

Fruit Culture in Alabama

Nursery Stock & Planting Techniques

► To obtain good-quality nursery stock of the varieties you want to plant, locate reliable nurseries that supply top-quality plants. Your county Extension agent can provide information on reliable sources.

Place an order during the late spring, 6 months to a year or more ahead of planting time. Desired varieties may be in short supply at planting time. See table 1 for the recommended sizes and ages for planting stock.

Care of Nursery Stock

Examine nursery stock as soon as you receive it. Check for correct varieties, rootstock, size, number of plants, dryness, mechanical injury, insect and disease injury, and cold injury. If you purchase container-grown stock, keep the roots damp and protect plants from severe winter temperatures that might freeze the roots. Many fruit plants, such as blueberry, grape, blackberry, and some tree fruits, are available in containers. You may find that a containerized plant is easier to manage and maintain than a bare-root plant.

If you purchase bare-root plants, check to see if they are sufficiently moist. If they are not planted the day they arrive, you can keep bare-root plants for several days in refrigerated storage if it is available. Maintain humidity at 90 percent or higher, but do not leave excess moisture on plants. Do not store fruit plants in refrigerated areas with fruit or vegetables (such as apples) that give off ethylene gas. Ethylene gas will severely injure or damage plants.

If refrigerated storage is not available, heel in bare-root tree fruits or small fruit plants, such as grapes, blackberries, and blueberries, as follows:

- Remove wrapping material.
- Dig a beveled trench in an east-west direction. Make sure the sides are angled, not straight down.
- Place trees in the trench and cover all tissue with soil except for the upper 12 to 18 inches of the top. Cover the roots with at least 8 to 12 inches of soil to protect them from freezing.

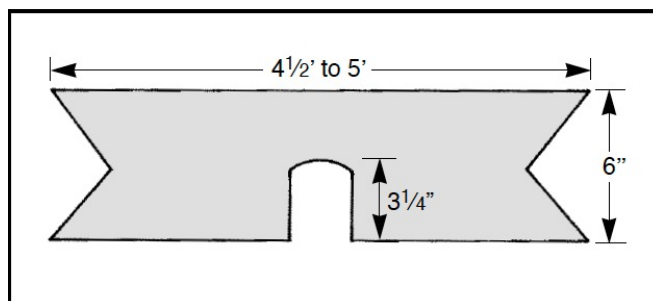


Figure 1. Planting board used to place trunk of tree in exact location of stake and at the proper depth when planting.

- Do not use soil that is infested with nematodes or disease. Use soil in a virgin area or, if possible, soil that has been fumigated.

How to Plant

Experienced workers can do quite well placing a fruit plant in the appropriate location and planting it at the proper depth. However, when less experienced workers are involved, using a planting board to gauge proper planting depth is advisable, at least until the workers become experienced.

Since digging a hole for the tree means removing the stake used for the layout, you can make a planting board for a guide (figure 1). Make a planting board from a 6-inch-wide board about 4½ to 5 feet long. Use a board longer than the distance across the hole. Cut a shallow, V-shaped notch into each end of the board; in one edge, cut a U-shaped notch equally distant from the ends. This U-shaped notch should be a little deeper than half the board's width.

Before removing the stakes, place the board with the center U-shaped notch around the stake, then drive two small stakes through the end V-shaped notches. Remove the board and dig the hole. Then, replace the board and set the tree in the notch previously occupied

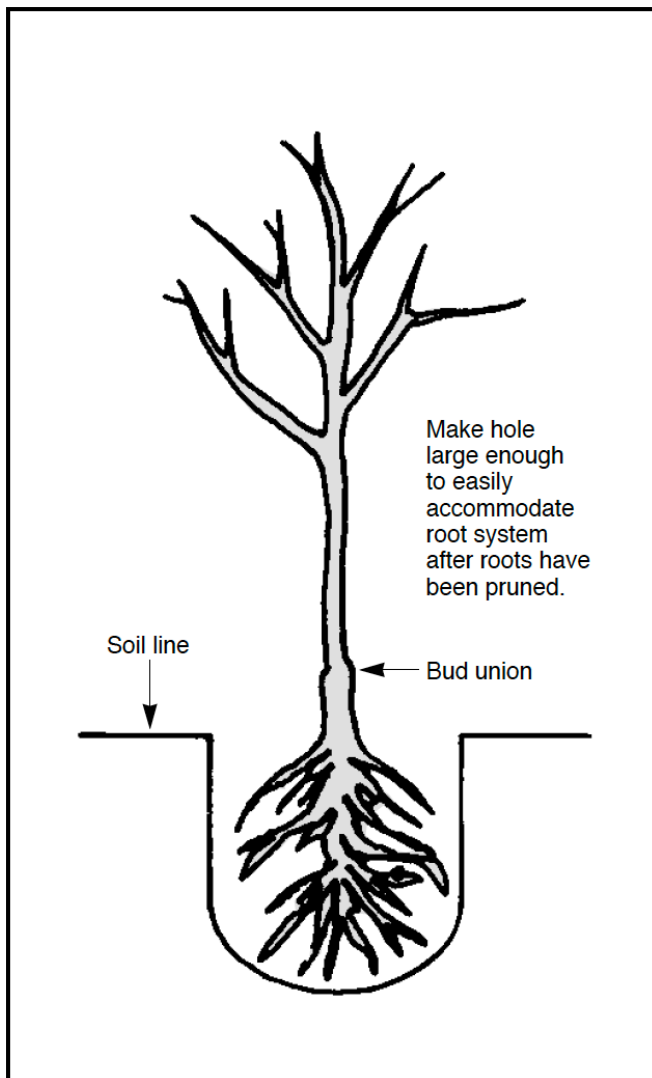


Figure 2. How to plant bare-root fruit trees.

by the marker stake. This method ensures that the trees are aligned and planted at the correct depth. To ensure accuracy, sight the trees as you progress down the row.

Dig holes large enough to accommodate the root system of the plant being set. Digging excessively large holes is not necessary where the site was subsoiled. Subsoiling is frequently done in large plantings. However, in-home plantings, you may want to dig the hole one and one-half to two times the diameter of the root ball. Do not dig the hole too deep, however. The hole should be just deep enough to accommodate the root system without being too deep.

The depth of planting depends on the plant type and rootstock being used. Plant most plants, such as peaches and plums, at the same depth they were

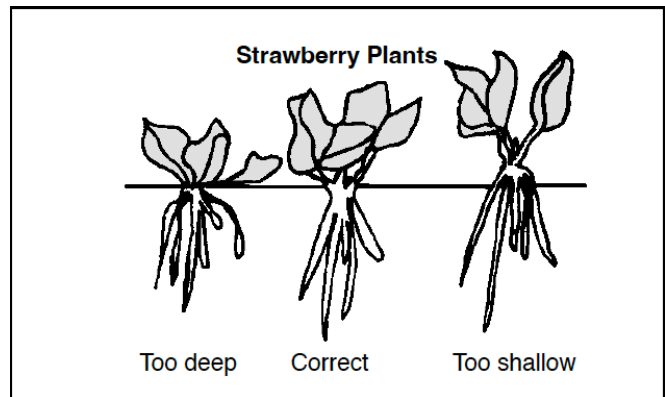


Figure 3. How to plant strawberries.

growing in the nursery. Plant apple scion varieties on dwarf and semidwarf rootstocks slightly deeper but leave at least two inches of rootstock aboveground (figure 2). Backfill the hole with native soil. When you use full dwarfing rootstock, stake or trellis the plants. Avoid planting strawberries too deep or too shallow (figure 3).

Water each plant thoroughly at planting time to settle the soil around the roots and remove air pockets. If the soil is already wet, you may not need to water at this time. Water plants once or twice a week as needed for 3 or 4 weeks or until winter rains provide good soil moisture.

Mulch home orchards where frequent watering is not possible. Mulching is not essential or necessary for commercial production.

When planting, prune the plants to compensate for root loss, stimulate vigorous shoot growth in the spring, and provide for ease in training. A general rule is to remove the top one-third of the plant when you transplant it, but this would depend on prior training at the nursery. Less top pruning may prove satisfactory for containerized plants, but pruning is still recommended, especially when plants are somewhat root bound or when desirable type branching is needed.

The root ball of containerized plants will take on the shape of the container. Plants allowed to remain in containers for extended periods result in a plant becoming root bound—a condition where the roots have outgrown the container and form a tight root mass.

After removing the plant from the container, gently loosen the roots, easing them from the shape of the container. Loosening the root ball will encourage the roots to branch out into the surrounding soil rather than continue to grow in a circular pattern imposed by the container. Roots that spread into the surrounding soil

will help the plant absorb nutrients for better growth and prevention of problems in the long term.

Some plants require special site preparation before planting. This could include building raised beds and adding organic matter.

When establishing bare-root strawberry plants using the plasticulture system, irrigate daily to several times weekly for the first 2 to 3 weeks following planting in the late summer or early fall.

When to Plant

All the fruit plants described in this publication, except blackberries and strawberries, usually do best when planted in late fall to early winter. December is generally the best month for planting, although November is quite good if cooler winter temperatures are well underway. Planting may continue throughout January and February, but the earlier most plants are established, the more they will grow in the subsequent year.

When blackberries are established using root cuttings, wait until March to avoid freeze damage to emerging young shoots. Plantings can be made from early to late March from the southern to northern areas of the state, respectively. Blackberries can be planted like tree fruit in fall to early winter when plants are used.

Matted-row strawberries (also known as perennial planting) should be planted during February and March for the best results. However, if plants are stored in proper refrigeration and irrigation is available, plantings can be satisfactorily established from April through June.

When strawberries are grown on plastic (annual hill system), they should be planted from September through October 1 in north Alabama and October 1

through October 15 in central and south Alabama.

Planting may occur as late as early November in south Alabama. If plug plants are used, they can be planted about 2 weeks later than bare-root plants in the same area, giving maximum fruiting the following spring.

Plants that have been stored for several months should be planted in August or September.

November and December are usually ideal for planting blueberries from containers or bare roots. Containerized blueberry plants can be planted almost any month if they are well cared for. However, even when planted from containers, all fruit plants usually live and grow better when established during the late fall to winter. Plant citrus and kiwifruit in early spring as young plants are more susceptible to winter injury. This planting time gives them more time to grow before experiencing their first winter.

After Planting the Tree Fruit Orchard

The orchard floor, except for herbicide strips along tree rows, should be maintained in the grass to ease traffic movement and reduce erosion. Periodically mowing the orchard floor between rows will reduce grass competition, insect activity, and weed and disease problems. Chemicals are available to suppress but not kill grass on the orchard floor to reduce the need for and cost of mowing.

Some preemergence and postemergence herbicides are available to home gardeners. These can be used to control weeds, but particular care must be exercised to avoid causing toxicity problems in young plants.

Table 1. Recommended Sizes and Ages for Planting Stock

| Fruit Type | Size | Age (in Years) * |
|-------------------------------------|--------------|--|
| Tree Fruit | | |
| Apple | 4 to 6 feet | 1-year-old plants |
| Pear, Asian pear | 4 to 6 feet | 1-year-old plants |
| Peach, nectarine | 2½ to 4 feet | June buds or 1-year-old plants |
| Plum | 2½ to 4 feet | June buds or 1-year-old plants |
| Cherry | 4 to 5 feet | 1-year-old plants |
| Persimmon | 3 to 5 feet | 1- to 2-year-old plants |
| Pomegranate | 3 to 5 feet | 1- to 2-year-old plants |
| Fig | 2 to 4 feet | 1-year-old plants |
| Small Fruit | | |
| Bunch grape | | 2-year-old plants (1-year-old plants can be used) |
| Muscadine grape | | 2-year-old plants (1-year-old plants can be used) |
| Blackberry, erect | | 1-year-old rooted cuttings or root pieces 6 inches long and ¾ to 5/8 inch in diameter. Often propagated from tissue culture. |
| Blackberry, trailing | | 1-year-old rooted cuttings or tip layers. Often propagated from tissue culture. |
| Raspberry | | 1-year-old rooted cuttings or tip layers. Often propagated from tissue culture. |
| Blueberry | | 1- to 2-year-old plants (from rooted cuttings) or potted plants. |
| Strawberry | | Plug or bare-root plants |
| Subtropical and Exotic Fruit | | |
| Satsuma | 2 to 4 feet | 1- to 2-year-old plants |
| Kumquat | 1½ to 4 feet | 1- to 2-year-old plants |
| Kiwifruit | 3 to 5 feet | 1- to 2-year-old plants |
| Feijoa | 3 to 4 feet | 1- to 2-year-old plants |

*For grafted or budded plants, *age* refers to the fruit-bearing scion portion.



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