



Pottawatomie County Cooperative Extension Service  
Oklahoma State University  
14901 Acme Road  
Shawnee OK 74804

# Pottawatomie County Horticulture Newsletter

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## Late Winter Recommended for Pruning Chores

If you're itching to get outdoors and work on your garden, now's a good time to survey your landscape and decide what needs pruning. But keep in mind that not all plants need to be trimmed.

Landscape plants should be pruned to maintain or reduce their size, to remove undesirable growth, to remove dead or damaged branches, and to rejuvenate older plants to produce more vigorous foliage, flowers and fruits. In some cases, pruning is necessary to prevent damage to life and property.

Pruning isn't as difficult as most people think, but there are proper techniques to keep in mind. Late winter or early spring, before new growth begins, is generally considered the optimum time to prune most plants. This is when the plant's wounds heal quickly, without threat of insect or disease infection. However, plants that bloom in early spring, such as forsythia, magnolia and crabapples, should be pruned later in spring after their blooms fade. These early bloomers produce their flower buds on last year's wood, so pruning early will remove many potential blooms.

Trees that have large quantities of sap in the spring, such as maple, birch and dogwood, are not harmed by early spring pruning but can be pruned in mid-summer or late fall to avoid the sap bleeding.

It's best to allow a tree or shrub to develop its natural shape as much as possible. However, removing selected branches because they are weak or formed at a poor angle to the trunk will help the rest of plant receive more sunlight. Thin this type of growth by removing unwanted branches at their point of origin. Make the cut just beyond the branch collar, which is the ridge of bark that surrounds the junction of that branch to its point of origin. This will leave a very short stub of about one-half to 2 inches, depending on the size and age of the branch.

If reduction in size is desired, a technique called "heading back" is recommended. Shorten branches by cutting back to a healthy side bud or branch that is pointing in the direction you want future growth to occur. Make a cut about one-fourth inch above the bud or branch.

Evergreen trees, such as firs, pines and spruce, are not pruned by the same methods as other plants. They can be encouraged to produce stockier trees by pinching the "candles" of new growth, which emerge in late spring. Pinch out one-half of the candle when it reaches approximately 2 inches long. Use a sharp knife or your fingers to pinch, instead of a shears, which can damage the needles surrounding the candle.

Shrubs that have become overgrown, or perhaps don't flower like they used to, might benefit from renewal pruning. Each winter for the next three years, you remove about one-third of the oldest, largest-diameter stems, all the way back to the ground. The other two-thirds can be headed back about one-third of their height by cutting back to an outward-facing bud or side branch. After the third year, all of the plant's stems will be no older than 3 years.

Whatever the tree or shrub, remember that topping or haircut trimming are not sound pruning practices. Topping results in numerous, fast-growing new shoots, which are much weaker and more susceptible to wood rots than the origi-

growth, and are more likely to cause damage to property and power lines. Use the heading-back technique to reduce the plant's height. This technique may be more costly in time or money, but the results are worth the extra effort.

Also, keep in mind that for larger trees and shrubs, which are beyond the ability of the average homeowner's hand tools, you may need to call in a professional. Be sure to ask for estimates and references from satisfied customers.



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## Match Plant to Proper Container

Being creative when choosing containers for your houseplants can add to the decor of a room.

Almost any container can be used for potting plants, as long as drainage holes are provided. Plant roots must have some oxygen in order to take up water and nutrients. The roots will suffocate if the soil surrounding them is thoroughly filled with water for extended periods. Once the roots start to rot, the top of the plant may wilt and appear as if additional water is needed. These symptoms can mislead the plant owner into applying more water, which just aggravates the problem.

A plant in an unglazed clay pot is less likely to suffer from too much water than a plant in a glass or plastic container, because water can move out and air can move into the

soil through the clay. But even clay pots should have drainage holes in the bottom.

Unglazed clay containers do tend to accumulate unsightly salt residue as water evaporates from the surface. This residue is generally not harmful to the plants, unless it accumulates in the soil.

Plastic containers are generally lighter in weight and don't tend to accumulate as much salt residue. However, plastic containers can be too light so that large plants easily tip over.

Decorative containers often do not allow excess water to drain away from plants. To use such a container, use the double-potting method. Pot your plant in a properly sized, unglazed clay pot with drainage holes, and then slip the pot into the decorative container. Discard the drainage after watering.

Take special care to select the correct-sized pot. A plant in a pot that is too small does not have room to grow and dries out quickly. One that is in an oversized pot may suffer from too much water and too little air.

To determine if a plant needs to be repotted, examine the root system by removing the plant from the container. If only a few roots are visible from the outside of the soil ball, the plant does not need repotting. If many roots are visible, it is time to repot. Use a pot the next size larger so that the soil will not stay too wet too long.



## Manure Use in the Garden

Manure is the oldest fertilizer known to civilization. Many gardeners feel manure is superior to synthetic products. The use of manure however, does present a small risk of food-borne illness from manure contamination. Possible contaminants include salmonella, listeria, E. coli 0157:H7, roundworms, and tapeworms. Fortunately the risk of illness can be minimized in several ways.

Root crops, such as radishes and carrots, as well as leafy vegetables like lettuce where the edible part touches the soil present the greatest risk for potential problems. Washing and/or peeling will remove most potential pathogens. Thorough cooking is even more effective because most pathogens cannot survive high temperatures.

To further reduce the risk of diseases, manure should be applied at least 60 days before harvesting any vegetables that will be eaten without cooking. The best procedure is to apply manure in the fall so time and cold temperatures can destroy potential pathogens. Do not apply manure after the garden is planted. Use well-composted manure rather than fresh. Fresh manure has the potential to burn plants. For perennial crops such as asparagus and rhubarb, fertilize after the harvest season is completed. Avoid the use of cat, dog, or pig manures in gardens or compost piles. Some of the parasites found in these manures may survive and remain infectious for people.

Some people are especially susceptible to food-borne illnesses. These people should use good food handling practices or avoid eating uncooked vegetables from manured gardens. People at risk include pregnant women, very young children, and individuals with chronic diseases such as cancer, kidney failure, liver disease, diabetes, or AIDS.

Manure has and will continue to be an excellent garden fertilizer. As with many things we use, certain precautions should be taken to prevent potential problems.

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## Master Gardeners to Meet

The Advanced Master Gardeners have scheduled meetings for both February and March. The February meeting will be held on **February 21st** beginning at **9:30 a.m.** at the OSU Extension Center, 14001 Acme Road in Shawnee. After a short meeting, they will caravan to Miller Plant Farm & Greenhouses in Seminole and then have lunch as a group.

They will meet again on **March 21st** beginning at **9:30 a.m.** at the OSU Extension Center. They will be finalizing plans for the Spring Lawn & Garden Show that will be held on March 24th & 25th at the Expo Center.

For those of you who would like to attend the activities of the Advanced Master Gardeners, please feel free to drop in at any of their meetings.

## “Guide to Plant Growth & Nutrition” Seminar Planned

**Monday, February 26th**, the Cooperative Extension Service will conduct a “Guide to Plant Growth and Nutrition” seminar beginning at **6:30 p.m.** at the **OSU Extension Office**. The office is located on the southeast corner of Acme Road and MacArthur. The program will be much the same as the one given to Master Gardener classes. Discussion will include what nutrients are important to plant growth, how and when to apply fertilizer, the differences in fertilizer nutrients, how to take a soil test and what information you will get from a test.

For those that need an introduction to proper plant nutrition and fertilizer applications, this will be an excellent seminar to get the spring season started. For more information, call the office at 273-7683.

**Just a reminder to mark March 24-25 down as the Heart of Oklahoma Lawn & Garden Show. A great weekend of horticulture topics and a large trade show.**

## Soil Test Soon

For those that haven't taken a soil sample, now is the time. Healthier plants are always more capable of handling drought, disease and insect infestations than weaker, poorer doing plants. Knowing the correct amount of nitrogen, phosphorous and potassium your lawn, garden or flower beds needs is the right way to start the growing season successfully. Taking a number of cores, 6” deep, from different areas that you want to test and mixing them together is the correct procedure.

Bring a full pint jar of soil to the office, 14001 Acme Road, and the cost is \$10. It takes a couple of weeks to get the results. Home gardeners need to take regular soil tests. Many of the tests I get back have had a buildup of nutrients in the soil. This will hinder plant growth just like not enough nutrients for plant growth.

## Drip Irrigation

Drip irrigation has several advantages over hand-watering, sprinklers, and other traditional watering methods. Drip irrigation conserves water by putting water exactly where it is needed and keeps paths and areas between plants dry. Hand-watering and sprinklers often deliver water faster than some soils can absorb. Drip irrigation delivers water slowly and evenly over a large area. Water lost to evaporation is negligible compared to overhead irrigation. Drip irrigation saves time. Opening a valve is much easier than standing at the end of a hose. The system can be controlled by hand or even by an automatic timer. They can also be used to apply fertilizers. A final advantage of drip irrigation is disease control. Many diseases occur when foliage is wet. Drip irrigation systems apply water directly to the soil beneath the plants. The plant's foliage stays dry and eliminates the moisture requirement needed by many disease organisms.

Many people have used drip irrigation in vegetable gardens, but landscape plants can also be watered effectively through drip irrigation.

Drip systems are commonly divided into watering zones. Zones are groups of plants with similar water requirements. For many homeowners, the zones may simply be a division of those plants requiring frequent and infrequent watering. Homeowners with small landscapes may be able to water with a single zone but add additional or

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faster emitters to take care of thirsty plants. Large landscapes may need zones for hedges, trees, shade gardens, full sun gardens, etc. Most zones in home systems will use less water than the faucet (hose bibb) is capable of delivering. To determine the hose bibb's flow rate, run the water at full force into a measured bucket and time how long it takes to fill. For example, if a five gallon bucket takes 30 seconds to fill, the flow is 10 gallons per minute (gpm), or 600 gallons per hour (gph). The maximum usable flow is 75 percent of the flow rate. In this example, 450 gph. This is the largest zone that the source can supply at one time. Emitters are typically available in flow rates of 1/2, 1 or 2 gallons per hour.

When deciding where to place emitters, there are several important things to consider. Size of root zone and type of soil are very important. Water moves downwards in soil due to gravity and from particle to particle in all directions due to capillary action. In sandy soil, gravity affects water movement more than capillary action. In clay soils, capillary action will tend to spread the water before penetrating very deep. In vegetable gardens and annual flower beds, space emitters every 12 inches or for widely spaced plants 1 emitter for every plant. Perennial flowers should have an emitter at every plant. Small shrubs 5 feet tall and under should have an emitter placed at either side. Large shrubs should have an emitter placed every 3 or 4 feet around the shrub. Place the emitters about 2 feet from the base of the shrub. Trees should have emitters placed approximately every 4 feet within the dripline of the tree.

The object of drip irrigation is to maintain plant moisture levels at near optimum levels. Once the desired moisture content is reached, no more water should be applied. Soil type, plant root depth, air temperature, humidity, and plant age all play a role in scheduling water application. A number of drip irrigation systems are available for homeowners. Most have specific recommendations for irrigation frequency and duration based on soil type, system flow rate and the number of emitters.

Drip irrigation is a different approach to irrigation for many gardeners; however, it is a very efficient way to water.

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