## crop culture report:

# Dahlia LUCKY Series

Looking for a beautiful, long-lasting bicolor to add to your mix? You're in luck! Headed to the United States for 2010-2011, these dahlias are in constant bloom.

By Paul Gaydos







ahlias are native to Mexico and Central America, and there are hundreds of hybrid varieties commercially available today, with both bicolor and dark-leaf varieties gaining momentum in the market. The new Lucky dahlia series was bred in Europe and will be new to the U.S. market for 2010-2011. Trials will be available this spring and summer. Currently, there are five dynamic "painted" bicolors available, with more on the way. All are uniform in height, branching habit and timing. These varieties are in constant color all season and won't flush in and out of bloom. Lucky's 2- to 3-inch flower size and compact habit it ideal for 4- to 5-inch production. They also have great landscape performance and will continue to flower throughout the summer.

#### **Propagation**

Start with a well-drained medium with a pH of 5.6-6.0 and an EC of less than 1. Dahlia cuttings should be stuck upon delivery, but if absolutely necessary, store them at 45-50° F for no longer than one night. Dahlia needs to be rooted and finished under lights. Nightinterruption lighting or extending day length to at least 13 hours is essential; any less will cause premature budding, nonuniform, tuberized rooting and poor vegetative growth. Maintain soil temperatures between 65-70° F under higher light levels. Don't even attempt to root dahlia below 60° F, and do not feed until roots are well developed. Then use calcium nitrate at 100 ppm. Feeding too early or too much will slow root development; after four weeks, the cuttings will look great above the soil, but you'll still have an unrooted cutting that you are unable to transplant. Rooted cuttings will be ready for transplant within four weeks under appropriate temperature, lighting and feed conditions.

#### **Finishing**

Lucky cuttings can be planted in 4- to 5-inch pots, combo pots, color bowls or baskets in a well-aerated, well-draining media. The first set of leaves should be planted under the soil to promote stem root growth and prevent breakage. Maintain an EC between 1.2 and 1.5 and a pH between 5.6 and 5.8. Feed with 200-ppm nitrogen, but too much ammoniacal nitrogen will promote stringy, unattractive growth and weak stems. Use only clear water every third irrigation to help reduce salt buildup. Try to irrigate using tubes, ebb-and-flood or by hand. Overhead irrigation is not recommended.

Keep temperatures at 68-75° F during the day and no less than 60-65° F at night. Cool temperature will pro-

### **Five Keys to Success With Lucky**

- **1.** Light the plants for the entire crop cycle
- **2.** Plant cuttings deeper than you would other vegetative annuals
- 3. Avoid ammoniacal nitrogen
- **4.** Finish under good, strong light levels
- 5. Keep temperature above 60° F and below 75° F

mote tuber formation even under long days. Warmer temperatures will promote weak growth.

All dahlias are long-day plants that flower in late spring to early fall. Under short days or cold temperatures, dahlia will form tubers and stop flowering; all the energy from the plant will go into tuber formation, making them perennial in Zone 8 and above. In colder climates, the tubers need to be protected from freezing or lifted in the winter. We strongly recommend the use of lights to extend the days to at least 13 hours. Light levels are best between 5,000 and 6,000 foot-candles, and Northern growers should consider HID lighting when finishing a crop for early spring up.

Pinching produces a fuller, premium-quality finished plant but is not necessary. A soft pinch — just a roll out of the very tip — can be done two weeks after transplant to promote branching and shoot growth and delay flowering.

Growth regulators are usually not needed if dahlias are grown under the proper light and temperature conditions. If necessary, use a 2,500-ppm spray of B-Nine (daminozide) or a tank mix spray of 1,500-ppm B-Nine and 1,000-ppm Cycocel (chlormequat chloride). Four-to 5-inch pots will be ready for sale in 10-12 weeks, and a 10-inch basket with four plants per pot will finish in 13-14 weeks from an unrooted cutting.

#### **Pests and Diseases**

Watch out for aphids, spider mites, thrips, leafminers, powdery mildew, Botrytis and Pythium. Dahlias are sensitive to many different chemicals, so always conduct small-scale tests before spraying to your entire crop, and always use only labeled chemicals at labeled rates.

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