

AZALEA FORCING
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The forcing of azaleas is very easy as it is done every year by nature. As soon as the buds are mature and winter comes they will be cooled naturally. Sometimes they get more than they need but they usually bloom when it warms up in the spring.

We force azaleas from September to Mother's Day. The plants for September flowering are put into the cooler the latter part of June.

We produce several sizes including 5- to 6-in head in 6-in containers, 7-in head in 10-in containers, 8- to 12-in head in tubs. Production requires 12 to 18 months depending on plant size. We ship in our own trucks.

PREPARATION OF AZALEAS FOR THE COOLER

The plants are graded for bud development. If the bud can be felt or seen, it will usually cool and bloom. We grow about 40 early, late, and mid-season cultivars. They all will cool and bloom at anytime, but the later cultivars are slower and take up greenhouse space for a longer time. We prefer not to cool the later-blooming cultivars until the first of the year. They will then bloom on our schedule.

After the azaleas are graded the most important part is to drench the plants with water. This is very important in two ways. It leaches out soluble salts that tend to burn the foliage during cooling and puts plenty of moisture in the plants. This will also insure that the cooler will have 90% humidity during the cooling process. The plants will not have to be watered again until taken out of the cooler. However, if they are left longer than 4 weeks they must be checked for water. The azaleas plants are packed and put in the cooler as soon as the foliage has dried after drenching.

COOLER BUILDING

Our experience has shown that a cooler building should be built as tall as possible for the most even cooling. The coolers we now have are 9 and 10 ft tall, with a cooler under construction 18 ft tall. The original 2 coolers were built 34 × 64 × 10 ft. One is concrete block and the other is frame. The third cooler is 30 × 30 × 9 ft and is a prefabricated commercial

cooler. There are 2 in of urethane blown on the walls and 3 in on the ceiling. The concrete floor has 4 in of polystyrene under the concrete. All new coolers will be built out of concrete block; we find it to be the most economical.

All the coolers will hold a temperature of 36°F at 95°F outside temperature. Cooler space is also rented from tomato packing houses and commercial cold storage. The rentals work out quite well and would be the cheaper way to cool azaleas if it were not for the inconvenience of having them away from the growing area.

COOLING

Through the years we have experimented with many different temperatures. Higher temperatures and lights were used. We have also used applications of gibberellic acid. What we have found to be the best for the azaleas, and the most economical for us, is a temperature of 36° to 38°F. The azaleas plants are left in the cooler for 28 days. We have tried cooling 3 to 6 wks but have found that with 4 weeks of cooling we get good results, as the azaleas bloom evenly.

FORCING

The azaleas are taken out of the cooler and placed in double-poly greenhouses. We do not use any shade on the poly houses. There is 25 to 40% shade depending on the age of the poly. Too much shade will delay flowering for up to 2 wks. After spacing, azaleas are fed liquid fertilizer with a 20-20-20 solution at the rate of 500 ppm. The night temperature is held at 60°F. During daylight hours we ventilate when the inside temperature reaches 80°F.

Our spray program is minimal. The azaleas are sprayed one time with Benlate (benomyl); and Daconil (chlorothalonil), after being taken out of the cooler. Insects are a minor problem with forcing azaleas except in the spring when the temperature is above 80°F. Thrips then invade the flower beds. The best control we have found is Dycarb (bendiocarb). It does not leave any residue on the blooms or foliage nor burn the open flowers. Bayleton (triadimefon) is a very effective spray that we use to control flower blight, *Ovulinia* spp., on azaleas. Bayleton is sprayed on the buds when they are beginning to show color. Bayleton is absorbed rapidly and works systemically from within the plant. Good coverage and wetting of the foliage is necessary. Rainfall or sprinkler irrigation, after ½ hour following application does not decrease effectiveness. Bayleton leaves no residue and the flowers will last much longer with its use.

Within two weeks the azalea buds will begin to swell and another problem arises. The azaleas not only bloom but they grow vegetatively. Sideshoots start growing around the bud. With many cultivars this is no problem, but on some the shoots grow so fast that they blow out the bud — it turns brown and dies. These shoots have to be removed by hand, a very costly operation. We have found that spraying with B-Nine will slow down the growth of sideshoots. B-Nine does not burn flower petals and we have found no adverse effects from its use. We apply B-Nine when the sideshoots are about ¼ in in length. This is a very economical way of stopping sideshoots.

In summary, the parts of the operation that are very important are: Plants must be drenched with water before being put into the cooler, and a temperature of 36° to 38°F must be maintained for 28 days. If these procedures are followed, azaleas stay on a schedule for flowering very well. We are able to grade flowering azaleas the third week out of the cooler and they will all be flowering by the sixth week.

Some azalea cultivars that perform well for us are: Rhododendron 'Red Ruffles', R. 'Gloria Gish', R. 'Dorothy Gish', R. 'Road Runner', and R. 'Alaska'.

COMPUTERIZED PRODUCTION RECORDS

JOHN L. MACHEN, SR.

Mobjack Nurseries

Route 660

Mobjack, Virginia 23118

At Mobjack Nurseries we have approximately 7 acres of container production and approximately 50 acres of field production. Our nursery is small but still needs good records. In our nursery production records are maintained on a micro-computer which uses dBase II. Our production records consist of 3 separate but closely related inventories. They are:

1. New Plant Inventory
 - A. All seedlings and cuttings we produce
 - B. All liners or plants we buy to grow on to larger sizes
2. Production Inventory
 - A. All plants planted in the fields
 - B. All plants planted in the container in which they will be sold