



Acreage Living

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Acreage Living is published bimonthly. Please share it with your acreage neighbors. Call your local ISU Extension office to be placed on the mailing list or contact an ISU Extension staff member listed below to suggest topics for future articles.

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Know your area's hardiness zone when selecting plants

by Joy Rouse, Warren County Extension Education Director

While looking at plants in a garden catalog, you find one that looks perfect for your garden. The catalog states it is a Zone 2 plant; you wonder what that means and whether the plant will grow in Iowa.

A plant hardiness zone map predicts the adaptability of plants to a specific climatic area. Zones are based on the average annual minimum temperatures experienced at weather stations over time. Many plants may survive in zones warmer or colder than their designated zones, but mere survival does not necessarily represent satisfactory performance.

The Plant Hardiness Zone Map prepared by the Agricultural Research Service (USDA) is the most widely used in the United States. You can find the map and information about it at the following Web site:

www.usna.usda.gov/Hardzone/index.html.

Iowa falls into Zones 4 and 5. Areas in the northern part of the state (Northwood) and a section in southwest Iowa have an annual minimum temperature of -25 to -20 degrees F for Zone 4b. Areas more central in Iowa (Des Moines) have an annual minimum temperature of -20 to -15 degrees F for Zone 5a. Remember, these are averages; a winter with more severe temperatures is harder on plants. When close to a boundary, choose plants hardy for the colder zone.

Microclimates and heat zones also are considerations when choosing plants, trees, and shrubs. For more information about microclimates and heat or hardiness zones, stop by or call your local ISU Extension office and ask for RG 215, *Gardening in the Zones*.

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Adaptations can make gardening easier on the knees for older lowans

by Mary Ann deVries, Polk County Extension Horticulturist

Gardening is a hobby that sustains many of us physically and mentally for a lifetime. According to the *American Journal of Public Health*, a survey of Medicare claims for people 65 and older found that those who gardened had 19 percent lower health care expenses than those who did not report gardening.

The question as gardeners grow older is how to keep gardening in spite of the physical limitations associated with aging. Gene Rothert, past president of the American Horticulture Therapy Association, believes the secret to lifetime gardening is adapting the garden to meet our needs.

His number one recommendation: raising the soil level to where stooping is no longer necessary to reach it. Typically, this is accomplished through the use of raised beds or containers.

You can construct permanent raised beds from decay-resistant wood, concrete block, or brick. The soil height depends on the ability of the gardener. Beds 2 to 3 feet high are appropriate for anyone who needs to be seated while gardening. Three to 4 feet is an appropriate width for raised beds that can be reached from two sides.

Container gardening is another way to raise soil levels. Anything

that can hold soil and provide good drainage can serve as a container. This includes clay pots, wheelbarrows, or even discarded tires. Smaller containers are especially useful because you can move them to take advantage of sunny areas or bring them indoors.

Soil in raised beds and containers should be light and well-drained. A successful soil mix uses equal parts topsoil, organic matter (e.g. well-rotted manure), compost, and coarse sand.

Another important consideration for older gardeners is that access to the garden be smooth and level. Avoid brick and grass paths because of their unevenness due to winter heaving. Benches or chairs for resting along garden paths are also important to the older gardener.

You can see examples of public gardens designed for individuals with disabilities, often called enabling gardens, in Waterloo and Altoona. Call the local ISU Extension office in those counties for more information. In Black Hawk County (Waterloo), call (319) 234-6811. In Polk County (Altoona), call (515) 261-4221.

A useful publication, *Container Vegetable Gardening*, is available online from ISU Extension at www.extension.iastate.edu/Publications/PM870B.pdf.

Test soil before adding garden lime

by Mary Ann deVries, Polk County Extension Horticulturist

Lime isn't a cure-all for garden problems.

Each spring at my local garden center, I'm astounded to watch the enormous pile of bagged lime disappear. My question: Who buys this stuff and why?

It's a mystery to me how lime became a universal cure-all for lawns and gardens. Perhaps people remember their Grandma "liming" her garden each spring. If she lived in Davenport or somewhere else along the Mississippi River, this would be a good idea. Soils there tend to be acidic and can benefit from lime applications.

In Iowa, soil tends to be acidic in the southeastern areas and becomes increasingly alkaline towards the northwest. In central Iowa, soils on average are mildly alkaline and don't need lime.

Simply put, any chemical application needs to be justified.

pH is a measure of a soil's acid or alkalinity level. Above pH7 (the neutral point), soil is alkaline. Below pH7, it is acidic. Most plants grow best at a pH of 6-7 or mildly acidic.

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Unglamorous part of rural living needs care

by Shawn Shouse, ISU Extension Agricultural Engineering Specialist

Septic systems serve an important function and need regular maintenance. Understanding how they work will help you avoid problems and costly repairs.

A conventional septic system has two primary parts: the tank and the soil absorption field (sometimes called a leach field). The soil absorption field biologically treats the wastewater and soaks it into the soil. The septic tank protects the soil absorption field from things that would cause it to fail, namely grease and solids.

How septic systems work

As wastewater leaves the house through the sewer line, it enters the septic tank. Heavier solids settle to the bottom as sludge. Lighter grease and floating solids rise to the top as scum. Sludge and scum are trapped in the tank, allowing cleaner liquid to pass from the tank to the soil absorption field for treatment and disposal.

Bacteria may decompose some of the scum and sludge, but the rest needs to be periodically removed. This occasional maintenance is required for *all* septic tanks. There are no additives that eliminate this need. Failure to remove sludge or scum can cause these materials to pass into the soil absorption field where they can plug the system, causing failure and expensive repair.

Caring for a septic system

- Be conservative in your water use. The more water you use, the more that must go through the absorption field.
- Be careful what you put down the drain. Toxic materials can harm bacteria in the septic tank and pollute ground water. Fats, grease, coffee grounds, sanitary napkins, disposable diapers, and cat litter decompose slowly, if at all, and will fill the septic tank quickly.
- Protect the absorption field. Keep cars and heavy equipment off it. Tree and shrub roots may plug the drain lines.
- Avoid septic tank additives. Yeasts, enzymes, bacteria, and chemicals are not necessary, and some are harmful.
- Clean your septic tank every three to five years.

For more information, including ways to estimate and measure sludge and scum accumulation, ask your local ISU Extension office for publication AEN-133, *Maintaining the Home Septic System*. Visit the Web sites listed below for more information.

www.extension.umn.edu/distribution/naturalresources/DD7439.html

http://web.aces.uiuc.edu/vista/pdf_pubs/septic.pdf

Researching potential pets helps prevent headaches, heartache

by Linda Nelson, Dallas County Extension Education Director

Ever wished you had researched a pet before bringing it home? Did you choose one not suited to your lifestyle? Were you aware of the potential diseases it could get?

Because pets require a commitment, they can teach children about responsibility. That's why researching your choices before selecting a pet is important. Doing so will improve the likelihood that the pet you choose fits your lifestyle.

Find pet info on the Web

The American Veterinary Medical Association has two Web sites that can help you make pet decisions. The first site, www.avma.org/careforanimals/, is a good place for you and your children to find information together.

The "Animated Journey" link allows kids to click on individual animals for more information. Another link, "Paws for Pets," provides health tips from a vet to new pet owners. "Kids Corner" has fun activities to teach children about responsible pet care.

In-depth information for adults is available at another site, www.avma.org/care4pets/. You can read about pet health, pet loss, and selecting a pet.

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Understand choices when selecting roofing materials

by Shawn Shouse, ISU Extension Agricultural Engineering Specialist

Several options are available for home roofing materials. Knowing the pros and cons of each will help you decide which to use.

Asphalt shingles

Asphalt shingles are the most common roofing material in the United States. They are made with a core mat of fiberglass or organic (cellulose) fibers. Multiple layers of asphalt, topped with a layer of crushed stone, cover the core mat. The surface grit layer protects the asphalt and provides multiple color options.

Asphalt shingles are durable, easy to install, and moderately priced. Their life expectancy is 15 to 30 years. Thickness and weight may offer some indication of quality, but construction quality and material durability are not guaranteed.

Laminated asphalt shingles have multiple layers of asphalt material. They are much heavier and more expensive than standard three-tab asphalt shingles. They resemble shakes.

Wood shingles

These shingles are relatively thin and uniform in size. Wood shakes are split to form thick and irregular shapes. Wood roofing is relatively expensive to purchase and install. Its greatest attribute is its rustic appearance. Its life expectancy is similar to asphalt shingles. Some building codes

prohibit wood roofing because of fire spread potential.

Metal

Metal roofing comes in many different shapes and materials. Galvanized or painted steel has the lowest cost and is most common. It is lightweight and has a life expectancy of 20 to 50 years if properly installed.

Ribbed panels attached with nails or screws are commonly used in agricultural buildings and can be used with moderate success on homes. Standing seam metal panels have no exposed fasteners and are more suitable for home construction, but are more expensive and difficult to install.

Other alternatives

Clay, concrete, and fiber cement tiles offer stately appearance and excellent life at a premium price.



Slate shingles have a life expectancy of up to 100 years and are the most expensive roofing option. Tile and slate materials are considerably heavier than other roofing materials and may require stronger roof framing.

For more details on roofing material options, see "Roofing Materials Comparison," *Housing and Home Environment News*, Cornell University, www.human.cornell.edu/dea/extension/docs/sum98/roofmat.htm.

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Adding lime raises pH, while adding sulfur lowers it. It's not possible to know which, if any, chemical to use without a soil test from a reliable lab. The small fee for it is easily offset by the money saved from not purchasing unneeded products.

Extension resource gives great information

An ISU Extension publication, *Modifying soils in Iowa lawns and gardens*, has great information on pH. This publication is out-of-print, but can be viewed online at www.extension.iastate.edu/Publications/PM1487.pdf.

You also can contact your local ISU Extension office for a reprint. Better yet, ask for a soil test kit so you can make informed choices about chemicals this spring.

Protect Iowa's aging oaks through disease identification and control

by Steven D. Lekwa, Story County Conservation Director

Like humans, trees are less able to fend off disease as they age. Many of Iowa's oak trees are more than 100 years old. Aging oaks are susceptible to several fungus diseases. Oak wilt is the most famous and deadly.



system. Symptoms usually worsen in mid to late summer.

There is no cure for oak wilt. Possible preventative measures include avoiding injury to a tree and severing

the root connections of adjoining trees with a vibratory plow once oak wilt is diagnosed. Removing diseased trees will stop or slow spread of the disease. Removed trees should be cut up and split so they dry quickly to prevent continued fungus growth. They also can be burned.

Another disease, oak anthracnose, is most common in white oaks. It begins as browning spots on leaves after a wet, cool spring. The spots grow to affect more of the leaf as the season progresses and may cause early leaf drop. A good spring the next year might show no disease, whereas oak wilt is progressive once it starts.

Two-lined chestnut borers are insect pests that attack stressed trees and cause leaf browning as they tunnel under the bark. Bad infestations can kill branches. Look for the widening feeding tunnels under the bark of dead branches.

Oak decline is a disease that affects all oaks. It's an increasingly common condition

caused by a variety of stressors, diseases, and pest factors that can resemble oak wilt. It progresses slowly, but may be reversible if the conditions stressing the tree are identified and corrected.

Your Department of Natural Resources state forester or ISU Extension forestry specialist can help you diagnosis tree disease and recommend appropriate control measures.

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Did you realize pets can contract Lyme Disease? Did you know that 50 percent of all breast tumors in dogs and 85 percents of all breast tumors in cats are malignant? More importantly, did you know that spaying a cat between six and eight months of age will reduce its cancer risk ?

Get the information you need to make responsible choices that will result in happy pets and happy families.

