

SEXUAL AND ASEXUAL PROPAGATION OF NORTH AMERICAN RHODODENDRONS

DONALD P. WHIDDON

*Tom Dodd Nursery Inc.
P. O. Drawer 45
Semmes, Alabama 36575*

This paper will discuss the propagation of some of the native species of deciduous rhododendrons, more commonly known as native azaleas.

I believe the North American species of deciduous azaleas are some of the most beautiful of our native plants. Colors can range from white to yellow, orange, red, and pink, with almost any combination in between. Natural and deliberate hybridization have resulted in the availability of many superior forms in terms of bloom size, color, and adaptability.

Propagation is commonly by seed or cuttings. Seed propagation is simple, reliable, and economical, but the resulting offspring will usually be extremely variable. While this is an advantage for the hybridizer looking for new cultivars, it is a disadvantage to a commercial nursery trying to produce a predictable representative of a species.

Seed capsules are collected in the fall as they change from green to brown. They can be dried at room temperature by placing in a paper bag or an open container.

When dry, the capsules are broken open to release the seed. They can be rubbed through a screen or crushed by hand—we use an old coffee grinder. Separation of the debris of the capsule from the seed is not necessary.

The seed flats are prepared by first pressing a layer of peatmoss approximately 2 in. deep in a well-drained flat. Then, a thin layer of milled sphagnum moss is added to a depth of $\frac{1}{4}$ to $\frac{1}{2}$ in. and thoroughly wet.

Seeds are then broadcast on top of this and watered in with a fine mist nozzle. The flats are kept wet until germination occurs, usually by 2 to 4 weeks. Disease problems are minimal during germination when sphagnum moss is used, so fungicide applications are not usually necessary until the seedlings start to crowd each other.

The seedlings can be pushed with liquid feed and transplanted in the spring, or can be held without fertilization until the next fall and then transplanted. Although this is much slower, they are easier to handle and require much less intensive care than with spring transplanting.

Propagation by cuttings can at times be difficult, and there is much variation among species in ability to root and survive. Very often, the problem is not getting roots but getting the rooted cutting to survive through the winter and continue to grow the next spring. Generally, from my experience, the easiest species to produce from cuttings are *Rhododendron viscosum*, *R. austrinum*, *R. canescens*, *R. flammium*, *R. periclymenoides*, *R. prunifolium*, *R. oblongifolium*, and *R. arborescens*. The more difficult ones are *R. alabamense*, *R. bakeri*, *R. serrulatum*, and *R. calendulaceum*. Again, the problem is not usually rootability, but survivability.

The following recipe has proven to be the most consistently reliable so far for me. Cuttings 4 to 6 in. long are taken as early as possible from vigorous, preferably container-grown, stock plants. Cuttings are not stripped or wounded. They are dipped in 6000 ppm K-IBA and stuck in pots filled with straight pine bark then placed under mist.

After sticking, foliar feeding is begun at weekly intervals using 200 ppm N. Rooting usually occurs within 4 to 6 weeks. Liquid feed is continued after rooting to force the plants into growth, which will normally ensure survival through the winter and subsequent growth in the spring. The cuttings are over-wintered in a cool greenhouse kept above freezing and potted the next spring when growth begins.

The key factor in this method, especially with the more difficult species, is the liquid fertilization. The cuttings are maintained in a vigorous, healthy condition and, when rooting begins, are primed to begin vegetative growth. Hormone concentrations can be juggled to find the optimum range for root initiation; but unless the cuttings resume growth after rooting, success is not assured.