

Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Time for Pruning: Working with the Right Tools

By Richard Jauron
Department of Horticulture
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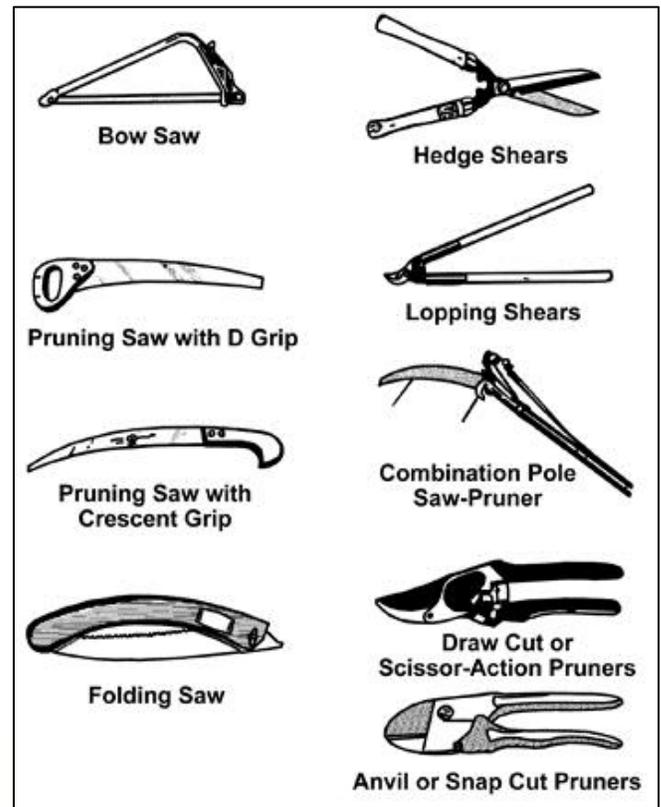
Late winter or early spring is an excellent time to prune many trees and shrubs. The keys to pruning are a basic understanding of pruning techniques and the use of proper tools. There are various types of pruning tools. The size of the plant material determines the best tools for the job.

Pruning or hand shears are generally used for cutting stems (branches) up to 3/4 inch in diameter. There are 2 basic types of pruning shears. The scissor-type shears has curved blades that overlap (scissor action) when making the cut. The anvil-type shears has a sharp top blade that cuts against a flat surface (anvil). Each type is available in different sizes. Generally, the scissor-type shears is recommended rather than the anvil-type shears. A sharp, properly used scissor-type shears can make closer cuts and is less likely to crush stem tissue than anvil-type shears.

Hand shears are not very successful in pruning stems larger than 3/4 inch in diameter. Pruning branches larger than the shears can properly cut often results in torn, jagged pruning cuts and may damage the pruning shears. Branches from 3/4 to 1 3/4 inches in diameter can be effectively cut with a lopping shears. Lopping shears consist of blades attached to long handles. The long handles give the gardener greater leverage so cuts can be made through larger branches. Lopping shears are also excellent for pruning difficult-to-reach places.

Use a pruning saw on branches larger than 1 3/4 inches in diameter. Various types of pruning saws are available. Small tree branches that are hard to reach from the ground can be pruned with a pole saw or shears.

Chain saws are often used by professional arborists when cutting large tree branches. Chain saws, however, can be extremely dangerous to homeowners with little experience or skill operating these machines. To reduce the risk of injury, home gardeners should use pruning saws rather than chain saws when pruning trees.



In potentially hazardous situations, such as the pruning of large branches high in tree canopies or limbs near power lines, individuals should always contact a trained arborist.

Another tool sometimes used by the home gardener is the hedge shears. Hedge shears (manual or electric) are used to shear formal hedges to a definite size and shape. They should not be used to prune other trees and shrubs.

When buying pruning equipment, select high quality tools. Good, high quality tools are not cheap. However, if they are used and cared for properly, high quality tools will far outlast the poor quality, less expensive alternatives.

When pruning, use tools made for the purpose and keep them sharp and clean. To disinfect pruning tools, use either a 70% denatured alcohol solution, or household bleach at one part bleach to nine parts water. Either use a sponge or dip the equipment into these solutions between cuts. Information on proper pruning procedures can be found in: PM- 1304, "Pruning Shade and Flowering Trees," and PM-780, "Pruning and Training Fruit Trees," available at your local county extension office.

The Lucky Shamrock Plant

By Aaron Steil
Education Coordinator
Riemen Gardens
Iowa State University



It's March, so I feel a certain obligation to talk about shamrocks (*Oxalis* sp.). These plants are easy to find in stores around St. Patrick's Day and they make nice houseplants. Keep them in a bright, sunny location indoors. Plants like cool temperatures, ~60-65°F. Water regularly allowing the soil to dry out slightly between waterings. This plant is not very tolerant of excessive wet or excessive dry conditions. The three-parted (or if you're lucky, four-parted) leaves close up at night and plants will bloom in white, yellow or pink depending on the species or cultivar. Many grown as houseplants will go dormant during the summer months. Leaves will begin to dieback when dormancy sets in. When you see this, stop watering and fertilizing and move plants to a cool, dark location. Keep an eye on the plants as fall approaches. Resume normal watering and fertilizing (with an all-purpose, balanced fertilizer) when new growth starts to appear.

Several types of oxalis are featured in the Conservatory at Riemen Gardens. These shamrocks will be a little different than the typical green shamrock, however; a cultivar called Charmed® Jade (*Oxalis* 'JROXFROJA') has white flowers and a beautiful dark green leaf with a silver sheen. A second cultivar called Charmed® Wine (*Oxalis* 'JROXBURWI') has white flowers and a beautiful

dark-plum colored leaf. Both plants can be used as annuals in summer containers in part sun or shade.

Upcoming Horticulture Events of Interest:

Spring Into Spring 2013 Seminar Series Presented by the Mills County Master Gardeners

"Growing Daylilies and Peonies"

Date: Monday, March 11

Time: 7:00 – 8:00 PM

Place: Glenwood Resource Center
Visitor's Center Conference Room

Cost: \$2.00

Don't miss this opportunity to visit with local daylily and peony guru, Tim Stanek. Tim has many years of experience in not only growing these very popular perennial plants, but has even done some hybridizing with both of them. If you love these garden beauties, then come to learn about the many different forms and how to plant, grow, divide, and even hybridize them.

"GRC Greenhouse Tour & Seed Starting"

Date: Monday, March 25

Time: 7:00 – 8:00 PM

Place: Glenwood Resource Center
Visitor's Center Conference Room

Cost: \$2.00

Want to see where many of the vegetables grown in Glenwood's Giving Garden get their start? This will be an informal tour of the greenhouses located on the GRC campus led by Kevin Lingren, greenhouse manager. Kevin starts almost all of the cabbage, tomato, and pepper plants grown at GGG in addition to hundreds of plants used at GRC. We'll meet at the visitor's center and walk the short distance to the greenhouse.

"Making the Most of Water in a Drought"

Date: Monday, April 8

Time: 7:00 – 8:00 PM

Place: Glenwood Resource Center
Visitor's Center Conference Room

Cost: \$2.00

Rich Maaske will talk about how to most effectively and efficiently use what little water we may receive in rainfall. Rich has some great information on various aspects of water conservation including using rain gardens to capture runoff from impervious surfaces, such as roofs and streets. Learn how to keep your garden growing lush and green this year!

Forcing Branches of Spring Flowering Trees and Shrubs

By Richard Jauron
Department of Horticulture
Iowa State University



Gardeners can brighten up the last few weeks of winter by forcing branches of flowering trees and shrubs indoors. Forsythias, pussywillows, serviceberries, crabapples, magnolias, redbuds, and many fruit trees can be coaxed into early bloom indoors, helping revive the spirits of winter-weary Iowans. Forcing can be done as soon as the buds start to swell. Forsythia and pussywillow can be forced as early as February.

It's best to wait until March for more difficult-to-force ornamentals, such as crabapples, magnolias and redbuds. Select branches containing round, plump buds. (Narrow, pointed buds are usually leaf buds. Flower buds are generally larger and have a more rounded shape.) Make clean, slanting cuts 1 to 2 feet from the tips of the branches with a sharp hand shears. Selectively remove branches that won't destroy the natural shape of the plant.

If pruning fruit trees in late winter, gather some of the pruned material for forcing indoors. If possible, collect the branches when temperatures are above 32 degrees Fahrenheit. If the plant material is frozen when collected, submerge the branches in a tub or pail of water for a few hours. Later, set the branches in a tall container of water and place in a dimly lighted, cool (60 to 65 degrees Fahrenheit) location. Spray or mist the branches 2 or 3 times a day to prevent the buds from drying out. Also, change the water in the container daily during the forcing period.

Daily changes of water should inhibit the growth of bacteria and fungi which could interfere with the absorption of water by the branches. When the flower buds begin to open, move the branches into a bright room. Keep the flowering branches out of direct sunlight and in a cool location to prolong the bloom period. The time period required to force branches into bloom depends upon the plant species and collection date.

Forsythia and pussywillow generally take only 1 to 3 weeks to force. Magnolia branches may take 3 to 5 weeks. The closer it is to the plant's normal outdoor flowering period, the less time it will take to force the cut branches indoors. If the thought of another few weeks of winter weather is rather depressing, try forcing branches of spring-flowering trees and shrubs indoors. It's the perfect cure for the wintertime blues.

Obstacles to Starting Seeds Indoors

By Richard Jauron
Department of
Horticulture
Iowa State University



Starting flower and vegetable transplants at home can be fun. Growing quality transplants requires good seed, a sterile, well drained growing medium, proper temperature and moisture conditions, adequate light, and other factors. Since the home is usually not the best environment for growing transplants, problems occasionally develop.

Poor or erratic germination of seed may be caused by improper planting (for example, planting too deeply), uneven moisture, and cool temperatures. Medium to large seeds are sown at a depth of 2 to 3 times their minimum diameter. Fine seed is usually dusted on the surface of the seedbed. Cool potting mix temperatures (below 70 F) delay germination. Maintain the proper germination temperature and even moisture conditions for rapid, uniform germination.

Damping-off, caused by several fungi, can cause serious plant loss. Seedlings may develop water-soaked spots on their stems near the soil surface, then collapse and die. Environmental conditions usually associated with damping-off are a poorly drained potting soil and overwatering. Damping-off can be prevented by using clean containers, a sterile, well-drained potting mix, and by following good cultural practices. Previously used containers should be washed in soapy water, then disinfected by dipping in a solution containing one part chlorine bleach and nine parts water. Flower and vegetable seed need an evenly moist potting mix for good germination. After germination, allow the potting soil to dry somewhat between waterings.

Tall, spindly growth is a common problem when growing transplants indoors. Poor (insufficient) light, excessive watering, high temperatures, excessive fertilization, and crowded growing conditions are factors which contribute to spindly growth. Once the seeds have germinated, move the seedlings to an area with somewhat cooler temperatures and good light. Place the seedlings in a sunny south window or under artificial light. It isn't necessary to have a fancy plant stand. A standard fluorescent shop fixture with one cool and one warm fluorescent tube works fine. For best results, the lights should be no more than 4 to 6 inches above the seedlings. Leave the lights on 12 to 16 hours a day. When the first pair of "true leaves" appear, thin or transplant the seedlings. Allow the potting soil to become somewhat dry between waterings. The best quality transplants are short, stocky, and dark green.

Green algal or brownish fungal growth may appear on the soil surface or sides of peat pots. While their appearance generally causes little harm, their presence usually indicates excessive moisture levels. Allow the potting mix to dry somewhat before watering.

A lack of essential nutrients produces characteristic deficiency symptoms. Phosphorus and nitrogen deficiency symptoms sometimes occur on vegetable and flower seedlings. Phosphorus-deficient plants frequently have purplish leaves and growth is stunted. Yellow lower leaves may indicate a nitrogen deficiency. Other symptoms of a N deficiency are stunted growth and small leaves. Apply a soluble fertilizer, such as 15-30-15, to the seedlings. Fertilize weekly with a one-quarter strength solution.

While there are obstacles to growing transplants indoors, home gardeners can produce good quality transplants if they follow good cultural practices.

Bat Ticks

Iowa State University
Department of Entomology



One species of soft tick occurs on bats in Iowa. This tick does not have a common name but has the scientific name *Carios* (formerly *Ornithodoros*) *kellei*. These ticks are widespread and common in Iowa, and are routinely found in houses and buildings that are infested with bats. They hide in cracks and crevices in bat roosting areas and feed on blood from the bats while they are roosting. If bats are present, these ticks usually do not wander far from them. However, if the bats abandon a roost, are removed, or if populations decline for some other reason, the ticks become hungry and start to wander in search of something to feed on. This is when they are usually noticed.

Bat ticks are a type of soft tick. Soft ticks prefer dry areas and are capable of living for years in the absence of a host to feed on. Few Iowans ever come in contact with soft ticks. Soft ticks do not look like the hard ticks, as a consequence most of us would not recognize them as ticks.

Bat ticks prefer to feed on bats but will feed on other animals, including humans, if bats are not available. Soft ticks are intermittent feeders taking small amounts of blood every few days. These ticks typically feed (bite) at night. They are reported to have a benign bite. In other words, most soft tick bites go unrecognized since they feed only for a short time and does not cause a reaction in a person being bitten. Soft ticks are not believed to be

capable of transmitting the bacteria that cause Lyme disease.

Controlling bat ticks requires eliminating bats that are present in the home or building. This can only be accomplished by exclusion techniques that seal entrance cracks and holes (also known as "building them out"). There are no pesticides to control bats in attics. The best time to seal bats out of a building is late summer and fall.

In addition to eliminating the bats it may be necessary to directly control the ticks. This can be done by applying residual insecticides such as those commonly used for cockroaches to cracks and crevices in bat roosting areas and other places where ticks are observed. Spraying without eliminating the bats will probably provide short-term, temporary benefit but will not completely eliminate the bat ticks. Eliminating the bats and waiting for the ticks to starve to death is also not a likely possibility since these ticks have been known to survive months, and even years, without feeding.

Want your insect identified?

If you are an Iowa resident, you can [submit your insect for identification](#) or call us at (515) 294-1101.

Want to know more about **Glenwood's Giving Garden?**



Did you know that Glenwood's Giving Garden donated over 6,800 lbs of fresh garden produce in 2012 to local organizations and families in need in our community!

Come to a work group meeting for Glenwood's Giving Garden following the **"Kegs and Eggs" breakfast event sponsored by the Glenwood Chamber of Commerce on March 16th (7-11 AM)**. Freewill offering at the event benefits the Garden.

When: Saturday, March 16 @ 11:00 AM

Where: Keg Creek Brewing Co., 111 Sharp Street, Glenwood, IA; phone: 712-520-9209

Why: Enjoy a great breakfast and learn how you can become a part of this exciting community project!

Ask the ISU Extension Gardening Expert

Should I test my garden soil before planting a home vegetable or flower garden?

A soil test can provide information on the proper amount of lime and fertilizer to apply to your lawn, garden and other areas of your landscape. When gardeners apply only as much lime and fertilizer as is necessary and at the appropriate time, nutrient runoff into surface or ground water is minimized, money is saved, and plant health is optimized. Soil testing can also be used to diagnose common nutrient deficiencies for plants that are growing poorly.

Soil sampling can be done through a home kit that is purchased at a garden center or through the Iowa State University Soil Plant Analysis Laboratory. The current fee for testing is \$8 per sample to test for lime requirement, phosphorous, and potash. Special bags for submitting soil samples can be obtained from your Iowa State University Extension County office.

When should I sow petunia seeds indoors?

Petunia seeds should be sown indoors 10 to 12 weeks before the last average frost date. In Iowa, late February or early March is an appropriate sowing date for petunias.

Will fluorescent light fixtures provide sufficient light for seedlings?

A standard fluorescent shop fixture containing two 40-watt tubes will provide sufficient light to grow seedling indoors. For best results, place one cool white and one warm white tube in each fixture. Place the fluorescent lights not more than four to six inches above the seedlings. The lights should be on for 12 to 14 hours each day.

What is the proper way to prune fall-bearing red raspberries in late winter/early spring?

Popular fall-bearing red raspberry varieties include 'Heritage,' 'Redwing,' 'Caroline' and 'Autumn Bliss.' Fall-bearing red raspberries naturally produce two crops. One crop is produced in summer on the previous year's growth. A second crop is produced in late summer or early fall at the tips of the current year's growth. Fall-bearing red raspberries can be pruned two different ways in March or early April.

One pruning option is to prune out all weak, diseased and damaged canes at ground level. Leave the largest, most vigorous canes. Cut back the tips of the canes that

remain. Remove approximately the upper one-third of the canes. This option provides two crops during the year.

The second option is to prune all canes back to the ground in late winter/early spring. This pruning option produces a single crop in late summer or early fall. (The summer crop is eliminated.) While only one crop is produced, total crop yield is actually larger than the two crop system.

Red raspberries sucker profusely from their roots. To prevent the planting from becoming a wide, unmanageable thicket, red raspberries should be confined to a one- to two-foot-wide hedgerow. Shoots growing beyond the one- to two-foot-wide hedgerow should be destroyed using a rototiller or spade.

What is the proper way to prune black raspberries in late winter/early spring?

In March or early April, remove all small, weak canes, leaving only four or five of the largest, most vigorous canes per clump or plant. Cut back the lateral (side) branches to 12 inches in length.

When should I plant potatoes in the garden?

Potatoes should be planted in early spring. Appropriate planting times are late March or early April in southern Iowa. Since potatoes are susceptible to several diseases, but certified, disease-free potatoes at garden centers or mail-order nurseries. Gardeners can purchase seed pieces (tubers that have been cut into sections) or whole potatoes. Small potato tubers may be planted whole. Large potatoes should be cut into sections or pieces.

Each seed piece should have 1 or 2 "eyes" or buds and weigh approximately 1.5 to 2.0 ounces. After cutting the tubers into sections, place the freshly cut pieces in a humid 60 to 70° F location for 1 or 2 days.

A short "healing" period allows the cut surfaces to callus or heal over before the seed pieces are planted. Healing of the cut surfaces helps prevent the rotting of seed pieces when planted.

Plant seed pieces (cut side down) and small whole potatoes 3 to 4 inches deep and 1 foot apart in the row. Rows should be spaced 2.5 to 3 feet apart.

I have some leftover vegetable seeds from last year. Will they germinate and grow this spring?

Most vegetable seeds will remain viable for several years when stored in a cool, dry location. If properly stored, cabbage, broccoli, cucumber, squash,

watermelon, eggplant and radish seeds will remain viable for five years. Snap bean, carrot, pea, pepper, tomato, cauliflower and pumpkin seeds can be stored for three to four years. Seeds of sweet corn and onion remain viable for only one to two years.

Check out these nearby 2013 Garden Shows!

What: [Siouxland Garden Show](#)

When: March 22-24

Where: Sioux City Convention Center, Sioux City, IA

Who: ISU and NE Extension

Price: \$5 for one day, \$9 for two, \$12 for three

When: [West Pottawattamie County Garden](#)

When: Saturday, March 31st from 8:30am-4pm

Where: Council Bluffs Senior Center

Who: West Pottawattamie County MGs

Price: \$30

What: Cass County MG Spring Conference

When: Saturday, April 21st

Where: Atlantic High School

Who: Cass County MGs

Check www.extension.iastate.edu/cass for more info.

MARCH GARDENING TO DO LIST



- Prune, Prune, Prune! March is the best month for pruning many plants in our area. See the resource list for several publications to help you know how to prune correctly.
- Sow seeds of broccoli, cabbage, and cauliflower indoors early in the month for April planting. Sow seeds of tomato and pepper later in the month for May planting. Check exact dates on the seed packet.
- Rake leaves, twigs, and trash from the lawn after the last snow has melted and the soil has thawed and firmed up.
- Clean out bird houses before new tenants arrive.
- Leave mulch on strawberries and perennials until new growth begins. Be ready to reapply mulch if hard frost threatens.
- Don't till your garden when it is too wet. Soil should crumble when squeezed in your hand if

it's ready to work. If soil forms a solid ball, it's still too wet.

- Pot up dahlias, cannas, tuberous begonias, and calla lilies indoors, for earlier blooms once you transplant them to their outdoor locations.
- Now is a good time to get your lawn mower ready for the season ahead. Take it to a repair shop or get out the owner's manual and do it yourself. You should sharpen blades, clean or replace the spark plug and air filter, change the oil, and check the tires for wear.
- Remove the dead plant material from your asparagus patch.

Welcome Nancy!

By Denise Fikes
Mills County Extension



Please join me in welcoming Nancy Crews to the position of Horticulture Assistant for Mills County Extension. She is in the process of "learning the ropes" here at the Extension Office and will take over my duties as I transplant to hardiness zone 4 in Neenah, Wisconsin! Nancy has been an avid gardener for many years and looks forward to working with the community.

Resources for Horticulture information

ISU's Hortline at (515) 294-3108

(Monday-Friday, 10 a.m.-noon, 1-4:30 p.m)

Iowa State University Publications

RG 501	Pruning Raspberries (free)
RG 502	Pruning Grapevines (free)
RG 318	Early Spring Blooming Perennials
SUL 5	Pruning Trees: Shade, Flowering, & Conifer
PM 780	Pruning and Training Fruit Trees
PM 874	Starting Garden Transplants at Home
RG 323	Cannas for the Home Landscape

Horticulture Publications on-line

<https://www.extension.iastate.edu/store/ListCategories>

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