Healthy plants for transplanting into the field begin with a good soil mix. This transcript accompanies a video demonstrating how Claire Strader of Troy Community Farm in Madison, Wisconsin prepares her organic soil mix to start all of her vegetable transplants. This video was produced by the Spring Rose Growers Cooperative based in Madison, Wisconsin with funds from the USDA Small Socially Disadvantaged Producer Grant.

**Materials List**

**Soil Mix**
- 1 5-gallon bucket compost
- 6 oz cup of soil amendment mix (see below)
- 1 5-gallon bucket black peat
- 1 5-gallon bucket sphagnum peat
- ½ bucket perlite

**Soil Amendment Mix**
- 1 part blood meal, alfalfa meal, or soy meal for nitrogen
- 1 part rock phosphate, for potassium
- 1 part green sand, for potassium and micronutrients
- ¼ part kelp meal (optional)
**Script**

*Ingredients*

I'm going to go through the different ingredients in the mix and then Julie will do the demonstration of how the mix is put together.

The first ingredient is compost. Its purpose is for nutrients and structure in the soil mix, to give the roots a place to grow. It can be whatever kind of compost you use on your farm. Worm castings work well. The compost is in a 5-gallon bucket here. You can use whatever size container you have, just be sure to use the same one for all ingredients so that you have equal amounts of each one. The compost here is sifted, which Julie will show you.

The next ingredient is black peat. It has a few nutrients in it, but it is used mostly for bulk, for a place for the roots to grow. It comes in these bags right here. The next ingredient is sphagnum peat moss. It is for water holding. It will hold water in the mix after it gets hydrated. This is the bag it is coming out of. You can also use coconut fiber or coir instead of the sphagnum peat and that’s more sustainable. The last ingredient is the perlite. This is for drainage. It will help the water flow through the soil and out.

So you’ve got, drainage, water holding with the sphagnum peat, and bulk and nutrients in the black peat and the compost.

The one other thing that goes in, are these soil amendments. They get mixed in with the compost. There’s green sand, blood meal, rock phosphate, and kelp. The kelp and the blood meal are for nitrogen. The rock phosphate is for phosphorous. And the green sand is for micronutrients and potassium.

*Mixing the Ingredients*

The first step is to sift the compost. So you pour one bucket of the compost onto a screen. Again it doesn't matter what size bucket you use as long as it is the same for all ingredients. You work the compost through the hardware cloth to take out all of the big pieces of wood and stones, anything that when in the cell where the plant is growing could block root growth. When you have the compost all sifted, you shake out the edges to make sure there is no good soil left and then you get rid of the big pieces.

Now you add the soil amendments. For a 5-gallon bucket, it’s about 6 ounces of amendments. Spread them into the compost. Then use a hand hoe to mix it really well into the compost. You want to make sure that the amendments are distributed evenly in the compost. Make sure to work the edges and the corners especially. Then put the screen back on and sift both the black peat and the sphagnum peat. It doesn’t matter which goes first.
This is the same process as with the compost, just sifting it through. The black peat usually doesn’t have a lot of impurities so we won’t end up with many large pieces on the screen. What it does have is chunks of clay. This for example. And you want to break up the clay with your fingers because the clay is what will hold moisture so you do want it in the mix. You will see the gray part of the clay, like right here. It takes a little work to get it through the screen... Dump out the big pieces like you did with the compost.

The final sift is of the sphagnum peat. This one will have more impurities than the black peat but not as many as the compost. Just pieces of wood and other things. The big pieces will get tossed in the same bin. Now we are done with the screen.

Now you are going to mix it, and it is very important to get a good mix for your germinating plants. Use a hand hoe, dig out some space in the corner, and then move it all in one direction, then the other direction, then the other direction again. Then do the whole process again. It does take a little time, but it is very important to mix it well. It is also important to pay attention to the corners and the edges because that is where ingredients tend to stick and get left unmixed. So start in the corner, make a little space for yourself, then do little chops because the black peat has so much moisture in it that if you don’t, it will clump. Go back and forth several times.

That is pretty well mixed but it isn’t done yet. The final step is to add perlite. Smooth it evenly on top and then use the same mixing technique. Start in the corner, pull it up, then chop around the edges and through the middle.

This is the final product. The goal is to have a well mixed, evenly incorporated soil mix. This is ready for filling flats, and this amount will fill about 12 flats of 72 cells, or about 14 flats with 50 cells. These are 50-cell flats here, and these are 72-cell flats. Be sure to fully saturate the soil mix with water in the flats before planting. May you have success in your farming endeavor!

For Questions or to Obtain a DVD please contact Kelly Maynard
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Links of Interest

Spring Rose Growers Cooperative: www.springrosegrowerscoop.com
Farley Center: www.farleycenter.org