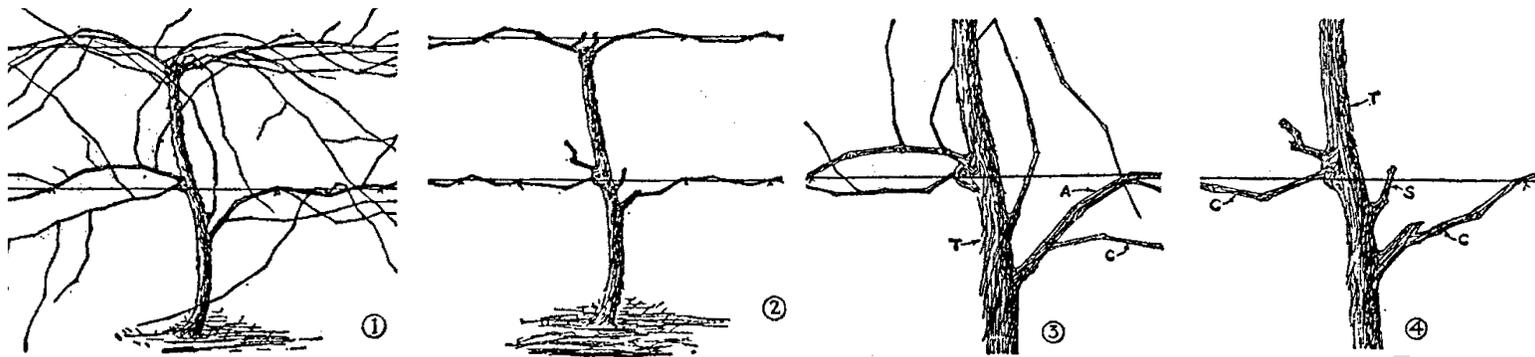


Growing Grapes

Location: Grapes prefer a well-drained soil that is high in organic matter. Open space and sunlight are critical to encourage air circulation and help control disease.

Planting: Dig the planting hole at least 18" wide and as deep as the pot. Prepare a planting mix of 1/3 topsoil and 2/3 Stauffers Planting Mix, and add some composted manure to this mixture. Be sure to plant the vine at the same depth it was growing in the container. Water well after planting and weekly for the first summer.

Fertilization: Use a liquid plant starter monthly for the first season. The second season use 1/2 lb. of 10-10-10 fertilizer worked into a 3' circle around the vine. The third season, increase the fertilizer to one pound and from the fourth season onward use 2 pounds per vine. This fertilization should be done in May.



(1) Concord grapevine (several years old) before pruning.

(2) Same vine, pruned back during winter (Kniffin system).

(3) Detail, before pruning. T - main stem or trunk; A - arm or lateral, 2 year old wood; C - cane, 1 year old wood.

(4) Detail, after pruning. T - trunk; C - renewal cane, 1 year old wood, tied to wire; S - spur, 1 year old wood, cut back to 2 buds.

Maintenance: Insects and diseases can be kept under control by spraying 4 times each season with Fruit Tree Spray. The first spray should be when the new shoots are 6"-10" long, the second two weeks later which should be just before the vines bloom. Spray for the third time immediately after blooming is finished and then again 2 weeks later.

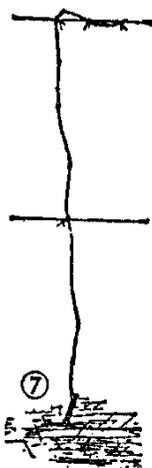
Pruning: Grapes require a lot of pruning to reach maximum production. All pruning should be done before March 1 when the vines are dormant. Most grapes grown in this area, do best when pruned using the Four-Arm Kniffin System. The vines should be planted 6'-8' apart in rows. Set a sturdy 8' post 2 1/2' into the ground between every other vine. Fasten a wire to the post 30" above the ground and another one at the top of the post. Stretch the wires tightly. Follow the pruning instructions given below:

1st Year - Right after planting, cut the vine back to only 2 or 3 buds.

2nd Year - Tie the strongest of the new canes straight up to the top wire. This will be the trunk. Cut off all other canes.

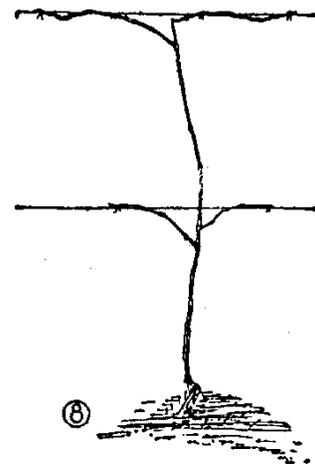
3rd Year - Choose four well-spaced laterals (side branches) and tie them down along the wires, one in each direction. These laterals are this seasons fruiting arms. Cut these arms back to 6-10 buds on each. Next, choose another lateral close by each wire and close to the trunk. Cut these four laterals back to two buds to form the renewal spur. These spurs will produce next year's fruiting arms.

4th and Subsequent Years - Cut off last year's fruit arms and replace them with new canes from the renewal spurs. Select four new renewal spurs. Cut off all other growth and weigh the prunings. If the prunings weigh less than 1 pound, cut the new fruiting arms back to 30 buds or less. For 2 pounds of pruning leave 40 buds. Add 10 buds for each pound of prunings. This will balance the fruit production to the vigor of the vine.



(7) One year old grapevine after pruning, tied in three places to top wire.

(8) Two year old vine after pruning; 5 buds left on each lateral cane on top wire; 4 buds on each at bottom wire.



Pollination: American grapes are self-fruitful and you can get a good crop from only one variety. Seedless grapes should be grown 100' + away from seeded grapes because cross-pollination between the two types may produce small seeds in the seedless varieties.