GRAPE. Deciduous vine. All Zones (but see limitations in chart). A single grapevine can produce enough new growth every year to arch a walk, roof an arbor, form a leafy wall, or put an umbrella of shade over a deck or terrace. The grape is one of the few ornamental vines with a dominant trunk and branch pattern for winter interest, bold-textured foliage, and colorful fruit.

To get quality fruit you must choose a variety that fits your climate, train it carefully, and prune it regularly.

The two basic classes are: European—tight skins, winelike flavor, generally high heat requirements, cold tolerance to about 5°; and American—slipskin, "foxy" Concord-type flavor, moderate summer heat requirements, cold tolerance well below 0°. Hybrids between classes are available; most are reasonably hardy, fall between either parent in flavor.

Choosing the right variety is important; varieties differ widely in hardiness and in heat requirements. The Northwest is primarily American grape country; the long warm-season areas of California and Arizona favor the European varieties. Everywhere the short-season, high-elevation areas must choose from American grapes.

The ideal climate for most table grapes in California is that of California's Central Valley—a long season of high heat; the ideal climate in the Northwest is the warmest parts of the Columbia Basin. If your climate is cooler, or the growing season is shorter than the ideal, look to the *early ripening* varieties. Or, create a warmer climate by giving the vine the added heat of a south-facing wall.

Nurseries in Oregon's Willamette Valley offer a number of European varieties to satisfy demand of experimenters. Only those varieties with lowest heat requirements will produce acceptable fruit.

Mildew is a serious pest of the European varieties (most American varieties are immune). To control, dust the vines with sulfur when shoots are 6 in. long, again when they are 12-15 in., then every 2 weeks until harvest. If vines are not in full sun, or are near lawns which are sprinkled repeatedly, it will be necessary to give them additional dustings.

To control grape leafhopper in California, add diazinon dust to sulfur at time of third sulfur dusting, just before blooming time. In the Northwest, dust with diazinon in June and again in August. Grape mealybugs may infest vines in Northwest. Control with dormant oil spray in late winter and with malathion in June.

Vines are deep rooted, grow best in deep soils. During growing season water to a depth of at least 3 ft. to develop a good root system. Nitrogen is the only fertilizing element they need.

See planting, training, and pruning in illustrations below and on next page.

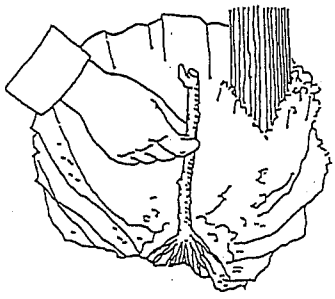
Climate Zone maps pages 8-27

GRAPE, CALIFORNIA HOLLY. See Mahonia pinnata

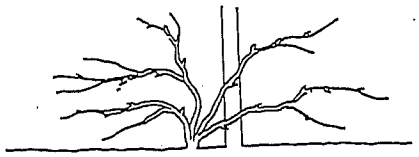
GRAPE, EVERGREEN. See Rhoicissus

GRAPE, OREGON. See Mahonia aquifolium

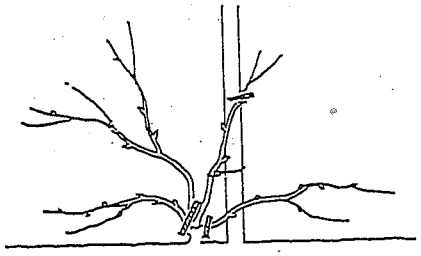
GRAPE: PRUNING



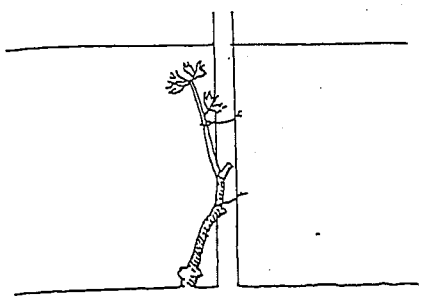
1. December-March: Dig deep hole, plant rooted cutting from nursery, leave only top bud exposed. Set stake for training. Mound soil over bud.



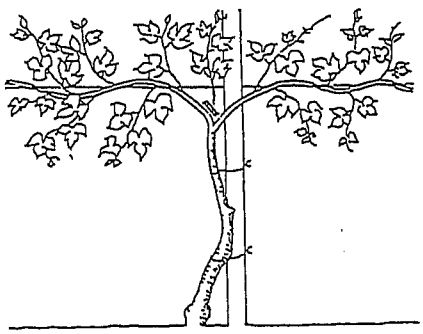
2. First year: Let vine sprawl, develop as many leaves as possible to manufacture food for developing roots. This growth made by November. Leaves have fallen.



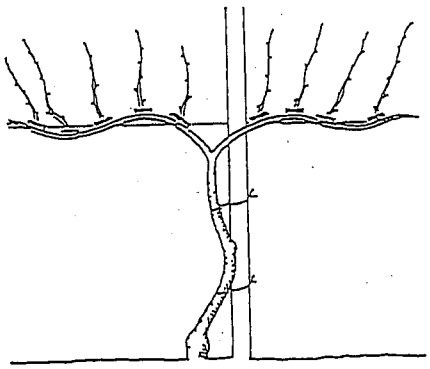
3. First winter: Prune to one sturdy cane; shorten it to 3 lowest buds. If cane very vigorous, cut at 2-3 ft., or at good arbor branching point.



4. Second spring: When new shoots are 12 in. long, select one vigorous, upright shoot to form permanent trunk. Tie loosely to stake. Cut out other shoots.



5. Second summer: When shoot reaches branching point on arbor, trellis, or fence, pinch out tip. Allow 2 strongest subsequent shoots to develop. Pinch side shoots to 10 in.



6. Second winter: Cut spindly canes on arms back to old wood. Don't prune yet for fruit production; vines too immature. For fruit you'd leave 2 buds at base of canes.

(Continued on next page)

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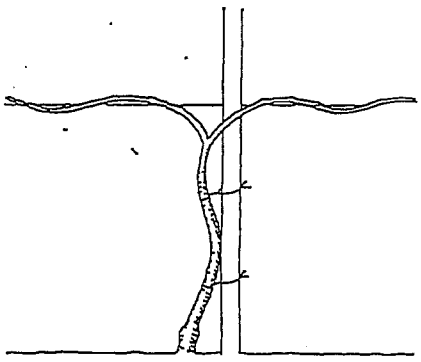
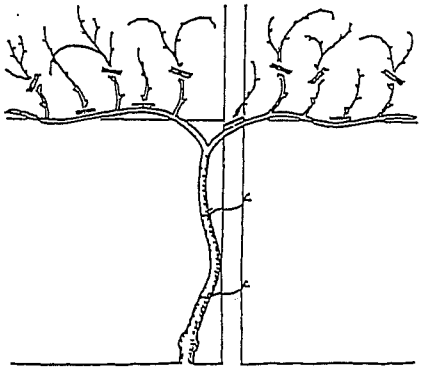
Climate Zone maps pages 8-27

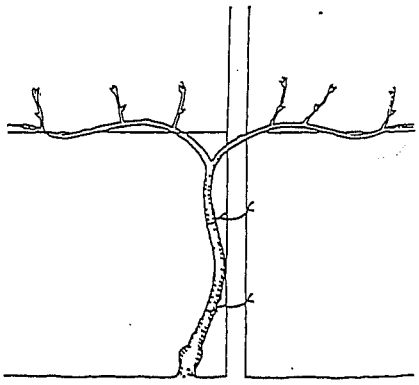
GRAPE: PRUNING (CONT'D)



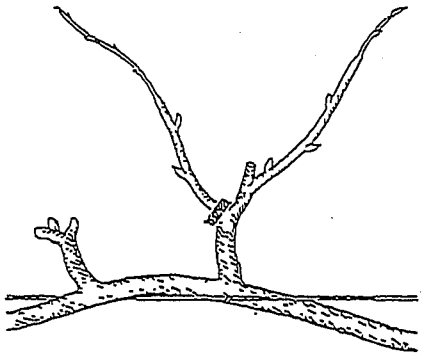
7. Second winter's finished product. On arbor, arms would stretch along roof level of structure. Length of arms determines size, permanent framework of vine.



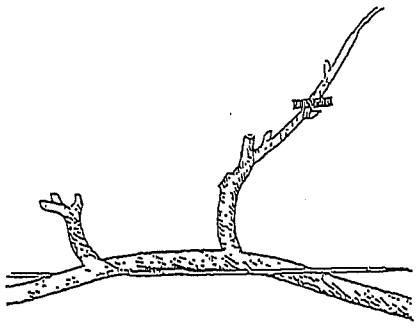
8. Third winter: These canes grew previous summer. To prune for fruit, cut out weak or crowding canes. Select sturdy canes 6-10 in. apart, cut them to 2 buds.



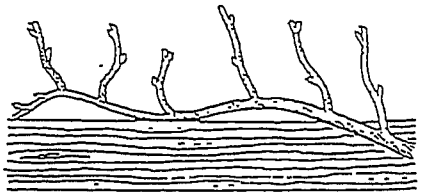
9. Third winter's finished product. Each bud will give 2 fruiting canes next summer. Following winter cut out one entirely, shorten other to 2 buds. See Nos. 10, 11.



10. Fourth winter: These canes bore fruit previous autumn. Cut one off at base. Branch at left already pruned. These short, thick branches are called fruit spurs.

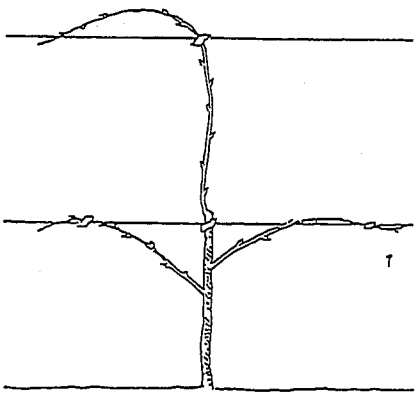


11. Fourth winter: Shorten remaining cane to 2 buds. These will give next year's fruiting canes. Pruning in subsequent years the same. Cut out suckers on trunk, arms.

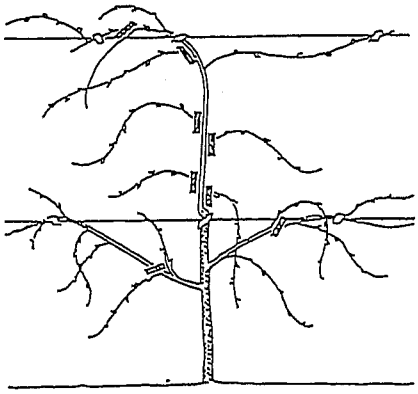


12. Well pruned arm in fourth year should look like this. Fruit spurs spaced approximately 6 in. apart, with 2 buds on each new cane at end of spurs.

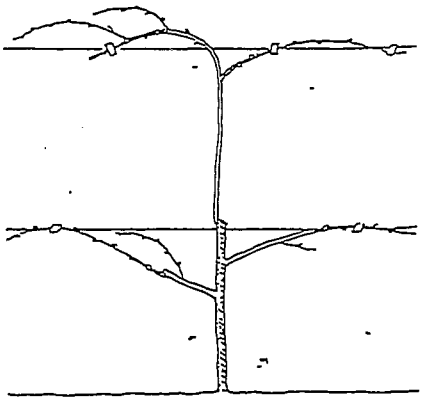
GRAPE: CANE PRUNING



1. Cane pruning in first two years is like spur pruning. Here, it's second winter after planting. Establish shape of vine on frame. American grapes usually grown with 4 arms.



2. Third Winter: Each cane has produced many canes. Prune to base of second cane from base of arm. (It will be pruned out next winter after fruiting.)



3. Third winter: Finished product. Second cane from base gives next summer's fruit. Cane nearest base (renewal cane) will give wood for next winter's pruning.