

UF researchers develop ways to keep the bloom on the rose

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They may not be able to make love last, but a team of University of Florida researchers has figured out how to at least make the flowers go the distance.

A UF environmental horticulturist has developed ways to extend flower quality and vase life by three or more days through post-harvest techniques so consumers see a difference in the flowers they purchase – not only on Valentine’s Day but throughout the year.

“Our research has shown that keeping flowers cold as they move from the field to the florist is critical,” said Terril Nell, who has been involved with the UF Institute of Food and Agricultural Sciences postharvest floral program for more than two decades.

Growers and retailers also need to understand the importance of proper treatment and sanitary conditions. Consumers can extend vase life by two to three days by using properly mixed commercial flower foods. Using clean, sanitized containers will help to keep all cut flowers fresh longer.

Additionally, Nell and his research team are working with growers and retailers nationally and internationally to spread the word about how best to make flowers last longer.

“Sometimes the differences we achieve relate to the flower quality as well as vase life,” said Nell, who began working with roses because of their popularity and economic value. He also works with carnations, lilies, gerbera, chrysanthemums and alstroemeria.

One of the commonly seen quality issues with roses has been “bent neck” – a bending of the stem immediately below the flower that leads to wilting and failure of the flower to open. Bent neck typically occurs in the first three days after purchase.

“Generally, this problem has been greatly reduced due to use of improved handling procedures from grower to consumer and better rose varieties developed by rose breeders,” Nell said. “As seen with the reduction of bent neck over the last five to eight years, the results of this research programs are making a difference with consumers already. We hope to make even greater strides in the next two to three years.”

Consumers can make a difference in flower longevity, too.

For instance, when choosing roses, buyers should look for freshly cut stems. Re-cut the stems, use a commercial flower food and place the flowers in a clean vase. Keep roses in a cool place, away from heat vents and out of direct sunlight.

The findings also can be applied to lilies and alstromeria, to keep their leaves green even after they go into a vase. Previously the leaves of these crops were susceptible to yellowing, said Nell.

He anticipates that floral sales will increase if flowers perform better by withstanding the test of time.

“It is already proven that flowers are the most popular gift to receive, that they consistently increase a sense of individual well-being, and are even capable of increasing creative thought and output in workplace settings,” Nell said. “If we can help make floral products last longer, their value to consumers will be greater.”

He expects that with improvements to rose quality and longevity, people will buy flowers more often, which will benefit all elements of the floral industry.

“Our whole business relies on the feelings flowers give to people,” said Charles Kremp, owner of Kremp Florists in Philadelphia. “It is important for flowers to arrive to retailers looking their best and to remain looking good after they are purchased by the consumer.”

In the past, fresh flowers kept their quality longer because they were sold in local markets in the vicinity of the fields where they were grown, said Kremp, who has been in the floral industry more than 50 years. When the floral industry began shipping flowers by air to retailers, the quality and longevity declined for the consumer.

“With Terril’s research, people today are receiving flowers of a better quality that last longer than when roses were grown and sold in the same location,” Kremp said.

The beauty and ephemeral nature of Valentine’s Day flowers represent a

unique investment in memories, said Nell. A behavioral study shows that fresh flowers have an immediate impact on happiness and increase life satisfaction and enjoyment.

“It’s not enough to offer consumers a beautiful flower,” Nell said. “It needs to come with an extended warranty to remain lovely for a reasonable period of time. Our research is providing scientific basis for that kind of guarantee.”

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