

# Mastering Azaleas

## Part 2A. Azalea Propagation— Seed Collecting, Cleaning & Storing

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**B**efore I launch into this brief “how to” article, let me first state that my ideas are not the sole methods or perhaps the best that you may read, but they do work for me. With that disclaimer behind us, we now venture into the exciting realm of seed propagation of azaleas.

A primary factor to remember when you propagate azaleas from seed is that no two seedlings will be identical, from a genetics viewpoint. It is this very uncertainty that has kept me collecting, cleaning, and sowing seed for over 35 years. I keep looking for that one outstanding, beautiful, and vigorous azalea to come from a batch of seedlings.

### Pollination

Before we can sow seeds we must first collect them, and this is where we often run into problems if we want seedlings of species to come true to name. If collected from wild stands, seed will often be contaminated by cross-pollination by insects or wind-borne pollen from other nearby species. This is called *open pollination*, and any resulting seedlings will be suspect for truth of name of the cross.

One method I have used for years with better than average success is to locate an interesting wild azalea in flower, locate a nearby azalea with similar interesting characteristics, and use a method called *hand pollination* to be assured of seedlings that are close to the parent plants' desired characteristics. The method may be as simple as rubbing the flower trusses together, or as complex as taking pollen bearing anthers from one plant and transferring the pollen to the stigma of the other, and then cov-

ering the stigma to prevent contamination. The latter method is called *closed pollination*. However, the stigma of the seed-bearing parent must be covered as the anthers open and covered again after it is pollinated, which will also protect it from pollination by insects, wind, or other agents.

### Seed Collection

Okay, so we are now waiting for seed capsules to form on the shrub. If you observe your seed parent plant carefully, following the hand pollination process the petals will fall off within three days, indicating a successful pollination. During the summer and early fall months, if pollination is successful, the ovary will start to swell quickly forming a greenish seedpod that is divided into five chambers. Depending upon the species, that pod may be only 3/8" to almost 1-1/2" long. From early to mid-November, it will turn tan to brown, indicating it has ripened. It is key to remember that several hard freezes will cause the seedpod to split open and spill most of the seed; therefore, keep watch and be ready to collect.

I do hope you tagged the particular branch you wanted, if you went to all the trouble of hand pollinating the flowers; for come fall, that shrub may be difficult to locate in a colony of hundreds. In years past, I have had to use some devious methods to protect the seedpods on wild specimens, because if azalea chasers travel the area and my tag is found, sometimes my efforts are thwarted by the loss of the pods. For this reason, I usually do the hand pollination thing on plants well removed from the beaten path to increase my odds. Nothing holds

back a would-be pod snatcher more than a thick bramble patch.

I prefer to use brown paper lunch bags in which to collect seedpods, but envelopes work well, too. Plastic bags retain too much moisture and may cause mildew or molds to form, so avoid them. So now, we have a bunch of seedpods in a bag, what is next?

Sharpie® felt pens are great to write information on the bags: date, place, species name, and any other pertinent information you wish. When I get home from a collecting trip with a load of bags and pods, I put a very small amount of a pesticide, such as Sevin® Dust, in the bags to kill off any hitchhiking bugs. I temporarily store the bags open in a warm location until the pods split open, and then I fold the top closed and shake vigorously. Most of the seed will fall out of the dried pods into the bag. For pods that refuse to split, I often use a pair of pliers to crack them open.

### Cleaning

With several sheets of clean, white typing paper to catch the seed, I then pour the contents of the bag into a tea strainer and shake. (Or use a small—4" x 4"—piece of porch screen.) Most of the seed will fall onto the paper with a little chaff and perhaps the blackened style and some fine dust. I may or may not do a further cleaning by dumping this batch into a finer mesh and sort out the dust. For my own use, this is as far as I go; although, if I plan on sending some seed to friends, I may hand clean most of the chaff from the seed.

If you are wondering what the difference is between the chaff and the seed, look through a 10-X hand lens.

All of the native azalea seed have a small wing, except for the species *Rhododendron arborescens*, which is like a pellet. Some species have large seed, while those of *R. vaseyi*, *R. prunifolium*, and *R. cumberlandense* are smaller. The seed of mountain laurel are like dust and must be handled as such. One good sneeze and the seeds disperse.

The seedpods and seed of evergreen azaleas are smaller than their deciduous relatives. Usually, the pods are about 5/16" long by 1/4" wide, slightly conical in shape. The seed are small, but some will have a small wing, as in the deciduous forms.

### Storage

To store the seed you have now cleaned, coin envelopes work very well, and all the necessary information may be written on them. They may be purchased from almost any office supply store, or use the resources listed at the end of this article. To protect the seed further, I first put them in 2" x 3-1/4" Glassine envelopes that Westvaco manufactures. I get them through an online company I give below in the Materials section.

Well, now you have collected loads of seedpods, cleaned the seed and have them tucked away in coin envelopes, so what do we do next? If you plan to sow the seed quickly, no

further action is needed. However, if you wish to store the seed for next year or later winter sowing, they need to be put into the refrigerator. I prefer to use the Zip-Loc® type plastic bags where they may be sealed tightly and excess air removed to prevent moisture problems.

Whatever size plastic bags I may choose, I put a number of the seed filled coin envelopes inside along with a **moisture trap**. This trap is simple to make out of one sheet of paper towel and 1/2 teaspoon of powdered milk: I put the powdered milk in the center of the towel and begin folding repeatedly until I have a small pouch that I tape closed. I do not recommend using silica gel, for it will dry the seed out too much and kill the germ. It does work well as a desiccant for drying pollen, but that is another article.

After years of propagating azaleas from seed, I found refrigerating the seed for a short time (at least 72 hours) seems to speed up germination by up to a week. If the above instructions are followed, you may expect to store viable seed for up to six years. My usual germinating rate is over 95% in 9 to 12 days with a soil temperature of 70°F and increased photoperiod (16 hours in 24) using electric lights.

Now that you have some basic information on collecting, cleaning, and

storing azalea seed, this fall take some friends on a trip to join in on the fun. Of course, I have not told you how to sow the seed, so that will be in the next article, Part 2B, to be published in the Fall 2003 issue of *The Azalean*.

*Joe Schild has owned and operated a niche nursery specializing in the species for over 14 years. He is the immediate past president of the ASA and a member of the Tennessee Nursery & Landscape Association. He says he is better known as an azalea nut and chases the natives' bloom each year with many fellow enthusiasts.*

### Reference

Galle, Fred C. 1987. *Azaleas*. Portland: Timber Press. Chapter 11, page 333.

### Materials

For coin envelopes white or manila on-line: <http://store.yahoo.com/actionenvelopes/index.html>

Or mail to:

Action Envelope Co.  
245 Adams Boulevard  
Farmingdale, NY 11735  
Telephone: 1-800-653-1705

For Glassine envelopes on-line: <http://www.admiralenvelope.com/>

Or mail to:

Admiral Envelope Mfg. Co., Inc.  
214 Sullivan St.  
New York, NY 10012  
Telephone: 1-888-810-6944

## A Note on Color Names in Galle's Azaleas

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In his magnum opus titled *Azaleas*, Fred Galle made an important contribution to the description of azalea colors by using International Society Color Council-National Bureau of Standards (ISCC-NBS) color names where possible. The reader should, however, be aware of cer-

tain errors in the table relating selected ISCC-NBS color names and common color names (see *Azaleas*: pp. 41-42 in the original 1985 edition; pp. 43-44 in the 1987 revised edition). These errors are listed below (where not specified, the corrections apply in both editions).

**Deep Pink 3** – spinel pink, not spinel rose  
**Vivid Red 11** – carmine rose, not carmine red  
**Strong Red 12** – claret rose, not claret red  
**Moderate Yellowish Pink 29** – flesh pink, not flesh color; – vinaceous buff, not vinaceous  
**Deep Yellowish Pink 27** – delete salmon  
**Moderate Reddish Orange 37** – burnt orange, not burnt red  
**1st ed.: Strong Reddish Orange 35**, not **Strong Red 35** – bright coral rose, not coral rose; – bright coral red, not coral red  
**Strong Orange 50** – pumpkin, not pumpkin orange

**Pale Orange Yellow 73** – pale salmon color, not pale salmon; – pale pinkish buff or pale pinkish cinnamon, not pale pinkish salmon  
**Light Purple 222** – pale lavender-violet, not pale lavender rose  
**1st ed.: Moderate Purple 223**, not **Moderate Pink 223**  
**Strong Purple 218** – delete royal purple  
**Deep Purple 219** – delete spectrum violet; add royal purple  
**Strong Reddish Purple 237** – dull dark purple, not dull dark red

**Pale Purplish Pink 252** – pale vinaceous-lilac, not pale vinaceous  
**1st ed.: Strong Purplish Red 255**, not **Strong Purplish Pink 255**  
**1st ed.: Vivid Purplish Red 254**, not **Vivid Purplish Pink 254**

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