



Correct pruning

Figure 1. For small branches less than ½-inch thick, a good pair of by-pass hand pruners will work.



Figure 2. For larger branches up to 2 inches thick, loppers will do the trick.



Figure 3. Pruning saws will be needed for branches bigger than 2 inches and for spaces where loppers won't fit.



Figure 4. Pole pruners (top right and top left), along with hand pruners (left center), loppers (center), and pruning saw (right center). Pole pruners and pole saws are handy for taller trees. Some have telescoping poles, making it easier to reach into the plant canopy.



By Diana Cochran and Karen Panter

Fall and winter are great times for pruning because plants are dormant – you can see the structure of the plant when it isn't obscured by the foliage. Of course, pruning disease- or insect-infested branches during the growing season is smart, but the dormant period is the season to work on the structure of shrubs and trees. Here is a pictorial "how to prune," which will prepare you for your pruning debut!

Getting started

Take a minute and walk around the tree or shrub, looking for imperfections, such as asymmetry and a choked canopy. Once a problem area is found, determine the best way to tackle the cuts. For instance, if there is a dead branch, make sure it's not going to fall on anything valuable when you remove it. Next, determine what tools are needed. Typical tools for pruning include by-pass hand pruners (Figure 1), loppers (Figure 2), pruning saw (Figure 3), pole pruners, and pole saws (Figure 4). Once the tools are chosen, make sure they are sharp and in working order. Using dull tools often causes jagged cuts that prolong healing of the wound and can be dangerous to the user.

Before getting started on a pruning job, there are a few guidelines to consider.

First is to know where to make appropriate cuts. When making any pruning cut, make sure to prune just to the outside of the branch collar. The collar will be at the base of the branch and is generally quite visible (Figure 5). When possible, make sure to cut at angles to allow water to run off, helping to minimize the chance of disease setting in through the wound. If removing suckers, water sprouts (vigorous shoots arising from any aboveground part of the tree, often caused by excessive or improper pruning), or unruly stems, always cut at the base making a clean, angled cut. This will allow more time between pruning.

Proper cuts and techniques

Dead branches can be pruned any time of the year (Figure 6) but are often hard to identify during the winter months. Periodically scouting for damage throughout the year is helpful, making note of any dead or diseased branches. When cutting large limbs, it is sometimes best to make a few cuts to alleviate some of the weight that can cause bark to rip when the branch falls. One way is by using the three-cut method.

can revitalize landscapes



Figure 5. The branch collar surrounds the lighter-colored limb to the right; the yellow line represents where the cut should be made.



Figure 6. Broken branch still hanging from the tree (left), and the remnants of a broken branch (right).



Figure 7. Three-cut method: 1. cut under branch, 2. cut from top of branch, 3. final cut at branch collar.

First, make a cut on the underside of the branch. Second, make a cut on top of the branch, away from the trunk. Third, cut the shorter stub off, making the cut at the branch collar (Figure 7).

Limbs showing disease problems need to be eliminated as soon as possible (Figure 8). For diseased branches, use a household bleach diluted 1 part bleach to 9 parts water or undiluted rubbing alcohol to disinfect pruning equipment before every cut. This will minimize the spread of the disease. Insect-infested branches should also be cut out as soon as they are noticed if the infestation is minor (Figure 9).

Consider pruning branches with narrow crotch angles (Figure 10); these result in weak branches, especially during winter storms when snow builds up, adding extra weight.



Figure 8. Minor case of fire blight on crabapple.

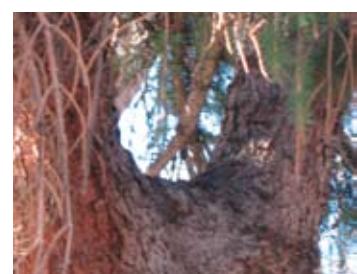


Figure 10. Narrow, weak crotch angle on spruce tree. The branch to the right should have been removed when it was small and initially noticed.



Figure 9. White pine needle scale on spruce (left), gall on spruce (center left), white pine needle scale on ponderosa (center right), and holes from birds digging insects out from trunk (right).

Other branches that should be removed



Figure 11. Branches criss-crossing each other should be removed.



Figure 12. Damage to trunk from smaller rubbing limbs (left); branches that grafted together over time due to rubbing (center and right).

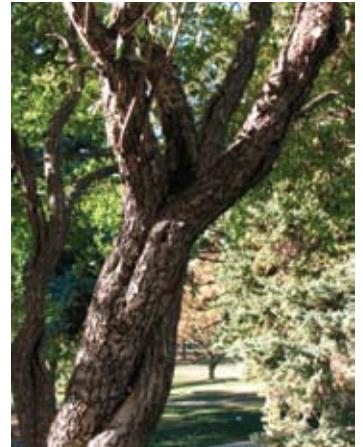


Figure 13. Water sprout growing straight up from limb.



Figure 14. Major suckers at base (left), and smaller suckers beginning to sprout (right).



Figure 15. Branch with stripped bark

Common mistakes

One misconception widely practiced is making cuts flush with the trunk. This is never a good idea and will result in a wound that may not heal properly (Figure 16).

Another common mistake seen in the landscape is not cutting far enough into the canopy (Figure 17). When a cut is made halfway down the stem, the plant is going to respond with new growth within 6 inches of the cut (this is a result of cutting off the terminal bud, which stimulates buds that otherwise would be dormant). Leaving improper cuts untouched and unrepaired will result in stubbing (Figure 18), which looks unnatural. A good rule of thumb to avoid this mistake is to make all cuts at the origin of the branch.



Figure 16. Damaged trunk from pruning too close to the branch collar.



Figure 17. Stubs left from improper cuts on pea shrub (caragana).



Figure 18. Excess growth resulting from pruning pea shrub.

Take-home message

Pruning is an easy way to transform a landscape but, if done incorrectly for an extended period of time, can result in a situation requiring a costly fix. Remember to follow suggested guidelines. Additionally, many books and publications are available that can be consulted if there are any questions in how to prune specific plants. Contact a local extension office (<http://ces.uwyo.edu/Counties.asp>) or conservation district (<http://conservewy.com/DISTRICTS.htm>) for more information.

Pruning Sources

The International Society of Arboriculture's "Trees are Good" Web site: www.treesaregood.com/. Click on the "Tree Care Information" tab at the top of the home page.

Pruning Trees and Shrubs – University of Minnesota Extension bulletin: www.extension.umn.edu/distribution/horticulture/DG0628.html.

Sunset Western Garden Book – Sunset Publishing Corporation, Menlo Park, California – Edited by Kathleen Norris Brenzel.

Pruning Ornamental Trees and Shrubs – Purdue University Cooperative Extension Service bulletin: www.hort.psu.edu/ext/HO-4.pdf.

The Ohio University's PlantFacts horticultural search engine: <http://plantfacts.osu.edu>. Click on "Web" on the home page.

GENERAL RULES

A few general rules apply to pruning, no matter what type of plant you are working on:

- Make sure all tools are sharp and disinfected.
- Start at the inside or center of the plant, and work your way out.
- Never remove more than about 30 percent of the plant at any one time in any one year.
- Do not apply tar or paint to pruning wounds as they heal faster if left untreated.
- For most woody ornamentals, prune in late winter or early spring before plants emerge from dormancy.
- For most flowering shrubs and trees (such as lilacs), prune immediately after they bloom. Any later and the buds for next year's flowers will be cut off.
- Some fruit trees require different pruning methods. Search for specific fruit tree pruning information at <http://plantfacts.osu.edu>.
- Cut upward-facing branches at an angle so water runs off and does not collect in the wound.

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