



Pruning

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Table of Contents

Introduction.....	3
Why Should You Prune?.....	3
Plant Health as a Primary Reason to Prune.....	3
Correct Size and Shape for the Space.....	3
More Flowers and Fruit.....	4
For Fun!.....	5
The Proper Equipment for Pruning.....	5
Hand-Held Shears.....	5
Hedge Shears.....	7
Loppers.....	7
Hand Saw.....	7
Chain Saws & Pole Pruners.....	8
How to Prune for Best Plant Response.....	8
Ask Yourself WHY You Are Pruning.....	8
Effect of Removing Branches or Stems.....	8
Heading Cuts.....	8
Thinning Cuts.....	9
Tip Pruning.....	9
Pruning to Fix Damaged Plants.....	11
When to Prune Shrubs and Small Trees.....	12
Spring Blooming Shrubs and Small Trees.....	12
Summer Blooming Shrubs and Small Trees.....	13
The Proper Hedge.....	14
Formal Hedge vs Informal Hedge.....	14
The Formal Hedge.....	14
The Informal Hedge.....	15
Topiary.....	16
Pruning Suckering Shrubs.....	17
Evergreens Require Less Pruning.....	17
Pruning Vines.....	18
Undesirable Vines.....	19
Pruning Desirable Vining Plants.....	19
Pruning Dwarf Fruit & Ornamental Trees.....	21
How to Begin Pruning.....	22



Introduction

Generally speaking, there are two types of “pruners”: Folks who stand in front of a shrub or tree not knowing where to begin and the others who look at the tree, get out their loppers and prune plants with abandon. For a beginner, the task can seem overwhelming – but if you focus on following the 3 main principles of pruning, you will get beautiful results.

These 3 principles, as outlined in *The Pruning Book* by Lee Reich, are the following:

- Well-reasoned (why you are pruning)
- Well-timed (the best time to prune)
- Well-made (how to make clean cuts)

Read on to discover more about each of these principles and to build your confidence before venturing out to tackle your landscape!

Why Should You Prune?

Walking through the woods you obviously will not see any gardeners helping nature out with her trees. This is because pruning can oftentimes be a natural occurrence. If you find yourself walking over a fallen branch one day, try looking up and you just might see where the branch came from, and if the tree truly needed it or not. Diseased or insect-infested branches will sometimes be shed naturally by the tree, as well as the little sticks and twigs that litter the forest floor. This is simply nature doing her job, discarding what she no longer needs to grow stronger and healthier as a result.

It is important to do the same thing with your own landscape. After a strong windstorm, nature will have done a lot of work for you in the big shade trees, but perhaps not in ways you would have intended. There is clean up to

do, both on the ground and in the tree where you will probably see a jagged limb remnant. While taking care of that high remnant may be a job better suited for professional tree trimmers, pruning your shorter shrubs and dwarf ornamental trees can be a satisfying task that results in a tidy garden free of debris and welcoming to walk through.

Plant Health as a Primary Reason to Prune

When you look closely at your shrub or small tree, do you happen to see branches rubbing against each other? Are some perhaps dead or broken? Are some tree branches forming an acute angle with the tree trunk? Unless you have a Weeping Cherry or a Weeping Willow, branches that sag or grow close to the ground will need to be pruned.

When branches of woody plants rub against each other, the outer layer of bark is scraped off, causing wounds to the tree. This creates open areas for disease pathogens to enter. If the shrub is a tangle of branches with little air flow or sunlight, this creates the perfect home for pathogenic microbes.

Plants can't grow without their leaves for photosynthesis so when you remove the leaves and new shoots from the shrub stubs the roots will slowly die.

Correct Size and Shape for the Space

Often when you buy a home where the landscaping has not been tended to for a while, you may notice some shrubs getting too tall or wide for the space. Before you start pruning, you should first evaluate if you want to keep the shrub to begin with.





A more effective way to remove unwanted older shrubs is to cut back the top growth to 1 inch from the ground but leave the roots intact. These shrubs will send up shoots for 2-3 years, which you can simply snip off. The roots will continue to soak up water while you establish a different landscape plan. You could also let them grow and see if you prefer the shrubs in their smaller size.

Plants cannot grow without their leaves for photosynthesis so when you remove the leaves and new shoots from the shrub stubs the roots will slowly die. Leaving them in the ground serves a purpose: they soak up water while trying to regrow, eventually becoming organic matter in your soil once they die off, feeding the microbes who are feeding your new landscape.

Questions to ask yourself:

- Are the shrubs or trees planted too close to the house?
- Will other landscape features have an impact on that shrub/tree (sun exposure, proximity to other plants, etc)?
- Are you planning on adding more to your landscape?

If you answered yes to any of these questions, then you may have some pruning to do (in addition to possibly some digging).

Some words of caution: Before you attempt to dig anything up, have a plan for moving water away from the house. Those shrub roots are taking in a lot of rainwater and digging them out may result in water building up and possibly flooding your basement.

More Flowers and Fruit

Shrubs and trees bloom or fruit on either the 1st or 2nd year growth. If you have a tangle of untended growth the flowers will be hard to see, and you will not be able to reach the fruit. You will also have more disease and pest problems because that tangle is the perfect environment for them; warm, dark, and moist.

Raspberries often create thickets that trap the juicy berries in the middle, making them only accessible to birds. These can fortunately be tamed easily enough, along with lilacs, potentillas, and dogwood that put out shoots to increase the diameter of the planting, usually to the detriment of flower production.

Dwarf fruit trees are a beautiful addition to a landscape. They only grow to about 8-10 feet tall, bloom in the spring, and produce fruit to eat.

Most fruit trees produce an overabundance of fruit, so excess flowers must be pinched out. Otherwise, you will get fruit and flowers every other year. The tree has put far too much energy into fruiting and needs to rest.

For Fun!

Sometimes the very act of engaging in a task like pruning, is a great way to clear your mind and put some order in your surroundings. The task does not have to be overwhelming if you remind yourself that a gorgeous landscape happens in baby steps. While starting the task may seem daunting, know that the result will be worth it for the satisfaction and confidence it will bring you as you walk through your perfectly landscaped garden.

So roll up your sleeves, take a moment to visualize your desired outcome as we discuss the tools you will need for the job at hand.

The Proper Equipment for Pruning

A word of advice on tools: Get the best ones you can afford and take good care of them. That means using them correctly (for example, you should not be trying to cut a 2-inch diameter limb with handheld pruning shears). Keeping them sharp and clean will not only result in an easier task of pruning but will ensure you are not endangering your plants by making them more susceptible to disease.

Another pruning supply you should always have is Isopropyl Alcohol to sanitize your tools after cutting out a diseased limb. The last

thing you want is to spread that disease to other plants. Just dip your blade into the alcohol and wipe off. Keeping a sharpened blade on all your tools means you will also need to have a whetstone and a file.

Hand-Held Shears

For snipping and cutting smaller stems.

There are two types of hand-held shears; anvil and bypass. Anvil will almost always cost less, but that's because they don't do as good a job of cutting.

Think of an axe and a stump that you split kindling on. The axe is sharp and the stump is flat. If your axe swing is a little off the piece of kindling doesn't split. Anvil shears have a sharp blade that that closes onto an anvil, cutting and smashing the branch. If the top and bottom of the anvil shears don't line up perfectly the cut will be incomplete, leaving a thread of plant tissue. You'll be tempted to pull that plant thread off, DON'T! It's still attached to the plant and will pull the outer layer of bark right down the limb, just like a piece of ribbon. That will create a wound all the way down the limb.

Bypass shears are like scissors. Two sharp blades passing each other. Because you've kept your tools sharp you get a nice clean cut. They're good for cutting branches up to ½ inch thick. They're also good for trimming damaged roots from a bare root shrub or tree you've received in the mail. Only prune what's absolutely necessary on young plants. They need all their leaves and roots to get a strong start.



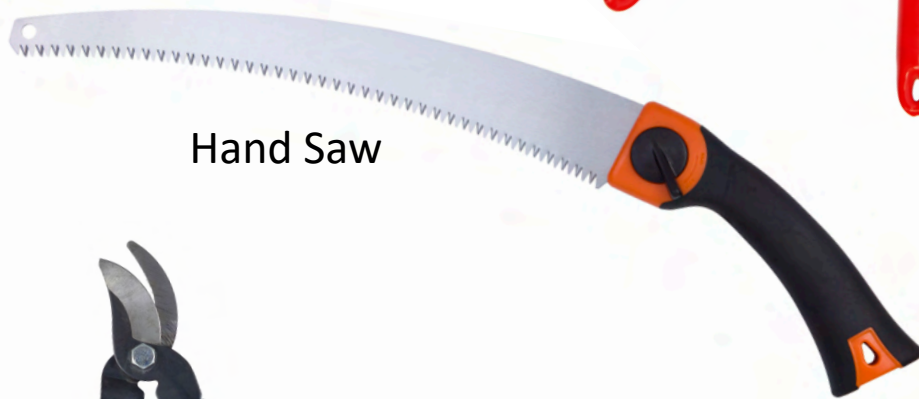
Pruning Tools



Hand-Held Shears



Hedge Shears



Hand Saw



Loppers

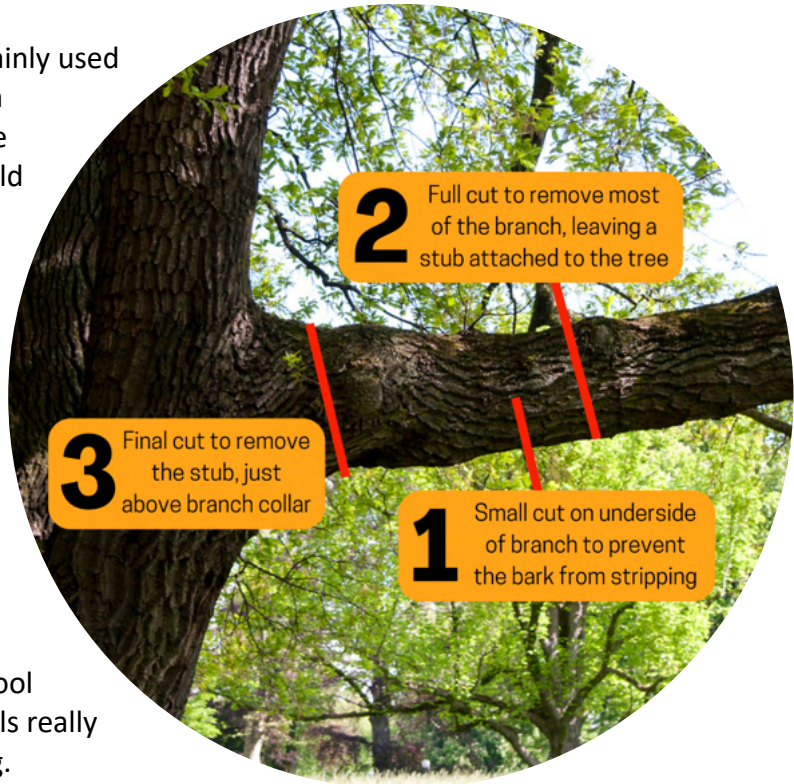


Chain Saw

Hedge Shears

As the name suggests, these are mainly used for hedges. A formal hedge is a high maintenance part of your landscape (and likely will also require hand-held shears for more intricate detailing). Maintaining an informal hedge is less labor intensive and does not require as much skill. Hedge shears must be kept very sharp, so pruning does not stress the plants.

There are hedge shears with long handles and others with ordinary handles. The ones with ordinary handles will give you a bit more control. Keep them well-oiled and sharpen blades regularly, and this tool can last a lifetime. Good quality tools really make all the difference in gardening.



Loppers

This is what you will need for taking out mid-sized branches on a tree. If you notice that a branch is challenging to cut, despite your loppers being kept sharp, avoid trying to force it and use a hand saw instead (see below for more on hand saws).

Some loppers have long handles to make it easier to reach into the middle of a shrub. These are heavier than regular loppers and can be unwieldy. You may gain distance but will lose precision. A helpful tip when pruning overgrown shrubs is to wear long sleeves, gloves, and long pants. It may feel like you are wading through a thicket in the woods, but if you start by pruning outside stems and work your way in, you will have an easier time. A sturdy tool belt that can carry your loppers and hand shears is also a great investment and will allow you to always have what you need on hand.

Hand Saw

This tool should be used mainly for large limbs and thicker branches. Using the tree trimmer's three-cut method is ideal when removing unwanted branches from dwarf fruit or ornamental trees (see image above).

Hand saws come in a variety of configurations. The preferred Grecian saw has a narrow, curved saw blade with very tiny teeth making it less likely to nick adjoining branches. This saw cuts on the pull stroke and typically does not need sharpening. The shape of the blade works well with our body's natural movement, offering a clean cut with little effort.

The Straight Saw is also popular for pruning with a sturdy but flexible blade that resists buckling. They work well on thick branches that are between mid-body to shoulder height.



Stay away from regular carpenter's saws for pruning as they are more cumbersome and not as easy to control in scenarios that do not involve a straight flat surface on which to cut. Saws that are made for pruning are ideal, and many come with blades that fold back into the handle for safety when storing.

The heavier bladed straight pull saw looks like a carpenter's saw and almost always nicks an adjoining limb. Try not to use a pull saw unless it's all you have.

Chain Saws & Pole Pruners

These larger pieces of equipment require caution and should only be used by experienced pruners or professionals. Owning a chain saw can come in handy when breaking down fallen trees and large limbs; but if you need to tackle a large branch that is still attached to a tree, assess the situation well and call in a professional if you are not comfortable doing it yourself.

Pole pruners are used to cut high branches from the ground and can be dangerous if used incorrectly – putting you at risk of being injured by falling branches. They also force you to crane your neck back and are not ideal in most situations. For larger pruning and tree trimming jobs, contact a professional and save yourself the risk.

How to Prune for Best Plant Response

To get the response you want from the plant while maintaining the plant's health, be sure to consider the 3 principles of pruning previously mentioned: well-reasoned, well-timed, well-made. Another helpful tip is to not cut back more than one third of the plant's growth – giving your tree enough

foliage for photosynthesis to keep the roots healthy.

Ask Yourself WHY You Are Pruning

If your focus is the health of the plant, start by determining what the natural form of that shrub or small tree is and then prune out branches that are dead back to a live branch. If the shrub is multi-stemmed, then simply cut the dead stems. You will also want to prune out crossing limbs, or any that may be restricting sunlight and air circulation.

If the reason for pruning is to shape or decrease the size of the plant, focus on areas that are giving your plant its height and width, slowly working your way in until you are content with the result.

Effect of Removing Branches or Stems

Pruning affects the basic biology of a shrub. Plant branches terminate in a bud which puts out a chemical called auxin to maintain its dominance. If the dominant bud remains, it keeps other buds on the branch dormant and the branch grows longer. When you remove the terminal bud the source of auxin is removed, and the side buds come to life which results in the plant becoming bushier.

If you want to retain that single header, like in a Christmas tree, then a different method of pruning is used to fill out the tree, but the header with that dominant bud is not cut. Many fruit trees also have a single header.

Heading Cuts

If you have a single stemmed tall plant and want it to have more branches, then you need to make a heading cut which removes no more than a third of the branch. This works with shrubs, perennial flowers, and trees that are being kept at a dwarf height. Heading cuts

automatically decrease the height of your shrub or tree and because the auxin production of the dominant bud is gone, your shrub or tree will have more branches.

How you prune in relation to growth on the stem or limb will determine the health of that cut and the direction a branch grows. Your cut should be above a bud facing the direction you want the limb to go. Figure 1 shows the different ways to cut a stem while retaining a healthy plant.

Before you cut the header be sure you know the growth habit of your shrub or small tree. Shrubs that have multiple stems coming from one root send up more shoots to become bushier when the dominant bud is snipped off. Some small ornamental trees like pyramidal arborvitae (*Thuja occidentalis* 'Pyramidalis') have conical shapes, tall and thin, while others, such as apple trees (*Malus domestica* spp), have a vase shape.

Evergreens such as arborvitae, hemlock, juniper, and yew can quickly grow beyond your desired size. They are pruned using a heading cut for new growth and thinning cuts (explained below) to maintain their shape. It is also important to note that evergreens will put out new growth only if the remaining branch has needles on it.

Thinning Cuts

When using this method, the effect on the tree will not be visible if the cut branch was dead or rubbing on another branch. If the branch is pruned while still alive, the entire tree or shrub will feel the effect and begin to engage in more vigorous growth. The reason for this is that the energy the plant was putting into that branch has now become available to the entire shrub or tree.

Thinning cuts are used to cut out an entire limb to open the canopy of a small tree or shrub. This allows air and sunlight to penetrate to the interior of the shrub, resulting in more blooms or better ripening fruit. In a multi-stemmed shrub, thinning cuts take out branches all the way to the ground.

A shrub with lots of blooms and fruit needs air and sun circulating throughout its growth to remain healthy. What you are removing is excessive plant growth which can harbor disease and insect pests. Be mindful of which stems you prune to the ground and try not to overdo it.

Tip Pruning

Sometimes called "Pinching," this method of pruning involves removing just the tips of stems and has a surprisingly profound effect on the entire shrub or tree. This is because when that tip is removed, the auxin that it produces is no longer being supplied to the plant. As previously mentioned, this allows dormant side buds to grow into vigorous side shoots.

Tip pruning an apple tree results in more lateral branches, which will lead to more blossoms and fruit. You can keep an evergreen such as a fir, spruce, or pine the size you want by pinching off the "candles" or light-colored new growth on the side branches in the spring while they are still soft. Unless you are looking to change the shape of an evergreen, resist cutting back the main stem with the dominant bud.





Pruning To Fix Damaged Plants

Shrubs and trees can sometimes be damaged by a good strong windstorm, or by other accidental means. It is important to prune back the damage to promote healing and regrowth, but the methods used will differ between shrubs and trees.

A Wounded Shrub

Shrubs come in two varieties: multi-stemmed and single trunk. If the damage is on a multi-stemmed shrub, cut the damaged stems to the ground, encouraging the plant to send up shoots. It may look lopsided at first but will eventually fill out again the following year.

A shrub with a single trunk needs more observation. Using a thinning cut, prune out any damaged branches. If the trunk itself is damaged, you will have to pay close attention to it. If you notice disease or insect problems that can be an indication that your plant is weak. Damage to the trunk could also be a sign of damaged roots and may indicate that the shrub needs to be replaced altogether.

A Wounded Tree

Trees can be more complicated to fix once they have been damaged. If the broken branch is still hanging on the tree, you can typically use a hand saw to remove it. Starting from the bottom of the branch, cut toward the broken spot, trying your best to remove the limb without tearing down into the bark of the trunk. This may require you to find a helper to hold the damaged limb while you remove it, to ensure a clean and easy cut that will not damage the tree further.



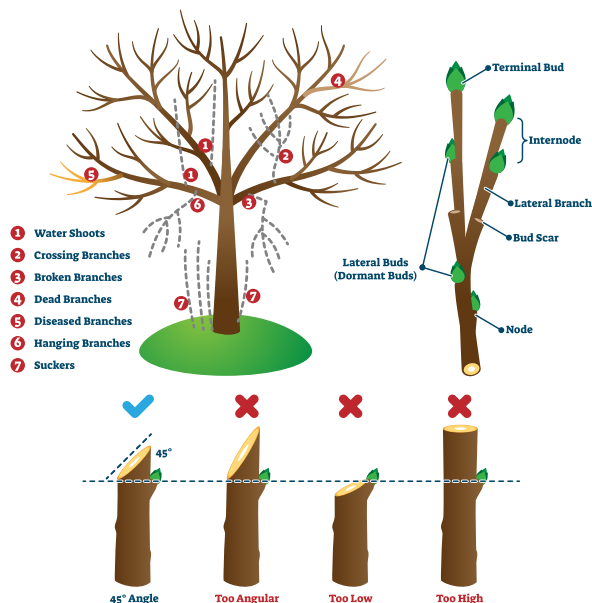
Often a limb that has been damaged due to high winds will be slightly twisted off the trunk. If it is too high to reach, call a professional to remove it with a chain saw.

If the limb is down and has taken some of the trunk bark with it, there is not much you can do aside from make sure the limb is not showing signs of disease or insect infestation. If these signs appear, remove it from the area and dispose of it immediately as an infestation on fallen branches can easily spread back to the tree or other surrounding plants.

Trees and shrubs are incredible healing machines. All plants react the same to a cut or wound; if the weather is warm, cells in the vicinity begin to divide and create an antimicrobial layer on the wounded area. Trees will contain the damage by growing healthy tissue over the area. In cold weather



TREE PRUNING



the tree may heal more slowly but pathogenic organisms and disease are also slowed down. Avoid putting any kind of healing ointment or wound dressing on the tree as that will create a warm and moist breeding ground for pathogens.

When to Prune Shrubs and Small Trees

While there are a set of guidelines for pruning that depend on the shrub or tree in question, there are often also exceptions to consider. Hydrangeas, for example, seem to spark many differing opinions on when or if they even require pruning at all. Some cut them back at the end of the season so they grow new and fresh the following year while others swear by only trimming off dead canes and using thinning cuts only when necessary for shaping the plant.

Spring Blooming Shrubs and Small Trees

If you wait until late summer to prune spring-flowering shrubs or ornamental trees, you will cut off most of the buds for next year's spring display. Spring flowering shrubs form buds on

the new branches created over the previous summer.

If the shrub is expanding beyond its bounds, thinning cuts around the base of the plant will help to get it under control. Heading cuts will create more branches for bud set and blooms for the next year. Prune these plants early in the season, as this will encourage them to put out new growth over the course of the summer.

Forsythia (*Forsythia intermedia*) is one of the first shrubs to bloom and a good example of how much growth a shrub can put on in one season. Thriving shrubs may even need a second pruning at the end of the season to tame the abundance of summer growth. While you may lose some blooms, it is important to trim some of the longer arching branches as they can grow long enough to touch the ground and give an unruly appearance to the shrub.

Several other spring blooming shrubs and raspberries grow long stems, called canes, that in one season can touch the ground and start to root. If left alone, they will establish a new plant (that's how raspberry thickets happen) and take over more of your yard. Those rooted tips of shrubs can be dug up and planted in a more desirable place, or simply dug up and composted. Or even better, potted up in a very pretty pot and given to a friend as a unique and personal housewarming gift.

When pruning back spring blooming shrubs, take off about 1/3 of each branch with a heading cut. Make sure the cut is just above a bud that is pointing in the direction you want the branch to grow. By the end of summer, the shrub will have produced new growth to

support a colorful cascade of green leaves that will emerge the following spring.

Spiraea (*Spirea spp*) is a large family of shrubs with numerous growth habits. Almost all species need to be pruned with thinning cuts, but optimal timing differs for each. Some need pruning in the winter, some in the spring, some twice a year. It is valuable to get to know the species through a bit of research to ensure that you prune for optimum flowering.

Spirea's branches drape down to create beautiful cascades of bloom, but over time, they can become too dense. It is necessary to thin the shrubs so the branches under the cascade can get sunlight and air, otherwise they will die. This is a major problem with *spirea*, no matter what species. If you cut back a third of the shrub stems to within one inch from the soil, they will put up new shoots that will bloom next year. Every year use thinning cuts to remove the oldest 1/3 of stems to allow air and sunlight into the middle of the plant, resulting in more leaf and bud growth.

Summer Blooming Shrubs and Small Trees

Summer blooming trees and shrubs require the same thinning and heading cuts as spring bloomers but be prepared to prune in cold weather. Summer bloomers need to be thinned and cut down to height during their dormant season, while there is still snow on the ground. Invest in a pair of warm gloves with high dexterity to make the job easier and you will reap the benefits come summertime.

There are so many shrubs that flower in summer, making it impossible to mention them all but some of the most common ones include roses (*Rosa*), summersweet (*Clethra*

alnifolia), viburnum (*Viburnum*), and potentilla (*Potentilla fruticose*), among others.

Many varieties of what most assume are flowering trees are actually classified as multi-stemmed shrubs. They can grow into trees depending on how they are pruned. The Smoke Tree (*Cotinus coggygria*) is a good example that is usually seen with masses of tiny individual flowers that look like smoke in the tree. While it looks beautiful, the blooms can only be seen from a distance when it is shaped specifically to encourage it to grow as a tree. In its natural state, it is more of a bush.

To cut back on maintenance, you can prune these flowering trees into shrubs by starting with any damaged stems. Then, prune to the ground about 1/3 of the stems in general. *Cotinus* blooms on old wood so if you leave two-thirds of the stems, those will have blooms. The new growth will have large, beautiful leaves. Next spring, thin out 1/3 of the stems that bloomed to ground level and last year's foliage will become this year's blooms. It will usually take three years to create a smoke bush from a smoke tree.

You may find that many "trees" are naturally shrubs. Lilacs, Dogwood (*Cornus alternifolia*), Rose of Sharon (*Hibiscus syriacus*) are just a few. Observation of growth habit may show you there are more shrubs on your property than you thought. Hint: ornamental trees that keep putting out suckers may be shrubs in disguise.

If it has a trunk, then consider cutting it down by 1/3 before bud break and you will find yourself with a short tree that will start putting out suckers. Those suckers are the beginning of your new shrub.



The Proper Hedge

Pruning a hedge is NOT something left to your son, husband, or neighbor who happens to have a power hedge trimmer. In fact, power hedge trimmers do a great disservice to a hedge, whether formal or informal.

Formal Hedge vs Informal Hedge

We usually see formal hedges in formal gardens or as dividers between a yard and the sidewalk. A formal hedge is pruned into a long box-like or rounded shape and maintained with shearings twice per year. When you shear a hedge with hedge shears you are making many heading cuts.

An informal hedge is pruned so that the natural shape of the plant is evident. A line of forsythia with draping branches, or spirea shrubs lining a long driveway are examples. Both heading and thinning cuts are used to maintain the shrub's shape.

Sadly, hedge trimming is not typically considered pruning, but is referred to as "cutting back" and is usually part of a lawn mowing contract. In most cases, little time is spent on plant health considerations and the

hedge is butchered with straight up and down cuts. While this may create a tidy look at first, the bottom of the hedge will eventually from lack of sunlight. The rapid cutting of an electric or gas hedge trimmer also stresses the plants, especially if the trimmer is beginning to dull.

The Formal Hedge

Hedges are made up of multiple plants whose branches merge to make a seamless wall. Plants that are columnar or fastigate varieties naturally grow upright and tight. Yew, privet, and boxwood all make good formal hedges, and they can handle frequent pruning. Both deciduous plants and evergreen shrubs are also suitable for a formal hedge. It is advised to do some research on plant growth habits so to avoid falling in love with a plant and then find out the hard way about all the challenges involved in trying to keep it pruned.

The individual plants making up a hedge tend to put out more growth on the top where they get more sun. When pruning, make sure the bottom of the hedge as well as the interior of the hedge are being exposed to a



fair share of sunlight. If you are trying to establish a new hedge, there are some pruning cuts that must be made along the way to end up with lush and vigorous, continued growth.

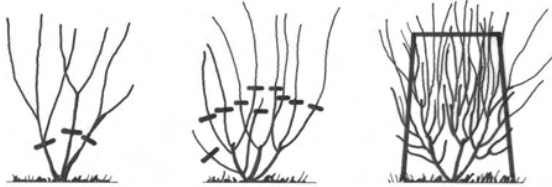


Image: Univ of Maryland Extension <https://extension.umd.edu/resource/pruning-shrubs-and-hedges>

How to establish a hedge of deciduous plants

1. Cut off almost everything at planting. It will feel drastic but cutting tall growth will make the hedge bushier at the bottom.
2. After the plants grow for a season cut back the main stem $\frac{1}{3}$ and tip prune all branches.
3. Every year after, prune the hedge to shape with a wide base and a narrower top.

Even in a formal hedge there are indiscreet holes into the interior of the hedge so sunlight and air can get into the hedge and keep the interior alive. Have you ever cut back the “skin” of a hedge to find dead branches? Most of them are not dead but simply leafless - following the branches will lead you to luxuriant growth on the top of the hedge. These holes can be created by using bypass hand pruners to prune back an interior branch or two at a 45-degree angle, just above a bud that’s heading in the direction you want the branch. Take two or three steps down your hedge and prune another interior branch. When those branches are exposed to sunlight, they start putting out green shoots which will make the hedge appear fuller.

Trimming a proper hedge is time consuming and requires hedge shears and hand pruning shears. To keep a hedge healthy from top to bottom, the base must be wider than the top. Whether the top is square or round, the hedge should go from the wider bottom to the narrower top at a gentle angle. Note that square tops can be more prone to snow damage over time.

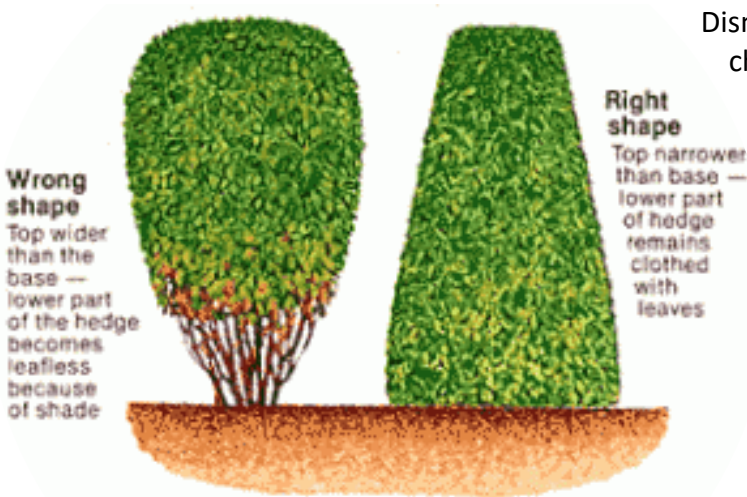
Putting in a hedge requires some thought as it is not a low-maintenance part of the garden; in fact, it may be the highest maintenance feature. So before proceeding, ask yourself some questions:

- How much time are you willing to devote to a hedge? The answer may make the difference between a formal or an informal hedge.
- How high and wide do you want your hedge? The ideal size is 3 feet wide and no higher than eye level (higher for more privacy, but keep in mind you will need a ladder to prune the top).
- How much money are you willing to spend on plants? Columnar or fastigiate varieties naturally grow upright and tight, so fewer straggling branches throughout the season but more of them will be needed to create a full appearance.

The Informal Hedge

This is most effective with a row of multi-stemmed draping shrubs such as Forsythia, Spirea, or spreading evergreens. An informal hedge takes much less work than a formal one, but it does take up more space. To get a luxurious draping Forsythia hedge, covered in beautiful yellow blooms in springtime, you will need about 6 feet of ground space. If less space is available, shorter shrubs like potentilla will give almost all season cheery





Source: jimsmowing.com.au/2016/07/when-to-prune-hedges-and-how-often/

yellow blooms and will be concentrated to a smaller area.

An informal hedge is made up of individual shrubs that are each thinning and tip pruned like any ornamental shrub to keep them full and flourishing. The key to having an informal hedge along your drive or on the property line is to research how large it will be at maturity. Pruning will help to keep it in bounds but be mindful of how close it is planted to the driveway to be sure the draping branches will not scratch your car.

Topiary

Topiary, or pruning and training of live plants into shapes, was first recorded in the 1st century CE. Caesar Augustus, in Ancient Rome, commissioned many topiary gardens with formal shapes to suit the formal architecture. A formal hedge is considered a form of topiary.

An art form beyond trimming and pruning, famous topiary gardens exist across Europe and North America. If you have ever been to Disneyland, there are many topiary characters featured throughout the grounds. Now, a 15-foot Mickey Mouse might look out of place in your yard but a 3-foot one might be the perfect quirky addition, especially if you have young children or grandchildren.

A topiary starts with a plant, or plants, placed inside an open-structured metal shape. The plant grows through the metal caging and gets pruned using head cuts as the branches emerge beyond the structured shape. As you might have guessed, it can take several years of growth for the plant to become a recognizable figure.

Smaller topiary can be created in pots, but keep in mind that these are shrubs that will have a substantial root mass, so the pot should be quite large. Research how much pruning the chosen plant can handle before you start. Narrow-leaved evergreens are your best choice due to the smaller leaves as they will cover the wire frame more evenly. Just think of your 4-year-old grandchild's expression of amazement when they see a big green Mickey in the garden at their next visit!



Pruning Suckering Shrubs

Suckering shrubs, simply put, are plants that keep expanding their footprint by putting up new shoots further from the middle of the root mass. They tend to become thick and dense rather quickly, putting out crossed stems that often lead to damage and disease. They also produce fewer flowers or fruit because the plant is putting all its energy into building plant mass.

Suckering shrubs should be pruned in early spring before bud break. Even on spring flowering shrubs, it is best to use thinning cuts to remove excess growth for optimal plant health. Remove only 1/3 of the stems, starting with the furthest from the center and then proceeding to the oldest stems in the middle.

Cut stems an inch above the soil line, leaving the 2nd or 3rd year growth as these branches will produce blooms. With heading cuts, trim back any damaged or diseased branches, opening the shrub up so sunlight can reach all branches. The plant will respond with renewed vigor because the roots will now only supply nutrients to much fewer branches. The shrub will also put-up new growth from the thinning nubs left at ground level.

The common lilac (*Syringa vulgaris*) for example, is a good example of a suckering shrub. If left unpruned it can become a tree, with sparse blooms and many suckers at its base. The suckers will not bloom because the mother tree provides too much shade.

If the lilac has become a tree, there are two things you can do:

- Remove all the suckers and shape the lilac as a shorter tree form
- Remove 1/3 of the suckers and cut down the lilac tree with a hand saw

The first option will leave you with blooms that may be too high to reach. After spring blooming, cut 1/3 of the main leader to a bud pointing in the direction you want the next branch to grow. This is a heading cut and will invigorate buds further on down the branch because the dominant bud and the auxin it produced, has been removed. Keep removing any suckers that appear at the base of the tree and cut off any low hanging limbs to the branch collar, where they attach to the main trunk.

The second option will leave you with no blooms for the first year after cutting, but you will be able to re-establish a multi-stemmed shrub. When it blooms the following year, the flowers will be at eye and nose level making them easier to enjoy. When thinning the suckers, leave the healthiest and avoid having any crossing branches. The goal is to create one beautifully shaped shrub, keeping all suckers that come up at a distance from the middle, cut down to soil level.

Evergreens Require Less Pruning

Perhaps reading that title will tempt you to grow only evergreens, but rest assured that without proper maintenance these slow-growing shrubs can still take over a sidewalk.

To regain the sidewalk, prune evergreen branches back to a side branch (a thinning cut) so the foliage hides the cut. If multiple branches are out of bounds your best option is what is called “the three-year method” of pruning. This



method causes the least amount of stress to your plant and keeps your landscape tidy in the process.

Year 1: Start by removing 1/3 of the oldest, least attractive branches. Cut them back to ground level with a thinning cut. If previous improper pruning has left a multi-stemmed evergreen with a trunk, cut back 1/3 of the least attractive branches to a main branch.

Year 2: Remove another 1/3 of the oldest, least attractive branches with a thinning cut to ground level, or to a main branch.

Year 3: Remove the last 1/3 of the old overgrown evergreen branches. The plant should have put out new growth each year and as the new shoots get to be about a foot long, tip-prune to encourage lateral branching.

Finally, you have your sidewalk back. Remember, shrubs and trees do not grow unruly overnight, so be observant. Pruning to keep a beautiful landscape is very satisfying.

Pruning Vines

Whether grapes, kiwis, or roses - vining plants all need regular pruning. They also need to be coaxed into vertical growth to produce fruit and flowers. A rose bush may put out a long horizontal branch, but chances are low that this branch will bloom if it is growing close to the ground. Grapes need proper pruning in late winter to produce a good harvest the following season.

Climbing roses make a spectacular display and create an elegant entrance into a garden when properly maintained. Imagine the delight and permanent impression left on guests entering your garden through an arched pergola covered in blooming roses.

Cultivated climbing roses need support and maintenance to grow upward. Each time you go by your climbing rose bush, look for new growth that seems to be swaying in the wind. Thread it into the trellis with the tip heading up and it will soon settle nicely into its new position.



Examine the base of your rose and cut to the ground any dead wood and any shoots that are headed away from the support, giving more energy to the branches climbing the support. More energy results in more blooms. Roses often have branches that die over winter and need to be removed before bud break. Roses are a summer blooming shrub, so maintenance begins in the colder weather of very early spring.

Dead wood on a rose bush is brown and live wood is green. Cut back the dead wood right up to the green section of branch. Not all roses are climbing; hybrid, tea, and shrub roses need pruning also and should be pruned in the same way as summer blooming shrubs.

Undesirable Vines

There are various clinging vines, such as English Ivy (*Hedera* ssp) and Trumpet Vine (*Campsis radicans*) that are still sold in nursery catalogues but are extremely invasive. So much so, in fact, that they are both listed on the National Invasive Species list from the USDA. English Ivy and Trumpet Vine, among others, cling easily to any surface they are climbing due to their aerial roots. Many British cottages would likely fall apart if the ivy covering them died or was removed. Those aerial roots attach to any rough surface, particularly the mortar between stones or bricks. While the roots will not damage sturdy brick or stone, the problem arises when a chip or crack allows the aerial roots to move into the mortar and cause the crack to expand, beginning a slow crumbling of the exterior. Ivy traps moisture on your wall, setting it up for mildew and mold while allowing the lower part of your wall to serve as a welcoming home for mice and other rodents.

A good way to achieve the “ivy covered cottage” look without the risk, is to plant

Boston Ivy or Clematis (for a flowering plant) a couple feet away from the house and give them something to climb on besides your house. A trellis of chicken wire attached to your roof overhang and secured to the ground near your ivy plants will soon be covered. Ivy requires a lot of attention and pruning or even the least aggressive varieties can twine around a downspout or eaves trough. If pruning is not an activity you wish to regularly engage in, covering your home in vines is likely not the best option for you.

Pruning Desirable Vining Plants

Typically, vines do not just climb all by themselves. Not only must they be pruned, but also must be persuaded to climb an arbor or trellis. Vines like Clematis (*Clematis* ssp) and hardy kiwis (*Actinidia arguta*) need help climbing.

There are numerous best practices for pruning vining plants; Clematis alone has 3 different methods based on the species and when it flowers. Getting it wrong can result in killing the plant, so be sure to keep all care material included with a plant so you can refer to it when comes time to prune.

That said, most vines need to be pruned back quite drastically in the first few years while establishing their form. For example, grapes create a trunk and branching “cordons” are trained to wire or over a pergola. The “cordons” need to be tied to the support with a soft material like knit rags while they are shaping to the support. Removing excess branches gives more fruit and flowers but must be done over winter to ensure a better grape harvest in the fall.

While this diagram may seem drastic, especially when covering a pergola, you will need to at least prune back to a pair of healthy buds, pointing toward the support in





Be aware: there are species of wisteria that are considered invasive species, especially in the southern USA. Try to find a native species such as American wisteria (*Wisteria frutescens*) or Kentucky wisteria (*Wisteria macrostachya*) as the Chinese and Japanese species are extremely aggressive and can take over your garden, house or shed.

Honeysuckle (*Lonicera spp*) is another plant with a wonderful fragrance and is available as either a shrub or a vine, but both are considered invasive and aggressive. Be sure and check with your local extension service before buying a particular species. There are many species to choose from to plant in a spot you pass frequently, so you can often enjoy the pleasant aroma!

order for the vines to fill out sufficiently over time. Note that grapevines have substantial supports. Most vines need a lot more support than you imagine when you initially plant them. Vines, like shrubs and trees, need to be envisioned in their mature size so that support, spacing, and effect on other plants can all be considered.

The way you prune a wisteria is similar to grapevine shaping. Remove any branches that are growing low to the ground by cutting back to the main branch. A vine will grow on the ground (below the lawn mower) until it finds something to climb, perhaps even putting out roots in the middle of your yard. A climbing rose will do the same thing.

Many books have been written about wisteria. It has beautiful cascades of blue or purple flowers and is very fragrant.

A pergola or trellis can easily be covered with blooming honeysuckle vines with very little coaxing because they twine around supports. Honeysuckles have a long bloom season, but most species need to be pruned in late winter before bud break, allowing them to bloom on new growth come spring.

When pruning for bloom, remove damaged, diseased, or crossing branches. This creates air circulation and allows the plant to give all its energy to the blooming branches. If your honeysuckle vine is old, it may have woody growth at the base. Cut back a couple of branches near the ground to allow new shoots to emerge in spring.

Vining plants have the most diverse pruning needs of any type of shrub, tree, or plant so be sure to do the necessary research before attempting that first cut.

Pruning Dwarf Fruit & Ornamental Trees

Planting an orchard of dwarf fruit trees is exciting when you think of the possibility of growing your own apples, peaches, pears, or cherries. In the South, you can even oranges, lemons, and limes. Dwarf fruit trees are quite easy to maintain and provide pretty flowers in spring and fruit in fall.

Fruit trees are pruned the same way as ornamental trees, but with some additional pinching back. Dead, diseased, or crossing limbs are removed for optimal plant health. Dwarf rootstock is available for most fruit trees. The trunk with branches producing flowers and fruit is grafted onto a root chosen for hardiness and not fruit quality. Perhaps the rootstock will survive into growing zone 3 or will produce a dwarf tree, no matter what variety is grafted onto it.

There are a few rules about growing fruit.

1. Make sure your chosen variety will grow in your growing zone. Oranges will not grow in zone 5 and apples are not recommended for zone 8.
2. Take note of the pests and diseases that your desired fruit trees may be subject to and how to best control them.
3. All fruit trees, even those labeled self-fertile, need a second variety that is a compatible pollinator to set fruit.
4. Cut all suckers back from the base of a grafted tree as they are growing from the root stock and are not necessary for the tree to thrive.
5. Even though they bloom in the spring, they need to be pruned in late winter before bud swell.

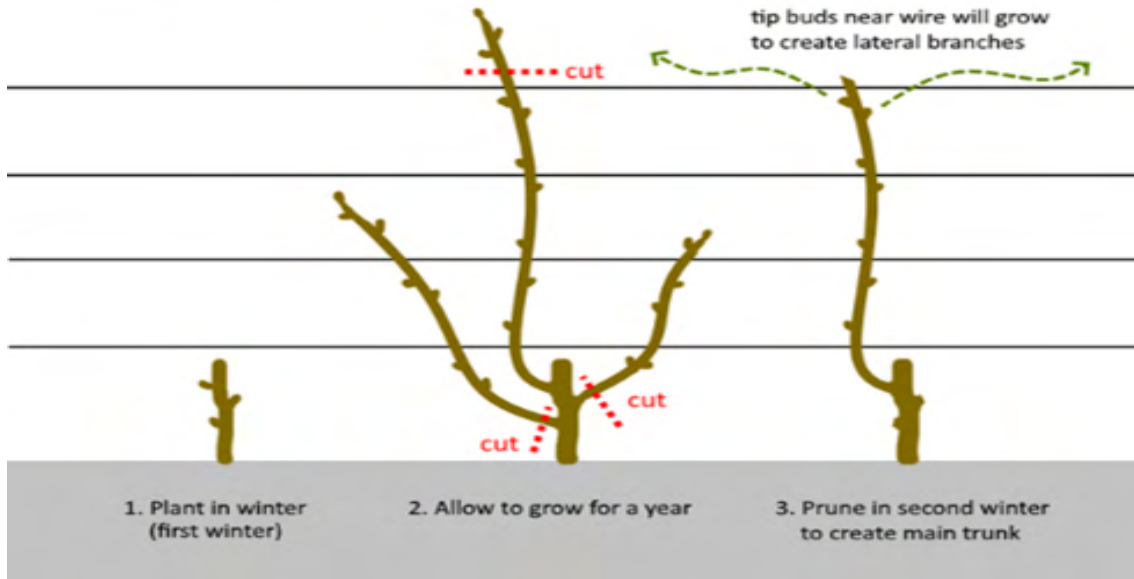


Getting fruit to the table requires patience. Apple trees can take 2-5 years to produce their first fruit, while dwarf trees will bear fruit more quickly. Fruit trees often set far too many fruits than the tree has energy to produce well. The flowers and fruits start to bud on short knobby branches called spurs, that grow off a main branch. Thinning these fruits before they mature will improve the quality of those left behind. A tree that is left with an abundance of fruit this year will produce much less the following year as it will need to re-energize itself. Avoid the “feast or famine” cycle of your fruit trees by simply pinching or knocking off excess developing fruit, leaving one or two fruits per fruit spur.

Some fruit bearing plants are not trees but shrubs: Raspberries, blackberries, currants, and gooseberries are all multi-stemmed shrubs and need the same pruning as ornamental shrubs. Fruiting shrubs usually



Pruning to Establish Grapevine Framework - 1st and 2nd Year



<https://deepgreenpermaculture.com/2019/08/07/how-to-prune-grape-vines-cane-and-spur-pruning-explained/>

give a small harvest the second growing season. Enough for out of hand eating if you get there before the birds. Netting over fruit bushes will mean more for you.

How to Begin Pruning

If you've moved into a new home to you, the best pruning is no pruning for a year. Observe growth habits and only prune out dead, diseased, or rubbing branches. Try to identify your landscape plantings so you can prune at the proper time. Determine which are spring bloomers, which summer, and if you have some ever bloomers. Then you can develop a pruning schedule. Keep a journal of what bloomed when – trust me, you won't remember next year. And you don't want to prune all the blooms off a Forsythia in the middle of September, do you?

Have you been watching your landscape become overgrown over the years? Now's the like me, you've killed many shrubs over the

years and wondered why – perhaps you weren't pruning them properly. Determine which are your spring and summer bloomers, then set up a pruning schedule. Just because you've lived in an overgrown landscape for years doesn't mean it has to stay that way.

Pruning is both an art and a science. Knowing the natural form of a deciduous shrub, for example, before making any cuts will make your landscaping easier. Fighting to keep a spreading shrub in a conical form is a hopeless battle. Nature always wins.

A well-pruned shrub, tree, or vine is , and healthier. I hope this information has helped both types of "pruners," you're not in overwhelm and you have a better idea why you're pruning and what steps to take next. There have been many books written on this topic. With this introduction I hope you go on to further study.



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