

# Revive Your Hanging Baskets for Azalea Cuttings, Seeds, and Plants

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Recycle any and everything that “might” be put to good use in gardening and propagation. For my purposes hanging baskets are like “pure gold” in the refuse strata.

Hanging baskets of any size—used, discarded, and often in like-new condition—can be “revived” for growing azalea cuttings, seeds, and plants. Just about everywhere you look in today’s world abounds with idle hanging baskets—your own yard, friends’ houses, roadsides, nurseries, stores, and recycling centers. Black plastic nursery pots are routinely recycled, but hanging baskets are frequently discarded. I often find hanging baskets in the “pot” recycling bins at my local recycling center. Dollar stores often have new, inexpensive baskets on sale.

These usually “aerial” flower pots can be put to many innovative uses by azalea propagators. If the basket has lost its hanger, use it as a ground pot or add a new hanger. Cuttings can be rooted in hanging baskets, and rooted cutting can be grown larger. Hanging baskets are also good for starting seeds. And a number of azaleas with a weeping habit can be displayed in hanging baskets.

## Tools Needed

Many gardeners already have the tools I use daily in azalea propagation:

- Potting bench—I easily assembled a treated pine bench using large lag screws and ratcheting socket wrench.
- Lightweight, high-speed electric drill with 3/4-inch holesaw bit—Used to enlarge and add drain holes to the pots.
- Small awl like the one on some pocket knives—Used to pierce plastic pots to install hold-down wires or make drill starter holes.
- Pocket knife or small utility knife—Used for making a starter cut in plastic bottles being converted to humidity domes.
- Sturdy pair of scissors—Used to cut an even line around the circumference of plastic bottles to create domes.

## Materials Needed

Most of the materials I put to use in propagation are recycled, but a few may have to be purchased:

- A sturdy, wind-resistant shade enclosure with a shade cloth cover capable of reducing sunlight by 64 to 70 percent.

- Pots, hanging baskets, and containers adaptable for plant culture.
- Clear plastic screw-top bottles with a fairly wide diameter.
- Flexible, rust-resistant wire or wire mesh pot covers.
- Wire mesh, also called hardware cloth, in 24-inch width and 1/4-inch mesh.
- Soil-free organic materials, such as finely-milled and composted pine bark.
- Fresh humus fines collected from healthy azaleas.

## DomePots & Other Propagation Pots

The term “DomePot” covers several propagation devices I make for rooting cuttings. A DomePot is a container with an attached humidity dome made from a clear or translucent plastic bottle. I call DomePots made from hanging baskets “HighRises.” It is possibly the most effective device I use for rooting azalea cuttings. HighRises are durable, accommodate larger domes, and hold a respectable number of cuttings.

Most of my propagation pots for azalea cuttings and seeds have several common features:

- Fast drainage due to enlarged and added drain holes.
- Exceptionally porous medium filling the pot not more than halfway.
- Two small holes along the top rim for securing either a humidity dome or a pest-preventing wire mesh “varmint cap.”

A HighRise propagation pot has multiple uses. It can be hung under a shade cloth with a sealed humidity dome with cap left on to root cuttings; hung in part shade with the vent cap removed to root cuttings; or hung in full sun with the dome removed to grow out rooted cuttings or seedlings. I also use HighRise pots on the ground or my concrete pad, protected by a shade cloth. Placing pots on a short pedestal or stand helps maintain good drainage and prevents earthworm entry, which would compact the medium.

The standard plastic hanging basket drains too slowly for azaleas so it must be converted. I remove the bottom drip tray and any interior drainage baffle. These may be turned upside down and used later as a pedestal.

With a 3/4-inch holesaw bit and high-speed drill I enlarge the bottom drainage holes to 3/4-inch diameter. I also make one or two new staggered rows of drain holes. The

new pattern of larger drain holes mimics the fast drainage that nature provides in many gardens and in most wild azalea habitats.

I have tried using other types of drill bits, such as spade and forstner, but I have found an inexpensive holesaw bit for wood and plastic works best. I prefer thick-walled molded baskets over the thinner-walled vacuum-formed ones because they last longer outdoors and are easier to drill without cracking or tearing. Metal frame baskets with cocoa mats can be used as is for seedling and cuttings if fast-draining medium is added.

I advise drilling pots on a warm day so the plastic is not brittle and prone to crack. Drilling new and enlarged drain holes in plastic pots with a holesaw bit requires a little practice and a light touch, particularly with thin-walled pots. Sometimes I warm pots up with a blow dryer to make drilling easier.

### Shade Enclosures

To provide all-season sun protection for my “en-root” cuttings, I contrived two shade enclosures: one permanent and one movable. Both are covered at a height of 4 feet with a sheet of forest green, medium-density Coolaroo shade cloth, which reduces incoming sunlight by 64 to 70 percent. The forest green cloth allows rain to pass through, watering the pots, and blends in with my piney woods. The Coolaroo medium density cloth also comes in black, sandstone, and terracotta.

The larger shade area—covered with a 6 x 15 foot sheet of shade cloth that can be rolled up—uses the downhill half of a sloping 14 x 16 foot concrete pad (formerly my bird dog pen). I built a 4-foot tall frame around the concrete pad with 6-foot treated 4x4 posts. I place fully rooted pots on the uphill “sunny” half of the concrete pad, watering once a week for 30 minutes if there is no rain.

The smaller shade enclosure is a 4 x 4 foot cube made by fitting together twelve 45.5 inch lengths of 1-inch PVC pipe and four right angle corner joints. I recycled the PVC pipe after it was discarded from an old well repair. The area is covered with three sheets of shade cloth attached with cinch ties. The enclosure is secured to the ground with tent pegs. The entire structure can be easily taken apart and reassembled at another location.

Shade enclosures can be “camouflaged” by using green or black fabric and by using a frame of treated wood or dark painted plastic pipe.

### Potting Medium

I use the same medium in pots for rooting cuttings or planting azalea seeds. I mix 6 parts of pine bark soil conditioner, one part of pine bark mini-nuggets, and one part Fafard 3 or any equivalent moist soil-less mix that contains no fertilizer. I mix the ingredients in a large, low pot using a large trowel, which mixes more uniformly than a tined cultivator. The medium is well mixed once you see the ver-



Photos Mike Creel

▲ Portable shade enclosure constructed of PVC pipe and covered with shade cloth.

▼ A right angle corner joint connects the 1-inch PVC pipe. The structure can easily be taken apart and transported.



miculite from the soil-less mix and mini-nuggets uniformly distributed. If the bark soil conditioner contains enough larger bark pieces, the mini-nuggets are not needed, so mix 5 to 1. Keep it moist and friable until it is put into a drilled pot, but do not allow it to become waterlogged.

Fill the pot with the medium to a level about two inches above the upper drain holes. If the medium fills the pot more than halfway, it tends to become waterlogged, which prevents cuttings from growing roots. Too much water also kills seedlings and causes plants to grow slowly or die.

Before sticking cuttings or planting seeds in a drilled pot, test the drainage. Sprinkle the pre-moistened medium well with a watering can to make sure it will drain thoroughly. Water should vanish from the medium surface in “one eye blink.”

Exact materials that I use in my medium may not be available in all areas, so gardeners may need to improvise



▲ Mike Creel recycles hanging baskets to grow azalea seedlings. The wire mesh cover prevents squirrels and birds from disturbing the seedlings.

and find similar equivalent components. As long as fast drainage is maintained, the medium should work.

### Humidity Domes

Many types and sizes of clear bottles can be used for humidity domes on DomePots, but they must not become brittle with exposure to outdoor conditions like sunlight and cold. Some plastic bottles—often blue tinted—are prone to degrade outdoors.

Keep the bottle cap, because it serves as a ventilation cap. It can be screwed on to seal in humidity or removed to harden-off newly-rooted cuttings to outside air. The bottoms of plastic bottles, if not too “tippy,” can be used as “perches” for pots.

My favorite bottles are one-gallon Hawaiian Punch®, one-gallon Deer Park® or Poland Springs® water, three-liter clear soft drink, two-liter clear soft drink, and some clear one-gallon spring water bottles.

Domes should either be one-and-a-half inches smaller or larger than the diameter of the pot it will be used in. Two-liter drink bottles fit most gallon pots and small hanging baskets. Three-liter drink bottles fit two-gallon pots and some hanging baskets. One-gallon bottles fit medium to large size hanging baskets.

To convert a clear bottle into a propagation dome, remove the label and cut a level line around the bottle. With one gallon bottles, I cut off the lower two inches. With taller bottles, such as three and two-liter soft drink containers, I cut off the bottom half.

Attach the humidity dome to a pot using a length of flexible wire. I use recycled three-wire residential electrical wire or inexpensive electric fence wire. The wire must be long enough to loop once around the bottle end under the cap and down the sides of the bottle. Secure the wire through the two holes in the pot rim. (Note: Using the awl on my pocket knife, I make two holes on opposite sides of the pot rim to attach the hold-down wire.)

Even a vented DomePot with the cap removed cannot be exposed to direct sunlight because it is prone to overheating, which will kill or boil the cuttings, rooted or unrooted. Cuttings can, however, be rooted in a vented DomePot that is in partial reliable shade.

### Principles

DomePots work because the clear dome captures humidity rising from the moist medium while allowing filtered sunlight to reach cuttings and permitting internal heating to promote growth of buds, leaves, and new stem.

The dome is protected from overheating by the shade cloth which reduces sunlight by 64 to 70 percent.

Water enters the medium through the open perimeter of medium outside the dome along the pot rim. Most of the water passes through the medium, and some rises up into the dome, keeping the humidity high. Cuttings initiate top growth with leaves and stems, and bottom growth with entirely new roots along the scarified lower stem.

Once leaves are fully expanded and near maturity, the vent cap is removed while keeping the DomePot in a shaded area. If leaves do not wilt after 24 hours, the cuttings are rooted enough to leave the vent cap off for four to six weeks, allowing the cuttings to harden to the drier outside air.

Once leaves are fully matured and are not prone to wilting, the dome can be removed and the pot moved to full sunlight. Cuttings may be left to grow for an extended period in the original pot or may be re-potted. The use of drilled pots half filled with a coarser medium is recommended to ensure good drainage.

### Cuttings

In zone 8A, it is possible to stick azalea cuttings in outdoor DomePots year around. When preparing to stick azalea cuttings in DomePots, it is advisable to have several pots with matching domes available. Put medium into the pots just before sticking cuttings.

For deciduous azaleas, I prefer to use Y-shaped, or jointed, woody stem cuttings of one to 3-year-old wood. For evergreen azaleas, either wood or half-ripe cuttings work well. I often stick larger, well-branched cuttings to create advanced plants that flower early.

I do not treat the stems with rooting hormone, but I do sprinkle a thin layer of fresh azalea humus on the medium surface prior to sticking cuttings. I also remove both flower and leaf buds from each cutting and leave only mature leaves, cutting each one in half diagonally. I remove leaves from the lower two or three inches of the cutting to insert into the medium.

Woody cuttings have the advantage of being available any time of the year—in winter as leafless dormant stems; in early spring with soft leaves and new growth removed; in summer with fully expanded leaves; and in fall with leaves starting to change color and drop. Juvenile soft green cuttings are not suitable for most outdoor DomePots, but may work using long-fiber sphagnum moss in a colander DomePot if the cutting can be maintained without wilting.

#### Summary of DomePot Use for Rooting Cuttings

- 1) Collect fresh cuttings and stick them immediately or store in inflated plastic bags with no added moisture in a cool place such as a refrigerator vegetable drawer.
- 2) Add medium to the pot, filling it halfway but not more than two inches above highest drain holes.
- 3) Sprinkle fresh, locally collected azalea or rhodo-



▲ Hanging baskets are easily converted to DomePots which can be used to root azalea cuttings year around.

dendron humus onto the medium surface.

- 4) Prepare woody cuttings by removing terminal buds and lower leaves; make a fresh angled cut at bottom; scarify one side of cutting in lower two or three inches; cut leaves in half at a crossways angle. Preparation should be done prior to refrigeration or mailing.
- 5) Make two identification labels including the date stuck and variety. Push down into medium at edge of pot.
- 6) Stick cuttings down into medium, covering the scarified stem. I do not use rooting hormone.
- 6) Water the cuttings with a soft spray head or watering can.
- 7) Cover the stuck cuttings with humidity dome, centering it. Secure dome to pot with wire.
- 8) Allow DomePots to drain for 30 minutes before placing it inside the shade enclosure. Avoid direct sun.
- 9) Ensure DomePots can be easily watered.

Hanging baskets adapted to improve drainage have azalea culture uses beyond that of DomePots to root cut-

tings. Baskets are good for growing seedlings, rooted cuttings, and displaying adult flowering plants.

### Seed Pots

Unlike most serious azalea growers, I regularly plant seeds in pots kept out of doors all season long. This has several advantages because it allows seeds to germinate, harden off, and mature on their own schedule without the need for climate control. My climate zone (8A) exposes the seeds and seedlings to a variety of temperature changes between 10 and 105 degrees F. Seeds planted in late summer or fall often germinate in winter and survive, as if there were antifreeze in the youngest leaves. Seeds planted in mid-winter usually germinate in the spring when the weather warms.

I surface-sow azalea seeds onto the same fast-draining medium I use for root cuttings. But I replace the humidity dome with a 1/4 inch hardware cloth flat wire mesh cover attached to the pot with flexible wire to keep squirrels, birds, and other varmints out. I always sprinkle humus from a local healthy azalea onto the medium surface before sprinkling seeds onto the medium. If a converted hanging basket is used, it can be hung in full sun or set on the ground. Leaving the hanger wire on the basket makes a good carrying handle.

Azalea seedlings grown in outdoor pots can be re-potted for more growing room as soon as the first set of true leaves mature and stems become woody. I recommend using fast draining pots, filled half full with coarse medium (two parts pine bark soil conditioner and one part pine bark mini-nuggets). However, if I am short on time and the seedlings seem happy, I will let seedlings grow in the original pot for up to two years.

### Azalea Display in Hanging Baskets

Azaleas with a weeping or low spreading habit can be grown in hanging baskets that have been adapted to improve drainage. Off-the-shelf hanging baskets drain too slowly for azalea culture. A coarser medium, as described above, works well, and regular feeding with a water-mixed fertilizer like Miracid® or an organic fertilizer like Holly-Tone® is advised.

The James Harris azalea 'Pink Cascade' grows well in a hanging basket. Satsukis with a low, spreading habit and other azaleas with limp stems also perform well.

### Conclusion

Almost any gardener can try out the ideas discussed in this article with minimal resources and expenditures. When the pansies in your hanging basket perish this spring, just convert it for azalea culture with an electric drill and plant a seed pot perhaps. Screen wire from an old door could make an effective "varmint cap."

If drilling drain holes into a plastic pot is a bit much for you, white plastic colanders at the local dollar store make a great, fast draining propagation pot. I often use colanders



▲ Vented DomePot with bottle cap removed.

for DomePots for rooting cuttings and growing seedlings. My regular bark-based medium or long-fiber sphagnum moss can be used in the colander pots. Recently I have had some half-ripe cuttings of Western Azalea root well in long-fiber sphagnum.

One thing I have not tried yet is growing azalea seeds covered by a dome instead of wire mesh. They should take off.

*Mike Creel's first loves are his family followed by the two family felines, but after that, he turns "green," venturing to a seven acre native garden and the wilds of South Carolina to propagate, preserve, and share every worthy native plant he encounters. He considers propagation a critical tool of native plant conservation. A 1977 University of South Carolina journalism graduate, he recently retired from state government as writer and photographer on environment and natural resources. Through workshops, web correspondence and U.S. mail he shares his simple propagation techniques and plants with people across America and abroad.*