

Part 2: Collecting Seeds and Growing Seedlings

text and photos | **Steven C. Chamberlain** Manlius, New York

Growing hostas from seed can be very rewarding, especially if you do it indoors while the hostas outdoors are dormant. My way is certainly not the only way, but it works for me.

Although hosta seeds mature rather rapidly after fertilization, I prefer to wait an extra-long time before collecting them. I want to be certain they are ready, and I prefer to harvest seeds from dry pods, since juicy ones are harder to handle without damaging the seeds. I typically start harvesting the early bloomers in mid- to late September; here in Central New York, that's almost three months after they formed.

I bring the pods inside and let them dry in open air. As they dry, some open and some do not.

To extract the seeds, I work on a table covered with a sheet of blank white paper. Each pod will open into three parts and the seeds will either fall out or need to be teased out with a small pointed tool. I use the tiny pointed end of a seed pod for this purpose. I separate out the plump, black seeds and throw everything else away. The seeds I put into a plain, cheap, note-sized white envelope on which I've written the name of the parent or parents and the year. (Make sure you label the pods as you harvest them, too.) Hosta seeds will store this way at room temperature for months without losing viability. You don't need to cool them or freeze them or rough them up or anything. Just keep them cool and dry until you are ready to plant.

After trying all kinds of growing media, I prefer sterile, soilless potting mix, with fertilizer. Any brand will do. I use square plastic 3-inch pots that fit in a tray, to allow watering from below, and that will accept a clear, colorless lid with a couple inches of clearance, to keep the moisture in. I fill the pots to the top with the mix and then thoroughly water, which settles the mix and leaves a little room at the top. I then sprinkle the hosta seeds (usually too thickly) on the surface and finish by covering the seeds with a fine coating of the mix, achieved by forcing a bit of it through a tea strainer. The germination rate for fresh seeds is usually very high, so six to 10 seeds in a 3-inch square pot is enough. I put the pots under 24-hour fluorescent lights and, with a heating pad under the trays, keep the temperature between 75° and 80° F until the seeds germinate (typically within two weeks). Then I lower the temperature to a more comfortable 65° to 70° for the rest of the winter.

Until the seedlings are tall enough to start touching the clear plastic cover, I water them as needed from below, by pouring water into the tray. Once the seedlings touch the cover, I remove it. From then on, I water either from above or below, or both as the spirit moves me. About every other watering, I add a bit of liquid fertilizer to the watering can, following the instructions on the concentrate. My sense is that too wet is better than too dry. Note that the pots need to be watered more frequently once the cover is removed.

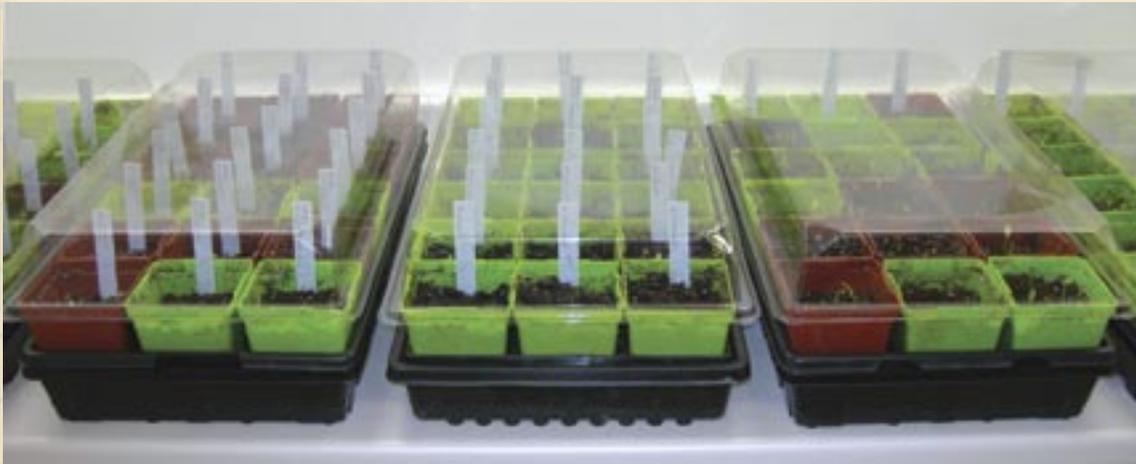




Seed pods usually open into a three-part structure as they dry. If they don't, you may have to help them by gently splitting them along the sutures that join the parts.



Viable seeds should be black and plump like those on the left. Those on the right probably won't germinate. However, if seeds from a particular cross are in short supply, I plant them all, since seeds that don't germinate don't hurt anything.



Trays of plastic pots filled with soilless mix, labeled and covered with transparent domes. Remove the domes when the seedlings are large enough to touch them. After they're removed, you have to check for adequate moisture much more frequently than when the trays were covered.

When you plant the seeds is up to you. Sometimes I do it the day after Thanksgiving or during the Christmas-New Year's break. Sometimes I do it serially, as I harvest each batch of seeds. A late fall planting indoors often yields some blooming seedlings before the weather permits me to plant them outdoors. (Note that the absence of seed pods in these indoor seedlings doesn't necessarily mean the seedling is sterile; it is more likely to indicate an absence of pollinating insects.)

Usually I just grow the seedlings in their original pots until I'm ready to plant them in the garden. Sometimes I replant some special ones in separate pots. I've not done a controlled experiment on this, but my feeling is that separating them may give slightly bigger seedlings. But it's not much of a difference, unless the original sowing is so dense that the seedling petioles seem as thick as the grass in your lawn.

When I plant the seedlings in the garden, they usually go partially dormant. Many of the leaves wither, and new leaves emerge. I've been trying various approaches to prevent that. I suspect the problem is that my growing lights just aren't bright enough, and therefore the brighter daylight burns the leaves. The plants always eventually show a new flush of leaves after being transplanted, but I think they'd be happier if they could skip the dormancy step—I know I would be.

I'll close this edition of the Notebook with a comment on labeling. I've given up on getting good permanent labels for seedlings. I use cheap plastic labels and nominally waterproof pens, covering the writing with transparent tape. When I transplant the seedlings into the garden, I make new labels. I also sketch a map in my notebook of where the seedlings are planted, so when ultraviolet light and the cycle of freezing and thawing ruin the garden labels, I still know which is which.

Next topic—dealing with your seedlings.

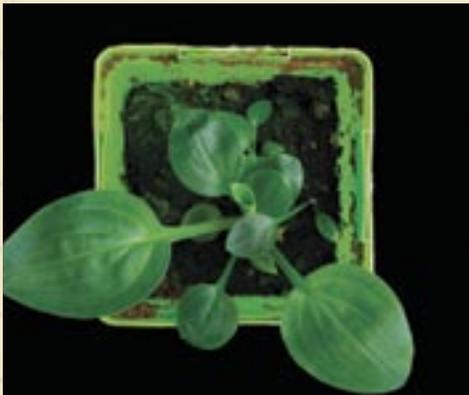
Contact me by e-mail with your comments and questions: sccham2@yahoo.com.



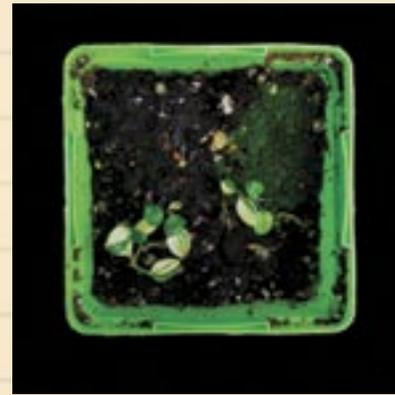
An open-pollinated seedling of *H.* 'M. Owen Papuga'. The pod parent is a seedling of 'Sum and Substance' and has dark narrow leaves. I saved a few seeds to see what the next generation might look like. Only one germinated, but it is vigorous and has red petioles and an interesting leaf shape.



This is the other *H.* 'Allegan Fog' seedling. It is a lighter green with yellow tints and a higher-contrast variegation.



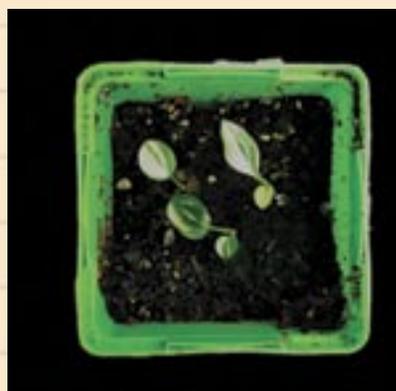
Open-pollinated seedlings of *H.* 'Deep Blue Sea'. This cultivar is my favorite blue and rarely sets seeds in my garden. I'm curious to see whether I can get a larger and maybe a smaller plant similar to the pod parent. Clearly there are going to be a range of sizes from this pot, but how big and how small remain to be seen.



These are open-pollinated seedlings of *H.* 'Ice Age Trail'. My suspicions that seedlings of this pod parent would be streaked are confirmed; however, they are either going to be really small or are not very vigorous. Compare them to the other seedlings shown, all of which were planted at the same time.



Although I planted hundreds of seeds from *H.* 'Allegan Fog', only two germinated. This open-pollinated seedling has muted streaking that is probably stable. The plant may be either lutescent or viridescent, as I will soon discover.



Open-pollinated seedlings of *H.* 'Fragrant Flame' have very contrasty variegation but are only moderately vigorous. I'm hoping they are just slow starters!