

Summary. Tomato production is a very labor intensive crop, but when properly grown is highly productive. Staked tomato production involves establishing a trellis using stakes and string or twine to hold the plants upright. Proper pruning of the plants ensures good air circulation so that conditions are less favorable for diseases. Use of irrigation and fertilizers increases the chance of success as do practices such as crop rotation and use of resistant varieties.



Fig. 1. Staked tomato production with stakes are spaced every two or three plants (left and center) twine commonly used to tie up the tomato(right).

Fresh market tomato production:

1. Tomato transplants are grown on raised beds approximately 150 cm wide. Plants on the bed are spaced about 50 cm apart.
2. Plants are pruned to one shoot below the first flower cluster and supported by the poles and twine (Figure 1). Plants are tied to the trellis at about 30 cm intervals.
3. The time from planting to harvest may be 80 days or more. After harvest begins it may last for 70 to 120 days depending upon disease, insect and weather conditions.
4. Generally medium to light soils are best. Tomato roots require good drainage.
5. Nitrogen fertilizer requirements are 110 to 200 kg/ha until the first harvest then 10 kg/ha during harvest.
6. Phosphorus fertilizer requirements are 65 to 130 kg/ha.
7. Potassium needs depend upon the soil but may be as high as 130 kg/ha.



Fig. 2. Major diseases of tomato: late blight (left) and early blight (right).



Fig. 3. Insect pests: fruit worm (left) and leaf miner (right).

Pesticides

Weekly applications of Mancozeb for disease control. (Fig. 2)

Dimethoate is the major insecticide. (Fig. 3)

Cultural controls

1. Crop rotation – do not plant tomato following potato or tomato
2. Plant resistant varieties “Rio Grande”, “Teneru 97”
3. Use solarization to kill diseases in the soil.
4. Proper irrigation – use sufficient water to meet the needs of the crop without saturating the soil. (Fig. 4)



Fig. 4. Other problems: blossom end rot (left) and nematodes on roots (right).