



Tomato Plant Care

New Farms for New Americans
2010

Tomatoes are Picky!

Tomatoes know what they like and can be hard to grow in Vermont



Determinate or Indeterminate?



Some Basic Rules for Seedlings

- Don't crowd them
- Give them lots of light
- Put a fan on your seedlings
- Check for diseases early
- Preheat the soil in your garden with black plastic or don't plant tomatoes until the soil is warm enough



Some Basic Rules for Planting

- Bury the plants a few inches up the stem
- Mulch after the ground has warmed up
- Give them enough space and keep soil loose



Is this enough space?



Some Basic Rules for Care

- Remove bottom leaves
- Pinch and prune for more tomatoes
- Water regularly



Blossom end rot



Prune these off

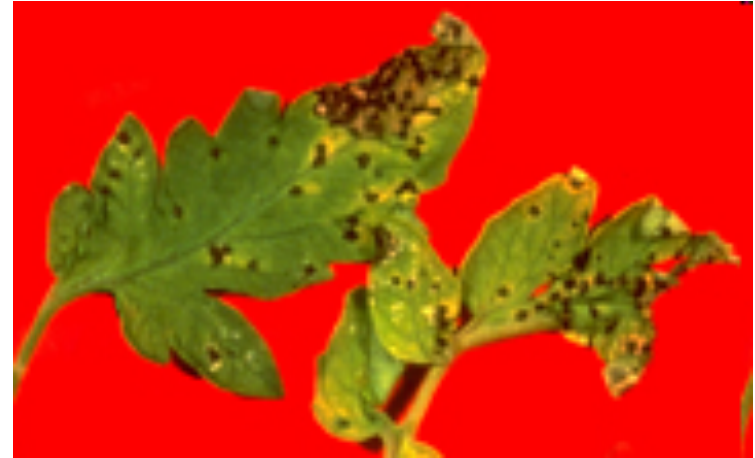
A Few More Rules

- Don't remove leaves or branches from mature plants with fruits
- Identify your pest and disease problems



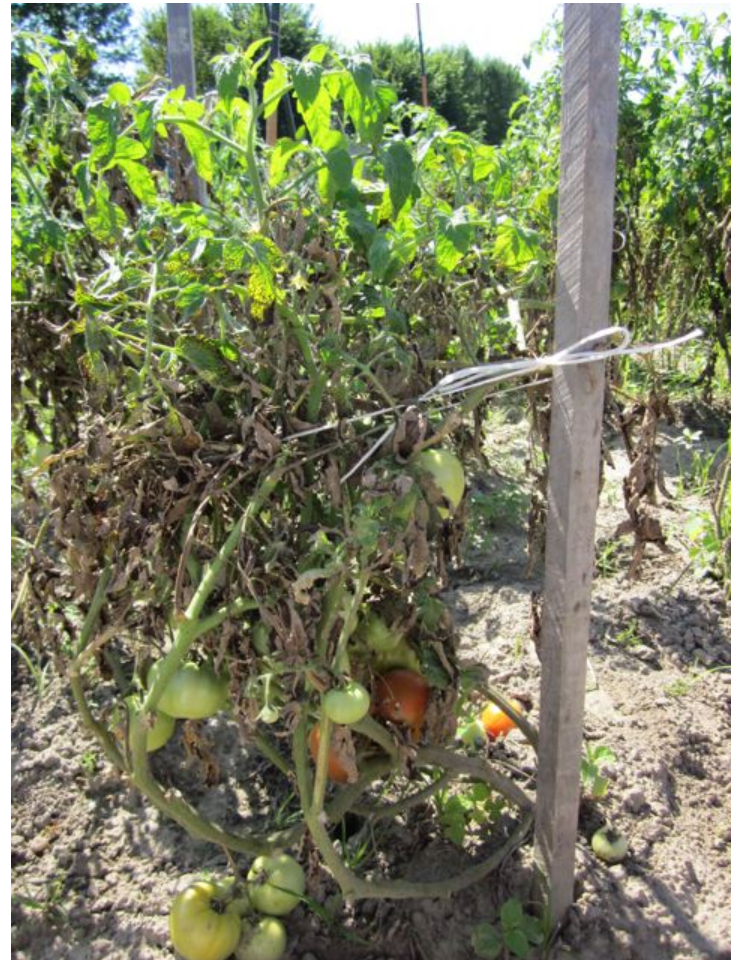
Common Problem #1: Septoria Leafspot

- Caused by a fungus, *Septoria lycopersici*
- Common worldwide on tomatoes
- Can occur at any stage of plant development and on stems, calyxes and blossoms
- Characterized by small, water-soaked circular spots with gray centers and a dark margin



Common Problem #1: Septoria Leafspot

- Likes wet conditions
- Often spreads by windblown water, splashing rain, hands or bugs
- Can live on sick plants for 1 year in the soil



Common Problem #1: Septoria Leafspot

- To control it:
 - Make sure seed and seedlings are healthy
 - Keep greenhouse clean
 - Remove or destroy all tomato debris after harvest
 - Keep weeds under control
 - Remove lower parts of plants to prevent splashing
 - Water plants close to the ground and not from overhead



ISU Plant Disease Clinic

Common Problem #2: Early Blight

- Caused by a fungus, *Alternaria solani*
- Common worldwide on tomatoes, potatoes and eggplants
- Kills leaves, stems and fruits
- Small, brown spots on older leaves that quickly enlarge. A yellow halo surrounds lesions, which develop a bulls-eye pattern on rings



Common Problem #2: Early Blight

- Likes wet conditions
- Spores are wind-blown or spread through splash back
- Can live in the soil and on plant debris



Common Problem #2: Early Blight

- Control it by:
 - Pick healthy seedlings
 - Minimizing soil splashing
 - Remove any leaf that touches the ground



Before Pruning



After Pruning



Common Problem #3: Bugs

- Potato beetles, Japanese beetles, Tarnished plant bugs and Tomato hornworms are all common problems
- Remember to scout and kill larvae and mature bugs 2-3 times per week



Common Problem #4: Improper Staking

- Remember:
Determinate
tomatoes DO NOT
need staking unless
plants are falling
because the fruit is
too heavy
- Plant tomatoes in
rows



Properly staked plants at New Farms for New Americans

Common Problem #4: Improper Staking



Common Problem #5: Overcrowding



Common Problem #6: Late Blight

- Caused by the fungus, *Phytophthora infestans*
- Fairly common worldwide on tomatoes and potatoes
- Diseased leaves and stems have green water soaked spots that turn black. A white mold may appear around the lesions. It can also kill fruit.



Common Problem #6: Late Blight

- Likes cool, wet weather
- Spreads through the air long distances
- Can overwinter in living plant tissue and seed potatoes



Common Problem #6: Late Blight

- Control it by:
 - Avoiding sick potatoes year-to-year
 - Properly disposing of sick plants so that they will rot completely
 - Paying attention to news about where late blight is and scout for it in your own fields

