



# Acreage Answers

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## Pruning New Fruit Trees

by Joan Bray, Dallas County Master Gardener

"To prune or not to prune, that is the question"

The pruning and training of fruit trees improves not only their looks but the quality of their fruit and their longevity. Pruning is traditionally done in late winter months, just before the beginning of active growth. The most important time for pruning is in the first four to five years.

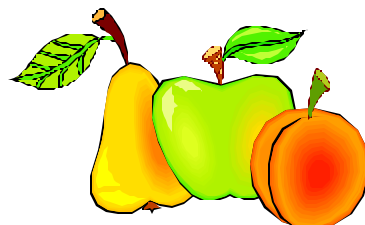
For most home gardeners the central leader system is the easiest to follow. This system produces a vertical central leader or main stem with tiers of strong, properly spaced limbs or scaffold branches. These scaffold branches grow about 30 to 45 degrees above horizontal. This results in a "Christmas tree" shape. This shape allows for good light in the center of the tree, which is critical for development of flower buds and fruit set.

Prune newly planted fruit trees immediately after planting. When possible, plant a 1-year-old unbranched tree (also called whip). This permits heading (pruning back the central leader) to 28 to 30 inches from the ground or 10 inches above where the lowest scaffolds (side shoots) are desired. Make the cut above a bud. A central leader and several lateral (side) shoots will appear on the upper 8 to 10 inches of the trunk by summer. The following spring, retain the central leader and three to four well distributed side shoots, removing the others. Cut back the central leader by half and the laterals by one fourth.

If a 2 to 3-year-old branched tree is planted, choose two to four of the most desirable branches and remove the others. The selected laterals should have wide crotch angles (preferably 45 degrees) and be well distributed around the tree. The leader or top lateral is usually left about twice as long as the longest side lateral.

When a tree has been heavily pruned, no fertilizer should be used for a year. Fertilizing results in a lot of vegetation and little fruit.

For more information, check out extension publication *PM 780 Pruning and Training Fruit Trees* or E-Answers at [www.e-answersonline.org/](http://www.e-answersonline.org/), where we found a publication from University of Nebraska and Utah State to be very helpful.



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Please share *Acreage Answers* with your acreage neighbors. Call your local ISU Extension office to be placed on the mailing list for *Acreage Answers* and to give us suggestions for future articles.

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# A Common Predator Around Your Acreage

by William Clark, ISU Professor of Ecology

Although you don't often see them because they are active at night, raccoons are common around acreages in central Iowa. These small predators are versatile mammals adapted to a wide variety of habitats and foods. Because of their adaptability, they often interact with humans and their environment.

Raccoons are an important component of rural ecosystems because they prey on many pests in the vicinity of homes and crops. They can be particularly pesky when they raid sweet corn patches, tip over garbage cans, or have a litter of young in the attic.

Raccoons breed in late winter and give birth to four or five young toward the end of April or early May. In the diverse habitat of central Iowa, raccoons may spend their entire lives in an area of as little as half square mile. They eat everything from berries and waste grain to rodents. Most raccoons survive for only a few years. They are often killed on roads during the breeding season or in the fall as they disperse. Raccoons are important furbearers. An estimated 150,000 pelts were taken in Iowa in 2001 with a worth of more than \$1.5 million dollars.

The risk of disease exposure is generally low from interaction with raccoons. In extensive surveys less than 1 percent showed any signs of rabies. As with any sick or injured wildlife, do not attempt to pick it up, cage it, or otherwise "assist" it. Putting out food for pets could attract them to your home, making them more likely to do damage.

If you find unwanted raccoons in buildings, disturbing them can usually discourage them. Another technique, which does not harm the animal, is to hang a rag with cleaning ammonia close to the animal. This will irritate raccoons and encourage them to move elsewhere.

For more information on common wildlife and habitat management see, the extension publication *Managing Iowa Wildlife, Pm-1302e*.



# Xeriscaping - A New Approach to Gardening

by Mary Ann deVries, horticulturist  
ISU Extension – Polk County



Xeriscaping, pronounced *zair-i-scaping*, is a word that's new to most of us but one we'll be hearing more often. It combines xeros, the Greek word for "dry," with landscaping to yield a new word that describes the water-wise management of lawns and gardens.

Don't confuse xeriscaping with "hardscaping," in which the landscape consists mostly of gravel with perhaps a cactus thrown in. Xeriscaping focuses on low-water-use plants that are suited to our Iowa climate and on water saving management practices, such as mulching and drip irrigation. With xeriscaping, any garden can look lush and colorful with a minimum amount of water.

If you don't think xeriscaping is important, consider this: The standard Kentucky Bluegrass lawn with high water-use trees and shrubs requires about 18 gallons of water per square foot. That's fine if it rains, but if it doesn't, our domestic water supply must be relied on for moisture.

By comparison, a xeriscaped yard, filled with water-wise plants and turfgrass, requires only 3 gallons per square foot. Quite a savings!

As you do your spring garden planning, consider xeriscaping with native plants. An excellent list of plants is available from [www.ext.colostate.edu/pubs/garden/07231.html](http://www.ext.colostate.edu/pubs/garden/07231.html).

Water-wise garden tips will be included in future issues of *Acreage Answers*.

## Nest Boxes for Wood Ducks

by Steve Lekwa, Director, Story County Conservation Board

Wood ducks once used abandoned large woodpecker holes in dead trees, but ivory billed and pileated woodpeckers are either extinct or quite rare. Most wood ducks now hatch in nest boxes.

Woodies aren't choosy about materials or looks, but sturdy construction is important. A box should be at least 8" x 10" inside, and should have 12" of depth below an entry hole that is a 3"x 4" horizontal oval.

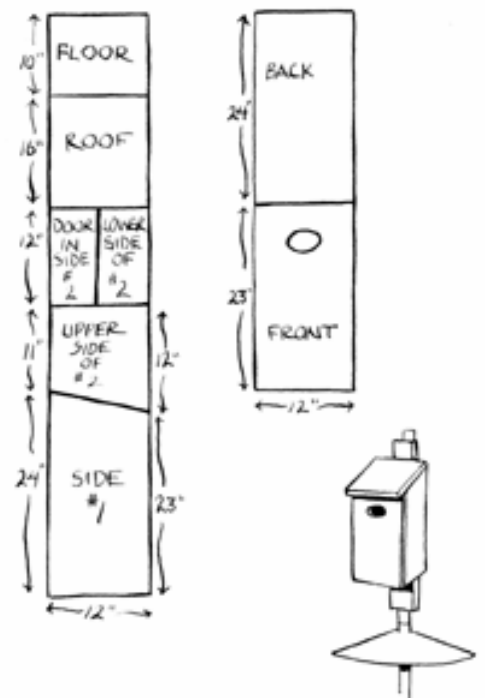
Add three to four inches of coarse wood shavings as bedding material. Mother duck covers her eggs with that until she's ready to incubate. Saw dust stays wet and cakes up.

Baby woodies leave the nest shortly after hatching via a

"ladder" made of old screen or closely spaced shallow saw cuts up to the hole. The box should be hung tilted so that ducklings can climb the ladder.

A hinged door on one side allows annual replacement of nest material after removal of shells and infertile eggs.

Boxes should be placed near woodland stream or pond habitat and shouldn't wobble too much in the wind. They should be at least 6 feet off the ground with a "critter guard" put around the post to prevent climbing by raccoons and cats. PVC pipe over the post works well. Over-water boxes can be lower, but still need critter guards. The flyway to the nest hole should be unobstructed. More information can be found at [www.ext.vt.edu/pubs/wildlife/420-802/420-802.html](http://www.ext.vt.edu/pubs/wildlife/420-802/420-802.html), which is a publication from Virginia Extension on wood duck management. The nest box plan pictured below is from the same publication.



# West Nile Virus

by Carl Neifert, Extension Livestock Specialist



West Nile Virus is a mosquito borne virus that was first detected in 1999. The virus causes encephalitis or inflammation of the brain. Mosquitoes acquire the disease from birds (mainly crows and wild game birds, i.e. ducks), and pass it on to birds, animals and people. There is **no** documentation that horses can spread the virus to humans, uninfected horses, or other animals. Migrating birds play a key role in spreading the disease.

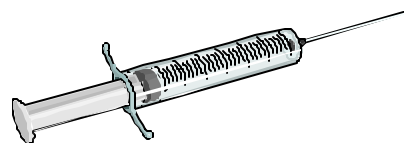
Most people that become infected never develop symptoms. Symptoms include fever, headaches, body aches, skin rash, and swollen lymph glands. In more severe cases, symptoms include high fever, neck stiffness, confusion, tremors, muscle weakness, and paralysis. Severe symptoms are more likely to occur in the elderly or those with weakened immune systems.

Horses become infected the same way humans do, from bites of infected mosquitoes. The infection spreads through the blood system. The infection crosses the blood brain barrier and infects the brain. The virus interferes with normal functioning of the central nervous system and causes inflammation of the brain.

Most horses infected with WNV will fully recover. Symptoms of more severe infection include listlessness, stumbling, lack of coordination, weakness of limbs, partial paralysis, or death. A fever is not normally observed.

Preventing your horse's exposure to mosquito bites is the best preventive practice. Do this by eliminating any standing water sources where mosquitoes breed. A vaccination is available to help protect horses and should be given prior to mosquito season. This vaccine requires two injections three to six weeks apart to be effective and then a booster annually. Consult your local veterinarian for a specific vaccination and WNV preventative program.

There were 1,039 WNV cases confirmed in horses in Iowa in 2002.



# Insuring Other Crops

by Beth Grabau, Dallas County FSA Director

Are you producing vegetable, hay, Christmas trees, or other crops? Are you interested in insuring these crops?

The Farm Service Agency (FSA) has a program that will do this. This program is the Noninsured Crop Disaster Assistance Program or NAP. Crops include, but are not limited to: crops grown for food, fiber, livestock feed, aquaculture, floriculture, ornamental nursery crops, sod, honey, etc. This program provides assistance for crop losses for eligible natural disasters on crops that could not normally be insured.

To be eligible, interested persons must make application and pay a fee for coverage.

Crop reports and reports of production may also be required. Dates for application and crop and production reporting may vary depending on the crop to be insured. For more information, contact your local Farm Service Agency office.



# Soil Testing, An Essential First Step For Gardeners

by Mary Ann deVries, Horticulturist  
ISU Extension – Polk County

If you're one of those gardeners who tends to do the same thing year after year, this would be a good time to try something different: A soil test.

Soil testing is easy to do, is inexpensive, and can be done almost any time of year. From a soil test you can evaluate your soil's fertility, pH levels, and organic matter, or discover problems that may result from excessive fertilizer buildup.

The lab report you receive is based on the plants you plan to grow. It will provide recommendations on phosphorous and potassium levels necessary for good plant growth without adverse effects on the environment. The test does not include nitrogen levels because it is very mobile in the soil and varies widely.

The Iowa State University soil testing lab is available to everyone and easy to use. Here's what you need to do:

1. Visit your local ISU Extension Office and pickup a soil sample bag(s) and instruction form.
2. Follow instructions for collecting soil samples.

3. Mail the sample, along with your payment, to the ISU Soil Testing lab in Ames. Results and recommendations are usually returned within one to two weeks.

## Solving the "Wet Basement"

by Greg Brenneman – ISU Extension  
Ag Engineering Specialist

Basement walls are not designed to be waterproof, only water resistant. When water in the soil is only a few inches above the basement floor, water can find openings and seep into the basement. The main solution to the wet basement problem is to provide good external drainage. This includes surface measures to drain water off the ground surface and drain tile that remove water from below the surface.

Surface drainage measures include the following:

- Fill around the house so the soil slopes away from the house a minimum of 6 inches in the first 10 feet.
- Use diversions and ditches to carry water around the house.
- Put roof gutters on the house.
- Discharge water from roof downspouts away from the house.
- Avoid dumping downspouts into perimeter tile drains.

Drainage tile removes excess water that percolates down through the soil. It must be adequate to keep the water level from rising to the top of the basement floor level. Subsurface drainage may be needed in the yard, around the house footings, and under the basement floor. All tile systems near the house must be located BELOW the finished floor height. The tile line must drain to a free outlet, storm sewer, or sump pump.

An alternative, especially for existing houses, is to break out a strip of basement floor, 12-16 inches wide, next to the inside foundation wall. After the concrete is removed, a trench is made deep enough so that tile can be laid in a bed of filter gravel and slope toward the sump or outlet.

For more information check out the following publications:

*Pm-1560 Proper Drainage Around Your Home - Assessing, Repairing and Rebuilding Basements*  
[www.extension.iastate.edu/Publications/PM1560.pdf](http://www.extension.iastate.edu/Publications/PM1560.pdf)

*Pm-1561 Building Basements in Wet Locations - Assessing, Repairing, and Rebuilding Basements*  
[www.extension.iastate.edu/Publications/PM1561.pdf](http://www.extension.iastate.edu/Publications/PM1561.pdf)

*Pm-1562 Controlling Moisture on Concrete Floors - Assessing, Repairing, and Rebuilding Basements*  
[www.extension.iastate.edu/Publications/PM1562.pdf](http://www.extension.iastate.edu/Publications/PM1562.pdf)