



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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Thrive in 2005 with *Lighten Up Iowa*

The number of overweight people is growing in epidemic proportions. With the beginning of a new year, many Iowans will resolve to change their eating and physical activity habits. If you're committed to making a change, *Lighten Up Iowa* or *Go the Distance* may be for you.

Lighten Up Iowa and *Go the Distance* are five-month challenge programs, beginning January 19, 2005, that encourage Iowa adults and youth to develop healthy activity and eating habits. Adults and youth will form teams (two to 10 people) and set goals for accumulating activity miles and/or weight loss (adult teams only).

Adult participants will pay a \$10 fee, which includes a training T-shirt, weekly tips, and entrance into the 2005 Volkswalk at the summer Iowa Games. Youth can participate for free, but require an adult team leader to monitor and log their progress. All team

members can purchase pedometers at a moderate cost to help monitor their physical activity.

For more information, go to www.lightenupiowa.org. This web site has a team captain's handbook with details on forming teams, challenging others to participate, and using a pedometer to encourage behavioral change. You can enroll directly on the Web site. Information on signing up also is available from your local ISU Extension office.

Will this work in Iowa? Between 2003 and 2004, approximately 20,000 adult Iowans logged 4.9 million miles of activity and lost 66,000 pounds. In 2003, 2,800 Iowa youth logged more than a half million miles.

Lighten Up Iowa and *Go the Distance* are sponsored by the Iowa Games, ISU Extension, and the Iowa Department of Public Health.

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Kitchens that work better for everyone

by Mary Years, ISU Extension Housing Specialist

How do you make a kitchen that suits everyone – tall, short, young, old, disabled, non-disabled – and that can be adapted with changing needs? That’s the research question for an Iowa State University (ISU) team from the departments of Human Development and Family Studies (HDFS), Industrial and Manufacturing Systems Engineering (IMSE), and the Center for Industrial Research and Service (CIRAS).

Members of the ISU research team include Mary Years, HDFS; Patrick Patterson, IMSE; and Andrew Bice, CIRAS.

The goal for the research team is to develop a universal design kitchen. The universal design movement began in the past 15 years to make products and features that are universally usable by people of all ages, sizes, and abilities.

Universal design means inclusive design that works better for everyone, rather than separate designs for disabled and non-disabled users. A key ingredient in commercial success will be to develop products and equipment that are appealing and affordable for the general public.

Funded by grants from the U.S. Administration on Housing, the ISU team has developed and tested some prototypes for

free-standing kitchen furniture. The modular components are interchangeable and can be moved easily to accommodate needs of different users. Counter heights are convenient for do-it-yourselfers to adjust. Drawers – instead of doors – are used in base cabinets.

To test the usability of the prototypes, three age groups of men and women (ages 20-29, 40-49, and 60 and older) were invited to prepare a simple food in the “standard” kitchen arrangement. After the food had been prepared, the subjects were shown how the modular cabinet components could be adjusted.

They were given the opportunity to adjust counter heights, drawer sizes, and drawer locations. Then they were asked to prepare the same food again, using the new cabinet configurations.

Videotapes of the “before” and “after” kitchen arrangements showed a major improvement in the body mechanics subjects used in preparing the food. Tall people did not have to lean over so much after the counter heights had been raised. Short people could work in a more comfortable position when the counter had been lowered. People who used wheelchairs were able to reach the items they needed.

Feedback from the research

subjects was extremely positive. Most thought the cabinets were more convenient to use in the new configuration. Most liked the idea of being able to interchange the units to suit their particular needs. Participants also liked the notion that they could try out a modular cabinet arrangement before



purchasing the units.

The prototype cabinets (see figure above) were installed in a display trailer and demonstrated at the Governor’s Conference on Aging in May 2004. They also will be shown to builders, owners, and managers of housing for older adults to obtain their feedback on using these cabinets in apartment buildings and retirement communities.

For more information on universal design, go to www.extension.iastate.edu/Pages/housing/uni-design.html.

For more information, contact Mary Years, 62 LeBaron Hall, Iowa State University, Ames, IA 50011, (515) 294-8520, years@iastate.edu.

Bluebirds depend on humans to provide habitat and nesting sites

by Steve Lekwa, Story County Conservation Director

Pasture land with scattered trees or a large, open yard at least an acre in size with a water source nearby . . . if this describes your property, it's likely you can attract bluebirds. Bluebirds were common when much of rural Iowa had pastures, but changes in livestock agriculture have reduced drastically the habitat available for this popular songbird.

Modern acreages are again providing the open, short grass habitats preferred by bluebirds. Natural cavities for nesting often are scarce, but landowners can easily build houses that provide suitable space and help protect bluebirds from predators such as cats, raccoons and snakes.

Houses range from simple to complex, and plans often are available from your local Extension office or county conservation board. You can make a simple box from a 1"x 6" x 6' board. Rough cut western cedar is very durable, but clear pine will do. Avoid plywood if squirrels or deer mice are

common because they will gnaw on it. Cut the board in the following dimensions: the back, 13.5 inches; the roof, 7.5 inches; the front, 9 inches; two sides, 9 inches; and the floor, 4 inches.

Assemble the box with galvanized nails or screws. The floor should be recessed slightly into the bottom. The roof should be flush at the back and extend over the front. One side will serve as the cleanout door, hinged at the bottom to open from the top out. A simple hinge consists of nails driven opposite each other through the front and back at the bottom edge. A single nail inserted in a downward slanting hole through the front of the box will lock the side cleanout door in place. Drill several quarter-inch drain holes through the bottom. Drill similar-sized vent holes in the sides just below the roof line. The entry hole should be 1.5 inches in diameter and centered at least 5 inches above the floor.

Assemble the box with the rough side in if using cedar, or make

shallow saw cuts on the inside of the front (below the hole) if using smooth lumber. The roughness helps young birds or weak adults get out. Do not add a perch peg. Bluebirds don't need it, and house sparrows and wrens will use it to harass your preferred tenants.

Mount the box 5 feet above ground, away from brushy areas and ideally facing a nearby tree. Boxes mounted on fences (regular steel posts) are too easy for predators to reach. PVC plastic pipe slipped over a steel fence post and positioned away from the fence makes it difficult for climbing predators to reach.

Have your box in place by early March, when male bluebirds look for nesting territories. Bluebirds usually nest twice per season, so additional boxes mounted a few hundred feet apart often will be used. Monitor your box at least weekly through mid-summer to remove unwanted house sparrow and wren nest material. Without your help, these two species will drive bluebirds away.

County engineers are responsible for local roads

by Dave Andrews, Story County Extension Education Director

There are four highway systems in Iowa. The Iowa Department of Transportation is responsible for almost 10,000 miles of primary roads, including interstates. Cities in Iowa are responsible for 13,000 miles of streets and alleys.

State parks are responsible for almost 500 miles of road. Counties are responsible for almost 88,000 miles of roadway.

The responsibilities and skills of county engineers reflect the needs,

activities and overall objectives set for counties by their boards of supervisors. County engineers are responsible for all maintenance, repair, widening, resurfacing, and reconstruction of pavement and

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bridges on the county highway system. This includes traffic control, safety, mowing, and snow removal. In some cases, the county engineer's responsibility also involves road access and oversize vehicles.

The county engineer must prepare an annual budget and five-year program that identifies how the county will spend its county road funding. The county engineer must submit these documents to the county board of supervisors for approval.

The prime source of revenue is

property tax from the Rural Levy and Road Use Tax. Some counties also receive revenue from the General Levy and Local Option Sales Tax.

The Road Use Tax, which is the portion of the fuel tax earmarked for highway purposes, is levied at the state and federal level. These monies are then distributed for use on state, county, city, or park highway systems by statutory formulas.

County engineers are pressed to find other sources of funds. Some of these funds are federal bridge

replacement monies, Revitalize Iowa Sound Economy grants, miscellaneous grants, and permit fees. These funds can be spent only on the county system unless the board of supervisors has entered into an agreement with a city or the Iowa Department of Transportation.

You can find more specific information about your county on its Web site. The Iowa State Association of Counties lists those Web sites at www.iowacounties.org/Links/CountyWebsites.htm.

Choose lawn seed based on your expectations

By Aleta Cochran, ISU Extension Master Gardener

Although fall is the best time to seed a lawn in Iowa, it is possible to start a lawn in the spring. You will need to irrigate the new seeding and use a herbicide labeled for new seeding (such as Sirudon) to prevent weed seedlings from germinating.

When choosing the best seed for your lawn, consider the following:

- What is your idea of the perfect yard? It may be the darkest green yard in the neighborhood or the one that doesn't require much upkeep.
- How much time are you willing to spend on it? High-quality lawns are often the highest

maintenance, requiring more mowing, fertilizer, and herbicide.

- How much light does your lawn get? You may need to seed areas differently according to the amount of shade.
- Will your lawn be heavily used by children or pets? If so, you will want to purchase types that are more wear resistant and that recuperate quickly.

Kentucky bluegrass is the best adapted turfgrass for Iowa lawns. It is dark green and has a medium texture. There are a number of bluegrass varieties from which to choose. Iowa State University

Extension publication PM 1715, *Selecting Kentucky Bluegrass Varieties*, discusses the merits of each.

Fine fescues have very fine leaves and are medium dark in color. They are superior to most cool season grasses in shade and are compatible in mixes. Fine fescues are more drought resistant than bluegrass, but lose their color.

Perennial ryegrass is used in mixtures because of its ability to germinate quickly. It is dark green and medium texture. It does not tolerate extreme temperatures, but when blended with bluegrasses it provides a wear-resistant turf.

Tall fescues are very coarse and

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have a medium to dark color. They have excellent wear resistance but are slower to recover. They are sometimes considered a weed in bluegrass lawns because of their texture. Some new cultivars have been developed with finer textures and dense growth.

Higher-quality seed is more expensive, but should provide a thick, attractive lawn with fewer problems. Select a seed mix containing three to four bluegrass varieties and fine fescue. These blends contribute to a diverse lawn able to withstand a number of stresses and problems better than one variety by itself. Avoid those

with a high percentage of ryegrass.

There are several good publications on lawns available at your local Extension office, including *Seeding a New Lawn*, www.ipm.iastate.edu/ipm/hortnews/1996/7-12-1996/seedlawn.html, and *Turfgrasses for Iowa*.

Selecting energy efficient windows

By Kapil Aurora, ISU Extension Agricultural Engineering Specialist

According to the U.S. Department of Energy, fenestration (glazed doors, skylights, and windows) may total more than 25 percent of an average home's energy bill. Improperly constructed windows may cost less, but can be a source of energy loss. Homeowners should consider performance characteristics such as insulating value, solar transmission, and air tightness when purchasing a window.

Heat flow across a window occurs due to the temperature difference between the window's interior and exterior faces. This heat is measured in U-Factor and indicates the window's overall insulating value. For Iowa conditions, a U-Factor of 0.35 or less is needed for windows to meet the Energy Star qualification.

Technologies such as glazing, multiple panes, gas fills, and low-emittance (low-E) coatings can give a window a lower U-Factor. A window that has been

sealed or coated, has insulated glass (low-E), or is filled with argon (or other gases) will reduce heat loss further when compared to a single-pane glazed window.

When purchasing windows, pay attention to whether the U-Factor is specified for the complete window or just the glazing or sealed panes. The overall U-Factor may be higher if the frame and spacer materials do not resist heat flow.

A window's solar transmission is a measure of its solar heat control. It is usually measured as Solar Heat Gain Coefficient (SHGC), and its rating varies between zero and one. When selecting windows, especially for south walls to allow solar heat to enter the house during heating season, you may want to select windows with relatively high SHGC ratings. For houses with adequate roof overhang, this usually does not cause overheating issues as the solar radiation levels are lower for south-facing windows during the

summer or cooling season. For Iowa conditions, any SHGC rating will make a window Energy-Star qualified.

Air tightness takes into account airflow directly through or indirectly around the window. For better air tightness directly through the window, check seals between the window's different components. To minimize airflow around the window, follow installation instructions. In addition, caulk and seal all cracks and joints around the window after installation.

Currently, determination of whether a window is Energy Star qualified is based only on U-Factor and SHGC ratings. For more detailed information on selecting energy efficient windows, contact Kapil Aurora, Agricultural Engineering Specialist, ISU Extension, 200 H Avenue, Nevada, IA, (515) 382-6551, (515) 382-2696 (fax), or pbtiger@iastate.edu.