of chlorosis	1.00
	Lack of disease	1.00
	Lack of insect and mite damage	1.00
Plant form	Growth habit	1.00
	Lack of dead canes	0.25
	Maximum point total	10.00

What sets A.R.T.S.® apart from Earth-Kind® and AARS?

A.R.T.S.® blends key strengths of Earth-Kind® (e.g. scientific rigor, regionality, monthly ratings) with the shorter two-year turnaround time of AARS. Early on, we surveyed rose stakeholders for what they valued in garden/landscape roses to develop an evaluation protocol that is relevant to today's consumers. Not surprisingly, health, lots of blooms, good plant form, fragrance, and hardiness were the common themes and paralleled much of what is evaluated in Earth-Kind® trials. In light of this feedback, we developed a 10-point monthly rating scale and a detailed evaluation manual with photos to help evaluators consistently rate the roses. Like Earth-Kind® trials, a few plants of each trial rose are randomized across the garden beds, data is taken monthly during the growing season on each plant, pesticides are not used, and reference or control cultivars with a track record of known performance in the region are planted at each site to compare with the trial roses. Unlike Earth-Kind® trials, the minimum plant spacing is closer (4') and irrigation is not limited throughout the trial in order to not stunt plant performance during the relatively short two-year trial. Regional awards are given to trial roses that at the end of the trial score equal to or better than the average of the two control cultivars and have greater than half of the plants alive at the end of the trial. With this protocol, there is no minimum or maximum number of awards per year. Every rose that earns a regional award receives an award. Regional awards are called Local Artist awards. Additionally, Master Rose awards are given to honor roses that earn four or more Local Artist awards to recognize their wider range of adaptation.

One of the challenges of an All-America approach used by the AARS program is that it is difficult to find a rose, or any other plant, that does well everywhere. Most people would rather grow plants that do especially well in their region than those that are above average across the country and perhaps mediocre by them. Finding a regional system for A.R.T.S.® that made sense climatically and also would be easy to communicate proved challenging. Dividing the nation into quadrants or by states didn't take into account vast changes in temperature and moisture due to elevation and ocean or lake effects. Additionally, USDA cold hardiness zones only use average lowest winter temperature and do not take into account duration of temperatures or moisture. Ultimately, we found the Köppen Climate Region system, advocated for by ecologists, was the system that made the most sense as it takes into account both moisture and temperature patterns. There are 9 Köppen continental U.S. regions, and our goal is to eventually have two A.R.T.S.® sites in each region. To date we have had trials in all but the region located at the southern tip of Florida. Minnesota is completely in the Dfb region (humid continental, cool summer, region). The Dfb extends into the eastern half of the Dakotas, northern parts of Wisconsin and Michigan, and the northernmost parts of the northeast.

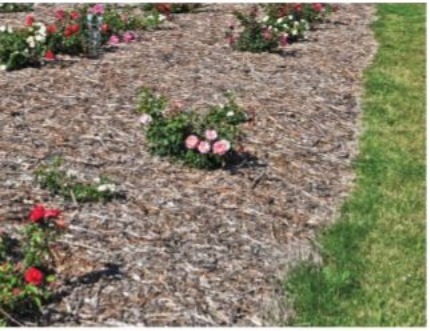
University of Minnesota Clay County Extension hosts A.R.T.S.® trial site in Dilworth

The Dilworth, MN site began hosting A.R.T.S.® in 2015 and is located on land that used to host an Earth-Kind® rose trial. Up to 20 cultivar entries (three plants each for 60 plants total) are planted each year. Master Gardener volunteers work with Clay County Extension Educator, Randy Nelson, to make the trials possible. The trial site is open to the public to enjoy and has been used as a site for Extension programming to learn about landscape roses.

Meet our Dfb Region Local Artists

Besides the Dfb worth, MN site, other Dfb sites have included North Dakota State University at their Dale E. Herman Research Arboretum (located near Absaraka), Boerner Botanical Garden, and Green Bay Botanical Garden. Some of these sites alternate years receiving new roses in order to keep the garden size and evaluations manageable. The following Local Artist roses were trialed as own root plants (not grafted) and all came back well the second year from their crowns in our relatively open and exposed trial sites. If you are in a particularly exposed location or if heavy nutrition/pruning promoted growth well into the fall, providing some extra mulch/insulation to the crown of roses in general is a wise added safeguard.

- **Highwire Flyer™ ('RADwire')** — This very vigorous, yet relatively compact and densely growing 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 ('MEIplunty')** — This low and 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 ('MEIckknava')** — 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 multicolored 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™ ('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 and 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 golden 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 complimented 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.

More information about A.R.T.S.® can be found on our website (www.trustedrose.com). In the future, we hope to have a link to resources for industry members and the press. There will be links to high resolution pictures of winning roses and other helpful information such as templates for garden centers to create signage about the program and specifically for winning roses. We welcome your ideas to improve the program and would love if you would share them through the contact us feature on the website.

DR. DAVID C. ZLESAK is a Professor of Horticulture at the University of WI-River Falls and on the MNLA Foundation Board of Trustees. RANDY NELSON is an Extension Educator for the University of Minnesota Clay County Extension. Both serve on the board of directors of A.R.T.S.®