#### PRUNING BARE ROOT GRAPE TRANSPLANTS USING THE KNIFFIN (FOUR ARM) SYSTEM

- Pruning is the systematic removal of wood for stronger vines, better plant shape and good fruit crops
- No operation influences grape production more than pruning
- Excessive pruning: vigorous growth, low yield, large berries and clusters
- Too little pruning: weak growth, high yield of poor quality, smaller berries and clusters
- Must maintain balance between the two for maximum in both yield and quantity
- All pruning should be done in the plant's dormant season

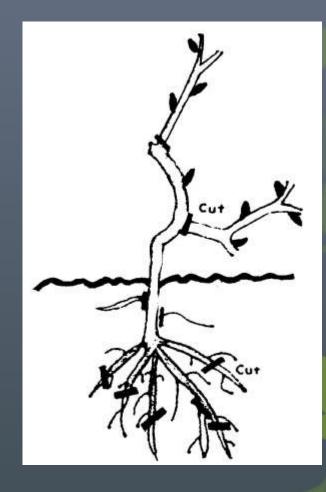
#### GRAPE FRUITING HABITS



- Grape clusters are borne on shoots from one-year-old canes
- These fruiting shoots are developed from the first 4 to 10 buds on the basal section of last year's canes
- All canes that produced the previous year are removed in the dormant season, with the possible exception of renewal spurs

# STEP 1

- At the time of planting, cut the vine back to two to four buds.
- Trim dry root ends to properly fit the hole



## STEP 2

- Immediately prior to the second growing season, tie the best cane to a stake.
- This cane will become the trunk.
- Remove all other canes at the crown.
- Tie the central cane to the wire with cloth strips or plant ties.

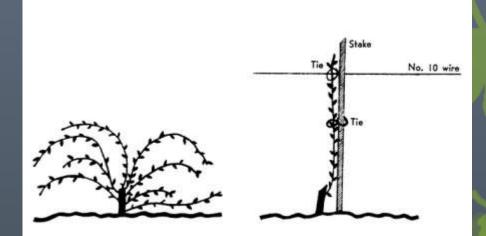


Figure 2. First dormant pruning: Left-before, right-after.

#### STEP 3 & 4

- During the second and third dormant seasons, select four strong fruiting canes to serve as arms, one each direction.
- They will be trained lateral to two horizontal cables, that are 3 feet and 5-6 feet off the ground. These will be the current and near future fruiting canes.

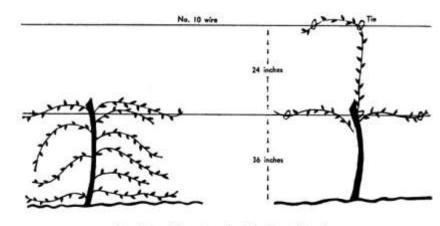


Figure 3. Second dormant pruning: Left-before, right-after.

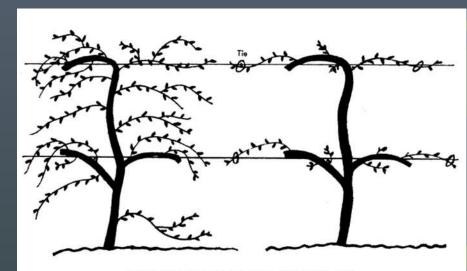


Figure 4. Third dormant pruning: Left-before, right-after.

## STEP 5

#### **Renewal Spurs**

- Select four renewal spurs. This is your "insurance policy" for future production. Select two near upper wire and two near lower wire. Age of wood is not important as long as there are plump buds near the base. Prune these back to just above the buds (one or two per renewal spur.)
- The development of the framework is completed.
- Future pruning will be solely to control plant size, production and quality.

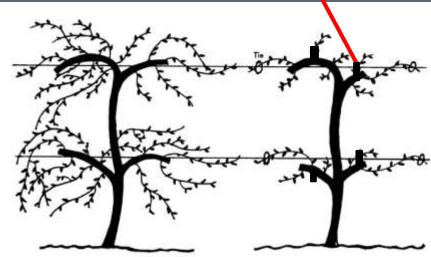


Figure 5. Fourth dormant pruning: Left-before, right-after.