GROWERTALKS

Culture Notes

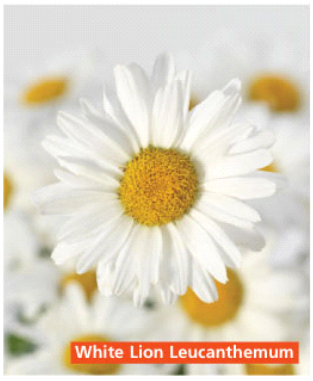
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Complete Your Shasta Daisy Program

Cor de Jong







It's been called "the most cheerful summer flower" by *Southern Living* magazine and it's hard to argue against the shasta daisy (leucanthemum) having massive consumer appeal. From its friendly petals and classic white-and-yellow color, to its easy garden maintenance and deer resistance, this class elevates the style of all types of gardens: cottage gardens, cut flower gardens, pollinator gardens, moonlight gardens, perennial borders … the list goes on.

In 2020, the Kieft Seed perennials team at PanAmerican Seed introduced Leucanthemum Madonna, a first-year flowering F1 from seed that matches the uniformity seen in vegetative shastas. Height, habit and vigor are optimal across the bench. The result is picture-perfect containers in the store and in summer gardens.

This year, the latest breeding from Kieft Seed brings you the chance to sell even more leucanthemum with a new spring shasta called White Lion. White Lion has a unique critical daylength of only 10 hours. No other seed variety offers this early programming solution. With these two options—White Lion and Madonna—you'll have easy-to-ship shasta daisies for early spring into summer to meet consumer demand.

White Lion can be produced for early spring sales from overwintered production (previously only possible with vegetative varieties) and for spring sales from annual production. Use Madonna for late spring and summer sales in long-day conditions. Madonna has a critical daylength of 14.5 hours.

Both offer better uniformity in height and habit over their seed counterparts, plus they provide an excellent alternative to vegetative leucanthemum with no vernalization needed and no risk for bacterial infection. Here are a few production guidelines for success:

White Lion

Plug crop time: 5 to 6 weeks

Transplant to finish: (Annual: 9 to 12 weeks; Overwintered: 18 to 26 weeks [18 in southern regions])

Madonna

Plug crop time: 5 to 6 weeks

Transplant to finish: 10 to 14 weeks

Leucanthemum Plug Culture

Both White Lion and Madonna are offered in raw seed form. Sow 1 seed per cell in a 288 plug size or 4 seeds per cell in a 72 plug size. Seed germinates at 68 to 77F (20 to 25C) and takes four to 10 days; covering the seed or providing light is optional. Maintain media pH at 5.5 to 6.2 and EC of 0.2 to 0.5 mmhos/cm during plug production. Keep moisture high at Level 4.

During Stage 2, provide moisture levels at 3 to 4 with temperatures at 65 to 68F (18 to 20C). Set light at 3,000 to 5,000 f.c. (32,300 to 53,800 Lux). Apply fertilizer less than 100 ppm N, less than 0.7 EC. Increase light during Stage 3 to 5,000 to 7,000 f.c. (53,800 to 75,300 Lux). Set moisture at Level 2 to 3 and increase fertilizer 100 to 175 ppm N (0.7 to 1.2 EC).

In Stage 4, maintain the same moisture, light and fertilizer levels as Stage 3, and decrease temperature to 60 to 65F (16 to 18C).

No vernalization is necessary. Madonna needs a minimum of 10 true leaves before forcing via night interruption (the preferred forcing method) or day extension (minimum 16 hours). For both leucanthemum varieties, use well-balanced calcium nitrate-based fertilizers, but avoid continuous feed to prevent high salt levels. It's best to leach with fresh water. Provide an active climate, including air movement and relatively high light levels. And a caution about growing too long, as old plugs show irregular growing after transplant.

Finishing

Temperatures for finishing leucanthemum:

Day: 65 to 72F (18 to 22C)

Night: 57 to 60F (14 to 16C)

The target media pH should be 5.5 to 6.2 with an EC of 0.9 to 1.1 mmhos/cm. Apply a fertilizer of 100 to 175 ppm N, less than 0.7 to 1.2 EC.

Madonna is an obligate long-day plant. Obligate long-day plants need a minimum of 14.5 hrs. daylength to initiate flowering. Madonna reacts very well to night interruption (four hours between 10:00 p.m. and 2:00 a.m.) for spring forcing (see notation above about juvenility).

White Lion is a facultative long-day plant, but has very low sensitivity to daylength with a critical daylength of only 10 hours.

To help bulk the crop, grow under the recommended temperature. Produce for early spring sales when natural daylength is short. For annual production, configuring a 300 ppm spray at a young stage can be used to promote branching.

You can control growth during annual production schedules with a daminozide 2,500 ppm spray. PGRs aren't

needed during an overwinter production schedule. Do not use Abamectin (trade name Avid/Vertimec) or allow it to be in contact (even gas from a neighboring compartment); this will kill the plants.

Ongoing breeding and research by the Kieft Seed team will continue to elevate seed perennials in the marketplace. Use these helpful guidelines above to produce your complete shasta daisy package. **GT**

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