

Super cold hardy Satsuma Orange Frost should expand the planting zone for citrus

June 5 2014, by Robert Burns



Satsuma Orange Frost, a new Texas Superstar, should expand the planting zone for citrus in the ground moving as far north as U.S. Department of Agriculture plant hardiness zone 8, which includes parts of the Panhandle, according to Dr. Larry Stein, Texas A&M AgriLife Extension Service horticulturist, Uvalde. Credit: Robert Burns

There's still plenty of time to plant Satsuma Orange Frost, the new extremely cold-tolerant mandarin.

So says David Rodriguez, Texas A&M AgriLife Extension Service agent for horticulture in Bexar County and member of the Texas Superstar selection board.

"Personally, I promote it around Father's Day as it makes a great gift – you know: a sweet, not sour, citrus for a sweet dad," Rodriguez said.

Rodriguez was only half kidding about the sweet part, he said. Satsuma Orange Frost really is a sweet citrus in more ways than one, and that's why it was picked by the Texas Superstar board this year.

All Texas Superstar plants undergo extensive tests throughout the state by Texas A&M AgriLife Research and AgriLife Extension horticulturists, said Dr. Brent Pemberton, AgriLife Research horticulturist and chair of the Texas Superstar executive board, Overton.

Other Satsuma oranges have drawn the attention of the board, particularly Satsuma Miho, which was picked as a 2010 Superstar.

Before that, because many Satsuma mandarin varieties do well under Texas conditions, they were promoted as a group in 1993, according to Rodriguez, but Miho was the first individual plant selected.

The previous recommendations for Satsumas in many parts of Texas were mainly as container plants or patio plants, and they had to be brought indoors if temperatures threatened to drop below 25 degrees. But in one test, mature Mihos were exposed to about 20 degrees without showing damage to the wood.

But Satsuma Orange Frost mandarins are even more cold tolerant than Miho.

"This Texas Superstar should expand the planting zone for citrus in the

ground moving as far north as U.S. Department of Agriculture plant hardiness zone 8, which means even parts of the Panhandle," said Dr. Larry Stein, AgriLife Extension horticulturist, Uvalde, and another Texas Superstar Board member.

"Some protection will still be required in the establishment phase," Rodriguez said. "Orange Frost is a true crossed variety, and not a graft onto sour orange rootstock as are many cold-tolerant oranges and mandarins. This means trees with a well-established root system will eventually come back true even if frozen back."

The tree will also work well in containers. The soil must have good fertility – once a month with water-soluble fertilizer will serve—and the container must be well-drained.

Rodriguez noted that Orange Frost was the result of years of work by Dr. Ying Doon Moy, renowned plant breeder at the San Antonio Botanical Garden, according to Rodriguez.

Moy selected Orange Frost in 2005 as a "single unique tree that resulted from an embryo rescue of a seed obtained from a cross made by Moy in 1998 between the tangerine *Citrus reticulata* Changsha, and an unnamed seedling of a mandarin *Citrus reticulata* unshui as the male parent," Stein said.

Rodriguez said Moy's career is a story of its own merit. Moy passed away in 2012, but Rodriguez highly recommended an online biography of the horticulturist at plantanswers.com/heroes/YingDoonMoy.html .

"Asexual propagation of the new cultivar was first accomplished by stem cuttings in San Antonio in 2005 by Stein and Jerry Parsons," Rodriguez said.

Parsons is a retired AgriLife Extension horticulturist in San Antonio.

Rodriguez noted that Greenleaf Nursery in El Campo currently has exclusive rights to propagate and sell the plant wholesale. But the nursery sells to most garden centers and home improvement stores throughout Texas.

Provided by Texas A&M University

Citation: Super cold hardy Satsuma Orange Frost should expand the planting zone for citrus (2014, June 5) retrieved 24 June 2024 from <https://phys.org/news/2014-06-super-cold-hardy-satsuma-orange.html>

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