

## Production and Marketing of Garden Asters

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Garden asters are a perennial, fall-blooming crop which can be grown on a schedule similar to garden mums. Application of growth regulators B-Nine or Sumagic reduce height and improve appearance of the plants at flowering. The following recommendations are a summary of research performed the summer of 1993 at Purdue, reports from producers and other universities, as well as conversations with growers.

**Origin** Most garden asters are cultivated varieties of the fall-blooming wildflower, *Aster novi-belgii*, or Michaelmas daisy. They are native to the United States and can be seen growing along roadsides on the date of this presentation. Danish breeders selected for new colors and compact shape. As a floriculture crop, they can be grown for cut flowers, an indoor pot crop in four-inch or six-inch pots, or an outdoor perennial in six-inch pots or larger.

**Schedule** Asters flower under short days, just like mums. Grown under natural days, they flower one to two weeks earlier than garden mums. The earliest cultivars are ready to sell in mid- to late-August. Later varieties follow throughout September. They can be grown anytime of year by manipulating photoperiod. In general, asters are kept vegetative using long days until size is achieved, then forced into flower with short days. The combination of high temperatures, averaging over 68 degrees F, and high light can keep growth vegetative, however. Outdoor crops will be influenced by summer temperatures.

**Potting up a fall crop** Asters can be planted at the same time and in the same pots and media as you use for garden mums. They can also be

planted up to two weeks later than a garden mum crop grown under similar conditions, because they develop quickly towards the end of their growth cycle. Plantings at the beginning of June may require a 1 1/2 gallon container; mid-June an eight-inch container; July a six-inch container for "fast-cropping". These later plantings will require less pinching and perhaps more cuttings per pot. We potted up on June 9, placing one rooted cutting per eight-inch pot.

**Pinching** Pinch 7 to 14 days after potting rooted cuttings, removing all but 3 to 5 internodes. Pinch every 14 to 18 days until July 20, again leaving 3 to 5 internodes on each branch. Shears can be used. We pinched our crop three times this season to achieve full, compact plants.

**Growth Regulation** A growth regulator should be applied after the final pinch, when 1 1/2" to 2" of new growth has occurred. This will reduce height, darken foliage, and—most importantly—create rounder, more uniform plants. Our study showed best results with two applications of B-Nine at 5000 ppm, one week apart, or a single application of Sumagic at 80 ppm.

**Fertilizing** Use a complete N-P-K fertilizer providing 200 ppm N and K via irrigation water. 150 ppm N and K may be sufficient for field soil media, while 300 ppm is suggested for a completely soil-less mix. Low fertilization results in small plants. Excessive fertilization causes the plant to tilt in its pot from its own weight. Asters are less salt tolerant than are mums. Monthly leaching of salts should be practiced. Three weeks after potting, we "boosted" fertilization with Nitroform (38-0-0), at a rate of 1 tablespoon per eight-inch pot, because of excessive leaching caused by rain. Stop fertil-

izing when flowers begin to open.

**Spacing** Same as your mums. 18" centers for a six-inch to eight-inch pot.

**Watering** Though asters are more drought tolerant than garden mums, lack of water can cause yellowing of lower leaves. Use clear water when flowering begins.

**Insects** Aster has few insect pests. If label allows, use same chemical control as with your mums. For whitefly chemical control (according to 'Tips on the Use of Pesticides on Floriculture Crops', Ohio Florists Association, February 1993) Talstar, Mavrik and Tempo are registered for use on asters.

**Disease** Rust and Powdery Mildew are a problem. Along with cultural controls, Dithane, Strike, and Triforine are labelled for use in controlling these diseases on aster (according to 'Tips on the Use of Pesticides...'). We did not have to apply any fungicide treatments at Purdue.

**Consumer Care** Garden asters are truly perennial, even without winter mulching. They will grow vigorously to 3 feet high and 3 feet wide, given room, so make sure your customers understand this growth habit before placing them in their own garden. They may need division every three years. Asters in the garden will start blooming later than they do in pots, often providing frost-proof color into November.

**Bee Alert** Bees are very attracted to these flowers. Sell with only one-quarter of the blossoms open to prevent problems with bees.

**Varieties** See Table 1 for list.

**Marketing** Garden asters provide another flowering crop to boost your fall sales. Along with garden mums, flowering cabbage and kale, pansies and other cool season annuals, they can complete your product line. Though they can be grown on a schedule similar to garden mums, they are a new crop and should have their special features

heralded. If you present them to your customers just like mums, then you cannot expect to receive a better price than for your mums. In fact, you may have to offer them at a lower price just to get your customers to give them a try. Here are some reasons why asters are special, and deserve a special price:

—**New Product** There is always excitement over something new. Your competitors probably won't have them, either.

—**New Colors** Blue has never been available in a garden mum, so this color is sure to draw attention, as will the bold red varieties.

—**Late Blooming** Color holds up into November on some varieties.

—**Unique Habit** Few varieties achieve the perfect globe shape, but customers may like their natural, "wildflower" appearance. Planted in the garden, 'Blue Butterfly' looks as if it has been there all summer.

—**Perennial** You can guarantee it as winter hardy.

—**Companion to Mums** The smaller, daintier aster flowers are an excellent compliment to large mum blossoms. Blue varieties go well with yellow mums; pink varieties with lavender mums; purple with white mums.

—**Cut Flower** Stems can be cut and brought inside where they'll continue to open.

—**Cannot be Field Grown** Reduces competition with farm markets and "weekend growers".

—**Your Risk Factor** Your time isn't free. You'll have to spend extra time learning to grow a new crop, and you should be compensated in the price you receive.

**Recommendations** Make room for 100-200 asters for next fall. Often there are minimum order requirements, so consider pooling your order or paying a packing charge for a smaller order. Be sure to figure in any packing charges into your costs when you determine selling prices. Make a majority of your order blue, red, and purple. Pot them up two weeks after your mums and grow them on the same schedule. Purchase large, color-

ful care tags and—if you retail—a promotional kit. Plant some large, mixed containers with asters and mums together. Perhaps offer some of these as drawing prizes. Offer an aster at discount after

purchase of a certain number of mums. Plant some in your trial garden. Cut some stems and keep them in vases in your shop. In short: "Pot 'em up, talk 'em up, and mark 'em up".

<b>Table 1: Garden Asters</b>				
<i>Cultivar Name</i>	<i>Growth Habit**</i>	<i>Natural Flowering Season</i>	<i>Flower Size</i>	<i>Powdery Mildew Susceptibility</i>
<i>Color: White</i>				
Butterfly White	U/T	Mid-season	Medium	Susceptible
Monte Casino	U/T	Mid-season	Small	<b>Resistant</b>
Sunset	C/S	Mid-season	Small	Susceptible
<i>Color: Pink</i>				
Butterfly Rose	S/M	Mid-season	Medium	Susceptible
Dark Pink Star	C/S	Early season	Small	Susceptible
Painted Lady	U/T	Mid-season	Medium	<b>Resistant</b>
Patricia Ballard	C/S	Early season	Large	Susceptible
Skipper	U/T	Mid-season	Medium	<b>Resistant</b>
Sun Rose*	C/S	Early season	Medium	Susceptible
Sunshir*	C/S	Early season	Medium	Susceptible
Suntop*	C/S	Mid-season	Medium	Susceptible
<i>Color: Lavender</i>				
Purple Dome*	C/S	Mid-season	Large	<b>Resistant</b>
Purple Monarch	U/T	Mid-season	Large	<b>Resistant</b>
Prof. Kipperberg #2*	C/S	Early season	Large	<b>Resistant</b>
<i>Color: Blue</i>				
Butterfly Blue	S/M	Mid-season	Medium	Susceptible
Lilac Blue Admiral	U/T	Mid-season	Medium	<b>Resistant</b>
Shone Von Dietlikon	C/S	Early season	Medium	Susceptible
Sunkid*	C/S	Mid-season	Medium	Susceptible
<i>Color: Red</i>				
Crimson Brocade*	C/S	Mid-season	Large	<b>Resistant</b>
Winston Churchill	C/S	Mid-season	Large	Susceptible
*Denotes new cultivar in 1993				
**U/T=Upright/Tall; C/S=Compact/Short; S/M=Semi-upright/Medium				

Source: McAvoy, Richard J. 1993. Growing garden asters. Connecticut Greenhouse Newsletter. University of Connecticut Cooperative Extension System. June/July 1993.

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Garden Aster Study, Summer 1993 Schedule  
Purdue University Nursery

- 6/9 Plants arrive. Potted in 8-inch nursery tubs, one plant per pot. Media is a 2:2:1 mixture of peat:perlite:soil by volume, with lime and fertilizer amendments. Plants are provided 200 ppm N and K at each watering.
- 6/23 First pinch made, leaving 4 nodes.
- 6/30 Nitroform (38-0-0) applied due to excessive leaching by rain. One tablespoon per pot.
- 7/6 Second pinch made, leaving 4 nodes on each shoot.
- 7/7 Mavrik applied for whitefly control.
- 7/14 Drenched with Epsom salts.
- 7/20 Third and final pinch made, leaving approximately 3 to 5 nodes on each shoot and "shaping" the plant.
- 7/26 First application of growth regulators made. New growth 1 1/2" to 2" long.
- 8/5 Second application of B-Nine growth regulator made.
- 8/23 Tempo applied for whitefly control.
- 8/30 'Patricia Ballard' blossoms opened.
- 9/10 'Blue Butterfly' and 'Purple Monarch' blossoms opened.
- 9/17 Planted in grounds of Purdue University.
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### Fees Waived for Students and Educators

In order to encourage participation by students and educators, the Ohio Florists' Association is once again waiving fees for the Sunday through Wednesday part of the Short Course and Trade Fair. The convention will be held in Cincinnati, Ohio from July 8 through 12. In addition, the Sunday, July 9 program will be directed towards beginning and future employees. Pre-registration for the conference is required. For more information, contact : Ms. Christine Sode at the Ohio Florists' Association, (614) 487-1117 or FAX (614) 487-1216.