

# A GROWER'S GUIDE TO BEGONIAS

Looking for additional sales? Try some of the new *Non-Stop* Tuberous begonia series

The genus *Begonia* is an immense group with perhaps 500-1000 species. Begonias were first collected in 1690 by Charles Plumier on a scientific expedition to the West Indies, and were named after Michel Begon, a French promoter of Botany and superintendent at Santo Domingo, 1638-1710.

The species *Begonia semperflorens* was found growing in Brazil in 1814. Several European hybridizers crossed it with *B. Schmidtiana* around 1878, and in 1894 Benary of Germany crossed it with *B. gracilis* which has led to the large *B. × semperflorens-cultorum* (fibrous rooted begonias) group of today. This group as a bedding plant was rated sixth of all the various flower seed crops grown in 1979.

Ernst Benary in 1909 has been given the distinction of introducing the first commercial  $F_1$  hybrid flower cultivar from seed with his *Begonia gracilis* 'Prima Donna.'

We owe all these people a great deal of gratitude for providing the foundation for one of the most popular and durable of all our annual flower seed crops of today.

Over the last five years there have been several new, high garden performance cultivars introduced both in the fibrous-rooted and tuberous rooted begonias. In our extensive trials here at Michigan State University, the recently introduced fibrous-rooted cultivars *Hot Tip*, *Venus*, *Foremost Red* and *Pink*, *Friilly Red* and *Pink*, *Mizar*, *Pomone* and *Pinks* available have been outstanding the last two years. *Pink Avalanche* was developed for hanging basket use and is quite heat and sun tolerant. This year two new dark leaf cultivars look very nice. One is named *Brandy*, which is a light pink, and the other is *Ambra Salmon*. Both color shades fill an area where there has not been a lot to choose from.

Most of the cultivars have better than average flower size and have proven to be superb all summer in sun or shade. They have also been excellent when used for mass plantings.

A few of the cultivars do produce large leaves if grown like the regular small flowered types with high nutrition and moisture levels. The large leaves do detract from the pack appearance, but this problem can be overcome in one of two ways. One procedure is to start with a transplant medium that is balanced nutrient-wise, but low in total soluble salts, much the same as you would use for seed germination. This will allow the transplanted seedlings to get established, but without excessive foliage ex-

pansion. After the seedlings have overcome the transplant shock, be careful not to overwater. The plants should be grown on the dry side. Usually at the fourth or the fifth week after transplanting, a light feeding is necessary which will bring out the central stalk with the first flower cluster. Then you can regulate the crop on a normal basis to fit your sales schedule.

Another procedure to hold down excessive growth and foliage expansion appears to be the use of the growth regulator Chloromequat (CCC). Preliminary indications point to a 1000 ppm foliar spray as being effective when applied three weeks after transplanting. With any new procedure, however, you should treat only a few plants to check the response under your conditions. Greenhouse and growing procedures vary greatly and have a strong influence on whether CCC will work or not.

Another group of begonias of recent introduction that is catching the eye of many growers is the hybrid *Non-Stop* Tuberous begonia series.

Their ancestors came from Bolivia, Peru, and Ecuador and were introduced into cultivation around 1860. The *Non-Stop* series now comes in eight color shades plus a mix. They are finding an excellent market growth as a 4-inch pot crop or as a 10-inch hanging basket item.

An early November sowing will make excellent 10-inch hanging baskets by the end of April. The seed must be sown thinly and germinated under fluorescent lights with a germination medium temperature of 70°F. The lights should be on for at least 14 hours. A frame covered with clear plastic placed over the seed flats is very helpful in keeping the temperature and moisture at the proper level during germination. After germination, usually within 10 days, do not be too anxious to completely remove the plastic covered frame, as tuberous begonia seedlings need a high humidity around them longer for best growth and development than what is necessary for fibrous begonias. This is important until the first true leaf is one-quarter of an inch wide. Another critical point is that after transplanting anytime from December 15 to late February, supplemental lighting is necessary to keep the plants vegetative. A mum lighting set up is fine using 60-watt bulbs from 10 p.m. to 2 a.m. This can be done during the time the plants are in the transplant flats before they are shifted into 4-inch pots or into the hanging baskets.

The price received on good quality grown plants has been excellent and well worth the extra care and time.

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