

GROWING BEGONIAS FROM SEED - THE EASY WAY!

Freda Holley, 1998.

All my life I've been fascinated with growing things from seed and over the years have grown everything from apples to zinnias. In fact, the availability of begonia seed through the ABS Seed Fund was one of their big attractions for me early on.

From my experience, I initially imagined growing these exotic begonias from those tiny seed would be difficult and, since my first seedling tomatoes were taken down in their prime by damp-off, I've always had a healthy respect for the dangers that can befall seedlings. Therefore, I did all the things I could to make growing begonias from seed difficult. I sterilized everything in sight, used a heating cable and bright fluorescent lights, and proceeded in everything with extreme caution! Gradually, I learned that most of this was overkill and even detrimental. The methods I use now are both much simpler and, for me, more effective. Growing begonias from seed is actually very easy and begonia seedlings are amazingly sturdy.

If you wonder, why grow from seed when plants are so easy to come by from cuttings, I would say, first, that I've always found my seedlings, perhaps because I can select the very best of the lot, to be healthier and better. Too, many species are only available from seed and I know that when I grow from seed I am helping to maintain the genetic variability of the plant species I love. It is also essential to hybridizing my own special creations.

Planting

From Sam's Club, I buy a box of 1 oz. plastic portion cups. There are enough here to last through many peed plantings; if you don't want to be so ambitious, you can sometimes pick up a few at salad bars. Using an ice pick, I puncture holes in the bottom of as many of these as I will need for one planting spree. (I usually plant 50 cups at a time, but keep some handy for those times when I just want to trial some seed). It is important to punch these holes from the inside to the outside; otherwise holes in the opposite direction will create a little water reservoir at the bottom. Good drainage is always important to begonias.

I buy small bags of Jiffy Mix for seed starting and Perlite. These are sterile media and by using them I no longer need to sterilize anything. I mix well the two ingredients at a about a 1:1 ratio in a half gallon plastic ice cream carton or a large cottage cheese container depending on how many seed cups I plan to start. The containers are only filled about half-way so mixing will be not be difficult. I then add plain tap water and mix thoroughly.

Using a slotted spoon, I fill a number of the 1 oz. cups with my mix, tamping them down slightly with my finger. As I fill these I place them on a recycled yellow plastic meat tray to drain. I also have at hand a stack of small note sheets; a disposable aluminum cake pan with a clear plastic top (This holds about 50 of the cups. I bought a lot of these at an after Christmas close-out, but now there are many recyclable clear plastic bakery trays with lids that could serve me same purpose.); a permanent marker; a ball-point pen; and a spiral notebook.

Next, I open each seed envelope and shake out a small amount of seed onto one of the note papers which I have creased in half. (When I started out, I started seed in margarine tubs and planted all the seed. This either gave me too many seedlings or left the few to die in isolation in too large a container depending on the amount of seed in the envelope, plus I had no back-up seed in case anything went wrong. I still have trouble getting few enough seed of some varieties with very small seed such as *B. incamata*. From my 1 oz. cup, I have transplanted as many as 200 seedlings of this one!) From the note sheet, I tap the seed over the planting mix in the cup, spreading it out as much as possible. There is no need to cover or press the seed down. With the permanent marker, I immediately label each cup with the seed name and the date. The cup then goes into my aluminum pan and I go on to plant the remainder of the cups. When all are planted, I list each seed name under the date in my notebook (which I also use to record the seed I save). Labeling immediately is important so that over-planting a cup with another seed is avoided (Not that I've ever done this - at least not more than a hundred times or so!). When all the cups are planted, I place the plastic cover over the pan.

Begonias need light to germinate and grow, but fortunately they are quite happy with lower light levels than vegetable or many other seeds. To start out on a small scale use a 20 watt light stick (available from Wal-Mart or most building supply stores). This can be suspended from a metal file frame or other support. These are available in plant grow versions, but these are more expensive and I've had very satisfactory results with me ordinary version. Wire can be slipped through the upper plastic cover of the light stick at each end and this in turn attached to the frame. This then stands at just the right height to slip two of my covered cake pans underneath, but remember the seed will grow and the second space should be reserved for the next step.

Some recommend heat under the seed pan, but in a heated/air conditioned house, I've never found this necessary and in fact, the heat may well suppress the germination or steam kill the tiny seedlings. Begonias really germinate and grow best at right around 70 degrees. If the pan heats up too much even with this 20 watt light, the frame can be elevated to increase the distance between the seed pans and the light.

With my seed safely tucked away, the waiting begins. I've had seed germinate in only 4 or 5 days, but the usual beginning of germination is around 7 to 8 days. Semps are usually the fastest to germinate and I find rhizomatous and canes to take much longer, I've even had some fresh seed take as long as 30 days. Fresh seed will almost always germinate much faster than old seed (but I've also germinated seed that was up to 14 years old that was properly packaged and stored under refrigeration). To me, this is the most fascinating part of the whole process. That first glimpse of green never fails to flutter my heart! In fact, I usually can't wait and begin inspecting my seed cups using a magnifying glass to catch what always seem to me to be pure magic!

As each cup shows germination, I record that in my spiral notebook. Over time, this has given me a good record of germination dates.

Moving Them Along

For their next stage of growth, I use deli containers which are about the same size as the small, flat margarine containers which I also save and use. I buy these by the sleeve from our grocery

Source: American Begonia Society, Astros Branch, Houston, Texas <http://begoniahouston.org/>

store at a very reasonable price. These shallow containers work best for me at this stage and they still fit into the covered cake pans. A number of seedlings planted together seem to grow faster than isolated seedlings for some reason. I do this first transplant just as soon as my portion cups show any crowding at all. Using my yellow meat trays again, filled with water, I wet each portion cup and then loosen the seedlings using a sharp knife tip. I use a pair of pointed tweezers to prick each seedling out and settle it down into the wet soupy mix with which I have filled the deli container. At this point, I cut triangular labels from coffee can plastic tops; again I put the name and planting date on each label. These labels fit down snugly into the deli pans and under the plastic top of the aluminum pan. Growth rates vary even more than germination rates so I check seedlings every morning. If the seedlings are very tiny, but crowded, I sometimes move them in clumps. I've also transplanted some seedlings in desperation when they refuse to grow with good results. I rarely have to water until this first transplanting, but if I do it is from the bottom.

Again, when the seedlings in the deli container begin to show any sign of crowding, it is time to move them up. At last, the seedlings go out on their own in this stage. (At times, I may still keep them two or three to a cup if I think they need moving, but remain fairly small.) For this second transplanting, I use clear plastic 8 ounce drink cups, again bought by the sleeve at Sam's for a very reasonable price, but they are available in smaller quantities at most grocery stores. These are ideal because they are shallow and transparent. I can see me roots forming and know when they need moving on again.

For both the second and third transplant I continue to use the Jiffy Mix/Perlite mix, but lowering the ratio each time, first at 2:1, then 3:1. They continue to be covered initially at the third transplant, but by this time they are in a nursery tray whose lid can be gradually lifted a little longer each day to begin the hardening off process. These are trays I buy at Wal-Mart in the garden shop complete with the plastic top dome. I continue to keep the plants in drink cups under lights, but if a greenhouse or covered area outside in a humid, warm climate is available, they will usually be quite happy there.

Up and Out

When they have grown to size in the drink cups, the seedlings are at last ready to graduate to regular plant status. They go into 3 or 4 inch pots in a regular grow mix and I move them outside. I usually do my planting in November or December so that this move is timed just right for spring. Of course, there are a few varieties that are so slow in growth that they must be pampered under lights for a much longer period. Or, as you well know, some are so finicky that they must forever remain as terrarium plants.

From this point, I enjoy my plants as they grow, bloom, and seed anew to start the process all over again. It is a never ending miracle that is the gateway to enjoying new species or even creating your very own new hybrids. To quote one proverb: "All the gardens of tomorrow are in the seeds of today."

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