

A.R.T.S. in the garden

The American Rose Trials for Sustainability (A.R.T.S.) is excited to announce our 2019 award winning roses. A.R.T.S. is a group of public horticulturists, rosarians, university scientists, extension specialists and other green industry professionals

that have joined forces to identify the most sustainable, hardy, pest-resistant, and beautiful rose cultivars for use in American landscapes and gardens. Initiated in 2012 after the disbanding of the All-America Rose Selections (AARS) program, we have strategically built

The new American standard for garden and landscape rose excellence.

By Michael Schwartz, Dr. David C. Zlesak, Randy Nelson, Gaye Hammond, and Dr. Steve George

A.R.T.S. into the highest quality, most scientifically sound rose trialing program possible for new roses in the U.S. Our mission is to provide objective, accurate, and reliable information about the winning rose cultivars to support industry professionals and the gardening public. We are pleased to add 11 roses to the exclusive list of A.R.T.S. winning cultivars that have proven themselves under our strong testing methodology.

To be effective, we knew A.R.T.S. award-winning roses must possess the characteristics that Americans want in the roses they purchase. We reached out to a wide range of rose stakeholders (consumers, landscapers, nursery professionals, public horticulturists, rose society members, etc.) and built the evaluation protocol accordingly. There was very clear consensus for what people desired most. Not surprisingly, all the groups wanted healthy roses and insisted the program be no spray. Overall, 45 percent of the score reflects subcomponents of the health and quality of the foliage, 42.5 percent the presentation and quality of the flowers, and 12.5 percent plant growth habit. Data is collected monthly throughout the growing season to effectively capture and reward roses with consistently strong plant performance. In 2014, instead of jumping right in with accepting new entries, A.R.T.S. first began trialing 22 leading rose cultivars known for their health and performance to test and refine the research protocol before accepting the first set of industry entries in 2015.

The A.R.T.S. scientist team members have many years of plant evaluation experience with roses and other ornamen-

tal plants. They know how to conduct cultivar trials using the scientific approaches necessary to publish in scientific journals, and they bring that strong, unbiased methodology to A.R.T.S. One method they spearheaded, typically overlooked in rose award programs, is the use of blocking, replication, and randomization so that statistical comparisons can be made. Blocking involves dividing up the planting space into beds with each bed having one replica of each rose cultivar planted in random order within it, and data taken on a per plant basis. If all plants of a cultivar are planted together, it is not possible to distinguish whether the differences observed between cultivars are due to the soil or other location conditions or to superior cultivar performance.

Another advancement by A.R.T.S. scientists is planting the same two control cultivars in every trial as a performance reference. Since the beginning of the trialing program, Carefree Beauty and Knock Out were used as the controls for three reasons: (1) they are popular sellers throughout the country, (2) they typically survive in the climate regions we are testing in, and most importantly (3) these two roses have gone through many years of evaluations in the long-term Earth-Kind rose trials so there is ample performance data from throughout the U.S. to give the A.R.T.S. research team a reasonable expectation of disease tolerance/resistance and good overall performance. The control cultivars are the benchmark against which test roses are compared.

Trial sites are strategically located throughout the continental U.S. and are hosted by partners that share the A.R.T.S. mission including: botanical gardens, arboretums, municipalities, extension services, colleges, and universities. Having a strong scientific base, A.R.T.S. defines its climate regions using the Köppen climate classification system, which is the preferred means used by ecologists. This system not only takes into account temperature, but also seasonal precipitation and humidity. See the A.R.T.S. website for more details regarding the Köppen climate region.

As the program continues to grow, our goal is to have two trial sites in each of the eight major climate regions of the continental U.S.

To make our recommendations more precise, awards are granted regionally and are earned by roses scoring higher than the average of the two control cultivars. Additionally, greater than 50 percent of the plants need to survive in the region until the end of the trial. For each region in which a trial rose meets the performance threshold, it earns an A.R.T.S. Local Artist award. If a rose earns a Local Artist award in four or more regions, it is designated as an A.R.T.S. Master Rose, the highest award the program bestows honoring the rose's wider range of adaptability.

There is no predetermined number of roses that can receive awards each year since awards are based solely on these clear performance guidelines. Likewise, there is also no guarantee that any of the trial roses will perform well enough to earn an award in any given year.

There are 11 roses earning awards for 2019, eight A.R.T.S. Master Rose awards and three A.R.T.S. Local Artist awards. These awards include some roses that are well established in the marketplace as well as newer cultivars. Out of the initial 2014 planting of 22 cultivars grown for multiple years as we tested and refined our protocol, we decided those roses that met our stringent criteria should also have the honor of A.R.T.S. awards. Debuting the 2019 winners in mid-2018 provides ample time for industry members to book winning roses for next season.

A.R.T.S. will serve as the new premier U.S. rose awards program representing and serving multiple horticultural stakeholder groups for landscape and garden roses. With the solid evaluation protocol and data determining regional awards, the outcome is that consumers are highly likely to be successful with A.R.T.S. award winning roses for their region when plants are given basic care. ■■■

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ROSES

2019 A.R.T.S.



Blushing Knock Out ('RADyod')
Ample single soft mauve-pink flowers contrast nicely with the blue-green foliage.



Double Knock Out ('RADtko')
Double cherry-red blooms are abundantly produced on a mounded plant.



Easy Does It ('HARpageant')
Warm peachy-pink to orange blooms are double with ruffled petals on a compact plant.



Oso Easy Petit Pink ('ZLEMarianneYoshida')
Small double warm pink blooms are plentifully produced on a compact plant.

2019 A.R.T.S. LOCAL ARTISTS



Bubble Double ('RADnov')
Double soft-pink blooms are displayed well above the foliage on a mounded plant.

PHOTOS COURTESY OF A.R.T.S.

ROSES

MASTER ROSES



Pink Double Knock Out ('RADtkopink')
Double bright pink blooms are abundantly produced on a mounded plant.



Pink Knock Out ('RADcon')
Single pink blooms are abundantly produced on a mounded plant.



Sunrise Sunset ('BAIsot')
Multicolored apricot to cream blooms with pink highlights are amply produced on a spreading plant.



Super Hero ('BAIsuho')
Bright double red blooms are long lasting on a symmetrical plant.



Peppermint Pop ('RADcarn')
Double multicolored blooms of cream through deep pink are generously produced on a mounded plant.

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Limoncello ('MEJscycka')
Single lemon-yellow blooms are borne in large clusters.

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ROSES

PREVIOUS WINNERS: 2018 A.R.T.S. MASTER ROSES



Peachy Knock Out
('RADgor')



Icecap
('MEIradena')



True Passion
('LIM10')

2018 A.R.T.S. LOCAL ARTISTS



Farruca Courtyard
('POUlcY032')



Look-A-Likes Apple
Dapple ('MEIplumty')



Look-A-Likes BougainFeelYa
('MEIckinava')



Petaluma Cover Towne
& Country ('POUlc004')

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A.R.T.S. TRIAL LOCATIONS

Boerner Botanical Garden,
Hales Corners, Wisc.*

City of Farmers Branch,
Farmers Branch, Texas*

City of Tyler, Tyler, Texas*

Green Bay Botanical Garden,
Green Bay, Wisc

Longwood Gardens,
Kennett Square, Pa.*

Louisiana State University-LSU
AgCenter, Hammond, La.*

Mesa Community College,
Mesa, Ariz.*

Naugatuck Valley Community
College, Waterbury, Ct.*

North Dakota State University,
Apsprake, N.D.*

Swarthmore College-Scott
Arboretum, Swarthmore, Pa.*

Texas A&M AgriLife Extension,
Midland, Texas

University of California
Cooperative Extension,
Stockton, Calif

University of Minnesota
Extension-Clay County,
Dilworth, Minn.*

University of Utah-Red Butte
Garden, Salt Lake City, Utah*

*Indicates trial sites hosting
2019 A.R.T.S. winning roses

LESSONS LEARNED

Interest in participating in the A.R.T.S. program by industry members is strong. As we begin our fifth trial cycle we have nine nurseries entering roses. Space is often a limiting factor and to accommodate more entries, we reduced the number of blocks from four to three.

We continually are seeking new sites especially in underrepresented Köppen regions.

We have established new controls. Carefree Beauty and Knock Out served as our two original controls. Based on our data, we are changing our control cultivars to the A.R.T.S. Master Roses: Double-Knock Out and Sunrise-Sunset. These roses have great consistency as strong performers across regions.

ABOUT THE AUTHORS

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