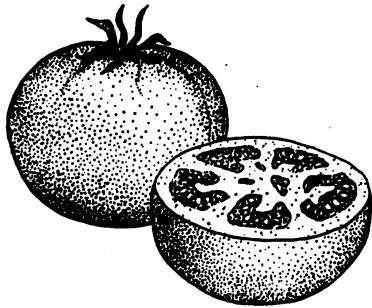


GROWING TOMATOES IN NAPA COUNTY

By Dean R Donaldson, Farm Advisor



Kinds to Plant: Tomato plants produce a wide variety of fruit size and color from bush and pole types. Over 100 named varieties are available to home gardeners. Local trials and taste panels of Master Gardeners suggest the following partial list of varieties suited to our coastal growing conditions: Better Boy, Bragger, Celebrity, Champion, Early Girl, Quick Pick, Sweet 100, Supersteak, Whopper and Yellow Pear.

Requirements: Tomatoes are injured by frost and require moderately warm to hot weather to produce a crop. Cool night temperatures may cause flowers to abort. Tomato plants require warm soil, deep irrigation and full sun exposure all day. Temperature below 57 degrees F delays growth and aids diseases, best range is 80 – 90 degrees F. (See Figure 1.)

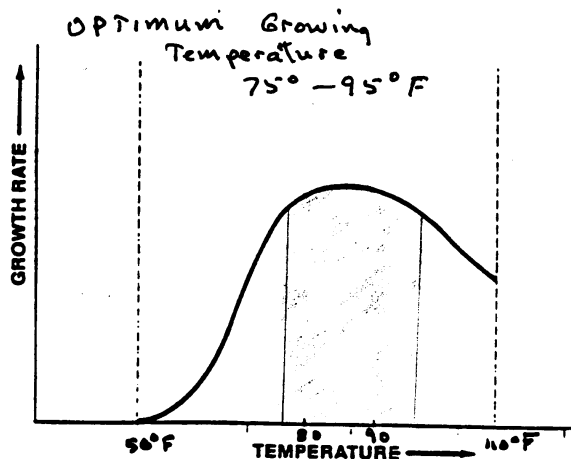


Figure 1.

Approximate effect of temperature on the rate of vegetative growth in tomato plants. As the temperature increases above the developmental threshold (dashed line at left), the growth rate increases also. Growth is fastest in the optimum temperature range, shown here as the shaded area. Above the optimum range, the growth rate declines again as the temperature approaches the maximum (dashed line at right), above which growth stops.

Soil Preparation and Planting: Plant after frost in April and May. (See Figure 2.) Tomato roots grow to at least 4 feet deep. Double digging the soil helps tomato plants grow deep roots and will help the mineralization of essential nutrients. Plant tomatoes after a winter legume cover crop. Tomatoes are moderate users of Nitrogen and Phosphorous, so preplant fertilizer should include manure or a commercial fertilizer. Use 10 pounds of dry manure or 1/3 pound of commercial 12-12-12 fertilizer per 10 square feet of garden. Mix fertilizer or manure thoroughly into the top 6 inches of soil before you plant. Transplant seedlings into the field after they are 'hardened-off'. It is better to plant tomatoes 'too deep' since they can root at stem joints. Set plants two feet apart in rows three feet apart. Water-in to settle the soil around the transplants.

Care and Harvest: Tomatoes ripen after about 85 – 100 days, depending on weather. Tomatoes like deep watering once per week to wet at least 3 feet deep. An additional application of Nitrogen fertilizer during bloom will prolong fruit production. Give extra water during 'hot spells'. Harvest fruits regularly to assure continued production. Cool wet fall weather will signal the end of harvest. Pink fruit ripen on the shelf, red fruit are sweeter.

Common Problems: Two caterpillars and several sucking insects can injure developing flowers and fruits. Watch for caterpillars after mid summer. Regularly inspect under leaves or on fruits near 'spotting' (manure) from caterpillar feeding. Control with suitable pesticide or remove by hand. Prevent 'Blossom End Rot' of fruits by deep digging before planting and by additional deep watering during hot weather. Curled leaves are common to some seed lines but do not impact plant growth or fruiting. Cool nighttime temperatures cause flowers to abort, and plants are easily injured by frost. Remove and destroy rotted fruit to avoid spreading fruit diseases. Rotate tomatoes with corn, beans and leafy vegetables.

Tricks: Plant late into warm soil and give deep water. Give extra water during very hot weather. Mulch soil surface with clear plastic for faster harvest. A repeat planting after 4 weeks will extend home harvest period most years.

June 1998

Additional Information:

'Integrated Pest Management for Tomatoes', UC DANR Publication 3274, 4th Ed, 1998.

'Home Vegetable Gardening' UC DANR Publication 21444, 1992.

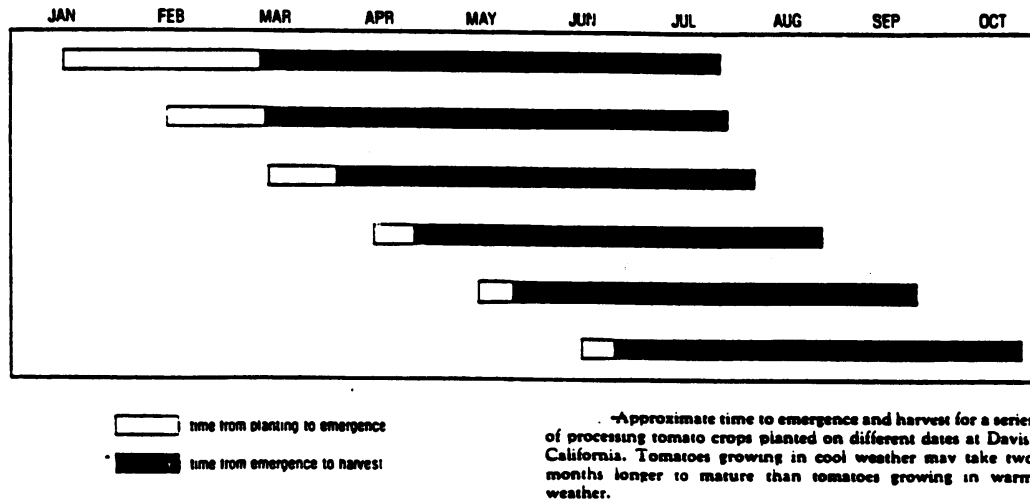


Figure 2.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.