

Asters are the perfect companion for garden mums. Like garden mums, they can be used in summer, fall and West Coast programs. They also have similar cultural requirements.

We grow our aster trials with the same media and fertilizer as our garden mums. Our fall and West Coast asters are grown with no pinch, just like garden mums. There are a few differences from garden mum culture, which are highlighted below.

Propagation

Aster cuttings require a bit more care than garden mum cuttings. Aster cuttings do not ship or store as well as garden mums so plan to stick unrooted cuttings as soon as they arrive. Propagation may take a few days longer than mums. Keeping the media too wet will delay rooting.

Growing Media and Fertilization

The same soilless media and the same 200–300 ppm N constant liquid feed program from a complete fertilizer used for garden mums will work for asters (see Growing Media and Fertilization sections in Garden Mum Cultural Information). The low N-P-K program also works for aster production. Maximum growth is attained when water and fertilizer are not limited, similar to garden mums.

Asters are more sensitive to salts in the root zone. Be sure solution comes out of the pot with every irrigation. If you notice foliage tip burn, you may need to leach. Monitor the pot EC to prevent damage. Target should be approximately 75% of the garden mum target, or during the first half of the crop cycle EC values of 1.5–2.7 mS/cm (SME extract) or 2.0–3.5 mS/cm (pour through extract) should be maintained.

Flowering Response

Asters flower under short days, and tend to bud easier than garden mums. Be sure to use night interruption lighting year round for propagation, as well as the long day period for forced crops (See the Photoperiod Control section in Garden Mum Cultural Information). Asters flower faster than mums once short days begin. Most varieties flower in

five weeks, compared to seven for mums. Avoid blackout periods longer than 13 hours since some varieties can abort flower buds. Artificial short days should be used from March 15 to August 15. We recommend retailing asters earlier than mums, when color is just starting to show, for better consumer longevity.

In natural-season programs, asters are primarily driven to flower by photoperiod and are not affected as much by temperature. This means asters grown in the South flower 7–10 days faster than the same variety grown in the North. And for those in the deep South, varieties can be faster by two weeks or more than the same variety in the North.

Pinching

Traditionally, fall aster crops have been pinched at least once and blackcloth flowering crops received two pinches. With the new, better-branching varieties, aster pinch requirements have been reduced. For our blackcloth trials we have been using multiple cuttings with just one pinch, and we have even started no pinch aster trials in blackcloth with good results for certain varieties. Our natural season trials have been one cutting with no pinch for more than ten years.

For blackcloth crops, the pinch should be given when roots are well developed. This is generally 10–14 days after planting a rooted cutting or 21–24 days after a direct stick. Having roots established in the pots before the pinch helps create the most branching.

Pinch off the top to leave four to six leaves on the cuttings. Rooted cuttings naturally become taller during propagation than cuttings that are direct-stuck. The first pinch on rooted cuttings will be harder than for direct-stick unrooted cuttings.

Although not suggested, if you pinch more than once, allow enough growth for three to four leaves to remain after pinching. Pinching can be done every two to three weeks. Be sure to pinch all shoots or there will be uneven growth and flowering.

Pinching is not required on natural-season crops. Pinching natural-season crops after mid-July is not recommended as the plants are too close to bud initiation and may flower too short after the pinch.

Spacing

As with garden mums, proper spacing is critical. Asters are generally smaller in size than garden mums and therefore can be grown tighter.

Height Control

With today's free branching varieties, less growth regulators are needed to control height. B-Nine® and Bonzi® plant growth regulators are used successfully and rates are similar to those for garden mums (see Growth Regulator section in Garden Mum Cultural Information). A light B-Nine application when new shoots are .75-1" long is a key to creating full plants in greenhouse blackcloth crops. Skipping this application allows the primary branches to stretch in the warm and humid environment and the secondary branches are then not able to fill in the plant body.

Pest Control

Whiteflies and thrips and occasional spider mites are the key insect pests. A rotation of Mainspring® GNL and Avid® Insecticides can be used to control these pests. For additional information on products for insect management, refer to our Mum Pest Control tip sheet at www.syngentaflowersinc.com.

Disease Control

Asters are susceptible to some different diseases than garden mums, primarily powdery mildew and rust. Some varieties are more resistant to disease than others, but disease expression is also weather dependent and varies from year to year. These diseases generally do not spread to an adjacent garden mum crop. Good cultural practices can reduce the incidence of disease. For additional information on disease management, refer to our Mum Disease Control tip sheet at www.syngentaflowersinc.com.

For outdoor aster production, we strongly recommend a preventative spray program which includes a rotation of Daconil Ultrex® Concert® II and Mural® fungicides to control powdery mildew and rust. Scout crops regularly and apply protective fungicides when conditions are conducive for disease development. In a preventive program, sprays may be applied on a 14-day interval. Once flower buds are present, rotate Mural with a myclobutanil chemical such as Eagle® or Hoist® fungicide in place of Daconil and Concert II. Please note that applications of myclobutanil can have a growth retardant effect. Concert II is registered for outdoor use only. Do not apply Concert II to plants grown in a greenhouse.

NOTE: These suggestions are only guidelines and may have to be altered to meet individual growers needs.

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