
Acreage Living

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Water Your Windbreak Before the Soil Freezes

by Michael L. White, ISU Extension Field Specialist/Crops, Warren County
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The dry weather has put coniferous (evergreen) trees and shrubs in jeopardy this winter. Because conifers lose moisture through their needles, which are retained year-round, they tend to be more susceptible to dry conditions than deciduous trees, which lose their leaves. Our current dry spell makes it especially important to water conifers now before the soil freezes. Young conifers and conifers that have been transplanted within the last two years will be the most susceptible to winter desiccation.

There are several ways to avoid winter injury to conifers. Small trees and shrubs can be wrapped with burlap or other protective materials. Second, anti-desiccants can be sprayed on the foliage to help prevent winter drying. Most are a "waxy" substance that can break down quickly during winter's thaws necessitating reapplication. Third, and probably best, is to water conifers in the fall before the soil freezes.

How much water may be needed per tree? Before answering this, we need to make some assumptions:

- An average Iowa soil can hold approximately 2" of plant available moisture per foot of soil.
- Most of the volume of tree roots can be found in the upper 2' of the soil and within a radius of one tree height from the trunk.

- There are 27,154 gallons of water in one acre inch.

With these assumptions in mind, let's also assume we want to replace one half (2") of the plant available water in the top two feet of soil. This is the amount of water needed based on tree height:

Tree Height	Tree Root Radius	Tree Root Diameter	Gallons of Water For a 2" Depth
2.5 ft.	2.5 ft.	5 ft.	25 gal.
5 ft.	5 ft.	10 ft.	98 gal.
10 ft.	10 ft.	20 ft.	392 gal.
20 ft.	20 ft.	40 ft.	1567 gal.
30 ft.	30 ft.	60 ft.	3525 gal.

As you can see, watering trees less than 10' tall is very feasible. Larger trees with deeper roots should be able to scavenge deeper soil moisture and probably survive a droughty period without much winter injury. If you do attempt to water a larger tree, consider putting only one half (1") of the gallons shown in the table above. You may not want to, or be able to, apply all the water at one time. Periodic watering several days apart can also be done.

More information on windbreaks, tree planting, and maintenance can be obtained from your county ISU Extension office.

More Love than Money Gift Giving

by Mary Beth Kaufman, ISU Extension Field Specialist/Family Resource Management, Shelby County
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Giving is fun, but overspending can be stressful. Many people handle their money responsibly all year long and then overspend at holiday time. Nearly one-

third of adults say they spend \$100 to \$500 more than they had planned. Often that overspending becomes debt that needs to be paid off come January.

Control holiday spending by making a written plan now. Think about how much you can afford to spend for gifts as well as decorations, holiday meals, and travel and then set a spending limit for each.

Consider gifts that reflect the personality of the giver and the receiver. Perhaps something you make with your special skills—or something store-bought you choose to meet the needs or interests of the receiver. Here are some ideas.....

Give of yourself. Print coupons for services such as car washing, lawn mowing, snow removal, child care, a haircut, house cleaning, or running errands. Coupons could also be redeemed for a casserole, baked goods, garden produce, cut flowers, or a day of fishing.

Share natural resources. Firewood from trees, ear corn for squirrels, sheep or horse manure for garden fertilizer, or home grown fruits and vegetables. Divide a perennial plant, give a plant cutting, or give seeds from flowers you've grown.

Share your talents. A tree ornament crafted

from fabric or wood, home canned jam or salsa, homemade bird feeder with seeds, homemade bread or cookies, handcrafted stationary, dried flower arrangement or wreath, or a collection of your favorite recipes in a box.

Coordinate gifts. If a bike is on the gift list, others could give a helmet, gloves, a map of bike trails in the area, or nonperishable snacks. Or for kids... a horn, streamers, or personalized license plate.

For the teacher. Personalized pens, pencils, or notepads. An offer to help out in the classroom by correcting papers, tutoring students, putting up posters or bulletin boards, or working recess duty.

For the gardener. Garden seeds, tools, or stakes for marking rows. A gift certificate from a garden catalog or nearby garden shop. An ISU Extension Garden Calendar available from your local Extension office for \$6.

For special family members. Reproduce a rare photograph and put in a frame. A treasured family item with a written explanation of its history. Organize family photos in an album.

For the traveler. Prepaid phone cards, rolls of film, stationary and stamps, a squashable tote bag.

A gift of safety. Smoke alarm, flashlight, fire extinguisher, sturdy step stool, or outdoor motion detector light.

Reducing Rabbit Damage

by Richard Jauron, Extension Program Specialist, Department of Horticulture, ISU
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During the winter months, rabbits often gnaw on the bark of many woody plants. Heavy browsing can result in the complete girdling of small trees and small branches clipped off at snow level. Apple, pear, crabapple, and serviceberry are frequent targets of rabbits. Small trees with smooth, thin bark are the most vulnerable. Other frequently damaged plants include the winged euonymus or burning bush, Japanese barberry, dogwood, roses, and raspberries.

The best way to prevent rabbit damage to young trees is to place a cylinder of hardware cloth (1/4 inch mesh wire fencing) around the tree trunk. The hardware cloth cylinder should stand about one to two inches from the tree trunk and 20 inches above the ground. The bottom two to three inches should be buried beneath the soil. Small shrubs, roses, and raspberries can be protected with chicken wire fencing.

Use Extension Cords Safely

by Shawn Shouse, ISU Extension Field Specialist/Ag Engineering, SW Area
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According to the U.S. Consumer Product Safety Commission, improper use and overloading of extension cords contributes to approximately 20 house fires across the nation every day. Over the course of a year, these 7000 fires cause nearly 100 deaths and \$100,000,000 in property damage.

Twenty percent of the fires originating in home electrical wiring systems involve extension cords. About 50 percent of the extension cord fires are believed to be caused by overloading the cord. External damage to the cord and improper alteration of the cord are other suspected causes.

Light duty cords, often called lamp cords, are suitable for small electric loads such as table lamps, clocks and radios. These cords cannot safely operate larger electric appliances such as vacuum cleaners, power tools and portable heaters. For safe operation, always compare capacity rating of the cord with the power use rating of the appliance.

Common light duty cords with 18-gauge wire are

generally rated for a maximum current of 10 amps (1200 watts). Properly used, this cord will easily handle a lamp or television. A common hand-held hair dryer will push this cord to its safe limit. A vacuum cleaner or portable heater will draw well over the rated capacity of this cord.

In addition to the total electrical load, the conditions of use affect extension cord safety. Rated capacity for an extension cord assumes it will be used in an open and straight configuration. As electric current passes through a wire, electrical resistance causes some heating of the wire. Coiling or winding excess cord length can concentrate this heat and overheat the cord. Similarly, covering a cord with a rug or pillow can trap heat and overheat the cord. This trapped heat can damage the cord and lead to a fire.

Altering a cord in any way can also lead to safety hazards. A common mistake is altering the third wire grounding lug. Appliances that utilize the third lug for grounding should be used only with an extension cord that includes the third wire ground.

Plug adapters void the safety provided by the third grounding wire.

As we enter the heating season, now is a good time to take an inventory of the capacity and condition of your extension cords. Look for cords that may be overloaded by the connected appliance. Look for

signs of age and cracking in the insulation. Look for plugs or receptacles that have worn and no longer make a firm connection. When in doubt, replace the cord. Extension cords are inexpensive and do have a finite life span. By paying attention to the condition and application of your extension cords, you can greatly reduce the risk of a cord-related house fire.

Home Planning and Remodeling Workshops

by Lois Warme, Associate Professor of Art and Design, Iowa State University
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If you are planning to build a home or undertake major remodeling, Iowa State University Extension's home planning and remodeling workshop will give you practical advice and useful reference material. The daylong workshops are held each month from November 2000 to June 2001.

In the workshop, you will learn about home construction and renovation from ISU Extension and Iowa Central Community College (ICCC) housing specialists. You will get answers to your specific project questions, learn about energy conservation and universal design options available for your home. You will receive valuable information on everything from designing the floor plan to installing energy-efficient windows, from material properties to indoor air quality.

Mary Kay Vogel of Ames has attended the Home Planning and Remodeling Workshops four times. "I found the workshop to be very informative. You can bring sketches, preliminary plans or photos of your existing house or building site. A specialist consults with you, one-to-one, to answer your specific

questions. I returned as we moved through the different phases of building our home. Each time the workshop was helpful. The information packet was also very useful."

Iowa State faculty from agricultural and biosystems engineering, physics, art and design, and human development and family studies, plus the ICC program coordinator of carpentry, lead the workshop discussions. The workshops begin at 8:45 a.m. and conclude at 5:00 p.m. The fee, including lunch, is \$100 per individual or \$120 for two from the same household.

Home planning and remodeling workshops are held on campus in Ames the second Friday of each month.

For program information, contact Lois Warme (515) 294-5366 or visit the ISU Institute for Design Research and Outreach World Wide Web site, www.design.iastate.edu/idro. For registration information, call Janet Gardner at Iowa State University Extended and Continuing Education, (800) 262-0015.

Acreage Living is published monthly. For more information, contact your local county ISU Extension office.

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