



May 2009

www.extension.iastate.edu/acreage/

In This Issue

	Page
Spring is a Good Time to Test Well Water	1
Citizens can be Key Partners in Iowa NatureMapping	2
Brush Management for Acreage Owners	3

Acreage Living is published monthly. Please share it with your acreage neighbors. Call your local ISU Extension Office for more information or contact an ISU Extension staff member listed below to suggest topics for future articles.

Editors:
Paul Brown
Assistant Director
Ag & Natural Resources
Extension
pwbrown@iastate.edu
(515) 294-7801

Shawn Shouse
Extension Field Specialist
sshouse@iastate.edu
(712) 769-2600

Designer:
Paulette Cambridge
paulette@iastate.edu
(712) 769-2600

Spring is a Good Time to Test Well Water

By Tom Glanville, ISU Professor of Ag and Biosystems Engineering

Safe drinking water is important to your family's health. But how can you tell if your well and water system provide safe water? If your drinking water comes from a public water supply, the federal safe drinking water act requires that it be sampled and tested on a regular basis. If you live on a rural acreage, however, your drinking water may come from a private well. If that's the case, it's up to you to make sure the system is properly inspected and tested for safety.

The quality of water from private wells should be tested annually. Spring or early summer is one of the best times of year to test your well. Iowa gets most of its rainfall April through June. During this wet period excess water picks up bacteria, nitrate and recently-applied lawn and crop chemicals as it percolates through the soil. If the upper part of your well is leaky, this contaminated water may enter your well through these defects, bringing contaminants with it. During late summer when the ground is dry, or in the winter when the ground is frozen, the same well may test safe. So if you want to get the most for your investment of time and money, test during wet weather. If your well water is safe during this time of year, the odds are that it will be safe the remainder of the year.

Water testing services are offered by private and state-operated laboratories. Check your phone book or the web for private labs in your area, or contact UHL (University Hygienic Laboratory), Iowa's official state environmental laboratory, (toll-free 800.421.4692, or www.uhl.uiowa.edu/services/wellwater/).

Accurate water testing requires proper scientific equipment and highly trained personnel. To be sure the lab you select is properly equipped and staffed with qualified personnel, ask whether it is certified by the Iowa DNR to perform water testing for public water supplies in Iowa.

continued on next page

continued from previous page

There are many contaminants in the environment, and each requires a specific test. Testing for all of these would be expensive and time-consuming. Unless you know that a particular contaminant has been spilled near your well, start with tests for coliform bacteria and nitrate. These are two of the most common contaminants found in private wells. They are relatively inexpensive to test for, and are good general indicators of drinking water safety.

Careful sampling is required to obtain accurate test results. Samples for coliform bacteria, for example, must be collected in a sterile bottle. The lab will supply bottles that are properly prepared for each of the tests you need. Be sure to follow written directions supplied by the lab for collecting each type of sample. When sampling for copper, for example, samples collected early in the day usually produce the most meaningful results. Sampling location can be important too. Water for coliform bacteria testing

must be collected in a clean indoor location to avoid contamination of the sterile bottle with dust and associated bacteria that can cause inaccurate test results.

Some counties offer private well testing programs. Contact your county board of health or county sanitarian to see if your county offers a well testing program.

Citizens can be Key Partners in Iowa NatureMapping

By Jason O'Brien, ISU Extension Interim Wildlife Specialist

What do an American robin, a bull snake, a tiger salamander, and a white-tailed jackrabbit have in common? Sure, they're all native Iowa species, all vertebrates and all invoke a sense of wildness in our minds, but there's more to it than this. It's the job of the Iowa NatureMapping program to shed light on their commonality.

NatureMapping, an Iowa State University Extension wildlife program begun in 1999, is a citizen-based monitoring program designed to collect and map location and habitat data for Iowa's common wildlife species, namely birds, mammals, reptiles and amphibians. The aim is to recruit interested and knowledgeable individuals and citizen groups to assist in documenting distribution of these species. Iowa has nearly 500 individual species of terrestrial

vertebrates. Scientists and wildlife managers need our help telling them what we see and where we see it.

It may seem unlikely that these professionals need the assistance of the general public, but the truth is this basic information, the "where," is critical if species are to be intelligently managed and viable populations maintained in the locations where they live. Very little is known of the present-day whereabouts of most Iowa species. Much has changed on the landscape since Iowa statehood, and most changes in wildlife distribution have gone undocumented. Additionally, with limited professional wildlife biologists and dwindling local, state and federal budgets, citizens become key partners to fill in these gaps of knowledge.

Hunters, hikers, canoeists, campers, bird watchers, wildlife enthusiasts, farmers, business persons and other outdoor sport and recreation-minded individuals can help map Iowa's wildlife. These individuals become volunteer wildlife monitors by attending a one-day workshop of training in the basics of wildlife monitoring. In the decade since the program started, NatureMappers have kept track of wildlife abundance, locations and habitats, and have collected more than 73,000 observations throughout the state, representing more than 360 different species of wildlife. This is a tremendous accomplishment considering that most of this data is done selflessly by individuals on their free time. NatureMappers ought to be proud of their efforts and know they are

continued on next page

continued from previous page
giving Iowa a lasting legacy for improved wildlife management.

The value of NatureMapping is the potential it has to affect local management decisions. While as a whole, NatureMappers provide a better idea of the statewide distributions of species, it is the ability of the volunteers to document wildlife in their own communities that generates the most interest in people. Local land use decisions often have significant impacts on a whole species, especially those with very narrow habitat needs. If the community is aware of the potential impacts, via NatureMapping data, then there is a better chance decisions can be made to minimize negative consequences.

To assist in this local decision making, the Iowa NatureMapping



program is nearing completion on an interactive web site that will allow access to wildlife information at www.extension.iastate.edu/naturemapping. Wildlife data is often missing from land use planning efforts, but this web site will allow people access to the data in an easy to understand format with other information, such as rivers, watershed and public land boundaries, and up-to-date aerial photos of the ground. The goal is to provide this data to individuals and communities who want and need it to make decisions. The NatureMapping data will be accessible at various levels of detail. The general public will be able to learn more about the wildlife in their communities, recreationists will be able to find out what species are in their

favorite wild places, educators will be able to teach their students about local wildlife resources using real information not found in textbooks, and wildlife managers will be able to access the entire database for many of their habitat and species management projects.

Conservation-minded citizens have a wealth of knowledge about local wildlife populations, and can add their knowledge to NatureMapping efforts. For more information about NatureMapping, please visit the web site at www.extension.iastate.edu/naturemapping.

Brush Management for Acreage Owners

By Robert Hartzler, ISU Professor of Weed Science

Iowa's natural areas are under attack by exotic plants that degrade these valuable spaces. Invasive plants displace native species, disrupt ecosystems and interfere with recreational uses of prairies, woodlands and other areas.

A number of factors contribute to the growing problem with invasive woody plants; however, disturbance is the universal factor that plays a key role in the success of these weedy plants. Since Iowa's few remaining

natural habitats are highly fractured and often exposed to disturbances (grazing, logging, nutrient runoff, etc.), the threat of invasive plants is constant.

While a wealth of information is available to aid in identification and management of invasive woody plants, much of the information about control tactics is directed towards persons experienced in weed management. This article will provide information appropriate for persons who have little experience handling herbicides.

Woody invasive plants of Iowa

Buckthorn – Several species of buckthorn are considered invasive in Iowa, but common buckthorn (*Rhamnus cathartica*) is most prevalent. Buckthorn plants are commonly found on the edges of wooded areas, and are easily spotted in the spring or fall since they leaf out earlier and retain their leaves later than native trees. It is a shrub or small tree that can reach heights of 25 feet. Leaves are oval, dark green with three to four pairs of curving veins.

continued on next page

continued from previous page

Twigs are usually tipped with a sharp spine, the source of the plant's name. A useful identification trait is the yellow/orange tissue found immediately under the bark.

Honeysuckle – There are several invasive honeysuckle species in Iowa. Honeysuckle plants form a clump of arching stems that can reach heights of ten to fifteen feet. Like buckthorn, they leaf out early and retain their leaves late into the fall. Leaves are arranged opposite on the stems and in the spring are light green. The bark is grey to tan in color with distinct stripes.

Multiflora rose - This plant was introduced both as rootstock for cultivated varieties and also was planted for numerous purposes (for many of which it was poorly suited). It grows best in open areas such as pastures and prairies, but can survive in wooded areas. Individual plants can reach heights greater than 10

feet. Multiflora rose can be differentiated from native roses by the fringed stipules present at the base of leaf petioles (small, leaflike appendages at the point where the leaf stem attaches to the supporting branch). Native roses have stipules, but they have smooth margins.

Figure 1.
fringed stipule
of multiflora
rose



Control strategies

Several control tactics are effective against woody plants. The most appropriate method varies depending on plant size, density, type of habitat and time of year. Smaller plants often can be pulled from the soil by hand or with specially designed tools. Mechanical removal of the brush or tree is an effective tactic, although many weedy species will

re-sprout following removal of the stem. Repeated mowing can be effective against brushy species such as multiflora rose. Herbicides can be used to control re-sprouting.

Three distinct types of herbicide treatments are commonly used to control woody plants: cut surface application, basal bark application and foliar application. Herbicide treatment will be covered in a future article.

Acknowledgement: Loren Lown, Polk County Conservation Board, provided valuable assistance in developing this article.

Additional information about invasive plants of Iowa and surrounding states

Midwest Invasive Plant Network: <http://mipn.org/index.html>
Common Roadside Invasive Plants in Iowa: <http://www.iowalivingroadway.com/invasiveplants.asp>



More Americans feel added stress and anxiety about their financial future as talk of rising consumer debt, falling housing prices, rising costs of living and declining retail sales bring up worries about the nation's economic health.

Learn positive money management techniques to help you and your family adapt to tough economic times.

http://www.extension.org/pages/Financial_Security:_Managing_Money_in_Tough_Times

<http://www.extension.iastate.edu/toughtimes/>

... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914 in cooperation with the U.S. Department of Agriculture. Jack M. Payne, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.