

Functional Greenhouse Management


Managing your greenhouse for organic transplant success

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Functional Greenhouse Management

- Greenhouse decisions:
 - Structure, benches, and floor
 - Controls-heat it up and cool it down
 - Ventilation and air movement
- Water management
- Providing Fertility
- Potting mix
- Seed starting



Greenhouse Decisions: Size it Up!

- What are your needs?
- Transplant production
- Plant sales
- Contract growing
- Production
- Do you have high tunnels?



Greenhouse Decisions: Structure

- Choose the width and design
- Expand to desired length
- Lower surface area: volume ratio saves fuel
 - Wider, more square structures
- Floor choices
 - Concrete
 - Landscape fabric
 - Rock/gravel

Greenhouse Decisions: Structure



Greenhouse Decisions: Structure





Greenhouse Decisions: Heat


- Forced air gas-propane or natural gas
- Floor heat-hot water heater
- Wood heat?
- Propagation chamber
- Heat mats
- Internal coverings-greenhouse in a greenhouse

Greenhouse Decisions: Heat



Greenhouse Decisions: Germination





Greenhouse Decisions: Cooling and Vents

- High vents remove humidity
- Low vents provide temp control-vent walls
- HAF fans for Horizontal Air Flow
- Evaporative cooling-'wet wall' or 'swamp cooler'
- Consider insect pest restrictions
- Power usage and outages

Greenhouse Decisions: Ventilation



Greenhouse Decisions: Ventilation



Greenhouse Decisions: Benches




Greenhouse Decisions: Benches





Water Management: Setup

- Overhead misters with timer
- Hand water with the **1000 water breaker**
- Ebb and flow tables
- Propagation stories from Clemson days



Water Management: the 'Drip' at the End of the Hose

- Train yourself/train your staff
- Thorough watering less often is best
- Watch the weather
 - Cold and wet days may be best to skip
 - Warm sunny days may need to double up
- Water like you are painting: more thin coats
- Better to have wilt than waterlogging
- Let the plants dry before night

Water Management



Spotlight

Wednesday, March 18, 2009

The Clinton Chronicle

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Time
Again
& 1957

from The Chronicle

McCrary's Rebuild Service Station

McCrary's Service Station on South Broad Street recently completed a re-building program.

The station was enlarged, exterior covered with white tile, new fixtures and larger underground tanks added. Reworking of the interior was also done and the station gives a pleasing appearance to the South Broad Street business section.

Easter Seal Sale Drive Begins Friday

The Easter Seal Sale campaign, which raises funds for the Crippled Children's Society of South Carolina will begin March 15 and continue through April 1.

The Crippled Children's Society is one of the nine

Organic farmer brings freshness, heirloom vegetables to Clinton



Daniel Parson, above, waters his greenhouse plants before they are transplanted to his one-acre field at the Bush River Farm near Clinton, below right. Photos by Charlie Johnson



Fertility

- Can be added in your potting mix
- Mixed in your water source
 - Injection pump like Dosatron
 - Venturi injector like Mazzei
- Appropriate levels are key



Seed Starting

- Quality, fresh seed kept dry
- Pot labels with date, variety and initials
- Expertly filled flats with moisture
- Proper and consistent depth
- Cover with the right material
 - Soil
 - Rice hulls
 - Perlite/vermiculite
 - Nothing?

Potting Mix and Flats



Mechanical Flat Filler



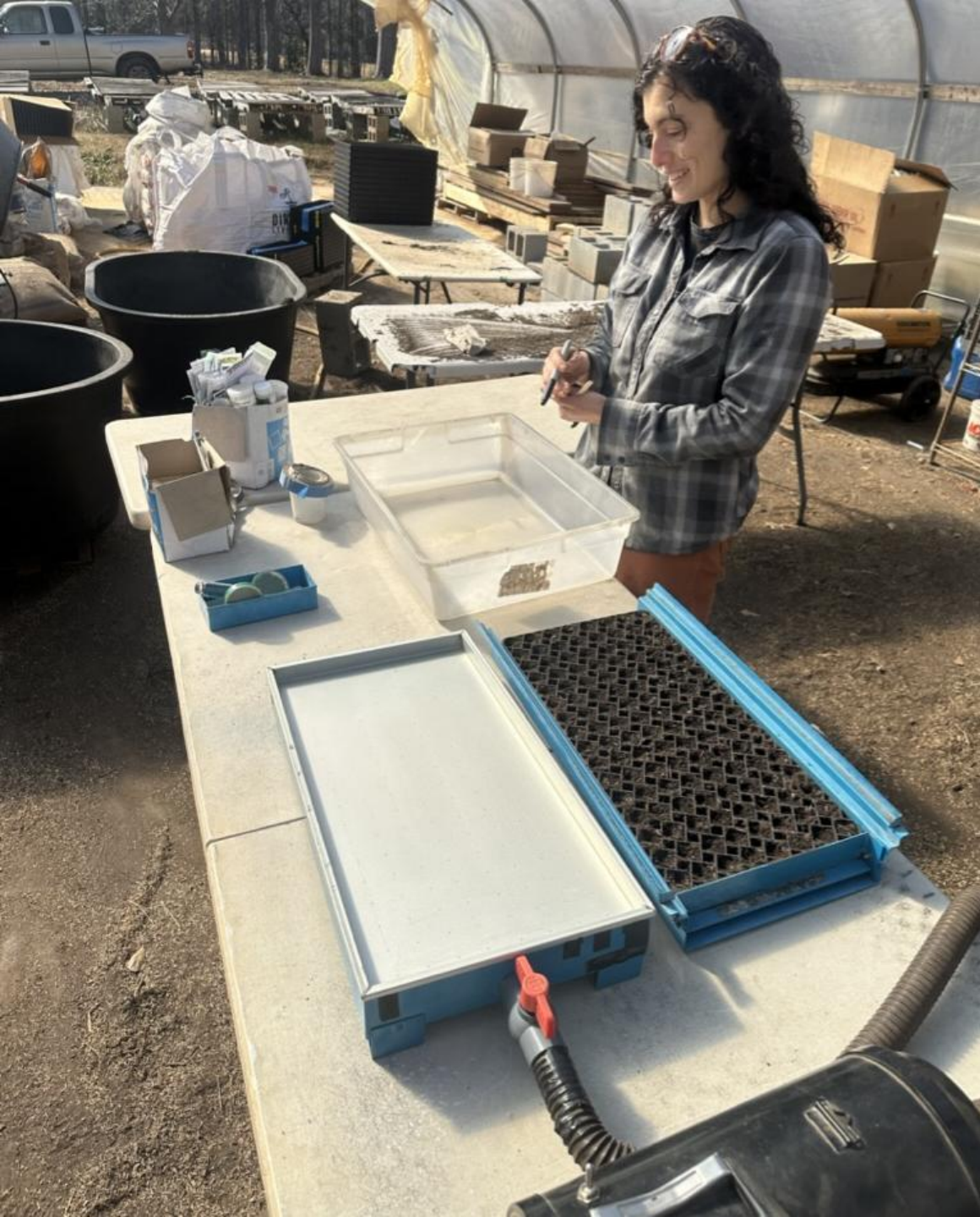
Seed Starting



Seed Starting



Seed Starting





Seed Starting

- Maintain temperature: germ chamber
- Maintain moisture: chamber or water
- Monitor for emergence
- Immediate access to high-quality light once emerged
- Proper light, water, ventilation, and temperatures

Greenhouse Production



Getting Out of the Greenhouse





SE TOPP Mentoring Program

- Do you want to transition to organic production?
- Are you an experienced organic farmer willing to be a mentor to others?

Organictransition.org

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