Pruning and Staking Tomatoes

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Pruning and staking indeterminate tomato plants can result in earlier fruit maturity and larger fruit. This guide illustrates pruning and staking methods practiced in Taiwan and other countries.

**Pruning** (removal of side shoots and lower shoots) *diverts nutrients to flower clusters and fruits on the main stem, and allows more efficient air circulation.*

**Staking** (supporting plants with sticks) *prevents fruit clusters from touching soil and thus reduces rotting and incidence of soil-borne disease.*

Farmers remove some or all side shoots on tall-growing indeterminate tomato plants. Depending on the season and growth habit of the cultivar, they leave one, two, or four side shoots to grow as fruit-bearing stems.

Pruning and staking involve additional costs in labor and materials, but these are offset by higher market returns. To compensate for fewer fruits per plant, crops that will be pruned should be planted closer together.

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**Autumn and winter production**

For autumn and winter production, pinch off the sprouted side shoots when they are 10 cm long, leaving a single stem on each plant. Never allow side shoots to grow beyond 10 cm and do not pinch off shoots shorter than 5 cm.
Summer production

For summer production (or when the mean temperature is above 30°/23°C day/night) allow the side shoot immediately below the first fruit cluster to develop as a second stem. (The resulting foliage will protect fruits from sun burn.) Pinch off all other side shoots on both stems.

How many fruit clusters?

On indeterminate fresh market tomato plants, maintain 5 to 10 fruit clusters for the whole growing period. Maintain fewer clusters (5) on plants that will not be kept for a full season.

Each fruit cluster should have four fruits of a similar size. Pinch off any small or irregular shaped fruits.
In case of disease

Pruning can help slow the progression of certain leaf diseases. When severe symptoms (mostly spotting) on the lower leaves begin to spread up through the plant, pinch off (or cut off) all leaves below the first fruit cluster after seven or eight fruit clusters have set. You may start pinching earlier if a serious disease attack is in progress. Make sure you pinch leaves and shoots close to the stem.

Note. Pruning will not help a plant suffering from wilt.

Pinch the growing point

When the last fruit cluster has set, allow three leaves to grow (above the last fruit cluster) and then cut or pinch off the growing point to promote uniform fruit maturity.
Cherry tomatoes

For indeterminate cherry tomatoes (all seasons), allow the side shoot immediately below the first fruit cluster to develop as a second stem. Pinch off all other side shoots on both stems.

For semideterminate cherry tomatoes, allow two or three side shoots to develop (one below the first fruit cluster and the other below the second stem) in order to produce enough fruit clusters to last the whole growing season. In summer, allow four or five side shoots to develop in order to produce enough fruit clusters and leaf cover (for partial shading).

Maintain seven or more fruit clusters on each stem for the whole growing period (depending on the demands of the market). Do not remove undersized cherry tomato fruits.

Stake plants at an angle

There are many ways to stake tomato plants. A lean-to structure using long (about 2 m) bamboo sticks is popular in Taiwan. It is easy to construct, and because plants are staked at an angle, fruits hang beneath the plant foliage, and thus are partially shaded from the sun.