**Seed Starting for healthy transplants- deep green and stocky- at MHOF**

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Many Hands Organic Farm

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* Cell free zone- Open 1020 trays and webbed bottom trays (purchased from Griffin Greenhouse)
* Ideal Compost Potting Soil- we buy potting soil in 1 yard totes, also available in 40 and 60 quart bags
* BioCoat Gold Seed Treatment and Innoculant from Advancing EcoAgriculture
* Pre-planting soil drench with transplant drench recipe and Mycogenesis innoculant- AEA products, recipe below
* Watering can to drench trays
* Worm castings and other “goodies”
* Seeds from many sources, mostly organic including our own saved seeds and open pollinated but we do purchase some hybrids and some conventional seed
* Labels and Sharpies. We buy wooden pot labels every year through the NOFA bulk order

With nutrient rich compost based potting soil from Ideal and more volume of soil in the trays we save time raising healthy seedlings. Plants have enough nutrition and room to stay in their 1020 trays from time of sowing to transplant in the field with very little transplant shock.

Number of Seeds per tray and when to start indoors:

Onions and leeks- 400, late Feb through March

Lettuce-200, succession plant mid March through mid August

Endive and Escarole- 200, early spring and again in August for fall planting

Asian Greens- 200, March for spring and August for fall planting

Chard- 200, late March to early April for May planting

Celery and Celeriac- 200, March to mid April

Parsley- 200, March

Brassica family- 100, March through July

Basil- 200, May through Mid July

Peppers and Eggplant- 70, early May

Tomatoes- 50, early May

Annual Flowers- 80,early May

Squash and Cucumbers- 50, early May, plant successions mid July

Perennial flowers- 100, March

Ready to Seed!

* Make the drench- a small “glug” of transplant drench recipe, pinch of Mycogenesis, fill watering can with water
* If your potting soil feels dry, moisten soil the day before starting seeds.
* Fill trays to the top with soil and gently level soil with your hands. Sprinkle on some worm castings, rock dust, and other amendments you have.
* Use watering can to lightly drench trays
* It is faster for us to make up trays in sets of 10- put a bottom tray under each open 1020 tray and line them up on the floor. Use a shovel to fill trays with soil.
* Drop the number of seeds you want in the tray. With small round seeds like broccoli and cabbage, I pour seeds into my left hand and use my right hand to drop the seed across the soil by rolling seeds between my fingers. (A note on lettuce...there are so many mouth watering varieties of lettuce in the catalogs but we use a lot of pelleted lettuce seed because it is fast and easy to seed a tray of 200 lettuces)
* Lightly cover seeds- about twice the depth of the seed. Sprinkle potting soil over seeds, then press with hands to make sure seeds have good contact with soil. Check your seed packets, there are some seeds that need light to germinate (such as the Tulsi basil and some flowers we just started last week) and they can just be pressed gently into the soil.
* Watering- not too much, not too little. Keep soil moist while seeds are germinating (but not soggy), checking trays several times a day on sunny days. We water with our drench after planting and then put trays on benches and shelves in the greenhouse. We overhead water seedlings with a hose and regular hose shut-off (no fancy nozzles here), making sure spray is not so strong that it will displace seeds. Let the top layer of soil dry out a bit between waterings to prevent green algae growing on the surface and damping off. Can feel the weight of the tray and if very light, too dry.
* Light- young seedlings that are reaching for the sun- getting “leggy’ do not have enough light. We want shorter, stockier seedlings to plant out into the field, so once seeds have germinated in our greenhouse, we move them to an unheated hoop house for the best quality light.
* Stay cozy- We cover with double layer of floating row cover on cold nights in the hoop house and uncover in the morning.
* Seedlings that are fully green and stocky are abundant in the field! Rootbound, yellow leaves or flowering before being transplanted means seedlings are stressed and unhealthy.
* Use transplant drench and innoculant in the planting holes or furrows when planting seedlings out into field- watering can or backpack sprayer.

Direct Sow these seeds:

* Peas, Spinach, Salad greens, Cilantro, Arugula, Dill, Carrots, Beets, Radish, Turnips, Rutabagas, Parsnips, Beans, Corn

**Recipes from Advancing EcoAgriculture for Many Hands Organic Farm**

**2021**

**All seeds**

Use Biocoat Gold as a seed treatment (you can put some in each seed packet)

**Vegetative Crops – 2 ½ gallon recipes**

Transplant Solution

Number of Apps: 3 Price per App: 58.89

2 Quart Rejuvenate

2 Quart SeaShield

2 Quart PhotoMag

2 Quart SeaStim

1 Quart HoloCal

1 Quart SeaCrop

20 Gram MycoGenesis- don’t add to mix in advance

use ¼ cup per 2 gallon watering can in greenhouse

Use 1 quart per sprayer tank when planting seeds or seedlings outside – we use 1 tank per bed plus or minus

Hoop House Vegetative Drench

2 Quart Rejuvenate

1 Quart HoloCal

2 Quart SeaShield

1 Pint SeaStim

Top off with water

5 Gram Spectrum – once in a while with drench – add at time of drenching

Weekly Vegetative Foliar

Price per App: 35.28

1 Quart HoloCal

2 Quart PhotoMag

1 Quart SeaStim

1 Pint ReBound Manganese

1 Pint ReBound Copper

0.5 Pint ReBound Iron

1 Pint Rejuvenate

1 T Micro 5000 Organic each time you use it – add at time of foliaring

**Reproductive Crops**

Weekly Foliar

2 Quart HoloCal

2 Quart PhotoMag

2 Quart Accelerate

1 Quart ReBound Manganese

1 Pint ReBound Copper

1 Pint ReBound Iron

1 Pint SeaCrop

0.5 Pint ReBound Molybdenum

1 T Micro 5000 Organic – add at time of foliaring

**corn earworm control**Silking Foliar

Number of Apps: 3 Price per App: 44.19 Start Date: 7/20/2021 Interval: 3 days2 Quart PhotoMag contains restricted ingredients.

2 Quart SeaCrop

1 Quart ReBound Boron

75 Gram Micro 5000 Organic

0.5 Label Rate Bt Bt may be added at half rate.

**Slug Food**

Number of Apps: 2 Price per App: $24.23 Start Date: 4/1/2021 Interval: 1 month2 Quart SeaCrop

1 Pint ReBound Copper

0.5 Pint ReBound Boron

1 Pint ReBound Iron

1 Pint HoloPhos

2 Pint Cheap Brewski