

# Facts about Pruning

Mirjana Bulatovic-Danilovich, *Consumer Horticulture Specialist*  
WVU Extension Service, Agriculture and Natural Resources

Pruning is one of the most important maintenance practices to keep your landscape healthy and attractive. Most homeowners struggle with understanding why, when, what and how to prune. Often, shrubs and trees are left to fend for themselves, resulting in an overgrown and neglected landscape in which the homeowner has to undertake a significant pruning effort to bring it back into shape. The best approach is to prune regularly.

## Why should I prune?

### Homeowners should prune to:

- Improve the success of new plantings.
- Achieve special shapes.
- Maintain and reduce plant size.
- Repair damage by removing dead, diseased or broken branches.
- Remove limbs that might present hazards to the property and people.
- Maintain or improve vigor since pruning can promote fuller growth.
- Encourage flowering and fruit production.
- Promote plant health through improved light penetration, air movement and faster drying.
- Alter, restore and rejuvenate older plantings which can benefit from a hard pruning.

## When should I prune?

The timing of pruning puzzles many homeowners. The best time to prune is based on the plant and on the reason for pruning.

### Special seasonal considerations

- Summer- and fall-flowering shrubs produce blooms on current growth and should be pruned after they bloom – in the fall, winter or very early in spring before the vegetation starts to grow.
- Heavy pruning or pruning for rejuvenation should be done during the dormant season in late fall, winter or very early spring before the new growth begins.
- Fruit trees, nut trees and most small fruits (blueberries, grapes, floricanes raspberries and blackberries) produce flowers and fruits on the previous season's growth and are generally pruned during the dormant season (winter or early spring).

- Sweet cherries should be pruned after the harvest or in full dormancy to prevent bacterial canker disease.
- To prevent fire blight disease from spreading, trees, shrubs and fruit trees that are susceptible should not be pruned near or during bloom time or shoot elongation when high humidity and high temperatures are present.
- Perform major cuts to lower the canopy during full dormancy in winter to minimize potential for infections and certain disease development.
- Summer pruning is done to reduce shading and for growth reduction.

#### **Pruning anytime you have sharp pruners**

- Fruit trees and spring-flowering shrubs and trees produce flowers on the last year's growth and, technically, could be pruned anytime.
- For size reduction, evergreens need to be pruned annually by removing only 1/3 of new growth. Do not prune into old wood, as it may stunt the plant.
- Broadleaf evergreens can be pruned any time as long as the wood is not frozen. Heavier pruning is often done in spring so the open areas and major cuts will be masked by the rapid new growth.

### **What do I prune?**

There are three areas to target when pruning:

- Dead, diseased or damaged limbs, branches and canes.
- Watersprouts (branches growing straight up), all branches that are interfering with light penetration and those that are crossing and rubbing.
- Branches that are necessary to be removed in order to create or maintain the shape of shrubs and trees.

### **How do I prune?**

Proper pruning methods require choosing and maintaining the appropriate tools, and knowing how and where to make cuts.

#### **Tools**

- Choose to use hand pruners, shears, saws, loppers or a chainsaw based on the diameter of the wood that needs to be cut.
- Bypass pruners are best for cutting into living branches or stems since they make clean cuts and will not damage the remaining wood.
- Anvil pruners and loppers are good for dead wood removal. They are not suitable for cutting into living tissue since they do not produce a nice, clean cut, but smash and macerate the tissue.
- Use steel wool, sandpaper and solvent (kerosene or alcohol) to clean sticky sap residue from the blades after use.
- A sharpening stone sharpens best when the cutting blades are positioned at a 20-degree angle.
- Lubricate the moving parts and keep tools away from moisture.



## Making cuts

There are four basic pruning methods: pinching, thinning, heading and shearing.

- Pinching is removing spent flowers (also known as deadheading) or removing just the tips of newly developing shoots to encourage lateral branching.
- Thinning removes the whole branch at the point of origin (Figures 1 and 2), opens the canopy and allows for better light penetration and air movement.

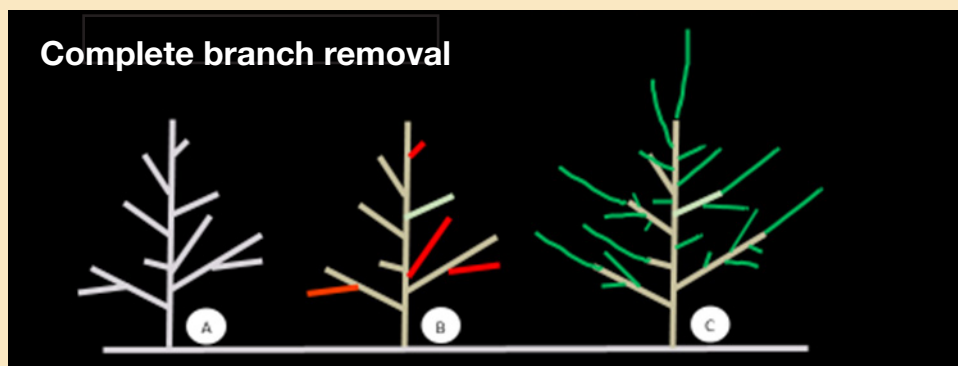


Figure 1. Thinning cuts and growth response - complete branch removal. A. Original plant. B. Branches removed. C. Subsequent growth.

Photo credit: M. Danilovich



Before

After

Figure 2. Thinning cuts for blueberry rejuvenation.

Photo credit: M. Danilovich

- Heading is performed to induce thicker, fuller growth. Heading cuts remove the part of the shoot that contains a terminal bud responsible for a phenomenon known as apical dominance by releasing auxin, a hormone that inhibits opening of the lateral buds below. Removal of the terminal

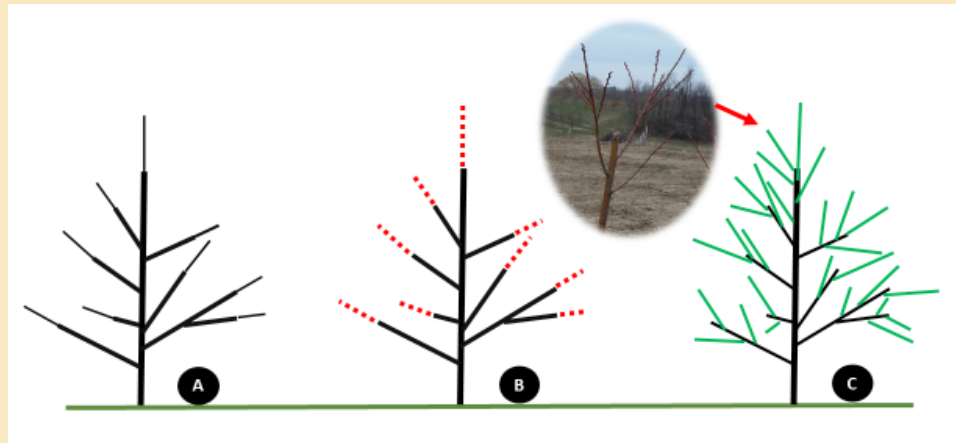


Figure 3. Heading cuts and growth response. A. Original plant. B. Tips of shoots removed. C. Subsequent growth. Inset: Response to heading cuts.

Photo credit: M. Danilovich

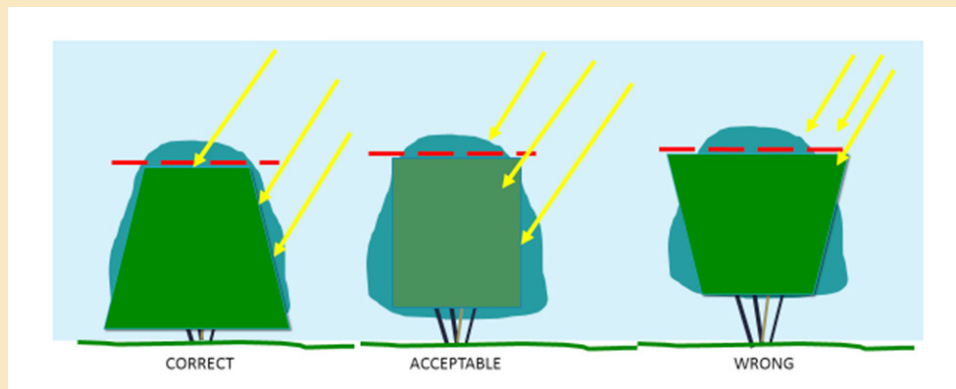


Figure 4. Shearing. For improved sun exposure, shear hedges at a slight angle, leaving the base of the plant slightly wider than the top.

Photo credit: M. Danilovich

bud and apical dominance allows lateral buds below the cut to break open and develop new shoots (Figure 3).

- Shearing is performed to give shrubs a certain shape. First, remove selected inner branches to open up the interior and form a softer edge for shearing. The openings allow for better light penetration, enabling new growth and rejuvenation of the inner canopy. The sides should be cut at a slight angle so that the bottom part of the hedge is slightly wider than the top for better sun exposure (Figure 4).

Proper pruning technique also involves knowing how and where to make cuts on the plant.

- When making cuts, hold hand pruners so that the cutting blade is on top of the branch to be cut and the branch is resting on the supporting piece of the pruners (Figure 5).

- On smaller diameter branches, cuts should be made about 1/4 inch above the bud and angled away from the bud to prevent sap from bleeding onto the bud (Figure 5).
- For large diameter branches and limbs, follow the three-step cut (Figures 6 and 7).
  1. The first cut is the undercut, which goes about 1/3 of the diameter deep. This cut will prevent the weight of the limb from tearing off and ripping the bark.
  2. The second cut is the top cut to remove the branch.
  3. The third cut is a finishing cut to remove the stub just above the branch collar.

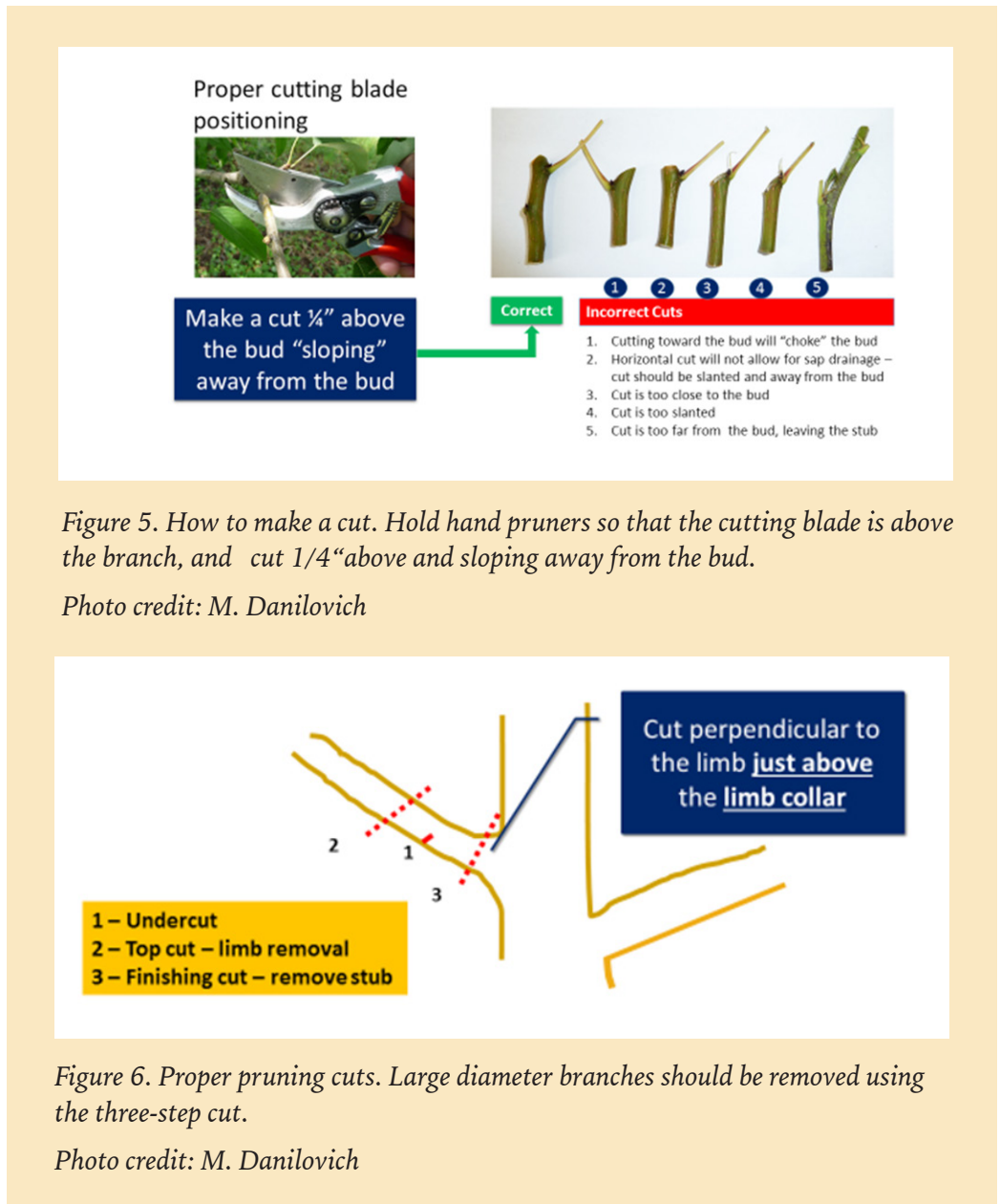


Figure 5. How to make a cut. Hold hand pruners so that the cutting blade is above the branch, and cut 1/4" above and sloping away from the bud.

Photo credit: M. Danilovich

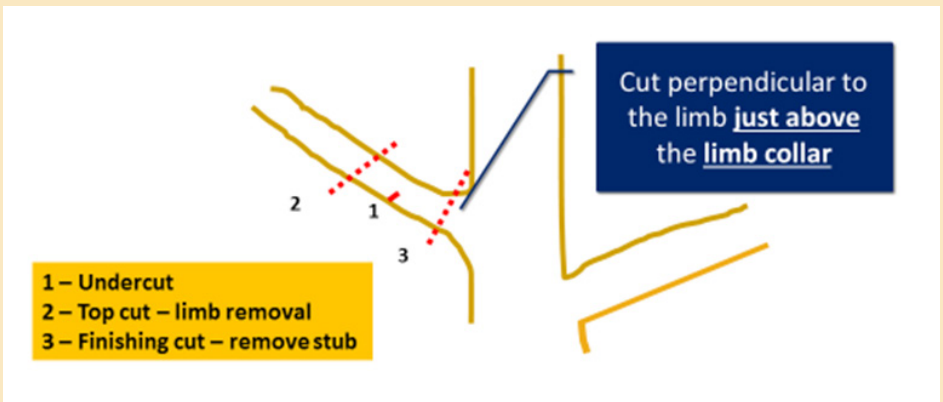


Figure 6. Proper pruning cuts. Large diameter branches should be removed using the three-step cut.

Photo credit: M. Danilovich



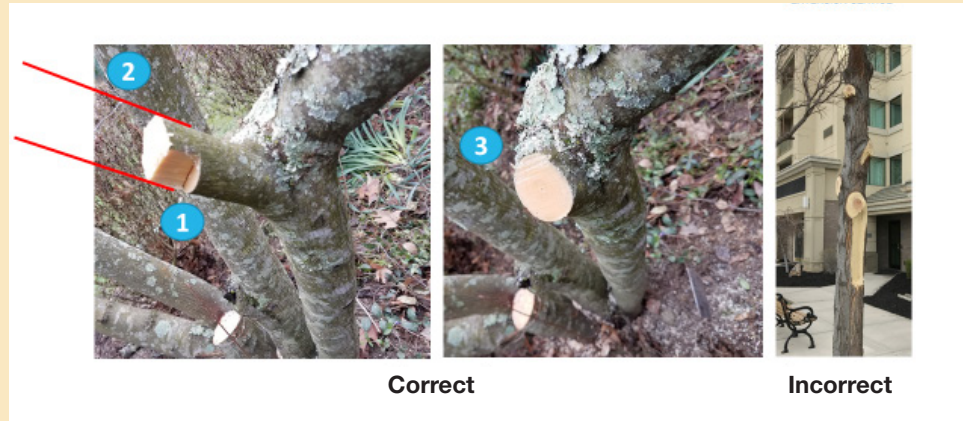


Figure 7. Examples of correct and incorrect cuts.

Photo credit: Correct three-way cut, Mira Danilovich; Incorrect cut, David Davis

By arming yourself with the proper tools and the knowledge of basic pruning methods, you will be prepared to regularly and deliberately manicure your trees and shrubs. By steadily maintaining these plants, you will find that your landscaping looks more intentional, produces blooms and fruits more reliably and has a healthier, more attractive appearance.

## For more information

For more information contact Mirjana Bulatovic-Danilovich, *WVU Extension Service Specialist – Consumer Horticulture*, [Mira.Danilovich@mail.wvu.edu](mailto:Mira.Danilovich@mail.wvu.edu); 304-293-2620  
[extension.wvu.edu](http://extension.wvu.edu)

Date created: April 2019

WVU is an EEO/Affirmative Action Employer. Underrepresented class members are encouraged to apply. This includes: minorities, females, individuals with disabilities and veterans.

In accordance with Federal law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, disability, and reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs).

The WVU Board of Governors is the governing body of WVU. The Higher Education Policy Commission in West Virginia is responsible for developing, establishing and overseeing the implementation of public four-year colleges and universities.

Trade or brand names used in this publication are for educational purposes only. The use of such product names does not imply endorsement by the WVU Extension Service to the exclusion of other products that may be equally suitable.

Reasonable accommodations will be made to provide this content in alternate formats upon request. Contact the WVU Extension Service Office of Communications at 304-293-4222. AG19-86