

## Daylily Seed Production & Germination Tim Closs 2007

1. When I first started, I identified the ploidy of all of my daylilies that I was using. Dips to dips, tets to tets. In addition, Tinkers Garden has a great database that details fertility info on MANY plants. On a lark, I was able to set pods on Tetraploids using Diploid pollen. Many times, the seed pods aborted, but I was able to produce some seed. NONE ever germinated. Now, I focus on specific goals and avoid any of these side experiments.
2. Pollinating when the temperatures are over 90 degrees is a waste of time, especially with Tetraploids. Poor pollination success with little viable seed germination. This year, I'm attempting more early set in my little greenhouse and plan to use a shade covering over several of my most promising tetraploid beds. Diploids are not as temperamental, but 90 degrees is my new cut off temperature.
3. Once pollination has set (usually the ovary will start to swell within 5-7 days after success), I water normally. It will take as long as 60 days before the seed pod is fully developed. I wait until the seed pod starts to turn brown or shows signs of splitting at the apex of the pod. If I'm going to be out of town during this time, I'll wrap a piece of cheesecloth or a piece of my wife's old nylon hosiery to keep the seeds from escaping.
4. Once the pod has split, I collect the entire pod, create a temporary label of the parents involved with the cross, and place the pod and the label into a well of a 7/14 day plastic pill box. I buy these boxes at Wal-Mart in the pharmacy section. After I fill the box with pods, I put the box, with the individual well covers open, on the counter to dry for 12 hours. After that drying time, I split the pods and place all the seeds of that cross into a small plastic envelope with a small piece of paper towel. The paper towel absorbs any excess moisture. Then I label the out side of the envelope with the date and place the seeds into the refrigerator.
5. I hold all of the seeds until around Labor Day. This gives most of the crosses at least 3 weeks of chilling before planting. This chilling time seems to impact those seeds from dormant parents more that evergreen parents.
6. I plant all of my seeds in one marathon planting day. I've tried 50 ct seedling trays, 4" pots and 1 quart nursery containers. I really like the 1 quart containers. Many professionals use a 38 ct seedling tray. Remember, smaller containers tend to dry out rapidly. For crosses with less that 6 seeds, I'll place all the seeds into one container and label the container using a grease/china marker and a piece of old plastic window blind. I give each cross a code number; note the number of seeds planted and the date. My rule of thumb is no more than 6 seeds in each 1 quart container.
7. I've used several commercial soil mixes with success. I usually buy what is on sale. It is important to pre-moisten many of the commercial mixes. The mixes contain a lot of peat moss that is slow to absorb moisture. I keep the seedlings moist, not wet and see signs of germination within 2 weeks. I generally get 80-85% germination. Too wet is as big a problem as too dry. Once the seedlings have 5-6 true leaves, I either transplant them into a seedling bed or into larger containers to hold over in the greenhouse until early spring. I rarely have first year bloom, even with growing in the greenhouse.

### **LINKS**

<http://www.ofts.com/bill/daylily.html>

<http://db.tinkersgardens.com/>