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Efficacy of Floralife® PAL – Alstroemeria and Lily Pretreatment

Background

The quality and longevity of fresh cut flowers are dependent on proper care and handling from the farm to the consumer level. Critical aspects of proper care and handling of cut flowers include pre-treatments at farm level, hydration, proper temperature management, sanitation, and the use of appropriate flower food treatments. Pretreatment cut flower solutions used at the grower farm level help not only to prevent the reduction of quality during shipping and handling, but also to improve quality for the end consumer. There are various pre-treatments products available in the marketplace specific to particular flowers species to address flower quality problems. Floralife® PAL is such a pretreatment recommended for all types of cut Lilies and Alstroemerias. These two flower crops suffer the postharvest disorder of premature leaf yellowing. Lilies, as well, suffer from improper bud opening and premature bud termination. Proper treatment of fresh cut Lilies and Alstroemerias using Floralife® PAL can help alleviate these problems and increase flower freshness.

Research

Fresh cut flowers of Lilies (Asiatic and Oriental types) and Alstroemerias were obtained locally within the U.S. The flower stems were handled dry and received no pretreatments prior to the experiment. The stems were recut, removing approximately 2", with a clean, sharp knife and immediately placed in water treated with Floralife® PAL Pretreatment product (1 tablet in 2 L water). The flowers were maintained in this solution for 24 hours at 18 - 20°C (64 - 68°F). "Control" flowers were maintained in plain water under the same conditions. At the end of the pretreatment, flowers in both treatments were placed in vases filled with Floralife Crystal Clear® flower food to analyze vase life performance. The flower vases were stored in an interior postharvest evaluation room (18 - 20°C, 12 hours of light per day). Flower quality was observed on a daily basis for 10 days.

Results

Asiatic Lily 'Dazzle' (Day 9 Postharvest)



Control

Floralife® PAL Pretreatment

Note the difference of bud quality in the flowers pretreated with Floralife® PAL versus the control flowers. The 'control' buds show signs of desiccation, browning, and abscission.

Oriental Lilies 'Starfighter' and 'Shocking' (Day 9 Postharvest)



Control



Floralife® PAL Pretreatment

Note the better bud quality and enhanced flower color in the treated flowers.

Leaf Quality of Alstroemeria 'Diamond' and 'Rebecca' (Day 10 Postharvest)



Control



Floralife® PAL Pretreatment

Conclusions

Floralife® PAL - Alstroemeria and Lily Pretreatment aids in maintaining the flower and leaf quality of these two crop types. Foliage is fresher looking, colors are more vibrant, and bud development quality enhanced.