



Pruning to restore an old, neglected apple tree

R.L. Stebbins and J. Olsen

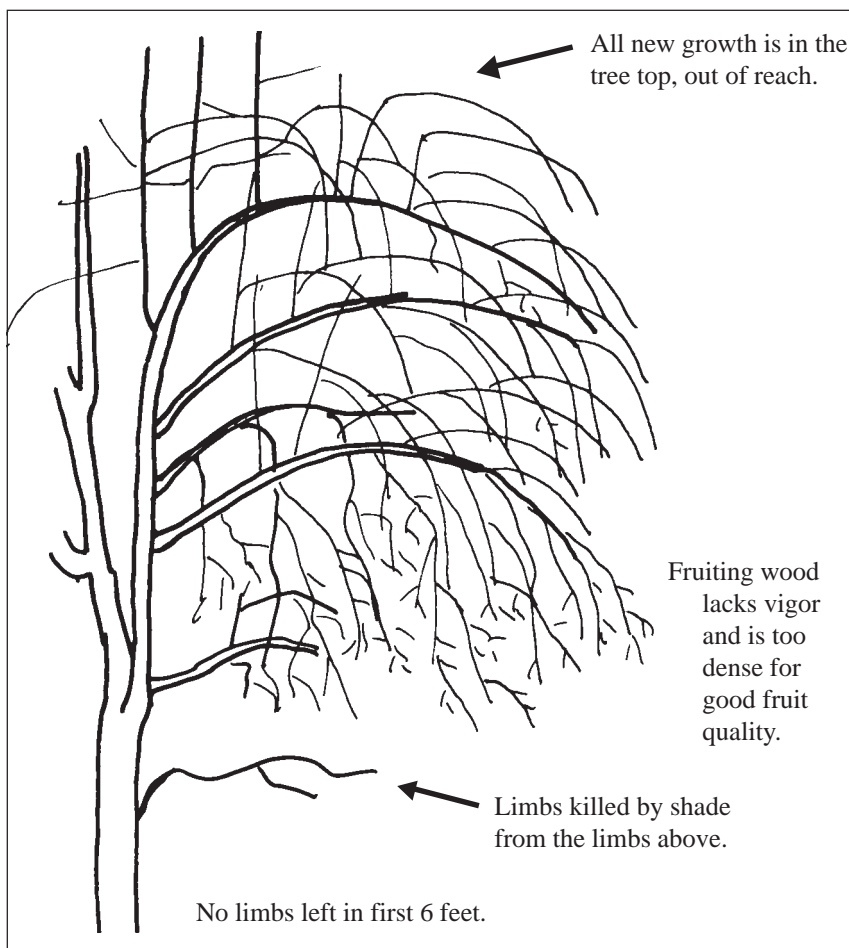
This neglected apple tree is 24 feet tall and has a spread of 24 feet (only half the tree is shown). Because the trunk is fairly solid and the tree is basically healthy, it can be restored.

Careful pruning over a period of years will be required to:

- Reduce the tree's height
- Increase the vigor of fruiting wood
- Open the tree to light and make it accessible for spraying and picking

If you tried to do it all at once—the heavy cutting to reduce tree height—you'd produce excessive and unmanageable regrowth in the remaining limbs. It's better to take it in stages.

The five basic pruning stages, or steps, are outlined on the following pages. Whether or not you have a particular apple tree in mind, follow the steps as though you were doing the pruning yourself.



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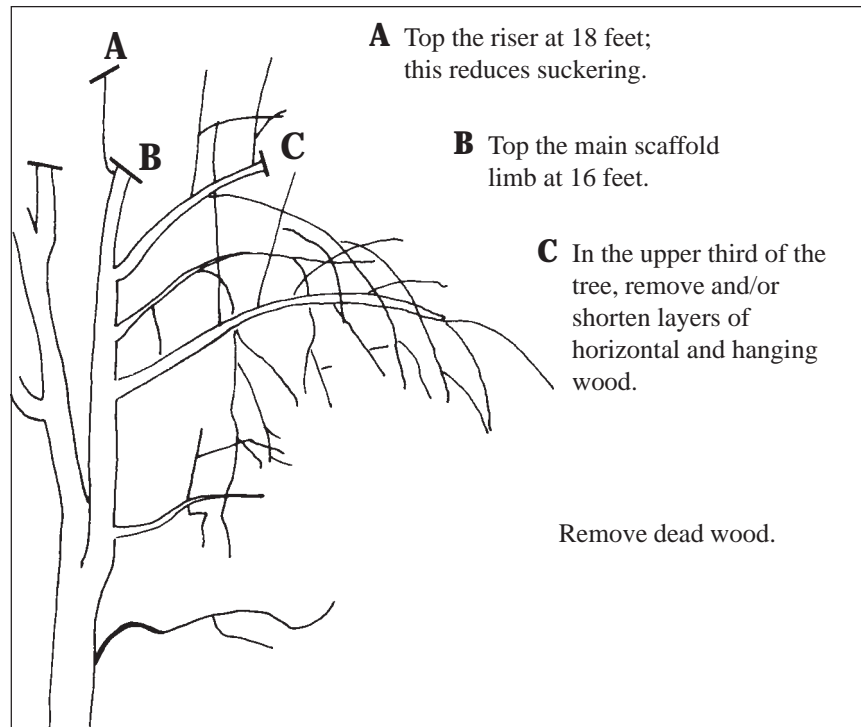
For definitions of some terms used in this publication, see the Glossary, page 7.

Five steps in restoration

1

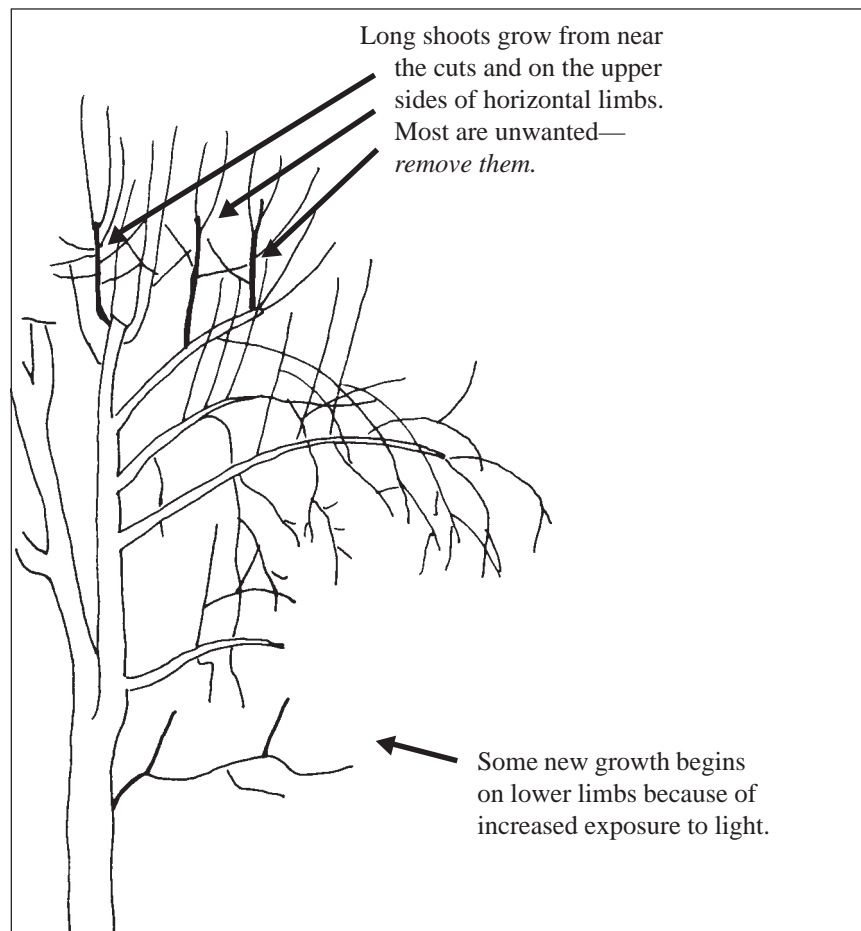
First year of restoration pruning. You'll need a 14-foot, 3- or 4-legged ladder for this job. It's definitely unsafe to try to restore an old tree on an inadequate ladder or—worse—by climbing the tree.

It will not be possible to do this pruning with a pole saw. *Do not use a chain saw*—the risk of bodily injury is too great.



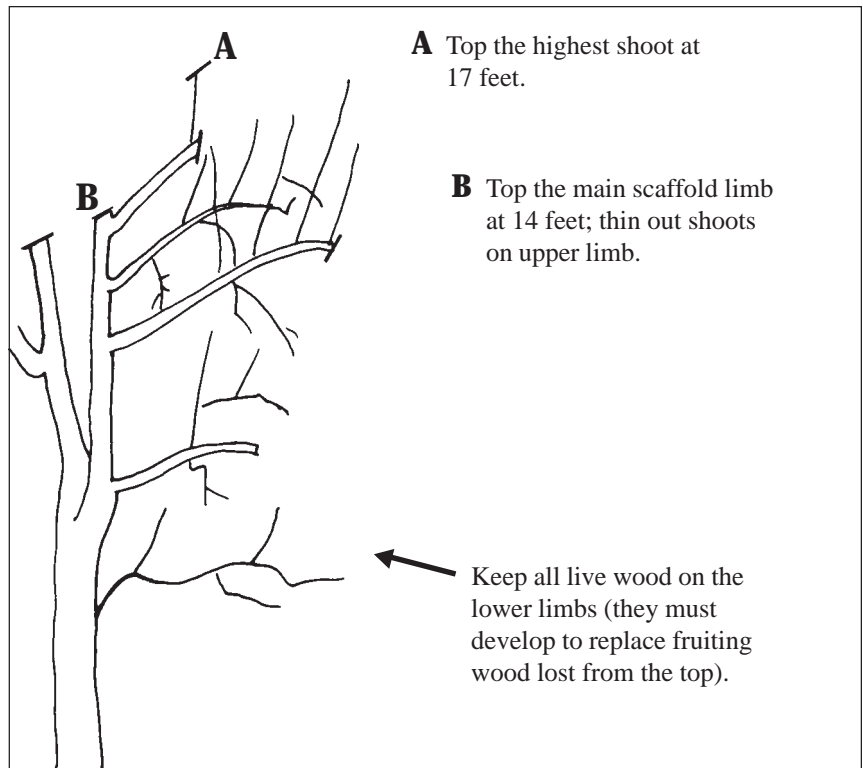
2

Before the second dormant pruning, check the results of your previous year's work and plan how to reduce tree height still further. Which limbs do you expect to be permanent? The limbs you leave *above* the permanent limbs will suppress growth on limbs *below* them.



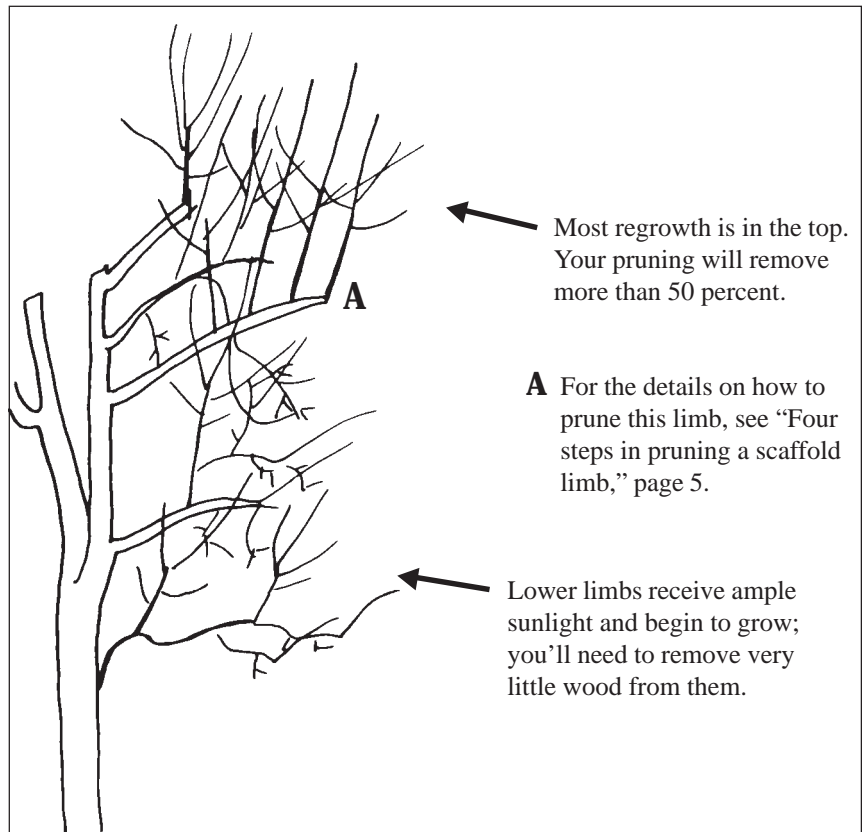
3

After the second dormant pruning, the final tree height has been established at 17 feet. Loss of lower limbs makes it hard to reduce the height more without excessively reducing yield.



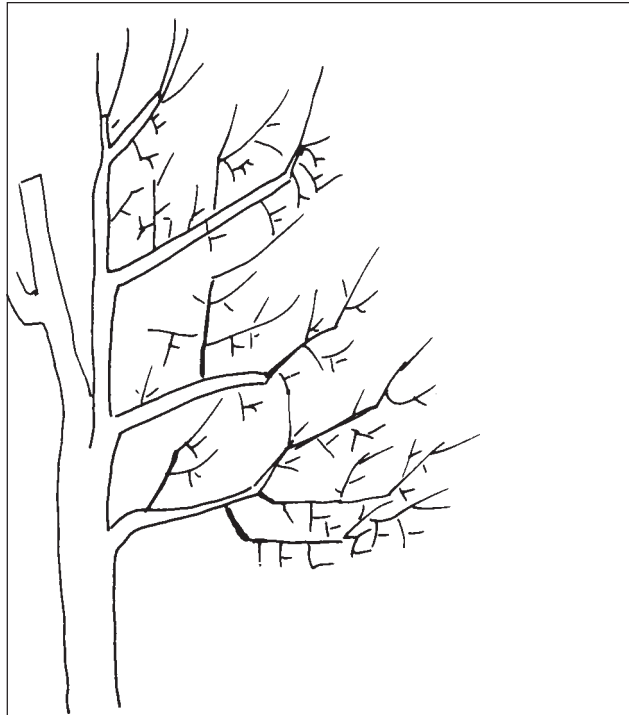
4

Check the regrowth after your second dormant pruning. Remove more than 50 percent of new growth in the top limbs, and redirect lower limbs upward by thinning to leave an upright shoot at the end of the branch.



5

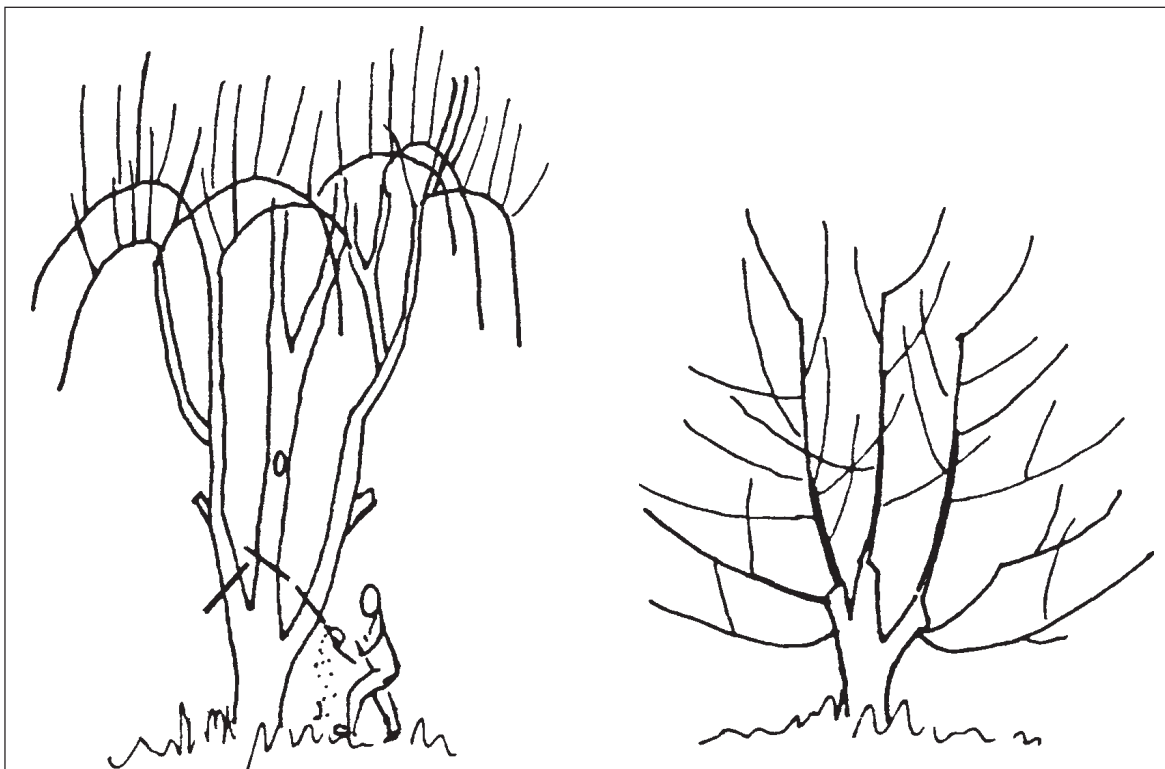
After 4 years of intensive pruning, the tree is 17 feet tall. It has an 18-foot spread, a roundish-conic overall shape, well-developed lower limbs, and an abundance of young fruiting wood.



Another method

When all low limbs are already lost, dehorn the tree just above the crotch with sloping cuts.

Train regrowth by dormant pruning to develop wide-spreading branches low on the tree.

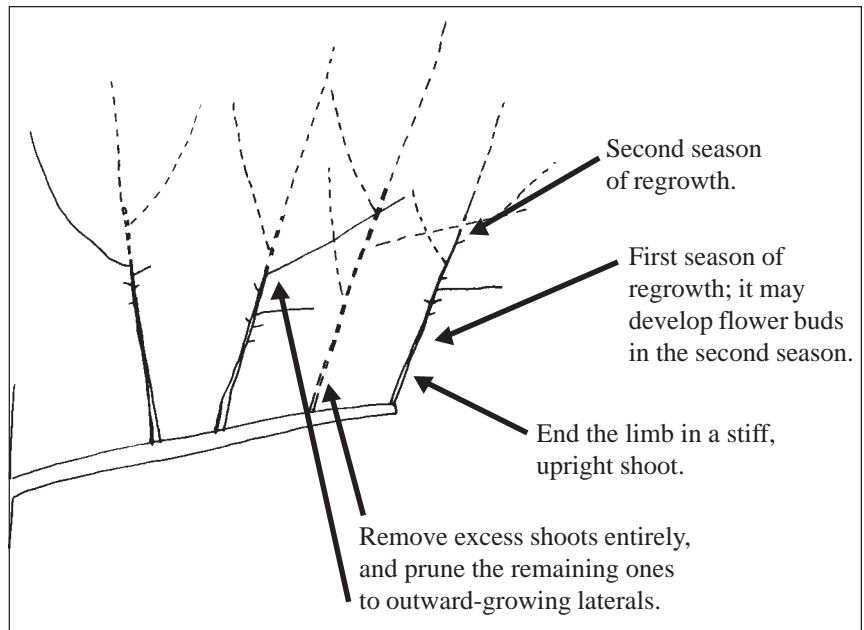


Four steps in pruning a scaffold limb

1

A stylized drawing of a secondary scaffold limb. Regrowth is 2 years old and branched (some apple varieties won't branch this readily).

Dashed lines show the wood you'll remove by pruning.



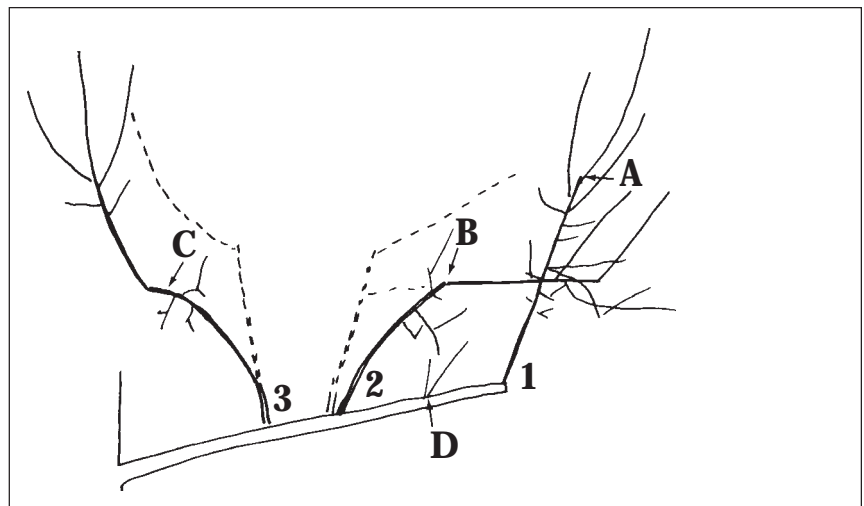
2

The same limb, one season later, showing regrowth and change of limb position because of fruiting (former limb position in dashed lines).

Head branch **1** at **A**, to stiffen it and hold it in position.

Prune branches **2** and **3** to outside laterals at points **B** and **C**.

Regrowth from point **D** is short because branches **1** and **2** suppressed it.

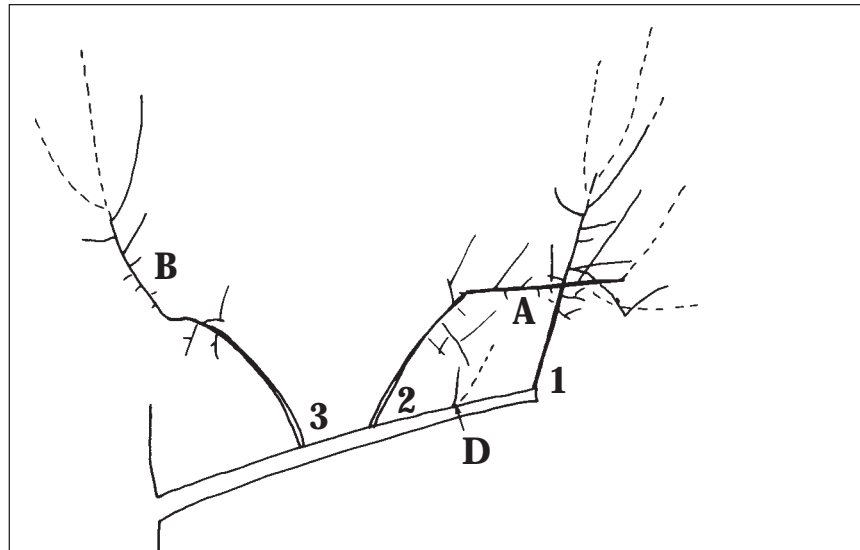


3

The same limb, two seasons later, showing what you'll prune away. Dashed lines show the wood you'll remove by pruning.

Cut back all three branches to single upright shoots; head branch **1** again, to stiffen it. This reduces growth of shoots below and helps to develop fruiting wood close to the secondary scaffold branch.

Note development of flower-bearing spurs at **A** and **B** on limbs **2** and **3**.



4

The same limb, four seasons after you started pruning to restore the old tree. Dashed lines show the wood you'll remove by pruning.

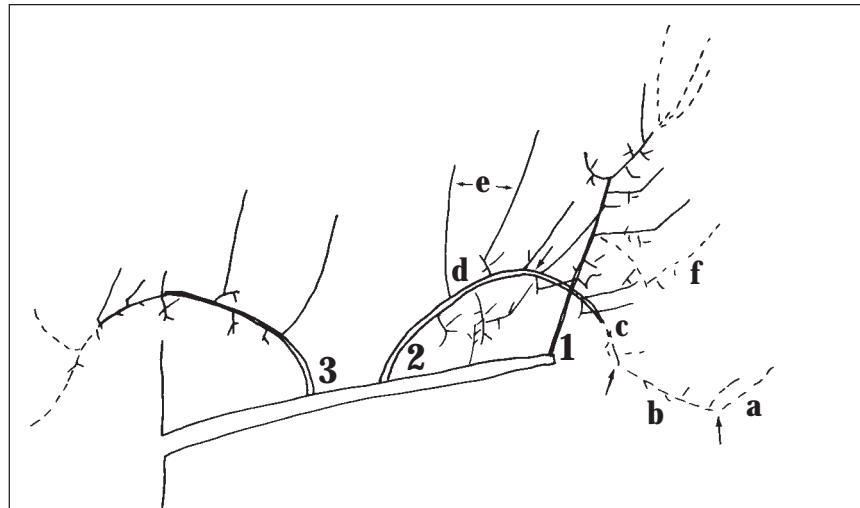
The ages of portions of branch **2** are labeled as follows (between arrows):

- a** Last year's growth
- b** 2-year-old portion (note new flower spurs)
- c** 3-year-old portion, which fruited the previous summer
- d** 4-year-old portion

Remove completely the upright shoots at **e** and elsewhere, or leave them unheaded.

Remove portions **a**, **b**, and part of **c**—they're too far from the secondary scaffold branch. They'll be replaced with shoots like those at point **e** when they form flower spurs.

On branch **1**, which you headed every year to hold it in position, renew the fruiting wood by removing hangers (point **f**).



Glossary

Dehorn—To prune a mature tree back to its main scaffold branches, usually done at a height of 6 to 10 feet.

Dormant pruning—Pruning during the time of year when the leaves are off the tree.

Heading a branch—Cutting off a part of a shoot or limb instead of removing the entire limb at its point of origin (which is called thinning).

Outside laterals—Side branches on the periphery of the tree.

Riser—A young, upright shoot in the top of the tree.

Scaffold limb—The main limbs that form the framework of the tree.

Shoot—The length of branch growth in one season. The bud scale scars (ring of small ridges) on a branch mark the start of a season's growth.

Sloping cuts—Pruning cuts made at an angle to prevent water accumulation at the cut.

For more information

Growing Tree Fruits and Nuts in the Home Orchard, EC 819 (Oregon State University, Corvallis, revised 1991, reprinted 1996). \$1.00

Controlling Diseases and Insects in Home Orchards, EC 631 (Oregon State University, Corvallis, revised 1998). \$1.00

Picking and Storing Apples and Pears, FS 147 (Oregon State University, Corvallis, revised 1997, reprinted 1998). No charge.

Training and Pruning Your Home Orchard, PNW 400 (Oregon State University, Corvallis, published 1992, reprinted 1997). \$1.00

To order copies of the above publications or additional copies of EC 1005, *Pruning to Restore an Old, Neglected Apple Tree*, send the complete title, series number, and amount listed (check or money order payable to Oregon State University) to:

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