

Researchers Looking At Different Roses for Higher Quality

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Email Address: news@wctv.tv

FORT PIERCE, Fla.--A rose is a rose, but a low-maintenance, less expensive, environmentally-friendly rose is the desire of many Florida gardeners. Three University of Florida (UF) scientists are studying 12 shrub roses in three different regions to determine which will produce the highest quality plants and flowers with no applied pesticides and minimal fertilizer and water. The sites are located at three UF Institute of Food and Agricultural Sciences, or UF/IFAS sites: Quincy, in north Florida, Plant City, centrally located, and in Fort Pierce, or south Florida.

"We're trying to find rose varieties that need the least amount of care under Florida conditions," said Gary Knox, Ph.D., Professor of Environmental Horticulture at the UF/IFAS at Quincy. "We want to determine which will grow well with low-maintenance conditions by evaluating some antique roses that have been around for generations in addition to some newer releases."

Knox is overseeing the project at the North Florida Research and Education Center in Quincy. His colleagues, Sydney Park Brown, Ed.D, associate professor of consumer horticulture at the UF/IFAS Gulf Coast Research and Education Center in Plant City, and Sandra Wilson, Ph.D., associate professor of environmental horticulture at the Indian River Research and Education Center in Fort Pierce, are monitoring models of the same rose project. Each of the experimental sites share the same characteristics: field preparation, planting time, mulch, rose varieties, fertilizer, irrigation, and observation dates. Data are collected and recorded monthly. The scientists rate each plant for visual quality and flowering, so that peak flowering and performance can be assessed.

In selecting the set of experimental roses, the scientists consulted lists from the Texas EARTH KIND™ rose program and Malcolm Manners, chair of the horticultural science department at Florida Southern College in Lakeland, and a celebrated Florida heirloom rose expert.

Manners said rosarians nationwide rely upon recommendations from Texas A&M University research and purchase EARTH KIND™ brand roses developed from research results. The university certifies this brand of rose for environmental-friendliness and low maintenance.

"In Florida, some EARTH KIND™ roses are not carefree," said Manners. "The value of the UF research is we will have data for our specific climate. Florida's long, hot, humid rainy season is particularly stressful to roses."

In addition to the state's variable climate, Brown said several diseases and new pests, such as the chilli thrips, are threats to roses. Among the many diseases are black spot and stem canker, common problems for Florida roses because of high humidity. Nematodes, which attack roots, are always a problem—especially on ungrafted roses.

“Carefree roses keep changing,” Manners said. “Five years ago, ‘Don Juan’ roses were a carefree variety, but now, chilli thrips kills them. In our area now, ‘Mrs. B R Cant’ remains carefree, among others.”

Brown said the research will require a minimum of two years to complete. Because severe weather may affect the roses and because new pests and diseases may emerge, the research possibly will continue for an additional year. Upon completion of the work, a document will be published for public access and distribution at local UF/IFAS county extension offices.

“The data we collected so far is preliminary,” said Brown. “It may change as the experiment continues. The roses may be affected by drought, a hurricane, nematodes, or a new pest – there are always interesting developments with this type of research.”

Some of the hybrid rose varieties included in the study are: ‘Knock Out®’, ‘Home Run®’, and ‘Bailey Red®’. A few of the antique rose varieties include ‘Louis Philippe,’ ‘Old Blush,’ and ‘Mrs. B.R. Cant.’

An additional goal of researchers is to determine how roses perform on their own rootstocks, rather than being grafted for nematode resistance. Soil samples from each site were collected and analyzed for chemical properties and residential nematode populations, according to Wilson.

“We’re excited about the prospect of offering homeowners more choices when they purchase roses,” said Wilson. “Consumers are busy and if they are able to save time and money on fertilizer, pesticides and pruning, rose demand in Florida may rise.”

Wilson said there is a definite trend in the nursery industry for alternative plants with fragrant flowers that don’t require excessive care. She, Knox and Brown are in collaboration to meet this industry need.

According to sources in the rose industry shrub roses have become increasingly popular in recent years, with an increase of 10 percent from 2000 until 2005, and are estimated to grow to 45 to 50 percent by 2010.

“I’ve never grown so many different roses before, and they are all uniquely beautiful,” said Knox. “It’s neat to see some thrive in different areas of the state or in different seasons.”