

## New Rose Research

NEW RESULTS FROM THE POSTHARVEST RESEARCH program at the University of Florida shed light on just how sensitive certain rose varieties are to exposure to ethylene, the colorless, odorless gas that can cause premature flower death. The floral industry has known for a long time that many types of fresh cut flowers — especially carnations, gypsophila and some rose cultivars — are susceptible to damage by ethylene. What we didn't know, says Terri Nell, Ph.D., AAF, who led the effort, "is that such a high percentage of rose varieties are ethylene sensitive. Seventy-five percent of the 29 or 30 most well-known varieties showed ethylene sensitivity."

In the study, short-term exposure to ethylene reduced the potential vase life of cut roses from percents in the low teens to the high seventies, depending on the variety. For example, the 'Carrousel' variety only lost 13 percent of its vase life while the 'Osiana' suffered a 78 percent total loss.

What's a retailer to do? There are a variety of products on the market that claim to help retailers tackle the air

pollutant, such as scrubbers, filtration systems and sachets, to name a few. (Click on the Info to Go logo on [www.safnow.org](http://www.safnow.org) and look for "Ethylene: Develop a Control Strategy" for more information.) Nell encourages retailers to do trial and error testing in their stores to determine whether these products are worth the time and money investment.

Nell, who co-authored SAF's Flower and Plant Care Manual, says the best defense is to buy from reputable sources, because ethylene control begins at the grower level. Make sure suppliers are using products that have been shown to improve flower quality in ethylene-sensitive flowers: silver thiosulphate solution (STS), like Pokon & Chrysal's AVB, or Floralife's EthylBloc, which contains the anti-ethylene agent 1-MCP.

"Most of your good growers are either using these products or looking into using them," Nell says. 🌸

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Variety	Vase Life with No Ethylene (days)	Vase Life with Ethylene (days)	% Change in Vase Life by Ethylene
'Amber'	11.8	8.7	-27%
'Big Fun'	6.4	4.1	-36
'Bloody Mary'	13.3	10.8	-19
'Brooke'	7.2	5.9	-18
'Carrousel'	15.6	13.6	-13
'Charlotte'	10.0	7.2	-28
'Clear Ocean'	12.5	10.3	-18
'Clear Ocean'	12.5	10.3	-18
'Engagement'	9.0	7.4	-18
'Erin'	17.7	9.3	-47
'French Vanilla'	8.5	6.4	-25
'Jade'	14.6	11.7	-20
'Lina'	4.5	3.6	-20
'Lindsey'	4.5	3.7	-18
'N-Joy'	7.2	4.1	-43
'Osiana'	8.0	1.8	-78
'Peach Sherbert'	9.6	5.7	-41
'Pekcoubo'	9.9	8.0	-19
'Rubor'	5.0	2.4	-52
'Verdi'	18.8	14.4	-23