

Thinning and Girdling

Special production practices can be used to enhance yields and overall fruit quality. Among the two most significant special production practices are fruit thinning and branch girdling. Using the proper timing and techniques will pay dividends for growers who use these practices.

Thinning Fruits

One of the annual jobs for commercial as well as home fruit growers is thinning fruit. Thinning will:

- Increase size and dessert quality of fruit. For example, a 2½-inch-diameter apple or peach is twice the size by volume of a 2-inch fruit. Only large fruit are usually profitable for commercial growers.
- Reduce limb breakage and help maintain tree vigor
- Promote regular flower production and reduce alternate bearing
- Make insect and disease control on fruit more manageable
- Remove diseased and insect-injured fruit early to help prevent further spread of these problems
- Reduce labor at harvest

The amount of thinning needed depends on the kind and variety of fruit and the date of ripening. The type of fruit determines the number of leaves required to produce one good-quality fruit. For example, about 35 to 40 healthy apple and peach leaves produce 1 quality fruit. In addition, fruit varieties that ripen early need heavier thinning than do varieties that ripen later.

Thin major tree fruits on branches to the following spacing:

- Apples and pears—6 to 8 inches apart (never more than one fruit per fruiting spur)
- Peaches—6 to 8 inches apart
- Plums—3 to 4 inches apart

Begin thinning after the natural drop in April and May. Thin peaches and plums first, followed by pears and apples. Thin all stone fruit, such as peaches, before pit-hardening for maximum effect. Fruits are usually ¾ to 1¼ inches in diameter during this period.

Although some of the same thinning benefits described above for tree fruits could be generated in small fruits, thinning of these crops is impractical. Bunch grapes are the exception—cluster thinning may prove profitable with some varieties.

Hand labor has been and continues to be the dominant method of fruit thinning for most tree fruits, especially the stone fruits like peaches. Workers remove fruits by hand and with the use of clubs of various types such as PVC pipe, plastic bats, and rubber hose. Hand thinning is the only form of fruit thinning recommended for home gardeners.

Commercial growers use chemical thinners on apples and supplement this with hand thinning. There are no chemical thinners available for other tree fruits. Mechanical thinning with tree shakers and limb shakers is practiced on peaches and nectarines. Some methods for mechanical bloom thinning are being field tested, including the rope thinner.

Girdling

The cutting of bark tissue of tree trunks and branches to enhance yields and fruit size of certain fruits has been practiced worldwide for centuries. Studies conducted in the Southeast in the late 70s and 80s have clearly shown that peaches can be limb-girdled annually with no detrimental effects to trees if care is exercised in carrying out this practice. Scoring, which involves severing of the bark tissue but no removal of bark, can also be satisfactorily used.

Girdling is only recommended on peach and nectarine trees. Girdling peach and nectarine trees results in the following:

- Larger-size fruit by ⅛ to ¼ inch in diameter
- Increased yield per tree of ¼ to ½ bushel
- Earlier harvest by 3 to 10 days
- Concentrated harvest with fewer pickings

Girdling has become a standard practice for peach producers in California and the Southeast, primarily to increase fruit size and enhance earliness of harvest of early varieties. Home gardeners may also enjoy the benefits of girdling without damaging their trees if they follow these instructions carefully.

Use special girdling knives that remove a 1/8- to 1/16-inch-wide strip of bark (Figure 1). Remove this bark only on scaffold limbs 2 inches in diameter and larger near the tree trunk. An S-girdle should be cut so that the beginning and ending cuts are not connected and are about 1 inch apart (Figure 2). Trees are usually 3 to 4 years old before they are large enough to be safely girdled. The 1/8-inch knife is best on trees 6 to 8 years of age and younger. The 3/16-inch knife is usually more efficient on older trees. Girdle the trees about a week before or a week after fruit thinning is completed but definitely before pit-hardening during April and May. Do not girdle trees within 4 to 5 days of fruit thinning.

If you have never used girdling, begin with only a few trees until you are thoroughly familiar with the practice. For more detailed information, see *The Peach Growers Handbook*, Georgia Cooperative Extension Service, University of Georgia.

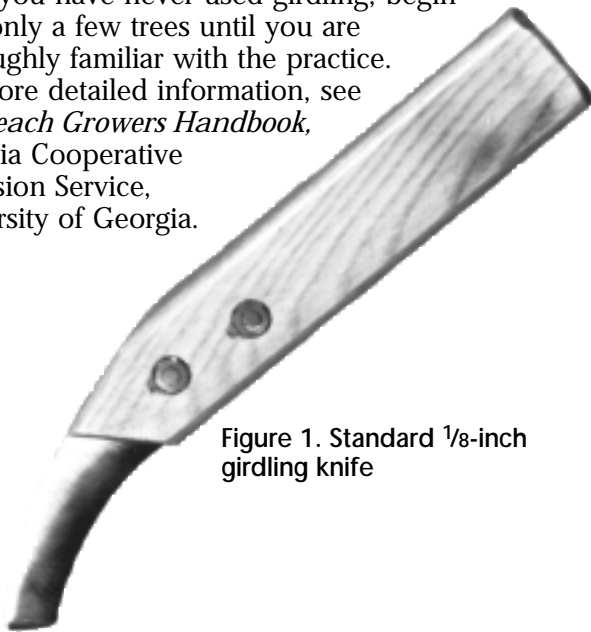
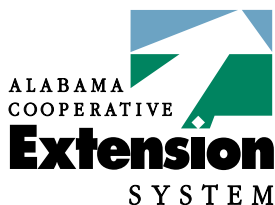


Figure 1. Standard 1/8-inch girdling knife



Figure 2. An S-girdle (ends not connected) should be used in girdling peach and nectarine trees. Only scaffold branches 2 inches and larger should be girdled.



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