Shooting Star Farms, Easton, PA Transplants & Greenhouse Management

I run a small 15 member CSA in Easton, PA. The market garden covers 1/2 acre of the 2 acre rented space. The garden provides me with a place to experiment and learn as well as a chance to grow healthy vegetables for my neighbors. The techniques used follow certified organic standards and I plan to transition the land next year.

Seed Selection

I buy seeds from High Mowing Organic Seeds in Vermont, Johnny's selected seeds, and a few things from Seeds of Change. These may not be the least expensive, but I like to support High Mowing because they are growing all organic seeds and they are very friendly to work with. I try to pick as many disease resistant varieties as I can. I also buy some pelleted seed for tiny seed or things that I will be using the push seeder for.

Propagation Facility

I built a small plastic covered tunnel for propagation and early planting. It is 12 x 20' made with a metal frame and covered in greenhouse plastic. Rather than heat the entire tunnel we made two hot beds. One hot bed (right) is heated by an electric cable run through sand. The sand distributes the heat and gives the transplants the bottom heat that they like. When covered with plastic at night to retain the heat the hot bed does not get below 40 F even when the outside temp is down to 20 F. The other hot bed is heated by composting horse manure and bedding. I dug a hole 1 ½ feet deep and then built a wall around it with cement blocks two blocks high and filled the whole thing with horse manure mixed with bedding. While it composts it lets off heat and keeps the transplants warm. This system is a little bit more touchy. I have to keep adjusting the moisture and occasionally stirring it to keep it warm.

Soil Mix

I use a commercial mix from Sungro. It is OMRI certified (organic). For the small amounts of transplants that I do, it is worth it to buy a commercial mix and not have to spend time mixing soil mix.

Propagation Trays

I use a variety of different trays. I start a lot of the brassicas, tomatoes and other easy to pick out plants in 1020s (flat closed bottom trays). This year I tried a new type of channel tray that keeps varieties organized and helps me keep things labeled. I tend to use 72s to save greenhouse space both for the transplants that I pick out and things like spinach that I will not move again until they are planted out. I ordered my propagation flats from Griffin

50 count deep trays

this year, but I have ordered from Nolts out of Lancaster in the past and they are a bit cheaper for a harder plastic tray. I did try the deep 50s last year and I am not sure that it is worth the extra potting mix.

Most transplants are in 72 count trays

Sanitation

All used trays are sterilized in a 5% bleach solution for 30 minutes at the beginning of the season to minimize problems with damping off and other soil diseases.

Channel Trays

Seeding and Picking Out

For the small number of trays that I do, I just seed by hand. I find a chopstick helps me make holes for the transplants when I am pricking out small plants. For larger transplants, I start with just a small amount of soil mix in the bottom of the tray and then pack around the plants after each row. It is helpful of to think about minimizing movements instead of trying to seed faster.

Greenhouse irrigation

The greenhouse transplants are irrigated with well water applied with a wand sprinkler from a hose.

Planning

I use excel spreadsheets to plan my seeding and transplanting schedule. I started with a set of spreadsheets put together by Joel Gruver at NC State that I have adjusted. Now they help me calculate how much to plant as well as when to plant for successions throughout the season. I find it helpful to print my plot plan, seeding schedule, and a seeding/ transplant calendar and keep it all in a notebook in my greenhouse. The sheets are all in plastic covered sheets to keep water and dirt from ruining them.

Farm Profiles are designed to give new producers ideas and advice from experienced producers. Individual products are mentioned as examples not as an endorsement. Prepared by Tianna DuPont, Sustainable Agriculture Educator, Penn State Extension, 2010.