

Berries

Pruning Blueberries

*David W. Lockwood, Professor, Plant Sciences
Originally developed by Alvin Rutledge, Professor (retired)
Plant and Soil Science*

Proper pruning practices in blueberries are important to maximize yields and quality throughout the life of the planting. Pruning should be done every year, beginning at the time plants are set. During the early years, the objectives of pruning are to promote both plant survival and growth. Once plants have attained full size, pruning is used to promote fruit yields and quality, as well as to maintain plants within desired size limits.

The type and amount of pruning done at the time of setting depend on the type and size of the bush being set. With bare-root plants, prune off the older, lower shoots. Head the younger, more upright canes back to 8 to 10 inches in length (Diagram 1). If the root system of container-grown plants has become potbound (the roots have curled around inside the container), the roots should be either straightened or the root ball should be sheared to allow new roots to grow out into the surrounding soil. When root pruning is done, the amount of top pruning may need to be increased to maintain a root/shoot balance that would favor plant survival and growth.

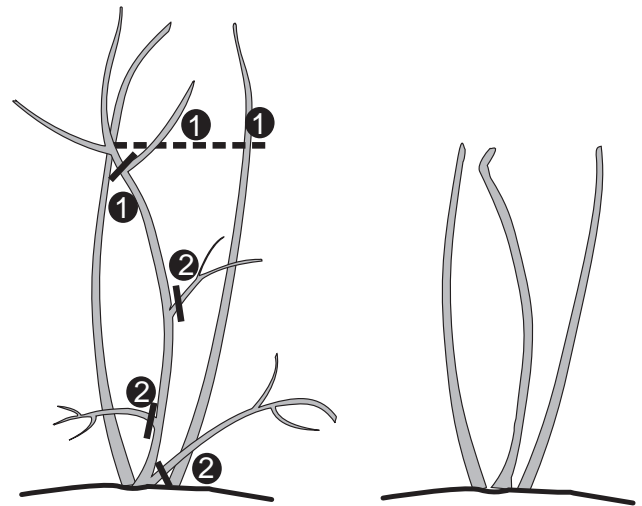


Diagram 1.

Pruning at planting:

head younger canes back to about 10 to 12 inches in length (1) prune off lower, shorter shoots (2)

For at least the first two to three years following planting, blueberries should not be allowed to bear fruit. Early fruiting can stunt plants, resulting in substantial yield



reductions for several years. Fruit buds should be removed prior to bloom. On blueberries, fruit buds are found on the terminal 2 to 3 inches of the previous year's growth. Fruit buds are rounder, plumper and larger than vegetative buds on the basal parts of shoots (Diagram 2). Pruning off the terminal portions of shoots will eliminate fruit buds.

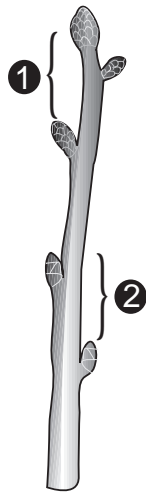


Diagram 2

Location of fruit buds and leaf buds on dormant blueberry plants:

Fruit buds-large, plump and located on the terminal 2 to 3 inches of shoots (1)

Leaf buds-small, pointed and located on the basal part of shoots (2)

Throughout the life of the planting, weak, low-growing shoots should be removed. Such shoots will be shaded by the more vigorous shoots above them. As a result, they will be marginally productive at best. Thicker wood will bear larger berries that bloom later than weaker shoots. Younger canes may be quite vigorous. If left unpruned, they may grow much higher than desired. Head them back about 4 to 6 inches below the top of the bush. Heading will stimulate lateral branching, which will increase the productive potential of the plant (Diagram 3).

As blueberry canes reach about 6 years of age, their ability to produce high yields and quality fruit declines. Therefore, starting with the oldest, remove about 20 percent of the canes each year, so that over a five-year period, the entire crown of the plant will have been renewed (Diagram 4). Such a program promotes consistent yields of high-quality berries by encouraging new fruiting canes to develop and by keeping the crown open to sunlight penetration. With rabbiteye varieties, prune off old canes about 6 to 12 inches aboveground to force new canes to develop from stump suckers. Canes of highbush varieties should be pruned at ground level, as canes from root suckers tend to be more fruitful than those from stump suckers (Diagram 5).

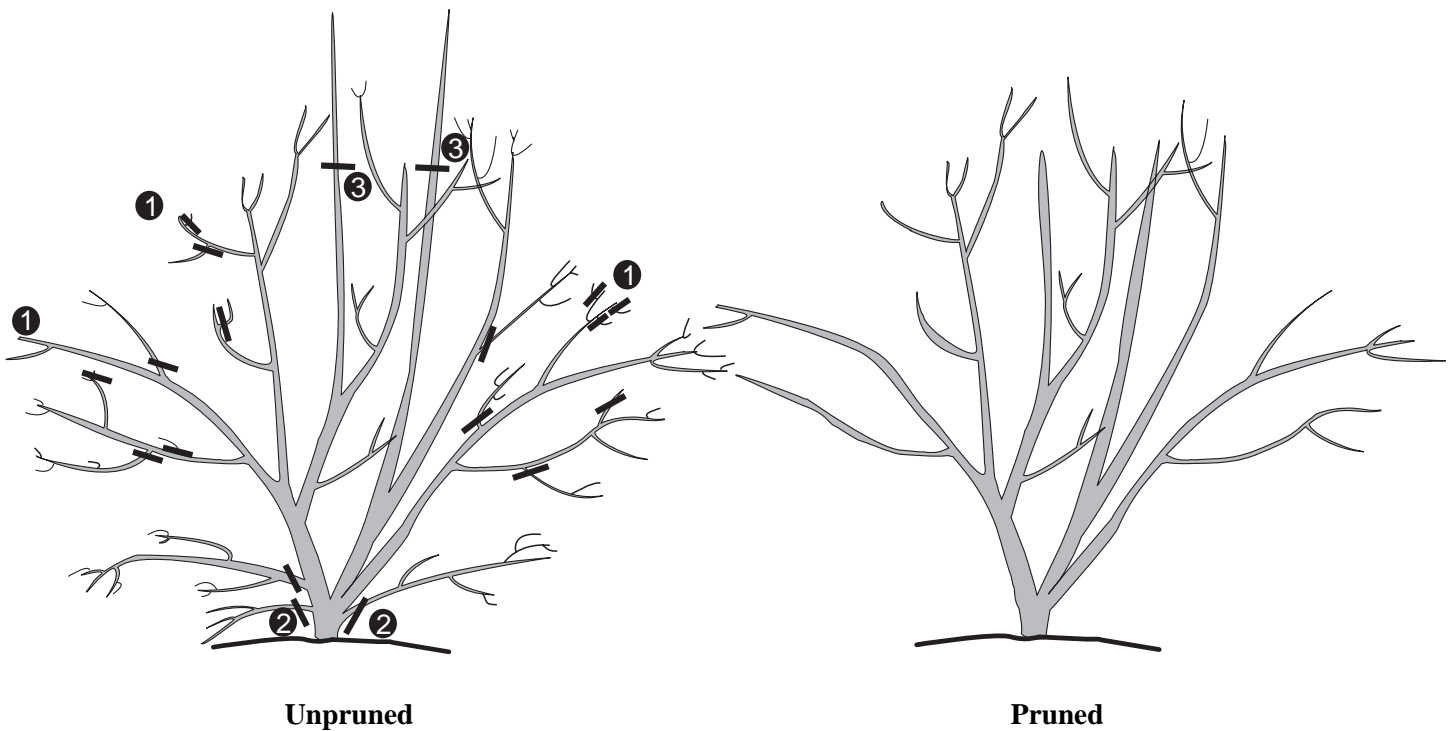


Diagram 3

Pruning the first 2 to 3 years:

remove fruit buds (1)

prune off weak and low-growing shoots (2)

head new, vigorous canes to about 4 to 6 inches below the top of the bush (3)



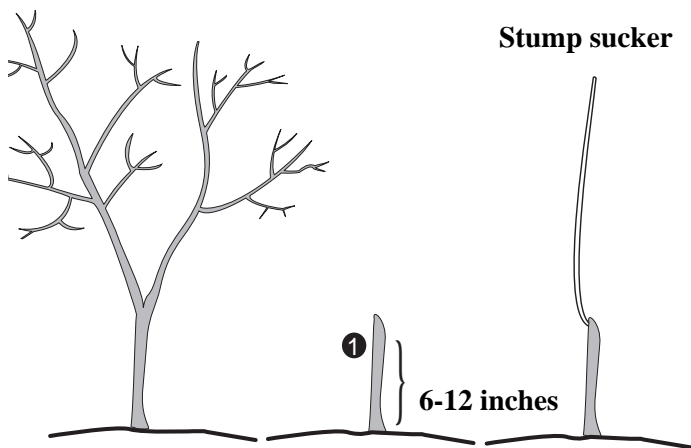
Diagram 4

Pruning mature blueberry plants:

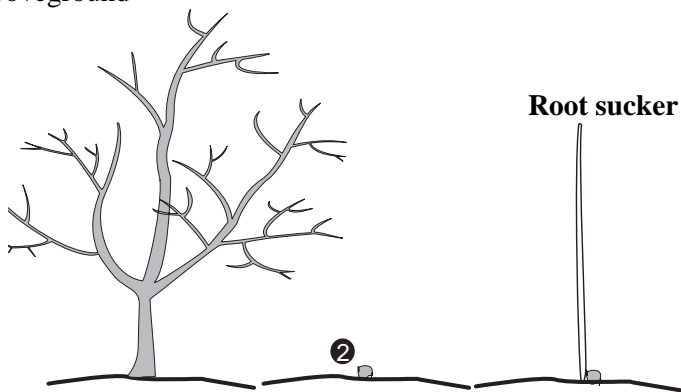
remove weak, low-growing shoots (1)

thin the crown of the plant by cutting out about 20 percent of the canes each year (2)

head new, vigorous canes to about 4 to 6 inches below the top of the bush (3)



Rabbiteye varieties-head old canes 6 to 12 inches aboveground



Highbush varieties-cut old canes off at ground level
Diagram 5 Cane removal in blueberries

Excessive fruit set results in smaller, poorer-quality fruit and, potentially, reduced flower bud formation for the following year's crop. Where excess flower bud formation or fruit set occurs, head back the canes to reduce bud or fruit number. Keep in mind that fruit bud formation for blueberries occurs on new shoots the year before the fruit appears.

Neglected blueberry plants can often be resurrected through implementation of a judicious pruning program in conjunction with other cultural practices, such as pH adjustment, nutritional management, mulching and irrigation. Remove dead, diseased or insect-infested canes. Prune out weak, low-growing shoots, especially those that are shorter than the canes above them. Selectively remove the older canes throughout the canopy to promote new cane growth and to improve light penetration throughout the canopy. In some situations, all canes can be cut back to force new growth. This method might be considered when plants are no longer productive. In extreme cases, it may be easier, cheaper and quicker to set new, healthy plants rather than trying to salvage weak plants.

The optimum time to prune blueberries is in late winter to early spring after the chance of severe cold is over and before new growth has begun. At this time, it is easy to assess how much, if any, winter injury has occurred as well as how many fruit buds are present. You can then make the necessary adjustments in pruning type and severity.

Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

Disclaimer Statement

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticides registrations are continuously reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

SP284E-3M-3/99(Rev) E12-2015-00-047-99

The Agricultural Extension Service offers its programs to all eligible persons regardless of race, color, national origin, sex, disability, veteran status or religion and is an Equal Opportunity Employer.
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture,
and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.
Agricultural Extension Service
Billy G. Hicks, Dean