

## Red Cat Farm, Germansville PA

## Transplant Production

*Teena Bailey runs Red Cat Farm in Germansville, PA. She specializes in greens, vegetable transplants and herbs as well as mixed vegetables which she sells to restaurants and local farmers markets.*

### Seed Selection

Teena offers a wide range of varieties of very high quality transplants in order to compete with other producers than can offer transplants at a lower price. In order to fill this niche she is constantly looking for varieties that no one else has. She orders seed from Johnny's Selected Seeds, Fedco, Harris and Parks Seeds. Totally Tomatoes is a favorite because they offer varieties that are not available elsewhere. Pine Tree offers unique varieties as well. Richters is a good one for herbs.

### Propagation Facility/ System

Teena starts her transplants in her basement. They heat their house with a wood burning water heater. The 650 gallon water tank stays at 150-180 F. Flats seeded to tomatoes and peppers germinate there in three days or so due to the bottom heat. After 1-2 days under lights in the house she moves transplants out to her small tunnel onto her compost heated hot beds.

The propagation house is a home-made tunnel type structure. The frame is made of bent pipes.



Teena built her hot beds modeled on a system used by Steve Moore – the greenhouse guru. Using concrete bricks they built a wall 3' tall (4 bricks). The beds are filled every year with horse manure and bedding. She often adds additional fresh manure right out of the pasture or even chicken manure to make sure they are composting hot. She covers the hot compost with a sheet of weed barrier cloth and sets the transplant trays on top. The bottom heat keeps the plants warm even when the temperature outside is freezing. At night she covers the beds with corrugated plastic roofing propped with 2x4s and ceramic pots to provide ventilation. On very cold nights she adds a layer of plastic sheeting to trap the heat.

### Soil Mix

Teena uses Pro-mix with biofungicide (bacillus subtilis, a naturally occurring soil bacteria) to start her tomato and pepper seedlings. Then she makes her own potting mix which she uses to prick all her transplants out into once they germinate. Her mix is 2 cubic yards of compost (from last year's hot beds), 1 scoop of perlite, and 1 scoop of vermiculite.

## Propagation Trays

Teena tends to start her seedlings in 288s because they were available locally from Meadow View Farm in Bowers, PA. The trays are nested in solid trays.

## Seeding and Pricking Out

Teena transplants brassica plugs into 4 10s (10, 4 count packs fit per tray) because she sells transplants and the plants have to be happy in cells for a while. Tomatoes are in slightly bigger cell packs (8 fit per tray) because they have to remain in packs for longer before they are sold.



## Supplemental Fertilization

She gives her transplants a shot of fish emulsion every 2 weeks. The fish emulsion solution is very dilute – about 1 Tablespoon per gallon. With the compost based mix this is usually all that they need.

## Greenhouse Irrigation

She waters with a water wand on a hose. When it is really hot she also spritzes the cement blocks and this helps cool things down.

## Greenhouse Pest Management/ Sanitation

Aphids are a problem in the greenhouse every year. Teena keeps them in check with 2 batches of lady bugs. The trick is to monitor constantly, she says. Sowbugs are also a problem this year. Teena is planning on using ‘Slugo’ (OMRI approved) this year, which is supposed to be effective on sowbugs. Screening open greenhouse ends is essential to keep roving chickens out.

## Planning

In order to find her plantings dates Teena counts backwards from the frost free date. In Lehigh County that is May 15<sup>th</sup>. She counts back 6 weeks for tomatoes and 8 weeks for eggplants. She likes to plant brassicas out April 15<sup>th</sup>. They take 6-8 weeks, sometimes longer due to the lack of temperature control, so Teena starts them between Feb 15<sup>th</sup> and March 1<sup>st</sup> in order to get nice stalky seedlings for sale.



## Advice!

Automatic vents save a lot of worry and headaches! The vents open automatically when the temperature rises due to a substance inside them that expands with temperature. (Available from Johnny’s Selected Seeds).

*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.*