

## crop culture report:

# Geranium Maestro Series

These medium-vigor geraniums are growing in popularity because of their ability to be grown at a higher density. With large blooms and good heat tolerance, find out how these varieties can benefit your business.

By Rebecca Siemonsma



Top: 'Maestro Neon Pink'. Middle: 'Maestro Lavender Parfait'. Bottom: 'Maestro White'.

Medium-vigor, zonal geraniums in the Maestro series have large blooms that create bright splashes of color. These geraniums are versatile and can be grown in a variety of container sizes. They were bred to flower early, exhibit good heat tolerance and perform well in landscapes. New to the Maestro series for 2008 are 'Maestro Lavender Parfait', 'Maestro White' and 'Maestro Neon Pink'.

Medium-vigor geraniums are becoming increasingly popular in production because they can be produced at a higher density without compromising quality. Flowers in this series can be left pot tight on the bench until week seven or eight. Once spaced, growers should have a product ready for sale in as little as 12 weeks in 4- and 5- inch containers from an unrooted cutting.

### Propagation

Successful propagation of unrooted cuttings is dependent on the grower being properly equipped. Necessities in propagation include root-zone heat, an automatic misting system and sterile benches, pots and soil.

Before cuttings arrive, wash down the greenhouse with a high-pressure nozzle and water combined with a disinfectant. Eliminate any weeds using herbicides specifically labeled for greenhouse use. Sterilize tools, benches and pots before planting.

Choose a light, well-drained soil. A peat/perlite mix with a 1:1 ratio is suggested. The pre-plant pH should be adjusted to 6.0. When cuttings arrive, place them immediately in a cooler at 40° F or under mist. Stick cuttings as soon as possible to avoid further stress. Pre-wet the soil and water in or mist cuttings immediately after planting.

Light levels in the propagation area should be 1,000-2,000 foot-candles. Mist requirements for the first three days will be heavy. The leaves should always maintain a constant film of moisture. Depending on the greenhouse environment, this may mean misting constantly, 24 hours a day. Maintain soil temperatures at 68° F. Beginning on day four, the mist can be turned off at night.

Roots should begin to appear between days seven and nine. During this time, the foliage should barely dry between mistings. Once roots are visible, the mist should be used only to minimize stress. By day 13, the cuttings should be rooted well and the mist discontinued. Begin fertilizing the cuttings on day five with 250-ppm nitrogen.

Diseases and insects are always a concern in the propagation environment. Always begin with

a clean cutting source. All cuttings from Ecke Geraniums are certified clean and have been through the chemical vapor infiltration (CVI) process. Sanitize everything that comes in contact with the geranium crops, and do not plant other crops with them that have been through the CVI process. Weekly applications of fungicides for Botrytis are recommended in propagation.

### Growing On

Pre-fill containers, and transplant cuttings into pre-wetted soil. Sink the soil ball slightly below the soil level. Water cuttings in thoroughly, and monitor the moisture level of the soil ball closely for the first few days. While the soil around the ball may be moist, the cutting itself may be dry. It will take about a week for roots to push out into the media, at which time watering frequency can be reduced. At this point, fertilizing can also begin using 250-ppm nitrogen. Choose a fertilizer that is low in ammoniacal nitrogen, such as a 15-15-15, and complete with minor elements.

Maintain the pH between 5.8 and 6.2, and EC levels should be 1.1-1.3. Periodic leaching may be required to reduce salt levels. Maestro varieties should tolerate high light levels as long as the plants aren't under any moisture stress or excessive temperatures. At transplant, light levels should be maintained at 3,500 foot-candles. Once the cuttings are established, levels can be higher.

Although they will tolerate a wide range of temperatures, optimum growth occurs when temperatures are maintained at 60-65° F nights and 70-80° F days. Humidity control using proper spacing and ventilation is important for prevention of foliar diseases. Plants in this series will benefit from supplemental carbon dioxide, especially during periods of cooler weather when venting is not possible.

### Pinching/Growth Regulators

Pinching is not necessary. Maestro varieties' vigor usually eliminates the need for growth regulating with proper cultural practices. If growth regulating is necessary, the geraniums respond to Cycocel (chlormequat chloride). Growth regulators are most effective when applied frequently at lower rates rather than once or twice at a higher rate. Always trial rates and avoid applications when plants are under any stress to avoid possible phytotoxities. GPN

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