

PROPAGATION OF AZALEAS FOR CONTAINER AND FIELD PRODUCTION

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Propagation of azaleas at Van Hof's begins about the last week of August, when cuttings are taken either from bedded plants, containers, or lined-out material. Having these choices of locations assures that good healthy cuttings will be taken.

CUTTING PREPARATION AND STICKING

After gathering the cuttings, they are brought back to the nursery where the lower leaves are stripped. A fresh 45° cut is made, and then #2 Hormodin powder is added.

Although the length of the cutting is not critical, we believe that a 5½-in. cutting is ideal, for the following reasons:

- 1) For ease of handling and ease when sticking into the peat and perlite medium.
- 2) Transplanting the rooted cutting into the growing bench.
- 3) Branching is low to the soil level when the cuttings begin to grow.

The cuttings are then transferred to the propagation house where they are stuck into a bench of peat:perlite (1:1, v/v). We have found that a depth of 6 in. of peat and perlite provides good drainage. When spacing the azaleas cuttings, we use a spacing stick for this process to get a 1¼ × 1¼ in. spacing.

MISTING

Mist is provided by using the Phytotronics control system. This system allows for settings from 2 to 64 min. between misting cycles and settings from 2 to 16 sec. of "on" time. A 24 hr clock regulates the time the misting begins and ends. The misting sequence begins at 9 a.m. and ends at 5 p.m. The propagation house is shaded with a 51% shade cloth, so the mist control is adjusted daily. Ventilation fans are set for 80°F and, when needed, heat is set at 70°F.

Within 5 to 6 weeks rooting has taken place and the mist is gradually eased off until it is completely shut off after 7 to 10 days. The shade cloth is removed from the house at this time.

TRANSPLANTING

The rooted cuttings are transplanted around the end of November to a bench containing peat:perlite (1:1, v/v). Spacing is now 2½ ×

2½ in. These plants will be kept at 45°F until February when the greenhouse temperature will be raised to 70°F. At this time we also begin to fertilize. Later, in May, the house will be shaded with a 51% shade cloth.

FERTILIZATION

Fertilization with Peter's 20-20-20 is done using a Gewa injector, 6 gal model. We use the number 3 setting on the Gewa injector which provides a ratio of 1 to 100 and a concentration of 16 oz of fertilizer to one gal. Fertilization is done every other watering.

TRIMMING

Trimming begins when we pinch the flower buds in February. This promotes rapid growth of new shoots and also keeps flowers from decaying in the bench. When the new growth has matured half of the new growth is cut off with shears. Hand shearing ensures that each plant is trimmed correctly. The next two or three times the azaleas are trimmed will be with electric hedge shears. After each trimming we use a Shop-Vac to pick up the cut material. This helps in preventing disease, especially as the plants grow larger. The last trimming is done before the plants are removed from the propagation house.

TRANSPLANTING INTO CONTAINERS

Transplanting the azaleas into containers is done in May or June. Plants are pulled from the propagation house and placed in flats. Then they are brought out to the potting machine and put into a 1.5-gal container. We use a mix consisting of 16 yards washed sand, 50 bales of 6 ft³ peat moss, 360 lb high magnesium lime, and 43 lb triple superphosphate.

After planting, a top dressing of twelve grams 18-6-12 Osmocote, 9 month formulation, is used. Containers are placed pot to pot for the first year. Then they are spaced and trimmed for the second year.

Winter care of azaleas begins in early November. Plants are irrigated, then poly is used to cover the shelters. Irrigation is continued through the winter as needed.

BED PLANTING

Rooted cuttings are bedded out ideally in April to May in beds 62 in. wide. They are spaced at approximately 6 in. on center.

LAND PREPARATION AND PLANTING

Land is prepared by using 800 lb/A of 19-19-19, (nitrate form of nitrogen.). Beds are staked out roughly 300 ft long. Fifteen bales of

peat moss are broken down inside the beds, then rototilled to produce a 12-in. depth of soft soil.

Planting is done by hand using trowels. Aged sawdust is used as mulch, and 50% shading is provided by wood lath shades. We use a herbicide (Devrinol 50% wettable powder) at 8 lb/A. In the fall of the same year, an additional feeding of 800 lb/A of 15-15-15 ammoniated fertilizer is used for a quick intake and retention of nitrogen to become available when plant activity begins the following spring.

In the spring, about the third week of March, shades are removed and another herbicide treatment, Surflan, is used. When bud elongation becomes evident, urea is applied at the rate of 150 to 170 lb/A and irrigated into the soil. Factors such as rainfall, foliage color, and temperature are considered before further application of urea. Four to 5 treatments of urea are possible. Azaleas will stay in the beds for 2 years.

FIELD PLANTING

Land preparation, and herbicide and fertilizer applications are the same as in bed planting. The plants are lined out using a Two-Row planter. Planting is done during June and July. The azaleas will stay in the field for 3 years.

FALL DIGGING

When possible, fall digging begins at the end of October. The plants are balled and burlapped, loaded on trucks, watered, then stored in a sheltered area.

GENERAL INFORMATION

The azaleas grown at Van Hof Nurseries, Inc. are: *Rhododendron mucronatum* [syn. *R. ledifolium* var. *album*], *R. ×stewartsonianum*, and the cultivars *R.* 'Carmen', 'Cornell Pink', 'Delaware Valley White', 'Girard's Hotshot', 'Hino Crimson', 'Kaempo', 'Mother's Day', and 'Rosebud'. *Rhododendron yedoense* var. *poukhanense* is grown from seed. The seed is collected in the fall from our field plants. The seed is sown in flats in November and then transplanted into flats in February. There are 130 plants per flat. These plants will be bedded out in the spring. We grow 30,000 azaleas a year, with 12,000 for containers and 18,000 bedded out.