

Year Around Asters for Kansas

by

John Maxwell, Jr., Newton, Kansas

Quality asters can be grown profitably the year around in Kansas greenhouses. Lack of sufficient sunlight may cut the quality of flowers in December and January slightly, however, the crop for late winter, spring, and summer flowering will do especially well and will pay off

handsomely. They lend themselves very well to a number of different crop rotations, and by following a few sanitation rules and by careful planning, anyone can grow them. The following paragraphs will give you an idea of the program as we have it set up in our greenhouses in Newton.

First as to soil preparation. We usually add about 1½ wheelbarrow loads of rotted manure or peat moss or a mixture of the two to each 100 sq. ft. of bench space each year. Phosphate is then added and the soil is thoroughly steamed. To continuously grow asters in the same soil sterilization is absolutely necessary to prevent Fusarium Wilt. We use steam, but if steam is not available, chemical soil fumigants may do the job.

We sow the seeds a good deal the way we sow other seeds. You probably have your own favorite way of doing it. The important thing is that the media has been sterilized and if they are for an off season crop, they must be lighted each night from the time they germinate. More about this later. Seeds are sown about 6 weeks before the anticipated benching time. When they are large enough to handle, they are planted to 3 inch pots or 2½ bands and carried in these until benching time. If you have bench space available, the seedlings can be planted directly to the bench.

With the exception of the summer months (May 1 to September 1) the plants must be lighted from the seedling stage until nearly cutting stage. Buds will set without lights: however, the stems will not elongate. They do not need as much light as mums. Two ft. candles of light is sufficient. Your local electric power company will lend you a light meter to check on this. More light can be used but this is wasteful, as the plants will not respond any better by it. Fort, - watt bulbs, 4 feet above the plants, 4 feet apart will provide sufficient light if reflectors are used. Suitable reflectors can be made of cheap disposable aluminum pie plates purchased at any grocery store. To light 2 or more benches, raise the lights higher from the plants

Sow	3/1	4/1	5/1	6/1	7/1	8/1	9/1	9/15	10/1	10/15	11/1	12/1	1/1	2/1
Flower	6/10	7/10	8/5	9/5	10/15	11/20	12/25	1/10	2/10	3/15	4/10	4/20	4/25	5/20

In our schedule of operations we bloom the summer flowers outdoors in a cloth house: however, we have grown asters inside the greenhouse during the summer months. A moderate amount of shade is necessary on the roof or the flowers will burn as they open out. Nighttime winter temperatures must not be much warmer than 50 degrees or the stems will be on the weak side.

Plants should be well fed. We feed them lightly with a liquid plant food while they are still in the pots or bands. After they are benched we feed them Sulfate of Ammonia 1 ounce to 2 gallons of water, or Ammonium Nitrate

and use larger bulbs, but to be on the safe side you had better check the intensity with a meter. Lights must be turned on from sunset till 10:00 p.m. each night.

We use the same spacing the year around - 8x8 - and trim them down to 6 stems per plant. For the late spring and summer crops when sunlight is more abundant, we trim them down to 8 or 9 stems per plant. Each stem is sidebudded, usually one time is sufficient. By doing this almost every flower is saleable.

Spider and Aphis thrive on asters, especially in the late spring and summer. Parathion may cause foliage injury, especially on young plants. We have had excellent success controlling spider with Aramite wettable powder - 2 ounces to 10 gallons of water. Lindane will control the Aphids. These 2 materials may be mixed and used together in the same spray. Leafhoppers must be controlled as they transmit the deadly Aster "yellows" disease. DDT is effective against these. If you use a cloth house be sure the mesh is 21 threads per inch to keep the leafhoppers out.

Following is a schedule of approximate flowering dates we have worked out for our local conditions. These flower dates vary a little each year according to the amount of sunlight received, but these are good averages to figure on. Usually a crop will be cut out in around 18 days from when the first flower was cut. These flower dates are based on when the first flower should be cut. You will notice that the crops slow up considerably during the winter months. Plants sown on January 1 will bloom only about 15 days later than those sown on November 1.

1 ounce to 4 gallons for the nitrates they need, and Muriate of Potash 1 ounce to 2 gallons for the potassium they need. If the soil was prepared in the beginning with phosphate, they will not need any additional amount of this. Plant foods containing soluble phosphates are expensive and we do not use them. If you test your soil keep the nutrient level in the medium range. When the plants are growing fast in the late spring or summer we generally feed the plants every 2 or 3 weeks. During the winter every 3 to 4 weeks is sufficient.

Asters can be fitted into some very practical crop rotations, such as mums-snaps-asters or asters-mums-asters or asters-asters-snaps or asters-mums-snaps. If rotating with mums, keep in mind the mums should not be in the same house during the winter months because of the temperature requirement differences.

As to varieties: the Royals and the new Ball varieties respond very well to lights during the winter months. The new Ball strain has superior flowers, but takes about 10 days longer to force under our conditions. We feel that they are worth the extra time. For normal season bloom there are many good varieties to choose from. We use mostly the Royals, the new Ball strain, Early Beauties, and Cregos.

We believe that greenhouse Asters is a good profitable crop that is generally overlooked in Kansas. If you are not interested in growing them the year around, you can easily work them into a rotation at any time of year. We have found a ready market for them at any time through our own retail store. You can do it too.

--Kansas State College Florists,
Bul. 7.

* * * * *

Your editor,
W D Holley