ROSES WITH STAYING POWER

> Nothing thrills customers more than roses that open and last. Six simple steps can help roses last seven days or more and open fully. The key is consistency. Everyone buying, touching and arranging the roses must be aware of these important factors.

**Buy Long-Lasting Varieties**
Gertrude Stein’s famous quote “a rose is a rose is a rose” doesn’t apply to vase life and flower quality. Rose varieties differ dramatically in longevity, sensitivity to Botrytis and ethylene, flower opening and tolerance to poor shipping and storage conditions. In variety trials, vase life ranged from six to 18 days even when varieties were handled identically. **Do this:** Test the vase life of rose varieties and choose varieties that perform best for your shop environment.

**Control Botrytis Infection**
Gray mold or Botrytis causes roses (and other flowers) to die prematurely. Botrytis damage can reduce profitability and create disappointed customers. The spores of this disease germinate and invade the petals, where they leave a toxin that kills the petal cells. Botrytis can spread rapidly when humidity is above 93 percent or water is present on petals and leaves. Botrytis is difficult to control, and some varieties are more sensitive to infection than others. Fluctuating temperatures during shipping and storage will cause condensation inside of plastic sleeves, which promotes the growth of Botrytis. **Do this:** Remove the plastic sleeves in retail coolers to increase air movement and prevent condensation on rose flowers. Don’t stuff your buckets and coolers so that flowers bump into each other too much and spread spores or cause damage to petals.

**Prevent Ethylene Damage**
Ethylene kills roses, whether it is airborne or produced internally within the flower. **Do this:** Keep roses away from ethylene-producing materials, such as fruits and vegetables and vehicle exhaust- or fume-emitting machines, including propane-powered floor buffers. Avoid mechanical damage that can lead to ethylene production within the flower. Botrytis infection also leads to ethylene production. Your best bet is to purchase roses that have been treated with anti-ethylene products.

**Keep Flowers Cold**
Temperature controls the metabolic activity of cut roses — the higher the temperature, the greater the respiration, water loss, ethylene sensitivity and growth of diseases, such as Botrytis. As temperatures rise, sugars are depleted more rapidly. Sugars are critical to the life of roses, because sugars provide energy for water absorption and transport up the stem, enabling flowers to open. Without sugar, flowers die prematurely. **Do this:** Commercial flower foods supply this essential sugar, and cold temperatures preserve it in the flower. Roses should be stored in a cooler at 34°F to 36°F and a humidity of 80 percent.

**Prevent Thirsty Roses**
Roses must have water to live and for flowers to open. The amount of water absorbed must equal or exceed water lost, or the flowers wilt and die. **Do this:** Commercial hydration solutions and flower foods accelerate water uptake and maintain an acidic pH (3.5 – 5) that helps to limit microbes in the solution. Keeping flowers cold reduces loss of water through the leaves. Maintaining a positive water balance (more water absorbed than lost) helps to ensure long-lasting roses.

**Educate Customers and Give Them Flower Food**
Emphasize to customers that their flowers will last longer if placed in water containing properly-mixed flower food. More good news: there is no need to re-cut the stems every few days if flower food is used. **Do this:** When selling cut roses, include a 10-gram packet of flower food that will make 1 liter/quart of solution.

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