Tomato Field Production in Southern Illinois

Southern Illinois Fruit and Vegetable School

Site Selection and Fertility
- Tomatoes prefer well-drained medium textured soils
- Choose an area with good sun exposure
- Rotate crops; avoid planting tomatoes after other solanaceous crops like peppers, eggplants, or potatoes
- Always get a soil test

Transplants
- Choose healthy disease-free plants
- Should be compact and not stretchy
- Allow transplants to harden off before transplanting
- If starting your own:
  - Use a trustworthy potting mix
  - Disease free seed
  - Clean cell trays or sanitize cell tray if you are reusing them
  - Provide good access to light

Pruning and Trellis systems
- Remove suckers when small if possible
- Use clean sharp pruners to remove larger suckers
- Prune before tying the first time
- Over pruning can stress plants and increase chances of sunburn
- Choose a trellis system that works best for your operation
- Consider: labor, time, budget, storage, space, and equipment that might be used in the field

Figure credit: John McQueen, Oregon State University, adapted from Kemble et al. 2000.

The University of Tennessee: Agricultural Extension Service
Cultural Practices

- Minimal tillage/no-till
- Planting into a cover crop
- Conventional tillage
- Raised bed with plastic mulch

Consider:
- Location
  - access, slope, erosion issue
- Soil type
  - Heavy, drought prone, drainage issues
- Weed control methods
  - Terminating cover crops, organic or conventional production?
- Resource allocation
  - Money, labor, time

No-Till

Positives
- Useful in problem areas
- Less equipment
- Weather is less of a problem
- Plants can withstand drought conditions better
- Cleaner fruit

Negatives
- Weed control can be an issue
- Cooler soil temperatures
- Can’t incorporate fertilizer into the soil
- Banded fertilizer may need to be watered in during dry conditions
## Plastic Mulch

### Positives
- Promotes heat capture and warms soil
- Weed control
- Provides an ideal growing system for roots
- Conserves soil moisture
- Reduces soil splash caused by rain or overhead irrigation
  - Cleaner fruit
  - Less disease

### Negatives
- Requires specialized equipment
- Weather can delay bed preparation
- Plastic removal and disposal add an extra step
- Trickle irrigation is highly recommended
- May hide rodent issues

---

### Schematic of Plastic on a Raised Bed with a Trickle Line under the Plastic

- Locate drip line before transplanting or driving trellising stakes
Resources

- Midwest Vegetable Production Guide for Commercial Growers
- Vegetable Production Guide for Commercial Growers
  - ID-36 put out by University of Kentucky Cooperative Extension Service
- Commercial Tomato Production
  - PB 737 put out by The University of Tennessee Agricultural Extension Service
- Commercial Tomato Production Handbook
  - B 1312-7 put out by University of Georgia Extension
- University of Illinois Extension Local Food Systems YouTube page
  - https://www.youtube.com/c/IllinoisLocalFoods/videos

Questions?

University of Illinois, U.S. Department of Agriculture, Local Extension Councils Cooperating. University of Illinois Extension provides equal opportunities in programs and employment. If you experience any problems accessing or receiving the information in this course, or have feedback on the design, please email extension@illinois.edu for assistance.

© Copyright 2020 University of Illinois Board of Trustees

Katie Bell
Extension Educator: Local Food Systems and Small Farms

klbell@illinios.edu
(618) 687-1727