

Care of Seedlings – February 2014

By Forrest Peiper

What's a seedling? For purposes of this article, let's call a lily plant a seedling from the time when it has sent up its first true leaf in the "seed pot" until it's planted outside where it will bloom for the first time. Usually the term "seedling" is used past that time, but not here.

In this article, I will tell you how my seedlings make it from first leaf to, "OK, you're on your own! (sort of)." I think if you ask a number of lily growers how they care for their seedlings, you will get that number of different answers. Each person has experimented a little and found methods that work for them. If you haven't grown lilies from seed yet, you will probably do the same.

This year, I planted all my lily seeds in 5 ¼ x 5 ¼ inch square pots, about 20 seeds to a pot – a little more for Asiatic and a little less for Division VI or Division VIII OTs. Right now, I have 195 pots and over 2,000 seeds up, with more coming up each day. (Aurelians are fun because they continue to sprout over a long period – always something to watch.) Here are pictures of a couple of my pots. The Asiatic cross is 'Citronella' X 'George Slate' (Fig. 1) and was planted December 10, 2013. The picture was taken after 63 days. The Division VI cross (Fig.2) is a complex cross from the NALS seed exchange and was planted December 4, 2013. The picture was taken after 69 days.



Fig.1 'Citronella' X 'George Slate'



Fig. 2 Division VI cross

The pots are in trays of either 8 or 15. The standard 11x22 inch black nursery trays fit 8 pots exactly. A 29x18 inch Tupperware tray fits 15 exactly. Trays of 8 make better use of space but are more difficult to move.

The temperature in the "Seed Room" is about 70 and cannot easily be varied.

After the initial wetting of the pots during planting, only bottom watering is done. This helps to keep the soil/vermiculite surface dry and minimizes damping off, I believe. Once first leaves appear, fertilizing is done "weekly weakly," – advice I've seen in many references. I find that

Care of Seedlings – February 2014

the pots have to be watered between once and twice a week. I give them a good drink. I have used MiracleGro in the past but this year I'm trying HollyTone.

I've wondered whether light 16 or 24 hours per day was better – Do the seedlings do better with a dark period, as nature would provide? Based on my not very scientific experiments, I have concluded that 24 hours is better, at least during the first six months of growth. The lilies in the pictures above had light 24 hours per day. I have others with 16 hours per day and they are not as far along. I don't have expensive "Grow" lights, but mix warm and cool fluorescent lights in pairs of four foot twin fixtures, and that seems to work fine. There is probably an optimal mix or single choice for wavelength and I would like to know what that is.



Fig. 3 Seedlings under grow lights

Seed planting is usually done between November 20 and January 10. The seedlings stay inside under lights with the watering and feeding program described until the three season porch warms to about 55. Then they are moved under lights on the porch and gradually outside as temperatures permit, usually during May to harden off. This is a critical period due to possible temperature swings, and the chance of bad weather that could damage the seedlings in various ways. If the pots are still in their trays, they could drown or hail could damage the leaves.

When the ground has warmed, and assuming there is room in the raised bed gardens (my main problem!), then it's time to plant out the seedlings. Most of the time, I simply plant the clump

Care of Seedlings – February 2014

of seedlings in the pot as a group, right in the ground without separating them. Trying to separate them at this stage can cause damage and isn't necessary. I don't think the lilies mind being a little crowded – yet. Because of space limitations, I plant Asiatic clumps one foot apart in each direction. Division VI and VIII clumps might be the same depending on the number of seedlings in the clump. Or, I will use 16 inches separation for these Divisions.

If everything has gone well so far, and the healthy seedlings have gone in the ground in early June, chances are good that some will bloom in August or September. (From seed to flower in nine months!) I suppose these eager lilies would be better off if their buds were snipped off so that the bulb could have a better bloom the next year, but it is very difficult to do that to a lily that you have never seen!

This is the end of the “Care of Seedlings” story, thanks to this limited definition of “seedling,” The good news is that many of the seedlings will go on to bloom the next year or the year after that. This is where the fun is – seeing lilies open for the first time! But that's another story.

I would be glad to answer any questions (or receive any advice) at fpeiper@comcast.net.