



VEGETABLE SERIES

TIMELY INFORMATION

Agriculture & Natural Resources

EXTENSION HORTICULTURE, 101 FUNCHESS HALL, AUBURN UNIVERSITY, AL 36849-5649

PRUNING AND TRAINING TOMATOES

Tomato plants have 2 general growth habits. It is important to know what type of plants you have in order to space and train them properly.

Indeterminate types are tall growing plants, normally growing five to eight feet tall producing a fruit cluster on the stems between every third leaf. Plant terminals continue to grow as long as the plant remains healthy. Many of our home garden varieties and most of our heirloom tomatoes belong to this group. Some of the varieties¹ in this group are: Atkinson, Big Beef, Brandywine, Green Zebra, New Girl, Red Grape (small fruited grape), San Marzano (plum), Striped German, and Yellow Pear (small fruited pear). There are many indeterminate varieties available with any fruit type, shape, and color that you would be interested in growing. When spacing an indeterminate variety, a good rule of thumb is to provide each plant with eight to 10 inches between each plant within the row for each stem that you leave on a plant. That is, if plants are spaced three feet apart, then leave three stems on each plant. If plants are spaced two feet apart then leave two stems per plant, etc.

Determinate types are shorter growing plants, normally growing up to five feet tall, producing fruit clusters on stems that form between each leaf, and each stem terminates in a fruit

cluster. These types are often called "self-pruning" types. Some varieties in this group are Amelia, BHN-444, Celebrity, BHN-640, BHN-685 (plum), Crista, Cupid (small fruited grape), Mountain Belle (cherry), Mountain Crest, Picus (plum), and Plum Crimson (plum).

Indeterminate tomato plants produce a shoot or "sucker" in each leaf axil. These suckers, if left undisturbed, grow into larger stems producing fruit. Indeterminate tomatoes are usually supported above ground using a stake (or sometimes several stakes). A five to seven foot stake can be driven into the ground adjacent to the base of the plant and then loosely tie the stems of the plant to the stake with soft twine, cloth stripes or a similar material. When pruning, be sure to break off (i.e., remove) all other suckers before they reach more than three inches long. Once they reach this length, removing these suckers can result in physical damage to the plants as well as a delay in maturation of fruit and a reduction in fruit size.

Determinate types are usually pruned once or twice when suckers are two to four inches long. As with indeterminate types, delayed pruning can reduce fruit size as well as delay fruit maturation. Determinate tomatoes are normally spaced 18 to 24 inches apart within rows. These plants are sometimes tied to an individual stake. More often, however, a row of determinate plants are supported using a weave of strings (often called the *Florida*

¹ All varieties are large fruit tomatoes except where noted.

Weave System). This weave system is developed as follows: four to five foot stakes are placed between every other plant. When plants are about 10 to 12 inches tall the first string is tied to the stalks starting at one end of a section. Then, while pulling the string as tightly as possible, this string is wrapped around each stake making sure to keep it kept tight (this takes practice). In this way the string is stretched down one side of the row and then back up opposite side of the row. When you return to the starting point, the string is wrapped and tied at the same point from which you started. A second string is added five to 10 days later when the tops of plants are 8 to 10 inches above the first string. It is critical to add the second string before the plants begin to flop over. Usually four to five strings are needed to support a crop. More information on the Florida Weave Method can be found in ANR-1156, *Guide to Commercial Staked Tomato Production in Alabama*. This method is used by commercial tomato growers throughout the US, Mexico and many other regions of the world. This method can be easily employed by any backyard gardener regardless of size of planting.

Wire supports can be used like in the string system above but in this case larger posts are required and these posts are located 10 to 15 feet apart within rows. Wire is stretched on both sides of the row every 7 to 14 days as the plants grow. This wire is attached to fence posts at the end of each row. Plants are not normally pruned in this system. These systems are not commonly employed today because of the widespread use of the Florida Weave System and due to the high initial costs associated with this system as compared to lower costs of the Florida System.

Occasionally, wire cages are used to support tomato plants. A cylinder, about two feet in diameter and three to five feet high, is made from strong hog fencing or other comparable fencing material. This cylinder is placed over the plant and anchored in place to the ground. Plants growing in cylinders are normally spaced three to four feet apart within a row, and typically not pruned. In this case, suckers are pushed back into the cage in order to force them to grow upwards in the cage. This is a good system to use if only a small number of plants are grown. Yield per plants tends to be higher using wire cages than when using other systems of training.

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