



Acreage Answers

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Preventing Carbon Monoxide Poisonings

by Tom Greiner, ISU Extension Engineer

In the United States more than 5000 people per year die from carbon Monoxide (CO) poisoning. Thousands more are injured. Some never recover and continue to suffer from memory, hearing, and vision loss; organ damage; and personality changes. Parkinson-like symptoms and Alzheimer's can be caused by exposure to CO. Several things can be done to help prevent these needless deaths and long-term disabilities.

- Install CO alarms near all bedrooms.
- Have all fuel-burning appliances inspected before the heating season
 - Gas or oil furnace or boiler
 - Gas water heater
 - Gas stove
- Locate an inspector to do a combustion check with a digital CO meter and a "worst-case backdrafting test."
- Install and use an exhaust hood vented to outdoors above a gas kitchen stove.
- Never use the kitchen stove to heat the house! It is not safe even for emergency heating.
- Never use an unvented gas or charcoal grill indoors.
- Never operate small gasoline engines indoors.
- Don't warm up vehicles in the garage. Even with the garage door open CO builds up in the garage and can then enter the home.
- Consult a heating contractor before and after tightening up your house to ensure that there is adequate combustion air for appliances. Without sufficient air, higher amounts of CO are produced and chimneys are more likely to backdraft.
- Consider installation of new high-efficiency appliances that save energy and are designed correctly for even a super-tight house.

Don't wait for Christmas to buy CO alarms for yourself and those you care about. Give the gift of a CO-safe home today.

**IOWA STATE
UNIVERSITY**
Cooperative Extension

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.

**Central Iowa
Extension offices**

Boone Co.	515-432-3882
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Dallas Co.	515-993-4281
Green Co.	515-386-2138
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Jasper Co.	641-792-6433
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Marshall Co.	641-752-1551
Polk Co.	515-261-4202
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Web Version of the Newsletter
www.extension.iastate.edu/polk/ag/newsletters.html

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Cooperative Extension Service, Iowa State University of Science and Technology, and the United States Department of Agriculture cooperating.

Snow Fencing Decisions

By Greg Brenneman, ISU Extension Ag Engineer Specialist

Most snow blows through a good snow fence. Research shows that the best snow fences are about half solid and half openings and will form drifts 25 to 30 times as long as the fence height.

Usually either wooden picket fences or plastic snow fences are used and are similar in effectiveness. Plastic fences are easier to handle but it is critical to have a good installation. If end posts loosen, the fence will sag and become ineffective. Costs of plastic fence vary. Plastic fence is considerably less costly than wood fence; however, a high quality plastic fence may cost almost as much as a wood fence.

Long-term, planting a living snow fence of evergreens and shrubs 150-250 feet from the road traps snow between the living snow fence and the road. Also, building up driveways allows snow to blow across rather than drifting on to them.

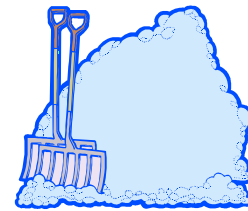
Keep grass and weeds mowed alongside roadways. This vegetation can trap snow on the roadway. Leaving standing corn or undisturbed cornstalk stubble will trap snow out in the field and minimize the amount of snow that can drift onto a roadway.

Information on snow control can be found at these web sites:

<http://www.extension.umn.edu/distribution/naturalresources/DD7277.html>

<http://www.ianr.unl.edu/pubs/for-estry/ec1770.htm>

<http://www.wrds.uwyo.edu/wrds/rmfres/rmfres.html>



2002 ISU Extension Garden Calendar

The 2002 issue of the Garden Calendar is now available. Through each month of the year, you can find helpful tips, beautiful photos, and the answers to many of your gardening questions.

The calendars are \$6.00 each and can be ordered at your county Extension office.

Home Insulation

by Thomas H. Greiner, ISU Extension Engineer

Looking for the fast, easy, and economical way to:

- Be warmer in winter?
- Be cooler in summer?
- Save money on heating bills?
- Save money on cooling bills?
- Reduce drafts and increase comfort?

Does your home have:

- Less than six inches of insulation in the attic?
- No insulation in the sidewalls?
- No insulation on the basement walls?

If you said yes, then add insulation. Half of the average Iowan's energy bill goes toward heating and cooling. By insulating your house, you can reduce this bill – in some cases dramatically – and be more comfortable too.

Heat leaks from warmer areas to cooler areas. In the winter warmth leaks out through walls, attics, and basements. Insulation slows that rate of heat loss so less heat leaks out during the winter. The more insulation, the more the savings. You should have at least R-38 to R-44 in the attic (10-15 inches of insulation). In the summer, heat leaks into the house, making the air conditioner work harder and longer and increasing your cooling bills. The more attic

insulation, the more the savings during the summer too.

Insulation should be installed between any heated (or cooled) space and an unheated space. If possible, insulate sidewalls and floors over unheated crawl spaces to R-19 or more. Finished or heated basements should have a minimum of R-10.



While insulating, you also should also seal air leaks, caulk, provide vapor retarders, and install adequate ventilation in attics and crawl spaces. Installing insulation and tightening up the house will change air and heat flows. Tightening a house affects combustion air for older natural-draft gas-fired heating appliances and fireplaces. Often, after air tightening, there is insufficient air for proper combustion and drafting of vents and chimneys. Have a qualified heating contractor inspect your home to ensure your home will have adequate combustion and make-up air openings after your air-tightening work. The contractor might suggest you

install additional combustion air openings to the outdoors or suggest that you buy a new high-efficiency direct-vent sealed-combustion heating unit, or change to electric heat. The contractor is right. These new heating appliances work well, even in super-tight houses, and will help you save even more on utility bills. The energy savings and extra safety might be worth the extra expense.

Don't put off insulating your home. Insulating will make you and your family more comfortable, save you money, and help reduce the need for extra energy in the United States. Don't forget to check with your utility company for possible technical assistance and for any monetary incentives they might have. Some power suppliers have programs to help you decide where to add insulation and to help you pay for it.

For more information on home insulation, and energy savings, contact your county Extension office or check housing bulletins at these websites:

<http://www.extension.iastate.edu/pubs/ho.htm>

<http://www.energy.iastate.edu/eficiency/residential/homeseries/index.htm>

Standby Electric Generators for Emergency Power

by Brad Woerner, ISU Extension Ag Engineering Field Specialist

The typical home can get by with a small portable engine-driven generator. These generators usually will run from \$400 to \$2,000 and should supply enough power to run a water pump, refrigerator, freezer, and a furnace blower (gas furnace).

Generators will typically require 2hp engine capacity for every 1,000 watts of generator output. Generators should be sized to provide capacity for starting motors. Motors typically require four times the power to start than to run. Estimate power requirements

from equipment nameplates when possible.

As a guide, electric motors require approximately 4,000 watts of power to start and 1,000 watts of power to run for every horsepower of output. A typical home operating a water pump, refrigerator, freezer, furnace blower (gas furnace) and a few lights will require around 5,000 watts of peak for starting and 2,000 watts for continuous operation. Electric heating devices would drive the requirement much higher. Demand could easily reach 15,000 watts or more. Be sure

to operate the generator outside away from any buildings to prevent the build up of deadly carbon monoxide gas.

For more detailed information on selecting and operating a standby generator, ask your power supplier or contact your local ISU Extension office and ask for bulletin AEN-122 (Electric Generators for Temporary Use). This publication can also be found online at <http://www.ae.iastate.edu/aen122.htm>



Know the Language of Buying Firewood

adapted from a news release by Paul Wray, ISU Extension Forestry

When you set out to buy firewood, go prepared with a new vocabulary. Here are some definitions that will be helpful to people who are buying firewood.

A **cord** of firewood is a stack piled 4 feet by 4 feet by 8 feet. That's 128 cubic feet of wood and air spaces.

A unit called a **face cord** is used in some localities. This is a stack of wood 12, 16, or 24 inches long piled 4 feet high and 8 feet wide. A face cord is between 1/4 and 1/2 a standard cord, depending on the length.

Firewood also is sold by the pickup load. The actual volume

included in a **pickup load** depends on the dimensions of the bed and how the wood is stacked. A typical pickup load equals 1/3 to 2/3 of a standard cord.

Density refers to the weight of the wood per unit volume. Iowa hardwoods with high density include locust, elm, hickory, oak, hard maple and ash. Woods with lower density include silver maple, box elder, cottonwood and basswood. The denser the wood, the higher the heat value. However, all woods grown in Iowa, when properly dried, are burnable in good wood burning units.

Air-dried wood is freshly cut wood that has been allowed to dry outside. Air-dried firewood will provide 1/4 to 1/3 more heat per unit volume than green wood. To adequately air-dry, wood should be cut to length, split and stacked for a year or more. A cubic foot of freshly cut white oak that weighs about 62 pounds will weigh 48 pounds when air-dried.

Don't buy freshly cut (green) wood. **Green wood** is slow to ignite, provides less energy and may promote creosote formation. Creosote collects in your chimney and may cause a fire hazard.

Fall Lawn Weed Control

Adapted from Horticulture & Home Pest News article, 7-29-94



The time for control of perennial broadleaf weeds is here. Fall (mid September & November) is an excellent time to selectively control these weeds with a herbicide. Control of broadleaf weeds in the fall gives the turfgrass an opportunity to fill in those open areas that appear after weed control. This results in a denser turf that culturally helps prevent weeds from becoming established. For those lawns that are mainly weeds, the time for complete renovation is now. Renovation means killing all existing vegetation and starting over.

Most broadleaf herbicide products consist of a mixture of two or three of the following chemicals: 2, 4-D, dicamba, MCPP, and triclopyr. Fall applications of broadleaf herbicides are safer and more effective than spring or summer application. During the fall, perennial weeds translocate carbohydrates down to their roots. If a broadleaf herbicide is applied to the weeds, it will also be translocated to the roots, resulting in the complete destruction of the weeds. With gardening activity winding down in the fall, the risk of injury from herbicide drift to vegetable and flower gardens, fruits, and ornamental is also reduced.

Dandelions, plantain, white clover, and red sorrel are common weeds that will be controlled by these herbicides. It is important to identify the weed and check the label for effectiveness on that particular weed.

Oh, Deer, What can the Matter Be?

By Dr. Jim Pease, ISU Extension Wildlife Specialist



It may seem hard to believe today, but there were no deer left in Iowa in 1900. Uncontrolled exploitation by our Euro-American ancestors had wiped them out. Since then, of course, populations have recovered to a point where the legal harvest commonly exceeds 100,000 deer per year in Iowa. In some areas, especially those urban and suburban areas that are not hunted, deer populations reach levels that cause considerable damage to landscape plants. Because deer have an extremely broad diet, most common landscape plants are vulnerable to some degree to deer browsing. Some plants are more preferred than others, but hungry deer will eat almost anything. The following are some suggestions for managing the damage:

- Some commercial repellents are available, some repelling by taste, others by smell. If overused, however, animals learn to ignore them.
- Scare devices, including "scare crows", Mylar™ flagging, noise makers, motion detecting lights, and guard dogs will all work to some degree. Again, overuse decreases their effectiveness.
- Excluding deer from specific plants or specific areas involves both passive fencing and electric fencing. Local regulations may limit the types and heights of fencing available to the homeowner.
- Support efforts to harvest the surplus of deer in your area. Many cities have successful and safe bow hunts that effectively reduce deer numbers.

For more details, get a copy of *Managing Iowa Wildlife: White-tailed Deer* (Pm-1302g) from your County Extension office or on-line at www.extension.iastate.edu.

