

Pruning Equipment for Home Gardeners

WASHINGTON STATE UNIVERSITY EXTENSION FACT SHEET • FS131E

Introduction

Selecting and using the correct equipment to prune trees and shrubs makes the pruning job quicker, easier, and safer for home gardeners, and results in less damage to plants. Before beginning a pruning task, determine the goal (such as improving structure, removing dead branches, and the like) and select the right tool for the job. It is important during the pruning work to use the tools as they were intended; and to maintain and store the tools appropriately after the task is completed. The results will be wellpruned plants and an injury-free experience for the gardener. For more detailed information on pruning, including timing, reasons to prune, and how to prune specific plant types, consult the *Home Garden Series*, available online from Washington State University Extension at Gardening in Washington.

Choosing the Right Tool

There are many types and sizes of pruning tools available to home gardeners. Manufacturers produce such specialty pruning tools as left-handed models, pruners made for smaller hands, and tools with ergonomic handles. Gardeners who prune frequently should purchase tools that fit their hands and are easy to use. Before purchasing any tool, make sure it feels comfortable to operate, and invest in one that fits, rather than settling for something that may cause blisters and muscle strain. Gardeners with limited strength should look for tools made of lightweight material for easier use.

The Correct Way to Use Pruning Tools

Using the right pruning tool for the job and using it correctly is safer for the gardener and produces cleaner cuts on the plant. When using cutting tools, it is important not to twist or strain the blades. Do not cut with the tip of the blade, instead, set the branch to be cut as deep in the jaws of the pruners as possible to make a clean cut. If only a portion of the blade is used to make a cut (such as the tip), it may result in an incomplete cut. If there is any strain while trying to make a cut with a sharp blade, switch to a larger tool. Trying to cut a large a branch with a tool that is too small may result in a jagged wound that damages the plant and may ruin the tool. Poor quality cuts may also result from twisting, pulling, or turning the tool while cutting. Use sharp scissors or a pruning knife to trim any tears or rough edges that result from a poor cut.

Types of Pruning Tools

Hand pruners (Figure 1) are designed and sized to be held and operated in one hand. They can typically cut twigs and branches up to a half-inch in diameter. The two main types of hand pruners, are bypass pruners, which have a scissors action; and anvil pruners, which pinch material between a cutting blade and a backstop. Bypass pruners are usually more expensive, and cut more cleanly than most anvil pruners; which often crush or tear branches on woody plants. Branches that have been crushed or torn in the pruning process do not seal well, leaving a plant open to disease. For this reason, bypass style pruners are recommended.



Figure 1. Basic hand pruners come in two types: bypass shears (left, center) and anvil-pruners (right).

This fact sheet is part of the WSU Extension Home Garden Series.



Figure 2. Lopping shears have long handles to minimize stooping when cutting branches on the ground.

Lopping pruners or "loppers," are scissor-action cutters with long handles, held with both hands (Figure 2). They can typically cut branches up to 1 inch in diameter, depending on the species and hardness of the wood. The jaws of loppers may open wider than an inch, and this can often mislead gardeners into trying to cut branches that are too large for the tool. The additional force needed to cut larger limbs can tear the bark on the anvil side of the loppers, leaving a ragged wound. Limbs damaged by the misuse of loppers will not seal as well, leaving the plant open to infection and pests. Loppers are not recommended for most pruning work, because they are so frequently misused. However, they are useful for cutting detached branches down to size for disposal. Gardeners with limited strength may want to shop for loppers made of lightweight materials to reduce the weight of the tool.

Pole pruners typically have a cutting action similar to loppers, with the blades mounted on a long pole to reach high into trees (Figure 3). Pole pruners may also have an attached saw blade. Using a pole pruner can be dangerous because the tool's long reach may allow it to come into contact with utility lines, and material falling from each cut can hit the operator. Pole pruners are also difficult to maneuver into the proper angle for a correctly placed pruning cut. For this reason, and the safety concerns mentioned, pole pruners are not recommended for homeowners. *If pole pruners are used in the home garden, use caution and always wear protective headgear and safety goggles*.

Hedge clippers (Figure 4) are used for quickly shearing multiple branches, rather than cutting individual branches. Hedge clippers may be manual or powered, and generally require two hands to operate. While they are useful for quickly pruning large hedges or shaping topiary, they should not be used to make targeted pruning cuts. As with any power equipment, always wear proper safety equipment such as gloves and eye protection.

Pruning saws come in many configurations and sizes (Figure 5), with straight or curved blades. These saws are useful for pruning branches more than a half-inch in diameter. The saw teeth are coarse and wide-set, usually cutting on the pull stroke to allow the sawdust to drop out of the cut. This prevents the saw from binding in a green-wood cut. Pruning saws have sturdier blades and cut faster and straighter through a limb, than a carpenter saw.

Chain saws come in a variety of sizes and may be electric or gas-powered (Figure 6). They are more appropriate for tree removal or cutting firewood, but are used by arborists to prune live trees. Homeowners are advised against using chain saws for pruning live plants, because of the difficulty of making proper cuts, as well as the danger of using this equipment. Always use extreme caution and wear protective clothing, as well as eye and hearing protection, when running a chainsaw. Because of safety concerns, a chainsaw



Figure 3. Pole pruners cut like loppers and may also have a saw blade for cutting larger limbs. Always use caution and wear head and eye protection if using a pole pruner.



Figure 4. Hedge clippers may be power-driven (top) or manual (bottom).



Figure 5. Types of pruning saws include a folding saw (top), a fixed blade saw (middle), and a bow saw (bottom).

should only be used when the operator is standing on the ground. Chainsaws should not be held overhead or anywhere near the face. Only certified arborists and certified tree-workers should use powered saws high in trees. See *Chain Saw Safety* (Fisher 1980) for further information on the safe and appropriate use of chain saws.

Safety Equipment

Basic safety equipment is necessary when using any sharp cutting tool. Gardeners should wear heavy duty gloves to help prevent splinters and blisters to the hands. To keep sawdust and debris out of the eye, always wear shatterproof safety glasses. Hearing protection is important whenever using powered equipment, and a hardhat is a good idea too, especially when pruning branches overhead.

Maintaining Tools

How well tools are maintained will greatly affect their quality, usefulness, and lifespan. Tools and equipment should be stored out of the weather to prevent rust. Dirt and rust



Figure 6. Chain saws are available in a variety of styles and sizes. Generally, the longer the saw blade and larger the motor, the heavier the saw. Safety equipment **must** be worn when running a chain saw.

build-up will dull metal blades and affect the ease of use. Long term neglect of tools will shorten their useful life. Tools need to be cleaned, sharpened, and oiled regularly to keep them in good working order. Wooden handles should also be oiled to prevent the wood from drying out and developing splinters. Always keep cutting blades clean and sharp to reduce the chance of injury to the operator or the plant.

It is possible for tools to transfer certain diseases from one plant to another. When pruning a diseased plant, disinfect the pruning tools after every cut, and before moving on to another plant. This helps prevent the spreading of bacteria and other pathogens on to healthy branches or other plants.

Disinfect pruning tools by wiping or dipping the blades in a registered household disinfectant (such as Lysol or PineSol). In the past, a 10% solution of bleach was recommended to disinfect tools, but studies have shown it has a corrosive effect on the tools, as well as on clothes, plants, and soil (Chalker-Scott 2008). At the end of the workday, be sure to oil any tool that was disinfected, as the sanitizing product may cause rust on metal parts.

Further Reading

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