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Pruning Fruit Trees

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FS 407

PRUNING FRUIT TREES

Cooperative Extension Service: South Dakota
State University and U. S. Department of
Agriculture

PRUNING FRUIT TREES

FS 407

Fruit trees require proper pruning and training if they are to produce high quality fruit. Pruning should be done in late winter or early spring before the leaf buds open. Several methods of pruning and training fruit trees can be used. The pruning and training techniques described in this fact sheet will help the grower develop and maintain fruit trees capable of producing large yields of high quality fruit.

GENERAL PRINCIPLES

1. Train the tree to a single trunk.



When double leaders exist, remove one, leaving only one trunk.

2. Remove broken, dead, or diseased branches.

3. Remove water sprouts. These branches grow very fast up through the tree. Usually they interfere with other branches.



Water sprouts are most numerous near wounds as a result of previous pruning cuts. Most water sprouts should be removed.

4. Remove branches that form a narrow angle with the trunk.



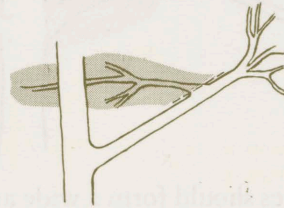
A narrow crotch is weak and will easily break when loaded with fruit.

5. Remove branches that rub or cross.

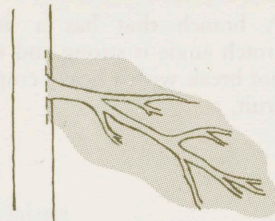


Where two branches rub together or cross, remove one.

6. Remove branches that grow toward the center of the tree.



7. Remove branches that grow down.



Occasionally a branch will grow down instead of up. Remove it, as such a branch will not be productive.

THE WELL TRAINED TREE

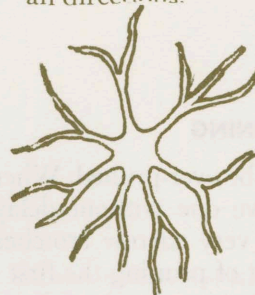
After the preceding operations have been completed, additional pruning is required to properly train a fruit tree. This training is done over a period of years. Characteristics of a well trained fruit tree are presented next.

1. The mature tree should consist of six to eight good main (scaffold) branches. Leaving more than eight results in crowding.



Cut the central leader back just above the top scaffold branch. In apples or pears this will be at a height of 12 to 16 feet. In cherries or plums the height may be only 7 or 8 feet.

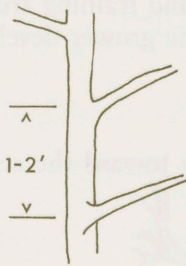
2. Scaffold branches should radiate from the trunk in all directions.



View of tree from above shows branches extending from trunk in several directions.

By R. M. Peterson, Head of Horticulture-Forestry Dept.,
and Dean Martin, Extension Horticulturist

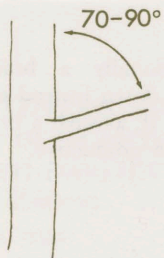
3. Scaffold branches should be spaced at least 1 foot and preferably 2 or more feet apart vertically on the trunk. This distance is less in plums and cherries.



If two branches arise near the same level on the trunk, remove one of them.



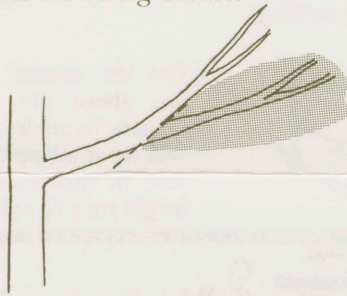
4. Scaffold branches should form a wide angle (70° to 90°) with the trunk.



A branch that has a wide crotch angle is strong and will not break with a heavy crop of fruit.

5. The lowest scaffold branch should be 30 to 36 inches above the ground. Sunscald injury can be lessened if one low scaffold branch is on the southwest side to shade the trunk in winter.

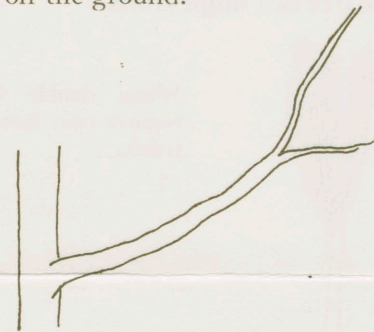
6. Portions of scaffold branches require thinning from time to time to avoid crowding. Generally, the lower branches on a scaffold branch should be removed when such crowding occurs.



2. Light annual pruning is better than heavy pruning every few years.

3. Pruning will delay fruiting, possibly prolonging the nonbearing period 2 or more years.

4. A branch having a wide crotch but curving up as it reaches the outer part of the tree is desirable. As it grows and becomes loaded with fruit, it will hold its fruit off the ground.



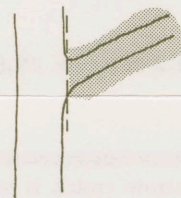
5. The central leader should always be more vigorous than any branch below it.



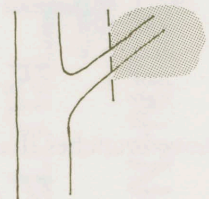
A central leader that is less vigorous than a scaffold branch below will eventually become subordinate to it. In such a case, prune back the vigorous branch so the central leader will be more vigorous than the scaffold branch.

6. Stubs resulting from pruning are undesirable. Cut a branch so the wound is flush with the surface from which the branch was removed.

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not this



POINTS TO REMEMBER IN PRUNING

1. A young fruit tree can easily be over-pruned. When double leaders occur, remove one without delay. Also remove branches with very narrow crotches. However, a minimal amount of pruning the first 3 to 5 years will result in a better tree than one that is pruned more severely.

7. Cover pruning wounds larger than 2 inches in diameter with a prepared asphalt base wound dressing.

Fruit trees require regular pruning and training if they are to produce high quality fruit. Pruning should be done in late winter or early spring before the bud buds open. Several methods of pruning and training fruit trees can be used. The pruning and training techniques described in this fact sheet will help the grower develop and maintain trees most capable of producing large yields of high quality fruit.

GENERAL PRINCIPLES

1. Train the tree to a desired shape.

A desired form for a tree is one which has the center of the tree

OTHER FRUIT PUBLICATIONS

FS398 Fruit Varieties for South Dakota

FS191 Know Your Apples

FS344 Growing Strawberries in South Dakota

FS345 Growing Raspberries in South Dakota

USDA Leaflet 172, Why Fruit Trees Fail to Bear

USDA Farmer's Bul. 1897, Establishing and Managing Young Apple Orchards

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