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The NEBLINE, March 2005

The NEBLINE®

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In This Issue

SPECIAL INSERT: WEED AWARENESS

Prepared by the Lancaster County Weed Control Authority

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Rising Energy Prices Cause Some Irrigators to Consider Changing Energy Source

Tom Dorn
Extension Educator

UNL Institute of Agriculture and Natural Resources

Extended drought across much of Nebraska in recent years, complicated by rapidly increasing energy prices, has put Nebraska's farmers in an economic squeeze. Some irrigators are exploring the economic feasibility of switching energy sources. A thorough economic comparison calculates fuel, operating and ownership costs.

Estimating Irrigation Fuel Cost Differences

The University of Nebraska Biological Systems Engineering Department has analyzed hundreds of pumping plant test results and developed the Nebraska Pumping Plant Performance Criteria (NPC) (see Table 1, page 11). This criteria indicates the useful work one should expect per unit for each of the energy sources used in irrigation.

Using the NPC, irrigators can estimate expected energy consumption for each alternative energy source whenever the lift, system pressure and pumping rate are known. Multiplying the estimated energy consumption by the fuel price provides an estimate of energy cost for each fuel source, thereby giving an indirect comparison of prices for alternative energy sources.

One can compute price factors using the NPC to compare each energy source to the others. For example, the expected work output per gallon of liquid propane (LP) is 6.89 while the work output of diesel is 12.5. For the energy cost to be equal between these two fuel sources, LP should be priced at 6.89/12.5 = 55.1% of the cost of diesel.

Table 2 (see page 11) presents equivalent price factors for the common irrigation energy sources. To compute equivalent energy prices for irrigation pumping, select an energy source on the left margin with a known price per unit (dollars per gallon, dollars per kWh). In that row, find the price factor in the cell under the second energy source. Multiply the known cost per unit of energy selected by the price factor to find equivalent energy price per unit for the second energy source. For example: If irrigation diesel is $1.60 per gallon, the price per gallon for LP that results in the same energy cost for pumping is $1.60 x 0.551= $0.88 per gallon. Interpretation: If LP can be purchased for less than $0.88 per gallon, the energy cost per hour is less for LP than diesel. If LP is higher than $0.88 per gallon, the energy cost is higher for LP than diesel at $1.60 per gallon.

Factoring Operating & Ownership Costs

Operating costs are dominated by the fuel cost component but repairs and labor costs are also a part of the operating costs. Ownership costs include: return on capital investment, taxes, insurance and depreciation.

The annualized cost of an irrigation system depends on the design. Different systems have different costs. For example, a center pivot sprinkler system likely will have a higher initial cost and a higher pumping cost per inch of water delivered to the field, than a gated pipe system. However, due to improved irrigation efficiencies, a center pivot system nearly always requires less total water pumped to meet crop needs and fewer labor hours to irrigate as compared to a gated pipe system. The question is, will the savings in inches of water pumped plus savings in labor offset the higher pumping cost per acre-inch (due to higher system pressure) and higher ownership costs of the center pivot versus the gated pipe system?

The energy source selected dictates the type of power unit needed. The purchase price and expected service life is quite different when comparing spark ignition and diesel engines. The lower purchase price, lower maintenance costs and longer service life for electric motors can be a big plus when considering switching to electric power. However, the cost of bringing in three-phase electrical power, annual hookup charges and potential for load control during peak electrical demand periods, must be considered as well.

"Irrigcost" Interactive Online Spreadsheet Can Help Compare Costs

To help irrigators estimate costs, I've developed a user-friendly, electronic spreadsheet in Microsoft Excel. "Irrigcost" helps compare different energy sources and computes estimated operating and ownership costs. Costs are presented as total annual cost (dollars per year), annual cost per acre and annual cost per acre-inch of water pumped.

This spreadsheet is available at no cost on the Lancaster County Extension Web site at lancaster.unl.edu/ag/crops/irrigate.htm#CPISC — look for the file named "Irrigcost.xls Notebook." You can download the file to your computer (downloading instructions are on the Web page) or you can run the worksheet as an interactive Web page in Microsoft Internet Explorer.

see IRRIGATION COSTS on page 11

Water Conservation Strategies

The drought has prompted a renewed interest in water conservation practices in crop production. University of Nebraska Cooperative Extension has extensive resources on these practices which can be accessed online at lancaster.unl.edu/ag or ianrhome.unl.edu/drought or at the Lancaster County Extension office.

No-Till Farming

There has been increased statewide interest in learning to use no-till farming methods which save both fuel and soil water. Extension has more than 75 educational publications on the topic.

Improved Irrigation Management

Many crop producers are *overwatering*. Proper irrigation management can maximize water and energy efficiencies. UNL Cooperative Extension's "Irrigation Management Home Study Course" can be ordered online at nerec.unl.edu/homestudy/irrigation/ihsindex.htm. Chapters include: measuring soil water, crop water use, irrigation efficiencies and scheduling irrigations.

Alternative Crops/Limited Irrigation

Aided by University of Nebraska research and extension personnel, some farmers in western Nebraska are planting alternative crops requiring less water.

Others are adopting strategies that produce optimum yields under limited irrigation. Recent studies in the Panhandle have demonstrated with proper management, it is possible to produce 80 percent of normal yield with only six inches of irrigation.

Extension Irrigation Engineer Dean Yonts, at the Panhandle Research & Extension Center near Scottsbluff, can be contacted at (308) 632-1238.

2005 All-America Selections Winners

Established in 1932, the All-America Selections (AAS) makes awards on a yearly basis for the new vegetable and flower varieties that it feels exhibit qualities that are superior to contemporary varieties. The awards are based on the votes of a council of professional judges, who have studied the new varieties at more than 50 trial sites scattered across the United States and Canada.

Although the All-American Selection varieties are not perfectly adapted to all gardens, your chances of success are greater when you select an award winning variety. Here are the 2005 winners. Give them a try.

Gaillardia aristata 'Arizona Sun' Flower Award Winner

This gaillardia is red and yellow. Each 3 inch single flower is mahogany red with bright yellow petal edges. The bright colors are similar to the desert sun in Arizona. Like many annuals, these plants produce flowers continuously. Even the spent blooms are attractive as tufts of seed. When grown in a full sun garden, 'Arizona Sun' is a compact plant reaching only 8 to 10 inches tall, spreading 10 to 12 inches. Blanket flower is native to the Great Plains and usually considered a perennial. 'Arizona Sun' performed as an exceptional plant the first year grown from seed. This AAS winner may overwinter, depending upon the severity of winter. 'Arizona Sun' flowers can be cut and used for summer bouquets. They may attract butterflies to the garden in search of nectar.

Vinca 'First Kiss Blueberry' Flower Award Winner

The first blue-flowered Vinca is an AAS winner named 'First Kiss Blueberry.' The large 2 inch single blooms have a darker eye which accentuates the violet blue color. For decades breeders have been diligently working towards a blue Vinca. Now 'First Kiss Blueberry' fills the color void. Gardeners will look for 'First Kiss Blueberry' plants to add to their collection. Proven to be heat and drought tolerant, mature plants will be about 11 inches tall and spread 16 inches, given adequate growing conditions. Easy to grow, this Vinca can be grown in patio containers or combination planters.

Zinnia 'Magellan Coral' Flower Award Winner

'Magellan Coral' blooms are radiant. They illuminate the garden. The fully double, dahlia flowered 5 to 6 inch blooms gleam with brilliant coral petals. The flower quality and color are superior to other zinnias. In addition to the color, 'Magellan Coral' plants are brimming with luminous blooms. Consistent flower production is an improved quality. Earliness to bloom is another exceptional trait. From sowing seed to first bloom requires only 6 to 9 weeks. Mature zinnia plants will reach about 15 to 17 inches tall and spread 15 to 19 inches, depending upon growing conditions. Like all zinnias, 'Magellan Coral' will perform best in a full sun growing location. This AAS winner is adaptable to container gardening.

Eggplant 'Fairy Tale' Vegetable Award Winner

'Fairy Tale' is a petite plant with decorative miniature eggplants. The fruit appearance is as luscious as the taste. 'Fairy Tale' eggplants are white with violet stripes. The fruit are sweet, not bitter, with a tender skin and few seeds. The elongated oval eggplants can be picked when quite small at 1 to 2 ounces or they can be left on the plant until double the weight, and the flavor and tenderness remain. 'Fairy Tale' eggplants are recommended for marinating and grilling whole. The harvest can begin in just 49 to 51 days from transplanting. The petite plant reaches less than 3 feet tall and wide, perfect for container gardening. An eggplant has not won an AAS award since 1939, so 'Fairy Tale' is truly an exceptional new variety.

Winter Squash 'Bonbon' Vegetable Award Winner

'Bonbon' is a squash with three improved traits. They are restricted habit, earliness and superior eating qualities. 'Bonbon' has an upright, semi-bush habit needing less garden space. Mature vines spread about 8 feet. When 'Bonbon' plants are transplanted into a full-sun garden, look for ripe fruit within 81 days; a full week earlier than other varieties. 'Bonbon' squash has thick orange flesh and when cooked delivers sweet flavor and creamy texture loaded with vitamin A. The dark green squash is painted with silver stripes and weighs about four pounds. Easy to grow, 'Bonbon' is not highly susceptible to diseases and is adaptable to any location where squash is grown.

Tomato 'Sugary' Vegetable Award Winner

The name says it all. Judges raved about the sweet tomato flavor. The half-ounce dark pink fruit has a sugar content of 9.5 percent, higher than most others. The fruit is produced in clusters like grapes and can be eaten like them. 'Sugary' tomatoes have a distinct shape; they are oval with a pointed blossom end. In addition to the flavor, 'Sugary' plants produced a high yield with a noticeable lack of cracked fruit. Look for ripe fruit on the strong semi-indeterminate vines within 60 days from transplanting into warm, prepared garden soil or large containers. Plants are vigorous and may need pruning to contain growth. 'Sugary' should set a new standard for 'cherry' size tomatoes with sweet flavor. (MJF)

Garden Guide

Things to do this month

Rake the lawn to remove leaves and twigs.

Some annuals, such as verbenas, snapdragons and petunias, take 70 to 90 days to bloom. They should be started indoors in early spring.

Buy some new perennials for your flower border. Spring is a good time to renew and add variety to your landscape.

Complete the pruning of shrubs, ornamental trees before growth starts, except for spring flowering shrubs. Prune those which bloom in spring as soon as they finish flowering.

Start transplants indoors of tomatoes, peppers and eggplant.

Do not plow your garden when the soil is wet. It will form clods which are difficult to break up and interfere with cultivation during the summer.

Plan your vegetable garden on a sheet of paper to utilize the space most efficiently. Remember to rotate the vegetables in the garden to reduce insect and disease problems.

Buy a notebook and use it to keep all your gardening information. List what you plant in the garden. Include the name of seed companies, plant name, variety, planting date and harvest date. During the growing season keep notes on how well the plant does. If the variety is susceptible to disease, record what was used to treat any problems. All this information will be helpful in planning future gardens.

Pick a permanent spot for herbs in the garden.

If you have not done it already, check stored tools and outdoor furniture for signs of rust. Remove any surface rust with steel wool and paint with rust-inhibitive paint.

Turn the compost pile.

Place birdhouses built this winter outdoors this month. Birds will begin looking for nesting sites soon. (MJF)

Caring for Easter Lilies

We can thank Louis Houghton, a World War I soldier, for the popularity of the Bermuda lily, better known as the Easter lily, in this country. In 1919, he brought a suitcase full of hybrid lily bulbs to the southern coast of Oregon and gave them to family and friends to plant. The climate there was ideal for growing this lily, a native of the Ryukyu Islands of Japan, and by 1945, 1,200 west coast growers were producing bulbs for the commercial market. Up until that time, first Bermuda, and then Japan, dominated the U.S. export market.

Today, ten growers, most located along the California-Oregon border, in an area known as the "Easter Lily Capital of the World," produce 95 percent of all bulbs grown in the world for the potted Easter lily market. They produce almost 12 million bulbs, shipping them to commercial greenhouses in the U.S. and Canada. Despite a sales window of only two weeks, Easter lilies are the fourth largest crop in wholesale value in the U.S. potted plant market, according to the U.S. Department of Agriculture. Poinsettias, mums and azaleas, rank first, second and third.

The cultivar most commonly grown for U.S. markets is the "Nellie White." It is named for a lily grower's wife and has large, white, fragrant trumpet-shaped flowers. When buying a lily, look for a plant with flowers in various stages of bloom from buds to open or partially opened flowers. Foliage should be dense, rich green in color, and extend all the way down to the soil line. This is a good indication of a healthy root system. Look for a well-proportioned plant, one about two times as high as the pot. You also should check the flowers, foliage and buds for signs of insects and disease.

At home, keep your lily away from drafts and drying heat sources such as appliances or heating ducts. Bright, indirect light is best with daytime temperatures of 65 to 75° F. Water the plant only when the soil feels dry to the touch, but do not overwater. To prolong the life of the blossoms, remove the yellow anthers (pollen-bearing pods) found in the center of each flower.

Do not throw away you Easter lily after it is done blooming. You can save the bulb and plant it outdoors. Easter lilies can be replanted outside after the blooms are gone. Plant the Easter lily outdoors as soon as the ground can be worked. Select a sunny site with well-drained soil. Set the top of the bulb six-inches below the soil surface. Cut off the old flowers, but leave the stem and leaves. Do not cut back the stem until it dies down in the fall, then cut it off at the soil surface. After the soil surface freezes in late fall, mulch the soil and do not remove the mulch until new growth begins in the spring. (MJF)

How Do Honey Bees Survive the Winter?

Unlike other insects that go dormant during Nebraska's cold winter, honey bees stay active in their hives even when temperatures are below zero. How do they do this?

The temperature in a properly managed hive never falls below 63° F. To maintain this temperature, worker bees form a tight cluster and surround the queen bee. By using stored honey as fuel, the workers shiver to generate metabolic heat. The bees on the outside of the cluster, insulate the cluster while the innermost bees generate heat. They continually rotate their position, alternating their role as a heat producer and heat retainer.

Insulating hives reduces honey consumption.

It isn't unusual for a bee hive to loose two-thirds of its population between late summer and the following spring, but the beekeeper's goal is to keep the queen and some bees alive and healthy until temperatures warm in the spring. A strong honey bee hive needs at least 55-60 pounds of honey at the beginning of winter. Beekeepers usually check their hives in March to make sure there are adequate food reserves to last until mid-April.

Another management technique that will reduce honey consumption is for beekeepers to place a winter wrap around each hive in November (see photo) and remove the wraps in mid-April.

If you are interested in keeping bees, but don't exactly know where to start, come to a Beginning Beekeeping Workshop on Saturday, March 12 (information at right). (BPO)

Ultrasonic Pest Repellents Are Not Effective

A number of ultrasonic repellents have been marketed to customers who want a safer and easier way to control pests around the home. Ultrasonic repellents have existed for more than 25 years and are marketed through mail-order companies, home shopping cable channels and gardening magazines. They are readily being sold on the Internet and at hardware and other stores.

Ultrasonic devices claim to use ultra-high frequency sound waves to chase away pests from rodents to spiders. Some research shows ultrasonic devices can affect wild rodents in field situations and their travel routes.

However, intensive research and evaluation from vertebrate pest specialists and research labs do not support the use of ultrasonic devices as an effective method to eliminate or prevent pests.

One debunking study involved 20 ultrasonic units of different brands. The researcher used these units against rats and mice in indoor and outdoor pens and in field trials. The overall result was nothing more than a partial repellence for a day or so which was soon overcome, regardless of whether or not the frequency was variable, random or intermittent. Some units produced no noticeable effect on the rodents at all.

Other methods, such as traps, are more effective at pest control than ultrasonic devices.

There are plenty of non-toxic or low-toxic methods to keep pests outside. For mouse control, seal cracks and crevices larger than one-fourth inch. Eliminate weedy growth or vegetation near the house, where mice usually live.

Lastly, use snap traps inside the house at the earliest sign of mice. A particularly effective bait is a bit of softened caramel (yes, candy) pressed into the "trigger" of the snap trap. Caramel is highly attractive and cannot be licked off by mice. It also stays fresh for a long time. Live traps can be used, with or without bait — they work because of mouse behavior. Glue boards can also be used, but they must be thrown away after catching a mouse.

Researchers have found ultrasonic devices are not effective for controlling insect pests, either.

Other methods take a bit more time and effort than plugging in an ineffective device, but remember, if it seems too good to be true, it probably isn't true. (BPO)

Nominations are Being Sought for the 2005 Lincoln-Lancaster County Environmental Awards

Do you know of an individual, business, community group, school or youth group who deserves to be recognized for their environmental stewardship efforts? If so, nominate them for a Lincoln-Lancaster County Environmental Award.

Awards are given in the following categories:

Pollution Prevention
Preventing pollution and waste from being created.

Waste Reduction and Recycling
Reduction in the amount of waste sent to the landfill.

Water Conservation
Reduction in water use, using water conservation techniques.

Cleanup/Beautification
Improvement in an area's visual quality.

Residential/Commercial Development
Reducing waste during construction, using drought tolerant landscaping, energy efficient or green building techniques.

Environmental Education/ Awareness
New or unique efforts for providing or supporting environmental education programs; increasing awareness about local environmental issues.

Nominations may be made in more than one category if appropriate. Deadline for nominations is March 18.

To nominate someone, call Harry Heafer at 441-8035 or Gene Hanlon at 441-7043 for a nomination form. Or, complete the nomination form online at: www.ci.lincoln.ne.us/city/health/environ/kllcb/awards.htm.

The Lincoln-Lancaster County Environmental Awards are co-sponsored by the Lincoln-Lancaster County Health Department and Lincoln Public Works and Utilities Department with generous support from many donors. (BPO)

Beginning Beekeeping Workshop

Learn to:

- manage honey bees by understanding their biology and behavior
- identify the best Nebraska honey plants
- install packaged bees
- manage honey bee diseases
- harvest honey and beeswax
- prepare your crop for market
- locate hives for best survival and production

Saturday, March 12, 9 a.m.–5 p.m.
Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln

Saturday, April 9, 9 a.m.–3 p.m.
Apiculture lab, Agricultural Research and Development Center (ARDC), near Mead

Cost: $15 per family — includes refreshments and a workbook for new beekeepers. One lunch is included in the registration. Lunch for each additional family member is $8.

For more information, call Barb Ogg at 441-7180

Upcoming Workshop

Everything Homeowners Need to Know About TERMITE CONTROL

THURSDAY, MAY 19, 6:30–9:30 P.M.
Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln

Attendees will:

- Learn to identify termites and their damage
- Learn unbiased information about effective treatments, based on research results
- Learn why treatments cost so much
- Receive up-to-date reference materials
- Be informed consumers and make better decisions

Cost: $25
Call 441-7180 for more information

ewf needs volunteers

Volunteers are needed for **earth wellness festival** on Thursday, March 24 at Southeast Community College in Lincoln. Approximately 3,000 fifth-graders participate in this annual event that involves students in creative and innovative environmental education activities.

Each year, over 250 volunteers take part in **earth wellness festival** activities. As classroom escorts, bus greeters, presenter and registration assistants; volunteers are essential to the success of this event. You may choose to volunteer all day (8:30 a.m.-3:30 p.m.) or morning only (8:30 a.m.-noon). In return, you receive a festival T-shirt, a free lunch, an invitation to our celebration party following the event and an opportunity to participate in a rewarding volunteer experience.

Please contact Meghan Sittler at 472-8823 or via e-mail at msittler2@unlnotes.udu.edu for more information. (DS)

Private Pesticide Applicator Certification, March 3 and 16

Federal and state law states a private pesticide applicator must be certified and licensed to buy, use or supervise the use of, **restricted-use** pesticides to produce an agricultural commodity on property they own or rent or on an employer's property if the applicator is an employee of a farmer. No certification is needed if one will only be using general-use pesticides.

Four Private Applicator training sessions have been held previously but two additional sessions will be held in March. These are scheduled for Thursday, March 3 from 8:30 -11:30 a.m. and Wednesday, March 16 from 1:30 - 4:30 p.m.

There is a $15 fee collected at the training session. When the Nebraska Department of Agriculture receives the application from the training session, private applicators will be billed $25 for a license fee. This fee covers the three-year license period. (TD)

Pesticide Disposal Collection, March 16

The Nebraska Department of Agriculture, in cooperation with University of Nebraska Extension, the Environmental Trust Fund, the Nebraska Agri-Business Association and the Nebraska Department of Environmental Quality, will be holding a pesticide disposal collection day on Wednesday, March 16 at the Farmers Cooperative Company fertilizer plant on North 148 Street, Waverly. Anyone with outdated or unwanted pesticides may bring them to the site from 8 a.m. until noon.

Pesticides should be brought in their original containers with label intact if possible, but pesticides which no longer have readable labels will be accepted. No pre-registration is required. There is no charge for up to 1,000 pounds of product from individuals or firms. A small fee will be assessed for the amount over 1,000 pounds. Once received, the pesticides will be sorted and packaged for shipment to a certified incinerator for disposal.

Remember to protect yourself and your surroundings when handling waste pesticides. You may need to wear personal protective equipment or, as a minimum, unlined neoprene or nitrile gloves. If the pesticide container has been damaged, pack it in another container that will hold the product if the first container should rupture while being transported. Use a container that can be left at the collection site if it becomes contaminated.

Three main categories of pesticides will be accepted:

- Unused, unneeded, old or damaged pesticides (includes insecticides, herbicides, fungicides, rodenticides and fumigants).
- Pesticides of all types (agricultural crops, livestock, homes, lawns, gardens, structural, commercial), including those in aerosol containers.
- Farmer-supplied electrical transformers containing PCB's from renovated irrigation systems.

Since different wastes need to be handled and disposed of differently, products that fit in one of the categories above are the only ones accepted. Products NOT accepted include:

- Pesticide products in pressurized cylinders
- Waste oil or oil filters
- Antifreeze
- Paints, varnishes and thinners
- Cleaners and solvents

The Waverly site is one of only about 20 sites across Nebraska selected for this pesticide collection program in 2005. Don't miss the opportunity to dispose of unwanted pesticides! (TD)

Glyphosate, Rose by any Other Name ...

Tom Dorn
Extension Educator

Monsanto chemical company first developed the non-selective systemic herbicide, with the chemical name N-(phosphonomethyl) glycine otherwise known as the isopropylamine salt form of glyphosate in the 1970s and marketed it as Roundup. Eventually, the patent ran out on glyphosate and other chemical manufacturers began manufacturing it. I recently did a search and was able to identify 59 brand names of glyphosate labeled for agricultural crops, sold by 16 different companies. This did not include brands sold primarily for lawn and garden use and did not include products containing a second herbicide in combination with glyphosate.

Most glyphosate on the market today is still in the form of the isopropylamine salt. Moreover, most manufacturers sell a formulation that contains the isopropylamine salt with three pounds acid equivalent per gallon, the same amount of acid equivalent found in Roundup Original. There are a few brands of glyphosate that differ in their acid equivalent content. Always read the product label when shopping for the best buy.

Other formulations of glyphosate have been developed as well. Monsanto produces an ammonium salt of glyphosate (Roundup Ultra-Dry) which has 65 percent acid equivalent by weight. Monsanto also produces a monopotassium salt of glyphosate (Roundup Original Max, Roundup Ultra Max, Roundup Weather Max and RT Master II) all contain 4.5 pounds acid equivalent per gallon.

Syngenta produces a diammonium salt of glyphosate found in Touchdown and a monopotasium salt of glyphosate found in Touchdown HiTech. These contain three pounds and 4.17 pounds acid equivalent, respectively.

Nufarm Americas sells a mixture containing 2.7 pounds acid equivalent isopropylamine salt plus 0.3 pounds acid equivalent monoammonium salt of glyphosate (Credit Duo and Credit Duo Extra).

Do all brands of glyphosate that contain the same acid equivalent have the same efficacy against weeds?

The answer would be a qualified yes. If the label directions regarding additives are followed, equal performance can be expected. While the acid equivalent is the same, the so-called inert ingredients are not the same in many cases. Inert ingredients do not have herbicidal properties by themselves, a portion are the carriers and a portion are additives included to enhance the efficacy of the active ingredient. Many generic brands of glyphosate lack the additives found in more expensive brands. So one should know what additives you may need to add to the spray tank to enhance the effectiveness of products lacking those products and consider this cost along with the cost of the glyphosate. Read product labels for additive recommendation or talk to your chemical supplier. (TD)

"Native Grasses and Wildflowers" Rural Living Clinic, March 10

University of Nebraska Cooperative Extension is presenting "Acreage Insights - Rural Living Clinics" to help acreage owners manage their rural living environment.

Upcoming workshops (listed with Lincoln dates) are:

- **Create a Prairie With Native Grasses and Wildflowers** — Thursday, March 10, 7–9 p.m.
- **Acreage Landscape Management** — Thursday, April 14, 7–9 p.m.

In Lincoln, clinics will be held at the Lancaster Extension Education Center, 444 Cherrycreek Road. The workshops will also be offered in Omaha and Fremont.

Wildflowers in an acreage landscape create a natural, informal appearance and provide a changing palette of colors throughout the growing season. Native grasses reduce soil erosion and enhance wildlife habitat. At "Create a Prairie with Native Grasses and Wildflowers," learn how to incorporate a wildflower planting, the necessary steps in establishment and how to maintain the planting in years to come.

Preregistration is $10 per person and must be received three working days before the program. Late registration is $15 per person. Note: if a minimum number of registrations are not received, clinics will be cancelled and preregistered participants will receive a full refund.

For more information or for a registration form, call the extension office at 441-7180 for a brochure or go online at lancaster.unl.edu/hort/Programs/AcreageInsightsClinics.htm.

"Fertilizing Cropland With Biosolids" Workshop, March 3

An Educational Workshop about Lincoln's Biosolids Land Application Program

All interested persons are invited to attend a free biosolids workshop on Thursday, March 3 from 3:30 to 8:30 p.m. Preregistration is required — call Karen Wedding at 441-7180 by March 1.

Meet at 3:30 p.m. at the Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln. The group will then tour the Theresa Street Wastewater Facility and return to the extension center for dinner and educational program.

Participants will:

- Tour the Theresa Street Wastewater Facility and learn how wastewater is processed and made safe for application.
- Learn how regulations determine application rates and locations.
- Learn how GPS and GIS technology is used in Lincoln's Biosolids Program.
- Learn how biosolids improves soil tilth, especially on poor or eroded soil.
- Learn how biosolids usually increases crop yields for several years after just one application.

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Pruning Shrubs in the Landscape

Pruning is the most important maintenance practice for shrubs in the landscape. Rarely will you find a shrub in your landscape that doesn't need some pruning each year. Proper pruning will help the shrub produce a more attractive, vigorous, well-formed plant. Also, pruning will often increase flowering and extend the usefulness of your shrub.

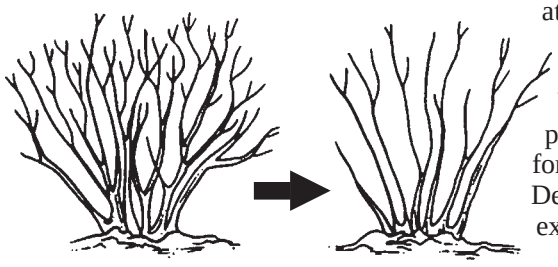
Shrubs should be examined on an annual basis with some pruning carried out each year. Too many homeowners neglect their shrubs and fail to prune for several years. Shrubs become overgrown, a loss of vigor may occur, requiring heavy pruning to reduce the size of the plant, and in many cases permanent damage occurs.

Why Prune?

Pruning is a necessary practice to maintain healthy, vigorous shrubs and keep them within desirable size.

1. The first step in pruning is to remove all dead, broken or diseased branches. This is necessary to maintain the health and vigor of the plant.

2. Remove branches misshaped, crowded, rubbing or dropping on other branches for support. This might be termed preventative maintenance, removing these branches before injury occurs by rubbing or crowding other branches and causing loss of vigor and death by crowding.



Thinned out (or maintenance) pruning

3. Prune to establish shape and size or thin the branches. This prevents shrubs from becoming overgrown and prevents the need for severe pruning to reduce the size of overgrown shrubs.

4. To stimulate flower and fruit development. Many flowering shrubs will produce more flower buds the following season if old spent flowers are removed from the plant when they lose their attractiveness. Azalea is an example.

5. To rejuvenate old, overgrown shrubs to restore their shape and vigor. When shrubs become overgrown heavy pruning is necessary to restore them to their normal shape and vigor. Forsythia is an example.

6. To reduce plant size to prevent crowding, or shading other plants.

7. To shape or train a plant in an unnatural form. Hedges, espalier, etc. are examples of this type of pruning.

When to Prune

Many people have a misconception that the only time to prune is during the winter when plants are dormant. Most landscapes will include different plants, which will require pruning throughout the year. Never hesitate to cut out tall, fast-growing or unsightly limbs while they are growing. If tip buds are pinched on new growth, lateral growth occurs and reduces the upward growth.

Knowing when to prune is just as important as knowing how to prune. To insure proper response of the plant to pruning, the flowering and fruiting habits of the plants must be known.

As a general rule shrubs that flower before July 1, should be pruned immediately after flowering. These plants develop flower buds during the summer for the following spring bloom. If pruning is delayed, any pruning will remove potential flowers for the next season. Azalea, Forsythia, Deutzia and Crabapples are some examples.

Shrubs that have flowers after July, 1 should be pruned in the winter or early spring before growth starts. These plants develop flower buds in early spring. Althea, P.G. Hydrangea, Hybrid tea roses, are some examples of plants that bloom after July 1.

Shrubs that are prized for their fruits — such as Holly, etc., should not be pruned until after their fruit has lost their beauty regardless of when they flower.

Evergreens, broadleaf and narrow leafed types, may be pruned anytime the wood is not frozen. Narrow-leafed evergreens will not develop new shoots on the older wood, so don't cut toward the base of the shrub beyond the living foliage portion of the branches. A good time to prune evergreens is early December so that the prunings can be used to make Christmas decorations.

Late summer or early fall (August and September) pruning should be avoided. Pruning at this time encourages new growth to develop which will not harden sufficiently to withstand winter freezes.

Prune Shrubs When They are Young

Begin pruning plants when they are young and small. Early spring causes the plant to develop a compact limb system near ground level. A compact branching system is difficult to achieve if pruning is delayed several years. On small plants prune back limbs to stimulate growth of basal branches.

Do not shear:

Shearing destroys the normal shape of most shrubs. To reduce the size and to produce a more compact growth, cut out the undesirable longer limbs from inside the plant. Do not cut all limbs at the same heights.

Practice proper cutting techniques:

In making small cuts in heading back or thinning, cut branches at different lengths, 1/4 inch above an active bud.

For some shrubs, removing the branch back to ground level is desirable. New shoots should be reduced to about 1/2 to 2/3 of their length to encourage lateral shoots to develop.

When removing limbs over 1 inch in diameter, cut back flush to the trunk, a large limb or to a side limb. These precautions are not always necessary on limbs smaller than 1 inch. (DJ)

WATERWHEEL

Storing Water for an Emergency

Note: This is part of a series of articles related to rural water issues.

If you want to store water for an emergency, start by selecting a clean food-grade plastic or glass container with a tight-fitting, screw-on cap. The container may be a plastic or glass container that previously held beverages, such as a 2-liter soda bottle or a water, juice, punch or milk jug. Also, you can buy a new plastic container for water storage in most sporting goods departments.

Prepare a sanitizing solution by mixing one teaspoon of household liquid chlorine bleach per gallon of tap water. Prepare enough sanitizing solution to completely fill the container. Pour the solution into the container and let it stand for two minutes.

Drain the container and fill it with potable tap water suitable for drinking and cooking. Place the cap on the container and attach a label describing the contents and when it was prepared. Store in a cool, dry place away from direct sunlight. Repeat the sanitizing procedure and replace the water supply every six months. (DJ)

Prune Trees Correctly To Maintain Proper Growth

Proper tree pruning is essential in developing trees with strong structures and desirable form.

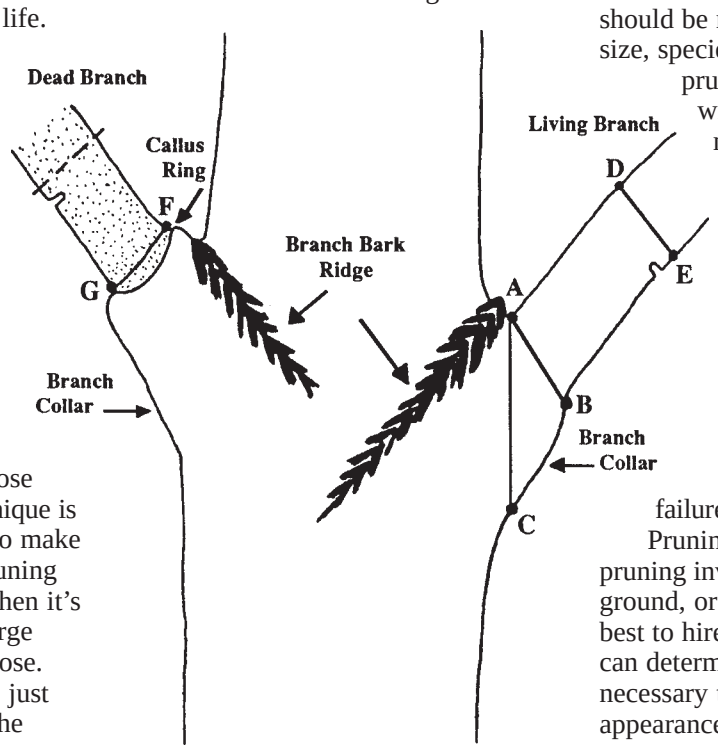
Landscape trees require a high level of care to maintain their safety and aesthetics. Young trees that receive appropriate pruning measures require little corrective pruning when they mature. Pruning should be done with an understanding of how trees respond to each cut. Improper pruning can cause damage that will last for the life of the tree, or worse, shorten the tree's life.

Pruning removes dead branches and crowded or rubbing limbs. Routine thinning doesn't necessarily improve a tree's health; heavy pruning can be a significant health stress for the tree. Pruning can be done at any time during the year, but growth is maximized and wound closure is fastest if it takes place before spring growth.

There are certain principles to be considered when pruning young trees. Always have a purpose before a cut is made. Proper technique is essential. Learn where and how to make the cuts before picking up the pruning shears. Waiting to prune a tree when it's mature can create the need for large cuts that the tree cannot easily close.

Pruning cuts should be made just outside the branch collar where the branch attaches to the trunk. For small trees, most cuts can be made with hand pruning shears. The scissor type, or by-pass blade hand pruners are preferred over the anvil type. Cuts larger than a half inch in diameter should be made with lopping shears. Make sure tools are kept clean and sharp.

When pruning, it's important to establish a strong scaffold structure. Scaffold branches provide the framework for mature trees. The goal in training young trees is to establish a strong trunk with sturdy, well-spaced branches. The strength of the branch structure depends on the relative sizes of the branches, the branch angles and the limb spacing. These factors vary from tree to tree. Good pruning techniques remove structurally weak branches while maintaining the natural form of the tree. For most young trees, maintain a single, dominant trunk leader.



The amount of live tissue that should be removed depends on the tree size, species and age as well as the pruning objectives. Younger trees will tolerate the removal of more living tissue than mature trees. Branches should be well spaced radially and along the trunk. It's important to maintain an even distribution of foliage along large limbs and in the lower portion of the crown. Over-thinning reduces the tree's sugar production capacity and can create tip-heavy limbs that are prone to failure.

Pruning trees can be dangerous. If pruning involves working above the ground, or using power equipment, it's best to hire a professional arborist that can determine what type of pruning is necessary to improve the health, appearance and safety of trees. (DJ)

Understand Liability Issues Before Raising Livestock

You've finally managed to buy the acreage you always dreamed of owning. Not a real farm perhaps, but large enough to raise a few chickens, a goat or two and the horse the kids always wanted.

Sounds like the dream of a lot of new country residents. As with most things, however, there are potential downfalls to animal ownership, not the least of which is the liability an owner has if an animal strays and/or trespasses on another's property.

Livestock owners are liable for expenses incurred by the landowner if the animal causes property damage. If the landowner takes custody of the stray animal, the livestock owner is responsible for any costs incurred, including any maintenance costs.

If you are the landowner and someone's livestock trespasses upon your property, you may take custody of that livestock. If you do, you are required to notify the owner that you have custody of the animal. If you do not know who owns the livestock, you must make a reasonable effort to determine the owner's identity.

If your livestock strays upon a road or highway and is the cause of an accident, you are liable for damages, including medical expenses.

For further information about livestock and liability, talk to your insurance provider. (DJ)

Alice Henneman, RD, Extension Educator

Each year, for the full week beginning the Monday after Easter, the U.S. egg industry observes *Egg Salad Week*. The week's purpose is the enjoyment of all the tasty recipes that can be prepared with cooked and colored eggs. The occasion is meant to be fun, but is underscored with a serious intent. Since, at this time of year, refrigerators across America are stocked with Easter eggs, which should be used within a week of hard-cooking, the observance is both timely and appropriate.

This recipe is courtesy of Mary Torell of the Nebraska Department of Agriculture Poultry & Egg Division. See below for more egg tips and trivia.

Cool 'n' Crunchy Egg Salad

(Serves 6)

4 ounces cream cheese, softened (about 1/2 cup)
2 tablespoons mayonnaise
1 tablespoon sweet pickle relish
4 hard-cooked eggs, chopped
1/2 cup carrots, finely chopped
2 tablespoons pimiento stuffed green olives, chopped
Lettuce leaves and/or tomato slices, optional

In a medium bowl, stir together first 3 ingredients of recipe. Stir in remaining ingredients until evenly coated with dressing. Cover and chill to blend flavors. Serve on lettuce leaves and garnish with tomato slices, if desired.

Nutritional Analysis per serving of ¼ recipe without optional ingredients: 242 calories; 9 gm protein; 21 gm fat; 4 gm carbohydrates; 319 mg sodium; 248 mg cholesterol.

Eating Well as We Age, Part 2

Editor's Note: This is part 2 of a two part article. Part 1 ran in the February NEBLINE.

Problem: No Appetite

Older people who live alone sometimes feel lonely at mealtimes. Loneliness can make you lose your appetite. Or, you may not feel like making meals for just yourself.

Maybe your food has no flavor or tastes bad. This could be caused by medicines you are taking.

What to do:

- Eat with family and friends.
- Take part in group meal programs, offered through senior citizen programs.
- Ask your doctor if your medicines could be causing appetite or taste problems. If so, ask about changing medicines.
- Increase the flavor of food by adding spices and herbs.

Problem: Short on Money

Not having enough money to buy enough food can keep you from eating well.

What to do:

Buy low-cost foods, like dried beans and peas, rice and pasta. Or buy foods that contain these items, like split pea soup and canned beans and rice.

- Use coupons for money-off on foods you like.
- Buy foods on sale. Also buy store-brand foods. They often cost less.
- Find out if your local church or synagogue offers free or low-cost meals.
- Take part in group meal programs offered through local senior citizen programs. Or, have meals brought to your home.
- Get food stamps. Call the food stamp office listed under your county government in the blue pages of the telephone book.

Reading Food Labels

Look for words that *say something healthy about the food.* Examples are: "Low Fat," "Cholesterol Free," or "Good Source of Fiber."

Look for words that *tell about the food's relation to a disease.* A low-fat food may say: "While many factors affect heart disease, diets low in saturated fat and cholesterol may reduce the risk of this disease."

The words may be on the front or side of the food package. FDA makes sure these words are true. Use label claims like these to choose foods that help make a good diet.

Look for "Nutrition Facts"

Most food labels tell what kinds and amounts of vitamins, minerals, protein, fat and other nutrients are in a food. This information is called "Nutrition Facts." You can find it on the side or back of most food labels.

Use "Nutrition Facts"

Look at the serving size.

1. Find the percent daily value. The numbers underneath tell how much of each nutrient listed is in one serving.

2. About 100 percent of each nutrient each day is usually healthful. If you're on a special diet, like a low-sodium or low-fat diet, use the percent numbers to pick low-sodium and low-fat foods.

Source: Food and Drug Administration (FDA) at www.fda.gov/opacom/lowlit/eatage.html. (AH)

Celebrating Easter

Mary Torell
Public Information Officer,
NE Department of Agriculture
Poultry & Egg Division

Egg Handling and Safety Tips

There are some important safe handling methods to remember this time of year when you're decorating, cooking or hiding those eggs since eggs are handled a great deal more than usual around Easter. Remember to:

- Inspect the eggs before purchasing them, making sure they are not dirty or cracked. Dangerous bacteria may enter a cracked egg.
- Store eggs in their original cartons in the refrigerator.
- Wash your hands thoroughly with hot soapy water and rinse them before handling the eggs when cooking, cooling, dyeing and hiding them.
- Consider hiding places carefully if you're having an Easter egg hunt. Avoid areas where the eggs might come into contact with pets, wild animals, birds, reptiles, insects or lawn chemicals.
- Make sure you find all the eggs you've hidden and then refrigerate them within two hours. As long as eggs are NOT out of refrigeration over two hours, they will be safe to eat. Do not eat cracked eggs.
- Do not eat eggs that have been out of refrigeration more than two hours. Use hard-cooked eggs within one week of cooking them.
- Discard colored eggs used as decorations (centerpieces, etc.) after they have served their decorative purpose, if they have been out of refrigeration for more than two hours.

Egg Rolling

Many variations of egg rolling contests and games can be played. The egg rolling that takes place each year on Easter Monday on the lawn of the White House has become an American tradition, having been started by Dolly Madison in the early 1800s. The American Egg Board provides the specially decorated eggs for the occasion.

Did You Know?

The Easter bunny isn't the first one to think of dyeing eggs! Ancient Chinese, Persians, Egyptians, Greeks and Romans all used decorated eggs in celebrating the arrival of Spring. The Chinese also brought scarlet eggs to the temple when introducing the newborns, and modern Chinese parents still present red eggs to their relatives and friends when children are born. Much nicer than cigars, don't you think?

For more free egg recipes, egg decorating tips or information related to eggs and food safety, contact Mary Torell, public information officer, Nebraska Department of Agriculture, Poultry & Egg Division at mtorell2@unl.edu or call 472-0752.

Making the Most of Mealtime with Tweens and Teens

NEP Nutrition Education Program
for Limited Resource Families

Dana Willeford
Extension Assistant

Think back and remember a time that was special with your family. Do most of these times include something to do with food? As you can guess, food and family are an important part of our lives. Chances are however, if you're a parent of a tween or teen, you may have encountered some difficulties finding time to share meals with the family.

Research has shown family meals tend to decline throughout adolescence, especially during the high school years. Reasons for not spending mealtime together include conflicting schedules among parents and teens, food dislikes, poor family relations and the desire for adolescents to be their own person.

Would it surprise you families who share meals together have healthier eating habits as well as other benefits? According to the Journal of the American Dietetic Association, families who share mealtimes more often have been associated with greater intakes of fruits and vegetables, less fast foods and greater nutrient intakes including calcium, iron and vitamins. Frequent family dinners may also reduce the risk a teen will smoke, drink or use illegal drugs. The majority of teens also said if they were able to eat more meals with their family they would eat healthier.

Adolescents learn valuable lessons during mealtime, so how can we create a more positive atmosphere?

- Turn off the TV
- Turn off the phone ringer or let the answering machine pick up calls.
- Talk about positive things at the table.
- Offer choices from a variety of food groups.
- Involve everyone in meal planning. Kids are more likely to eat what they help plan or if they prepare the meals.

Keep family meals an honored event and establish positive eating in your child's younger years. Family meals have multiple benefits that will last a lifetime.

How to Tell if Your Freezer Power Was Off

Alice Henneman
Extension Educator
& Joyce Jensen
Lincoln-Lancaster County
Health Department

A gentleman had been traveling during a time when the electricity was off for several days in many homes in his community. However, when he returned home, his electricity was working and everything in his freezer was frozen solid.

He proceeded to eat some food from the freezer and got sick. What happened?

In this case, his electricity

actually had been off for about a week, and then came back on. Everything in his freezer had thawed and been at unsafe temperatures for several days. As the food froze again when the electricity returned, he was unaware there were any food safety problems.

Here's a simple way to help detect this problem. Store an ice cube or two in a sealed plastic bag or small container in the freezer; a sealed bag/container is important so the ice cube doesn't evaporate and disappear. If the ice cube has melted down from its original shape, you'll know the power was off for an extended period of time.

For information on handling your food during a power outage, go to www.fsis.usda.gov/food_security_and_emergency_preparedness/keeping_food_safe_during_an_emergency/index.asp

Weed Awareness

Prepared by

Weed Control Authority
Lancaster County

The County Commissioners serve as the Lancaster County Weed Control Authority.
Russell Shultz serves as the superintendent and supervises a seasonal staff of six weed inspectors with the assistance of Chief Inspector Barb Frazier and Linda Spilker, Account Clerk.

444 Cherrycreek Road, Bldg. 'B', Lincoln, NE 68528 • (402) 441-7817 • www.ci.lincoln.ne.us/cnty/weeds

Weed Control is Everyone's Business

Noxious weeds impact the economic and environmental well being of the community. Overgrown weeds in the City of Lincoln contribute to health problems and the aesthetics and overall appearance of the City. Landowners need to be aware of their noxious weed control and weed abatement responsibilities. Others need to understand the importance of a strong weed program and provide public support.

Almost every ownership parcel outside of developed residential lots has or had one or more kinds of noxious weeds present. The key to noxious weed control is not allowing the plants to seed. This requires persistence and follow-up. Most of the public and private landowners understand this and are keeping their noxious weeds under control.

It is the job of noxious weed control authority staff to make landowners aware and to assist in the job of controlling noxious weeds. Many landowners are accomplishing control without any assistance or contact from the authority. The authority carries out a strong information and awareness program along with an extensive inspection program to encourage voluntary compliance of the Nebraska Noxious Weed Control Act.

The authority has also provided the inspection and administration of the City of Lincoln's weed abatement program since entering into an inter-local agreement with the City in 1996. Weed abatement is a part of the Health and Safety Chapter of the City Code dealing with uncontrolled or uncultivated growth of weeds, brush, vines, grasses or other vegetation which offer vector or rodent harborage, contribute noxious pollens to the atmosphere or unreasonably interfere with the use and enjoyment of abutting public or private property.

The measure of a successful weed control program is the acceptance and voluntary compliance of the landowners. There continues to be a high level of voluntary compliance with the Noxious Weed Control Act and the City of Lincoln's Weed Abatement Ordinance. This voluntary compliance was obtained with a decreased number of legal notifications.

Following is the Lancaster County Weed Control Authority's 2004 Annual Report.

—**Russell Shultz**
Superintendent

2004 Annual Report

A noxious weed control plan was developed that guided the operations of the Weed Control Authority for the year. This plan was approved and supported by the Weed Control Authority. A summary of these activities follows.

Inspection Activity

There were 6,592 inspections made of 3,029 sites on 20,829 acres during the year. We found 2,498 violations on 5,900 acres. Violations dropped 280 from last year.

Lancaster County Noxious Weed Control Program

We found 1,067 infestations on 4,986 acres. The number of infestations found decreased by 119 and acres decreased by 1,708. There were 122 more purple loosestrife infestations found. The number of infestations found by noxious weed is shown below. Of these sites, 882 were controlled by landowners. The Authority controlled 30 sites on 112 acres.

City of Lincoln Weed Abatement Program

We found 1,431 violations as a result of 1,681 complaints. This was 161 less violations and 239 less complaints than in 2004. Voluntary compliance of landowners remained at 93 percent. Forced cutting had to be performed on 109 sites at the cost of $11,817. Of these, 88 sites had to be specially assessed for $14,218.

Expanded Cooperation Efforts

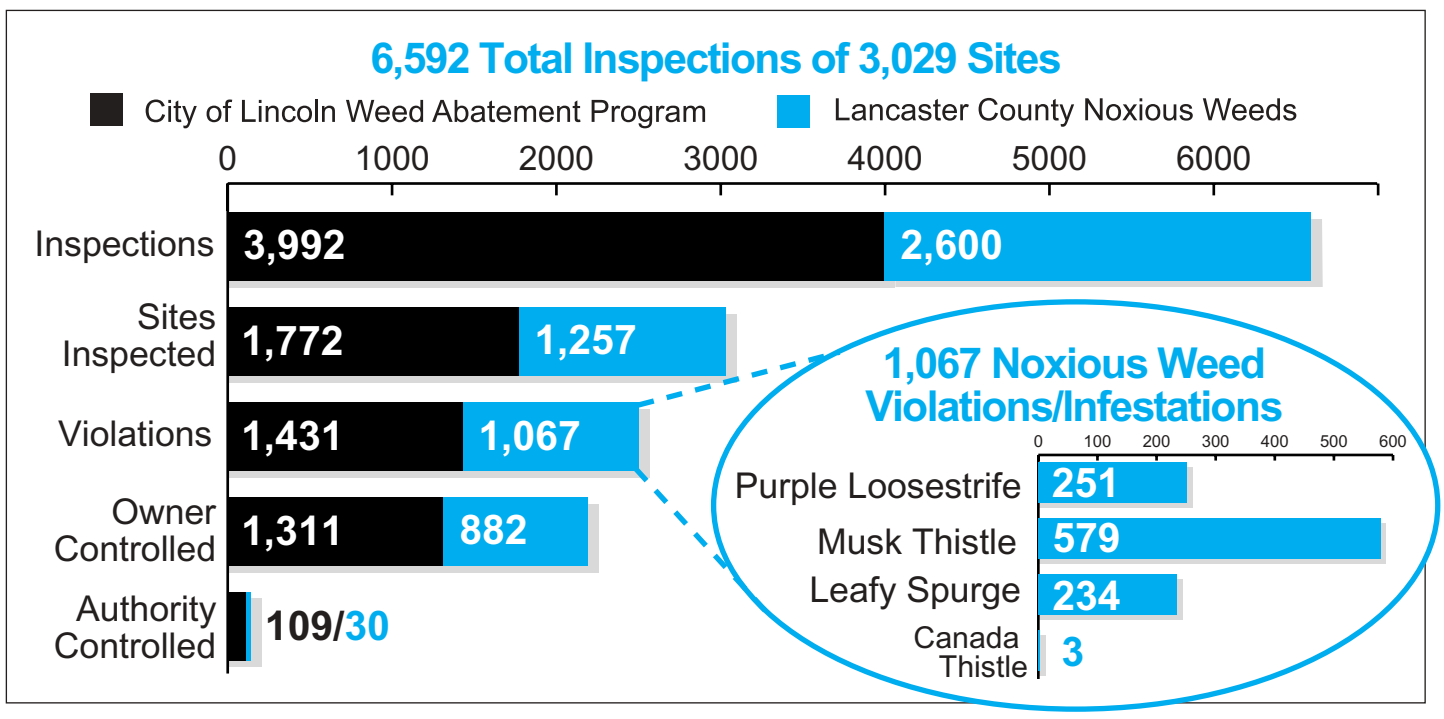
The Lancaster County Weed Control Authority joined with ten other counties in eastern Nebraska and other partners in forming the Lower Platte Weed Management Area to address the eight noxious weeds and other invading weeds. The first target effort is three weeds invading riparian areas along the Platte River and upstream. These three weeds are purple loosestrife, phragmites and salt cedar.

Prevention Activities

Inspectors were trained to be alert to noxious weeds and potential noxious weeds. We made 15 weed-free forage inspections and certified as being noxious-weed free. This included Nebraska Game and Park's hay fields, straw that was going to be used for mulch on state roads and hay that was being transported for use to feed horses on a hunting trip.

Awareness Activities

A Weed Awareness insert was published in the February issue of the Lancaster County Extension Nebline newsletter. The Authority Web site was maintained and updated. There were 40,814 hits, an increase of almost 14,000 hits from the previous year. Around 400 informational mailings were made to landowners in addition to the 2,500 violation notifications. An exhibit was displayed at the state fair and other locations.

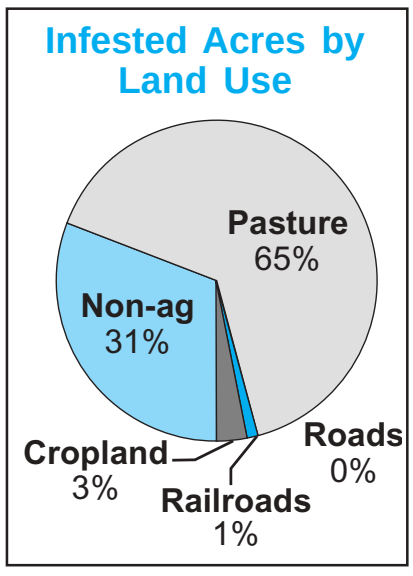


Extent of Noxious Weeds in Lancaster County

Noxious weed acres in the county had been on a declining trend from 1993 to 2001. The major reason for this decline was the result of the control efforts of both public and private landowners. Weather conditions are also a factor such as 2000, 2001, 2003 and 2004. It was dry in the fall and spring of 2000 and 2001 when most of the musk thistle germinates. Moisture conditions were good in the fall and spring of 2003 and 2004 resulting in more noxious weeds germinating from the persistent seed bank in the soil and making control more difficult.

Control efforts of landowners have remained strong during this period. The infestations on roadsides and railroads have been on a steady decline. Less than five percent of the infestations have been allowed to go to seed. There are many seeds dormant in the soil and will germinate when conditions are right. The key to long term control is to prevent seeding that will add to the seed bank.

All land uses have infestations of noxious weeds. Approximately 13.5 percent of the pastureland acres are infested. Non-ag land, which includes the City of Lincoln and rural lots, is second in the amount of noxious weed infestations with over six percent of the acres infested. Cropland infestations are found mostly in alfalfa fields and idle cropland. The most visible infestations are on roadsides and railroads. Yet they have less than one percent of the total infested acres. There has been an aggressive control effort on these transportation corridors resulting in a sharp drop in the acres infested.



About four percent of the land area is infested with noxious weeds. Musk thistle makes up 94 percent of the noxious weed infested area. Musk thistle has been found in almost all the sections in the county. Leafy Spurge does not cover a lot of acres, but it has been found on over 400 sites and in one out of seven sections. Plumeless Thistle and Canada Thistle are about one percent of the infestations each. There are a significant number of purple loosestrife infestations but they make up only 15 acres, a very small part of the total infested acres.

Weed Awareness

Learn to Recognize Nebraska's Noxious Weeds

The Nebraska Noxious Weed Control Act states it is the duty of each person who owns or controls land to effectively control noxious weeds on such land. Pictured are Nebraska's noxious weeds which can be found in Lancaster County.*

Musk Thistle
(579 reported infestations in 2004)

Purple Loosestrife
(251 reported infestations in 2004)

Leafy Spurge
(234 reported infestations in 2004)

Plumeless Thistle
(5 reported infestations in 2004)

Canada Thistle
(3 reported infestations in 2004)

Saltcedar
(2 known infestations in 2004)

Noxious weed is a legal term used to denote a destructive or harmful weed for the purpose of regulation. The Director of Agriculture establishes which plants are noxious. These non-native plants compete aggressively with desirable plants and vegetation. Failure to control noxious weeds in this state is a serious problem which is detrimental to the production of crops and livestock and to the welfare of residents of this state. Noxious weeds may also devalue land and reduce tax revenue.

**Nebraska's noxious weeds Spotted and Diffuse Knapweeds have not be found in Lancaster County*

Saltcedar Added to Nebraska's Noxious Weed List

In order to protect Nebraska's economy and the quality of its land, Nebraska Department of Agriculture Director Merlyn Carlson found it necessary to designate saltcedar as a noxious weed in Nebraska. The designation took effect on January 1, 2005.

Saltcedar is a dense, deciduous shrub or small tree that has the potential to significantly affect native vegetation throughout much of Nebraska. A native of Eurasia and north Africa, it was introduced into the United States as an ornamental.

Ornamental Plantings

Saltcedar has been sold for many years as various tamarisk species, also called tamarix. Seeds of 'Pink Cascade' and other selections of Tamarix can escape to waterways in the state. It is no longer legal to sell the seeds or plants of tamarix in Nebraska since it was designated a noxious weed. Existing plantings are also considered illegal and need to be removed.

Identification

Saltcedar is a deciduous tree (or shrub) with long slender branches and deep pink flowers. It grows to 6–26 feet tall. The branches often form thickets many feet wide. The narrow leaves are small and grayish green, often overlapping and crowding on the stems. Although the leaves have the appearance of an evergreen, they are actually deciduous.

Saltcedar, or tamarisk

The deep pink to almost white flowers crowd in many slender spikes, forming dense masses at the top of the branches. The flowers are about 1.5mm across, and have five petals. The seedpods are pinkish red to greenish yellow and will break into three to five parts when mature. A tuft of fine silky hairs adorns the tip of the tiny seeds.

The saltcedar's bark is a reddish brown while the wood is soft and white. The smooth bark ridges and furrows with age. Tamarix have a deep taproot and extensive lateral rhizomes, which profusely branch upon contact with water.

Detrimental Impacts

Saltcedar has invaded riparian areas throughout the West. As an aggressive colonizer able to survive in a wide variety of habitats, saltcedar often forms monotypic stands, replacing willows, cottonwoods and other native riparian vegetation.

The stems and leaves of mature plants secrete salt, forming a crust above and below ground that inhibits other plants. Saltcedar has a long taproot that allows it to access deep water tables and interfere with natural aquatic systems.

Saltcedar is an enormous water consumer. A single large plant can absorb 200 gallons of water a day. Saltcedar's high water consumption further stresses native vegetation by lowering ground water levels and can also dry up springs and marshy areas.

Infestations also have detrimental impacts on wildlife. Saltcedar seeds have almost no protein and are too small to be eaten by most animals. In addition, its scale-like leaves offer little suitable forage for browsing animals. Studies indicate saltcedar is not favored bird habitat.

A single mature saltcedar may produce hundreds of thousands of seeds between April and October. The seeds are then dispersed by wind and water throughout the growing season. The seedlings are tolerant of water, saline soils and drought and may grow as much as a foot a month.

What makes non-native invasive plants such as saltcedar different from other introduced species is their ability to take advantage of disturbances to the native plant community to expand their limits. Once established, non-native invasive plants can spread rapidly because of the lack of natural enemies that keep plant populations balanced in their native range.

Foothold in Nebraska

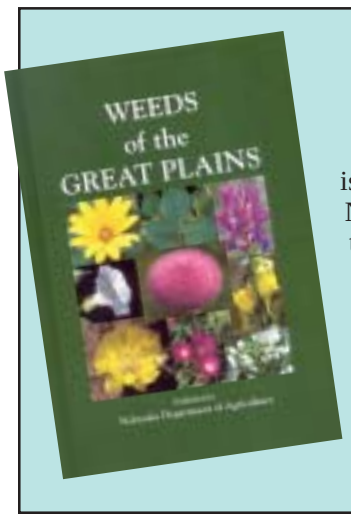
Saltcedar has been documented throughout Nebraska. Infestations have been found along the Platte River from Wyoming to the Missouri River. Also, saltcedar is found along many of Nebraska's southwest reservoirs as well as Lake McConaughy. Smaller infestations have been found on the Republican and Missouri Rivers.

Only two infestations are known in Lancaster County. Undoubtedly this number will increase as more monitoring is done and the public becomes more aware. A few ornamental plantings have been observed in Lincoln. Any sightings of saltcedar (ornamental or wild) should be reported to the Weed Control Authority at 441-7817.

Removal of Ornamental Plantings

The most effective control method is cutting down the shrub or tree and painting the stump surface immediately afterward with an herbicide (cut stump treatment). Herbicide must be applied within 10–15 minutes of cutting to prevent excessive resprouting from the stump. Follow up herbicide application is needed to treat sprouts from the root system. This usually will only be necessary for 2–4 years. All branches and trunk pieces must be removed from the site to prevent sprouting. Tamarisk branches touching wet ground have been known to sprout and send down new roots.

Nebraska Weed Resources



Weeds of the Great Plains — this hardbound book is a collaborative effort between the University of Nebraska and the Nebraska Department of Agriculture. It helps farmers, ranchers and homeowners, as well as the more technical expectations of botanists, to accurately identify weeds and common plants in the great plains. The price of this book is $25 — credit card orders may be placed by calling 471-2394. The book may be purchased at the Department of Agriculture's Lincoln office, 301 Centennial Mall South, for a cost of $22.50.

2005 Guide for Weed Management in Nebraska — this 168-page University of Nebraska Cooperative Extension publication (EC04-130-D) is available online at http://ianrpubs.unl.edu/fieldcrops/ec130.htm or may be purchased for $3 at the Lancaster County Cooperative Extension office. The guide deals principally with herbicides as an aid for crop protection. This year's additions and improvements include a section on nonchemical weed control and "Noxious Weeds" has its own section.

Weed Awareness

Purple Loosestrife is Invading Lincoln's Streams

Purple loosestrife infestations in Lancaster County nearly doubled last year, from 129 to 251. It is a serious threat to Nebraska's wetlands and waterways.

Displacing native wetland vegetation, purple loosestrife degrades wildlife habitat, displaces rare plants and animals and chokes waterways. As native vegetation is displaced, rare plants are often the first species to disappear.

Prior to 2001, when purple loosestrife was designated a noxious weed in Nebraska, ornamental purple loosestrife (lythrum) had been planted in many local yards. Recent studies prove ornamental Lythrum cultivars, which were once thought to be sterile, **can** and **do** produce viable seed.

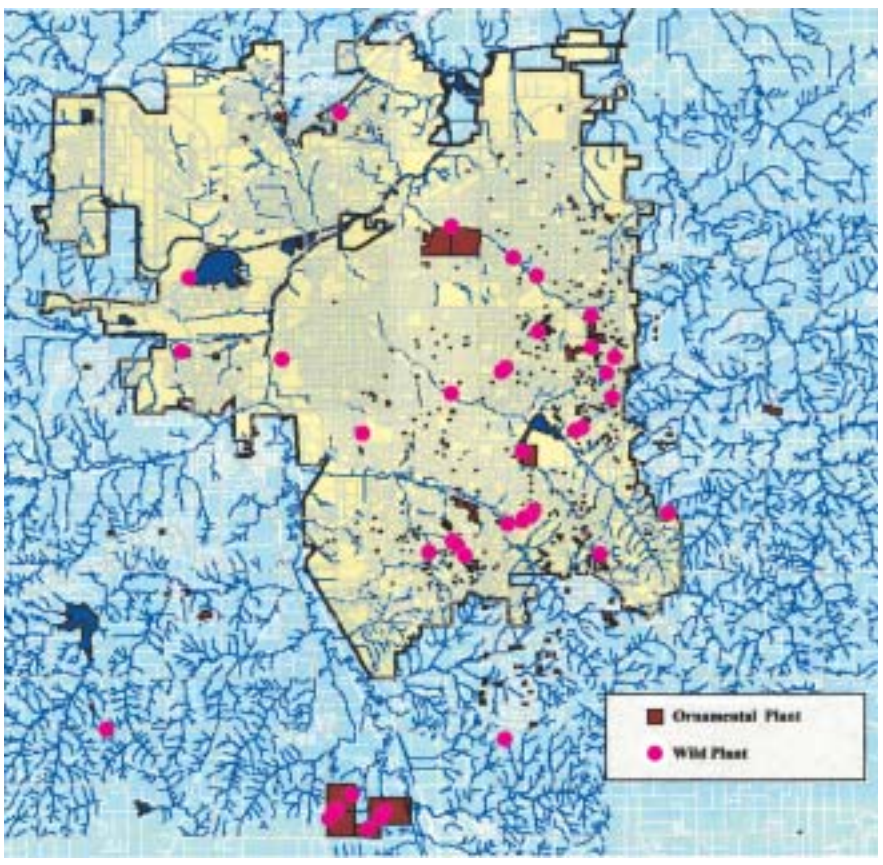
A mature purple loosestrife plant can produce over two million seeds. The seeds are so small they are readily transported by rain runoff to drainages and streams where they will germinate in a saturated soil condition. In nearly all cases, Lythrum spreads via pollen and seed transfer without the gardener's knowledge.

Wild purple loosestrife plants have been found in many of the Lincoln streams downstream from ornamental plantings. This includes Dead Man's Run, Antelope Creek, Beal Slough and their tributaries. To date, wild plants have not been found in Salt Creek. These wild plants need to be found and controlled before their populations explode and they form solid dense stands of purple loosestrife in the Salt Creek system.

When seed from domestic plants find its way into natural and agricultural areas, new stands of wild purple loosestrife sprout. Any sunny or partly shaded wetland or riparian area is susceptible to purple loosestrife invasion. The seeds will not probably germinate in a yard unless there are areas that are excessively wet such as around a pond on an acreage.

Many Lincoln homeowners have removed lythum plantings from their yards. The Lancaster County Weed Control Authority has notified almost 1,000 homeowners they need to remove their ornamental purple loosestrife plantings. These homeowners and many others have voluntarily done so.

Even though we think most of the ornamental plants have been removed, a plentiful supply of seeds have been transported to low lying areas and will remain in the soil until conditions are right for them to germinate.



Wild purple loosestrife plants have been found in many of the Lincoln streams downstream from ornamental plantings. This includes Dead Man's Run, Antelope Creek, Beal Slough and their tributaries.

Taylor Park

Above Holmes Lake

Homeowners Need to Remove Lythrum Plants

As of 2001, state law bans the sale, offering for sale, distribution, planting or cultivation of purple loosestrife. This ban covers both Lythrum salicaria and L. virgatum. There are no exceptions for cultivars, hybrids or so-called sterile varieties. Sale violations of purple loosestrife should be reported to the Department of Agriculture.

Plants may have been purchased and planted legally before 2001, but are now illegal and should be removed.

Lythrum plants have many horticultural names, some of which are:

- Rose Queen
- The Rocket
- Morden Pink or Rose
- Morden's Gleam
- Dropmore Purple
- Columbia Pink
- The Beacon
- Fire Candle
- Atropurpureum
- Happy
- Roseum Superbum
- Purple Spire
- Mr. Robert's or Robert's
- Lady Sackville

Currently, about 31 states have laws prohibiting Lythrum importation or distribution because of its aggressively invasive characteristics.

Ornamental purple loosestrife (Lythrum) in a landscape.

Control Methods

Any control method you select should be repeated for several years to catch missed plants and those reestablishing from seed or regrowth from root parts.

Hand Pulling/Digging

Small young plants can be hand pulled, especially those rooted in loose soil. Be sure to get the entire root.

Roots left behind will resprout. Older plants are generally too big for pulling and are difficult to dig up. Avoid excessive soil disturbance. If this is unavoidable, consider chemical methods. Handle plants prior to the onset of seeds (which begins in early August), or cut and bag the seed heads to avoid spreading seeds. Removed plant parts should be placed in a garbage bag and put out for garbage pickup. Don't throw them in your compost pile.

Herbicide Application

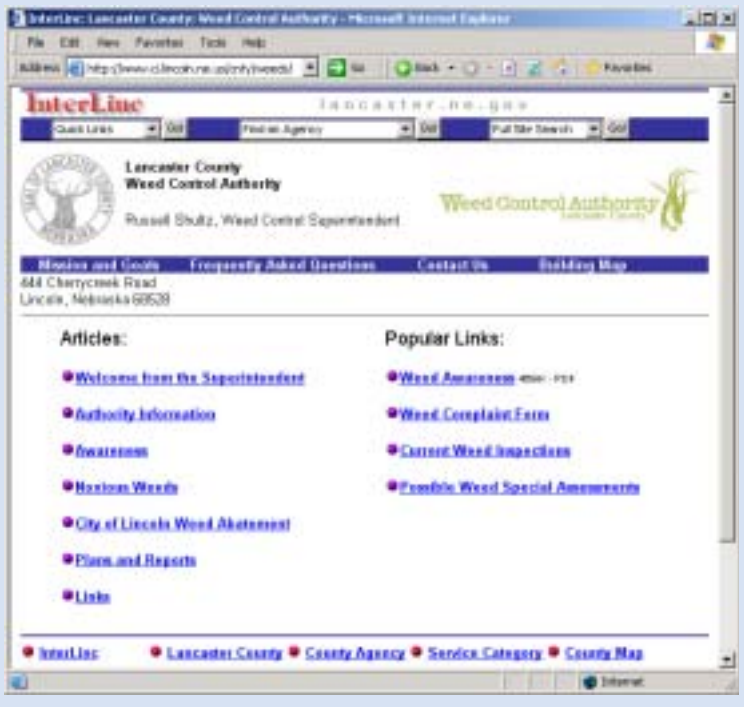
Careful use of herbicide is the most effective, efficient and least destructive means of removing large purple loosestrife plants. Currently glyphosate is the most effective active ingredient for killing loosestrife. It comes in two forms: (1) "Roundup" for use on dry sites and (2) "Rodeo" for use on wet or standing water sites. Glyphosate must be applied in late July or August to be most effective. It can be sprayed onto loosestrife foliage in a one percent solution. Glyphosate is a nonselective herbicide, however, and will kill any green foliage that it comes in contact with. Great care must be taken to avoid treating non-target plants. Follow all label instructions when using herbicides.

Lancaster County Weed Control Web site

The Lancaster County Weed Control Authority Web site at www.ci.lincoln.ne.us/cnty/weeds provides very useful information about the Authority's program and activities and about weed control and management. The site is continually being updated.

Via the Web site, you can:

- ➜ Contact the Weed Control Authority.
- ➜ Make a weed complaint.
- ➜ Make a real-time search of current weed inspections.
- ➜ Look at a map of noxious weed locations in the county.
- ➜ See the latest listing of possible weed special assessments.
- ➜ Study noxious weed and weed abatement laws and regulations.
- ➜ Learn about noxious weed identification.
- ➜ Read about the County Noxious Weed and City Weed Abatement Programs.
- ➜ See plans and reports.
- ➜ Check on noxious weed controls.
- ➜ Learn about managing natural areas in an urban setting.
- ➜ Test your knowledge about Nebraska weeds.
- ➜ Link to other weed control Web sites



Current Weed Inspections Search

You may access information on the Web site about any active inspection made by the authority.

All inspections are shown for sites with infestations not yet under control. You may search for individual sites by entering the address of the parcel, the parcel ID number or the owner's name. You may also look at all the inspections for a weed problem: musk thistle, plumeless thistle, Canada thistle, leafy spurge purple loosestrife or weed abatement in Lincoln.

Weed Awareness

New Weed Control Legislation

Federal Act Establishes a Weed Grant Program

The Noxious Weed Control and Eradication Act of 2004 amends the Plant Protection Act to direct the Secretary of Agriculture to establish a grant program to provide financial and technical assistance to weed management entities to control or eradicate noxious weeds. It also:

- Sets forth criteria for making grants to weed management entities and for the selection for funding of weed eradication projects. Directs the secretary to give special consideration to states with approved weed management entities established by Indian tribes.
- Authorizes the secretary to enter into agreements with weed management entities for funding of weed eradication activities that take into consideration various factors, including: (1) the severity of the noxious weeds problem or potential problem; (2) the likelihood that the activities will prevent or resolve the weed problem or increase knowledge about resolving similar problems; (3) the extent to which the activities will provide a comprehensive approach to the control or eradication of noxious weeds; (4) the extent to which the activities will improve the overall capacity of the United States to address noxious weed problems; and (5) the extent to which the activities promote cooperation and participation between States that have a common interest in controlling and eradicating noxious weeds.
- Authorizes the secretary to enter into a cooperative agreement with weed management entities to enable rapid response to outbreaks of noxious weeds.
- States the assistance authorized under this Act is meant to supplement, and not replace, other assistance available for control or eradication of harmful, invasive weeds on public and private lands.
- Authorizes appropriations for fiscal year 2005 through 2009. Limits funding for administrative costs to five percent of available funds.

Nebraska Act Creates Grant Eligibility

The 2004 Unicameral amended the Nebraska Noxious Weed Control Act. The amendment provides additional cash fund support for the Nebraska Department of Agriculture's (NDA) responsibilities under the Noxious Weed Control Act. This is done by providing a series of transfers from the Weed and Insect Book Cash Fund to the Noxious Weed Control Cash Fund and directs a portion of revenues from future sales of the weed book to the noxious weed program.

Additionally, the amendment assigns two new weed management authorities to the NDA to enhance tools for responding to noxious weeds and invasive plants. Specifically, the amended act authorizes the director to 1) temporarily designate plants as noxious weeds and 2) to administer a grant program to encourage the formation of multi-stakeholder weed management entities and other types of projects led by local weed control authorities to proactively address noxious weed control concerns and emerging invasive plant problems. The grant program is not specifically funded but the director is authorized to seek grants and other revenue sources. The amendment was also intended to coordinate with the then pending federal legislation that would provide federal pass-through funds to encourage eligible projects similar to those enumerated in the bill.

Environmental Trust Fund Grant

Just announced! The Nebraska Environmental Trust Fund has awarded a $250,000 grant (for a three-year period) to the Nebraska Department of Agriculture for its Nebraska Noxious and Invasive Weed program.

How to Control Musk Thistle

When attempting to control musk thistle or plumeless thistle, it is imperative to prevent seed production. They are biennial weeds that reproduce only by seed. Each plant is capable of producing up to 20,000 seeds. The key to managing musk thistle is to prevent all plants from going to seed. Infestations occur in the same sites year after year but size of the infestations vary considerably due to climatic conditions. Good moisture conditions in the fall, like we received in the fall of 2004, favor the germination of musk thistle seeds near the soil surface at these sites. These plants will flower the next spring if the plants are not controlled that fall or the next spring.

Control Steps

1) Scout the areas with past infestations in March and April for seedlings and rosettes. A seed bank has built up in the soil at these sites. These seeds will remain viable for eight or more years waiting for the right conditions to germinate.

Musk thistle rosette

2) It is most effective to treat the entire area with herbicides in order to control all the small seedlings and rosettes and seedlings that have not emerged. Spot control of these sites usually results in a lot of escapes since not all the plants are observed and some plants germinate later.

3) Use 2,4-D as a contact herbicide along with a herbicide that will add to the effectiveness of killing the plants present but also have residual to kill later germinating plants. Some of the herbicides that will provide residual control are Escort, Tordon 22K and Telar. Grazon P+D, a combination of Tordon and 2,4-D, also may be used. Follow label directions.

4) Provide control prior to bolting of the flower stem in May. Use 2,4-D along with a residual herbicide.

5) Scout these areas weekly and provide needed follow-up control until July. Be alert to the musk thistle plants acting as annuals due to a cool spring.

Mechanical Control

Severing the root of musk thistle a couple of inches below the soil surface will kill the plant. The entire root does not have to be removed. Hand cutting or mowing has to be done at weekly intervals to be effective. Fire has not proven to provide effective control. The plants survive prescribed burning, but can be easily found and controlled by other means after the burn.

Maintaining a good, healthy stand of grass is very effective prevention.

How to Control Leafy Spurge

Leafy spurge (Euphorbia esula) is a perennial plant ranging in size from 6-36 inches in height. A native of Europe and Asia, leafy spurge emerges early in the spring and gets a head start on other vegetation in a race for space, sunlight, nutrients and water. Prolific seed production and an extensive root system give the plant a huge competitive advantage and make consistent, long-term control difficult.

Monitoring of areas with known or potential leafy spurge infestations is critical; adequate control is possible if management procedures are implemented in the early stages of infestation, before the root system gets fully established. You can rarely achieve 100 percent eradication of spurge, but infestations can be reduced to manageable levels with the use of herbicides.

Strategy

The control of well-established leafy spurge stands must be considered a long-term management program. A landowner must develop a persistent annual program to prevent the spread of larger stands, eliminate smaller infestations and prevent the spread of leafy spurge to uninfested areas. The extensive leafy spurge root system allows the plant to regrow from depths of 15 feet or more for several years. No single treatment will eradicate this weed. A consistent annual treatment program can provide long-term control.

Once you have achieved a high level of control, remaining isolated patches can be spot-treated, resulting in a less costly control program. This plant spreads by underground roots and there is always a fringe area of younger plants that do not bloom. There are also roots underground that extend laterally beyond the younger plants. A 15-foot perimeter should be treated around leafy spurge patches to control seedlings and spreading roots. Treated patches should be watched carefully for any regrowth and/or seedlings and retreated.

Chemical Control

Currently, the three most effective herbicides are Tordon 22K, Plateau and Glyphosate (Roundup and others). Before using any herbicide, always read and follow label directions. Check label for permitted uses on your site.

Tordon (picloram)

Tordon has been an effective herbicide for controlling leafy spurge. Tordon applied at two quarts per acre during flowering or fall regrowth can give 75 percent or more leafy spurge control the first year after treatment. A less expensive option for leafy spurge control is repeated annual treatments of Tordon at one to two pints per acre plus 2,4-D at one quart (four pounds per gallon concentrate) applied in June, during flowering, can be quite effective. Tordon is a restricted-use pesticide requiring an application license to apply. Note label precautions. Overdrive herbicide from BASF can be tank-mixed with Tordon to offer improved control. A unique formulation of diflufenzopyr and dicamba, Overdrive enhances and complements the activity of picloram, reducing the total amount of needed active ingredient, while improving long-term control of leafy spurge. Plot studies (1) show a 4-6 ounce per acre application of Overdrive mixed with 8-16 ounces per acre of picloram results in improved leafy spurge control.

Plateau (imazapic)

Plateau applied in the fall at 8-12 ounces per acre can provide up to 90 percent leafy spurge control one year after treatment. The label recommends application from late-August to mid-October, but prior to a killing frost. Plateau should be applied with a methylated seed oil, (MSO), at one quart per acre. The addition of 28 percent UAN liquid fertilizer to Plateau plus the MSO has occasionally increased long-term leafy spurge control. Plateau is safe to use around a variety of trees, many wildflowers and legumes. Plateau is only available through county weed control authorities that have herbicides for sale. The closest county authority that has it available is Jefferson County Weed Control Authority, John McKee, Superintendent, 313 South K Street, Fairbury, NE. 68352, (402) 729-3602, jeffcoweed@diodecom.net

Glyphosate (e.g. Roundup)

Glyphosate (e.g. Roundup) applied at a rate of one quart per acre from mid-July to mid-September can result in 80.90 percent control of leafy spurge. Note that glyphosate is a non-selective herbicide and it will kill grasses and other desirable plants. A follow-up treatment with 2,4-D at one pint (four pounds per gallon concentrate) the following year, (mid-June to mid-July) is necessary to prevent seedling reinfestation.

Prevention

Infestations occur where there is a seed bank in the soil and the conditions are right for germination and survival. Healthy vegetation provides competition and minimizes the survival of musk thistle seedlings. Care should be taken not to spread seeds from infested sites or to use forage or seeds contaminated with noxious weed seeds. Equipment should be cleaned before leaving an infested site if it is possibly contaminated. Only weed-free certified forage and seed should be used.

FAMILY & COMMUNITY EDUCATION (FCE) CLUBS

President's Notes — Janet's Jargon

Janet Broer
FCE Council Chair

Statistics have never been my forte, as the saying goes. But I heard some information collected recently saying 32 times every hour we encounter violence by word or action in our public media. I thought the number seemed rather high but I put the information into my memory bank, which at this age is getting quite full. The statistic came to mind last week when my daughter told me the new babysitter (she rarely gets one) said she got along fine with the kids compared to her last job. She explained the kids did not "cuss at her all the time" like they did in the last household and the children did as they were told!

Have we made off color language and behavior so common it is being used without even giving a thought to the real meaning? If we repeat something 32 times every hour I can understand how quickly it would seem like normal behavior.

You can help get this situation under better control by signing a Tune Out Violence pledge sheet which is turned into our State and National FCE offices. Collectively, this statistic becomes a large number. I am asking each FCE member to collect as many signatures as possible before our March 28 meeting. Last October, at state convention we heard a good speech about where all of this information goes; it does not "just die" on the page you have signed, and yes, it does make a difference — we cannot give up.

Please recommend a scholarship application to anyone you know who is studying in the family and consumer science or health area and meets our requirements.

Encourage a student in the fifth grade to enter the Creative Writing and any student in third grade to enter the Environmental Poster Contest. Deadline for these activities are April 1. Heritage Skills projects need to be completed by June 27.

I've asked you to do a lot this month. It brings to mind another old saying if you want something done, just ask a busy person to do it. I plan to see you March 28 at our next council meeting.

FCE News & Events

Upcoming Leader Training Lessons

UNL Cooperative Extension provides leader training lessons to FCE members and other community leaders at no cost. Trainings are held at the Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln. Non-FCE members are asked to call Pam at 441-7180 so informational packets can be prepared.

"Home Fall Prevention — Do It Now!" on Feb. 22

Extension Educator Lorene Bartos will present the March leader training on Tuesday, Feb. 22. Falling is a nationwide concern. However, falling is not an inevitable part of aging. There are controllable factors that can reduce the risk of falls. Fifty percent of all falls are caused by hazards in the home. This lesson will examine the causes of falls and suggest strategies to reduce these falls.

"Healthy Cooking for 1 or 2" on March 22

Extension Educator Alice Henneman will present the April leader training on Tuesday, March 22, 1 p.m. This lesson will show you how to prepare quick, delicious and nutritious meals for one or two people. The emphasis will be on using just a few common ingredients per recipe and as few dishes to wash as possible! Learn how to put FUN into cooking for just one or two.

Council Meeting March 28

The FCE Council meeting will be Monday, March 28, 1 p.m. The speaker will be from the Lancaster County Sheriff's office on the topic of women's safety. All FCE members are invited to attend.

FCE Scholarship Applications Due April 1

A $300 scholarship provided by the Lancaster County FCE Council is available for a graduate of a high school in Lancaster County or a permanent resident of Lancaster County majoring in family and consumer science or a health occupation. This is open to full-time students beginning their sophomore, junior or senior year of college in the fall of 2005 or who have completed two quarters of study in a vocational school. Applications are due April 1 in the extension office. (LB)

Workaholism — Its Affect on Children

Take a moment to think about each of these questions...

- Are you a perfectionist?
- Are you driven to gain approval and success through your work?
- Do you work long hours for fear of being laid off?
- Do you have a hard time saying "no" to work requests?
- Do you find it almost impossible to rest and relax?

If you answered yes to any of these questions, you may be a workaholic. Whether overwork is an addiction or merely a habit, workaholism is a big problem because it can drive a wedge between family members. One effect many parents are dismayed to discover is they have created teenagers and young adults just like themselves: workaholics. Their children study to the point of exhaustion, are stressed and distracted, are overextended and seldom have time to spend with family.

A parent's habits or addictions affect the entire family. Divorce rates among workaholics are high and children often have problems. Different children react differently to the presence of a workaholic parent. Some imitate the parent and try, unconsciously, to surpass their mother or father by working even harder. Others rebel, retreating into a teen culture that offers an abundance of alternative values, including rejecting achievement.

What can you do when your workaholic ways affect your kids?

- Change the example you are portraying to your kids. Start tending to yourself and your relationships.
- Have a heart-to-heart talk with your children about your own work habits.
- Be open with your children. Let them know you are aware of the harmful example you have been to them and then take action to make amends.
- Build time into your schedule for play and relaxation.
- List your true personal priorities and share them with your child.
- Talk to your child about the importance of play and down time.

Overcoming the effects of parental overwork is a long, slow process and it begins with you. If you are a "workaholic," start now to develop a plan to move away from that mode and plan for healthier times with the family.

Source: Working Families Newsletter, University of Illinois Extension (LB)

HOUSEHOLD HINTS

by Lorene Bartos, Extension Educator

Blossoming Bedrooms — Clean and Fresh

A room springs to life when it's clean! Here's how to bring your bedroom into the springtime light.

FRESH BEDDING — Launder comforters, sheets, blankets and pillows. Read and follow care label instructions.

SUNNY WINDOWS — For sunshine-ready windows, clean them with an all-purpose glass cleaner. Launder or dry clean the window treatments. Or, you can give them a good vacuuming. Then apply a fabric refresher to remove odors. First, test product on an inconspicuous spot to make sure it's safe for the fabric.

SHINY FURNITURE — Trap the dirt with furniture wipes pre-moistened with polish or cleansing conditioners.

FINE FLOORS — Vacuum carpets. Use a carpet deodorizer to remove odors. Clean hard-surface flooring with dry, disposable floor wipes or use an all-in-one mopping unit.

SCENT OF SPRING — Bring the scent of spring into the bedroom. Choose cleaning products with soothing fragrances. Add scented candles to the bedroom's decor.

Child Care— "Kids Under Construction"

A conference for those who provide child care.

Saturday, April 2
8:30 a.m. to 4 p.m.
Lancaster Extension Education Center, Lincoln

Keynote speaker: C. J. Johnson, Licensed Clinical Social Worker — "Survey the Site"

Cost is $10. For a conference flyer call 441-7180.
Preregistration is due March 21.

In-service hours will be given for this conference.

Living Well **Week** March 13–19

Raising Kids, Eating Right, Spending Smart, Living Well

learningandlivingwell.org
Information and education at your fingertips to help you live well.

NEAFCS
National Association of Extension Family & Consumer Sciences
Nebraska Affiliate

CHARACTER COUNTS! CORNER

Elements of Caring

• Concern for others' well-being • Compassion
• Empathy • Kindness • Charity • Love

Caring means more than a concern for the well-being of others. It is a form of passion that generates commitment and conviction that allows us to endure, persevere and persist until we overcome whatever obstacles may be in our way. (LB)

TRUSTWORTHINESS • RESPECT • RESPONSIBILITY • FAIRNESS • CARING • CITIZENSHIP
Six Pillars of Character
JOSEPHSON INSTITUTE OF ETHICS
CHARACTER COUNTS!℠

March

Shelly Everett

Lancaster County 4-H is proud to announce Shelly Everett as winner of March's "Heart of 4-H Award" in recognition of outstanding volunteer service. Shelly has been the organizational leader of The Malcolm Clovers 4-H club for four years.

Michelle Bice (a 4-H parent) and The Malcolm Clovers nominated Shelly, saying, "Shelly has encouraged each member to participate in the county fair and has gone out of her way to help anyone who needed it. Shelly has been an inspiration to my daughter as well as others. She has also seen to it that all the girls have had the opportunity to be an officer and know how to successfully run that office."

"I like being a 4-H volunteer because I love working with young children," says Shelly. "Our group has learned so much through the years and they really enjoy showing their projects off at the county fair. I remember that 'fun' when I was in 4-H in Clay County. I also love working along side such wonderful parents as my project leaders for our club."

In addition to volunteering for 4-H, Shelly is also in the Malcolm Parent/Teacher Organization, coaches her daughters' soccer and volleyball teams, and helps with C.C.D. classes at Saints Mary & Joseph in Valparaiso. She lives in Malcolm with her husband Craig and daughters Payton and Maddy.

Congratulations to Shelly! Volunteers like her are indeed the heart of 4-H!

Nominate your favorite 4-H volunteer by submitting the form available at the extension office or online at lancaster.unl.edu/4h. Nominations of co-volunteers welcome.

COMMUNITY SERVICE CORNER

Cookies for City Impact

Two weeks before Christmas, the Extreme Green 4-H club wasn't at the mall shopping for gifts. Instead they spent their time baking and decorating cookies — not for themselves, but for those who wouldn't usually get Christmas goodies. They donated at least 10 plates of cookies to City Impact for use in their mission work. The goodies made included rosettes, sugar, peanut butter blossoms and lollipop cookies.

—Submitted by Amanda, club news reporter

Pet Pals Participate in "Holiday of Trees"

For the second year in a row, the Pet Pals 4-H Club created homemade ornaments and decorated a tree for Heritage League of Lincoln's "Holiday of Trees" which raises funds for various community projects. Club members had great fun making the ornaments, and the tree received many compliments

Star City Llamas in Star City Parade

For the 7th year in a row, the Star City Llamas 4-H Club participated in Lincoln's Star City Holiday Festival parade. Their entry theme was sledding. Club members dressed up as mittens and club parents dressed up as ski hats. The llamas were costumed as snowy hills with small sleds slung on their backs. The manure wagon (a four wheeler pulling a garden trailer) was disguised as a giant mug of hot cocoa — complete with marshmallows and "steam" created by a fog machine.

Submit your 4-H news to Vicki at the extension office or vjedlicka2@unl.edu

Unicameral Youth Conference

The 2005 Unicameral Youth Conference will be held June 12-15. Youth gain a basic understanding of civic life, politics and Nebraska government while interacting with State Senators, legislative aides, policy experts and lobbyists. **Application deadline is March 1** for returning applicants and mentors and **April 1** for first time applicants.

Leader Training, March 14

"Winter 4-H Warm-up," a satellite training for 4-H leaders and interested volunteers, will be held **Monday, March 14** at 7 p.m. Topics include: changes for 4-H record books, resources for volunteers and new 4-H projects such as the Quilt Quest, Healthy Lifestyles, Fast Food and Youth in Motion. Please register by March 11 by calling 441-7180.

New 4-H Wristbands

Green, silicone wristbands embossed with "4-H Makes a Difference" are available for sale as a fundraiser for Citizenship Washington Focus (CWF). Cost is $3 apiece. To purchase, contact a CWF member or the extension office at 441-7180.

4-H Technology Team Applications Due April 1

The Nebraska 4-H Youth Technology Team is seeking high-school-age 4-H'ers for this year's Technology Team! The Technology Team is a group of youth who serve to promote the responsible use of computer technology in the Nebraska 4-H Program. They also serve as a resource for computer-related projects. For more information or to fill out an online application, go to expo.unl.edu. Applications must be submitted by **April 1**.

Kiwanis Karnival Seeks 4-H Clubs to Host Game Booths

The annual Kiwanis Karnival is a free, family event sponsored by Lincoln Center Kiwanis. This year, it will be **Saturday, April 16**, 7–9 p.m. at the Lancaster Event Center in Pavilion 3, Exhibit Hall.

4-H clubs or families are needed to provide carnival-type game booths for the evening. Each booth will have an area 4' x 6' to use. Prizes are provided. If your club or family would like to provide a booth, please call Lorene at 441-7180 by **April 4**. (LB)

4-H Life Challenge Contest Study Guides

The statewide 4-H Family and Consumer Science (FCS) Life Challenge contest for seniors will be held **June 27–28** at UNL East Campus. The following project manuals will be used for the senior Life Challenge contest: Financial Champions "Money Moves," Book 2; Clothing Level 1; The Sitter; Youth in Motion and Fast Foods.

The county-only Life Challenge contest for juniors will be held **Wednesday, July 6** at the Lancaster Extension Education Center. Questions will be based on the following project manuals: The Road to Good Cooking, Sewing for Fun, Growing on My Own and Health A-Discovering Myself.

Start studying now! Watch future issues of The Nebline for more information. (TK)

Change in County Fair Static Exhibit Release Time

All static exhibits for the 2005 Lancaster County Fair will be released from noon to 2 p.m. Sunday, Aug. 7. This includes both 4-H and Open Class static exhibits. (TK)

Speech & PSA Contest Registrations Due March 28

Effective communication is a valuable life skills which can use throughout one's life. The 4-H Speech and Public Service Announcement (PSA) contests teaches and allow youth to practice speaking in front of others. These contests are open to all 4-H'ers — need not be enrolled in a specific project. To register, or for more information, call Deanna Karmazin at 441-7180 by Friday, March 28 at 4:30 p.m.

PSA Contest, April 5

Due to the growing number of participants in this contest and the taping of the district winners, the PSA contest will be held at the Lancaster Extension Education Center on Tuesday, April 5 at 6:30 p.m. PSA's must be 60 seconds; topic is 4-H. Emphasis is on the presentation of a PSA for radio. Contestants must give their PSA in person, no prerecorded tapes allowed.

Speech Contest, April 10

This year's Speech Contest will be held at the State Capitol (note: date is CONFIRMED) on Sunday, April 10 at 1 p.m. Topics can be anything, but a 4-H theme should be maintained. Length depends on division:

- Novice (ages 8–9): 2 min. or less
- Junior (ages 10–11): 2–3 min.
- Intermediate (ages 12–13): 3–5 min.
- Senior (ages 14–19): 5–8 min.

Achievement Night

Lancaster County 4-H Achievement Night was held Feb. 1 at the University of Nebraska Westbrook Music Building. The evening was presented by 4-H Council with generous support from University of Nebraska-Lincoln and the UNL Hixson-Lied College of Fine and Performing Arts. 4-H'ers, 4-H clubs and 4-H leaders were recognized for their 2004 achievements. Lancaster County 4-H congratulates these youth who work throughout the year on their 4-H projects and commit themselves to excellence! We also thank the 4-H leaders who volunteer their time and talents!

For a complete list of award, scholarship and pin recipients (as well as additional photos) visit online at lancaster.unl.edu/4H.

Marie Spomer (right) was awarded **OUTSTANDING 4-H MEMBER.** She has been a 4-H'er for nine years and an active Junior Leader.

Deb Arends (at right) received the **4-H MERITORIOUS SERVICE** award for her 13 years of remarkable volunteer service.


City of Lincoln
Proclamation

"Nebraska 4-H Month"

Whereas, young people and volunteers are among a community's greatest natural resources; and

Whereas, 4-H, coordinated through the University of Nebraska Cooperative Extension Service, is a dynamic, educational program that reaches all 93 counties in the state; and

Whereas, 4-H has been serving the youth of Nebraska with educational and leadership opportunities since 1902; and

Whereas, 4-H provides an opportunity for young people to develop life skills through hands-on learning experiences, including educational workshops, project work, presentation experiences, camps, conferences, before- and after-school programs and other events at local, county, district, state, national, and international levels; and

Whereas, Nebraska is a national leader in 4-H youth participation, with more than 14,800 local young people ages five through 19 participating in 4-H during 2003 and 2004,

Now, therefore, I, Coleen J. Seng, Mayor of the City of Lincoln, Nebraska, do hereby proclaim February as **"Nebraska 4-H Month"** and urge citizens to become more aware of this outstanding program and to encourage and support the work of the 4-H Youth Development Program.

2-1-05
Date
Mayor Coleen J. Seng

City of Lincoln Mayor Coleen J. Seng proclaimed February as "Nebraska 4-H Month"(see above). Noelle Badeer read the proclamation at Achievement Night.

Noelle Badeer (left) and Paige Moser (right) were presented American Youth Foundation **I DARE YOU** awards for striving to achieve their personal best.

AWARDS BOOKS
Animal Science: Kyle Pedersen
Citizenship & Civic Education: Karen Clinch
Communication & Expressive Arts: Kyle Pedersen
Environmental Education & Earth Science: Kyle Pedersen
Healthy Lifestyles: Laura Cassel
Personal Development & Leadership: Grace Farley
Plant Science: Kyle Pedersen
Science & Technology: Nicole Pedersen

The evening included select performances from students of the UNL Hixson-Lied College of Fine and Performing Arts, including a brass quintet (above), a presentation by an art student and theater monologues.

COMMUNITY SERVICE AWARDS
Age 14 and over: Laura Cassel, Karen Clinch, Claire Reichenbach, Monica Rentschler, Michaela Vestecka
Age 13 and under (pictured): Kaley Cook, Trenton Craig, Trevor Craig, Grace Farley, Spencer Farley, Terra Garay, Eliza Hammond, Nathan Smith, Abbey Spencer, Hannah Spencer, Jessica Stephenson

COLLEGE SCHOLARSHIPS
Lincoln Center Kiwanis (pictured at left): William Davis (left), Joel Keralis (right)
Lancaster County 4-H Council: Noelle Badeer, Ryan Cheney, Elizabeth Fry, Monica Fujan, Paige Moser, Marie Spomer
Lane Community: Kyle Schachenmeyer
4-H Teen Council: William Davis, Monica Fujan

4-H CAMP SCHOLARSHIP
***New this year!* Joyce Vahle Scholarship (pictured at right):** Abbey Spencer

2004 Outstanding 4-H Club Awards

The Lincoln Center Kiwanis Club presents Outstanding 4-H Club Awards to the top 4-H clubs participating in the Lancaster County Fair. There are three categories based on number of club members. One category winner is awarded the Wayne C. Farmer memorial cup as the overall Outstanding 4-H Club for the year. Clubs receive points based on all members' total county fair exhibit and contest placings. The following clubs were recognized at a recent Lincoln Center Kiwanis meeting as well as at 4-H Achievement Night:

Shimmering Shamrocks 4-H Club of Lincoln is winner of Category I (7 members or less) — and winner of the Wayne C. Farmer trophy as overall Outstanding 4-H Club for the year. At the 2004 Lancaster County Fair, the club's seven members were enrolled in 32 projects and entered 115 total exhibits. The club is winning this award for the second year. Becky McHenry is club leader.

Clovers & Company 4-H Club of Lincoln is winner of Category II (8–12 members). The club's nine members were enrolled in 18 projects and entered 70 total exhibits at the County Fair. This is the fourth year Clovers & Company club is winner of this category. Kay Clinch is club leader.

Happy Go Lucky 4-H club of Bennet is the Category III winner (clubs with 13 or more members). The club's 50 members were enrolled in 21 projects and entered 261 total exhibits at the Lancaster County Fair. Happy Go Lucky has won the award 15 times in this category since 1989. John Bruss is club organizational leader.

Get Money Back from Your Taxes: Earned Income Tax Credit

Yelena Mitrofanova
Extension Educator

A community thrives when its community members thrive. However, many families, even though they are full-time employed, continue to struggle to meet their families' basic needs. Earned Income Tax Credit (EITC) provides a financial support to these families by reducing their tax burden and, in many cases, giving them a tax refund when they file their annual income tax return.

What is the Federal Earned Income Tax Credit (EITC)?

According to the Internal Revenue Service, the Earned Income Tax Credit (EITC) is a federal income tax credit for low-income workers who are eligible for and claim the credit. The credit reduces the amount of tax an individual owes and may be returned in the form of a refund. **The EITC is a tax benefit for low- to moderate-income working families, as well as a small benefit for some workers without children.** Workers who qualify for the EITC and file a federal income tax return can receive a refund, even if no taxes were taken out of their pay during the year.

The EITC is based on the amount of earned income, which includes wages reported on a W-2 and self-employment income reported on Form 1099-MISC. The EITC does not count as income in determining eligibility for public benefits, such as welfare, Medicaid, food stamps, SSI or public housing.

The EITC was created by Congress in 1975 to help offset Social Security payroll tax and to make work more attractive than welfare. For minimum wage workers who do not owe any taxes, the program provides additional income; for those with higher earnings, it offsets taxes. The EITC is often referred to as one of the most successful federal anti-poverty programs ever developed. The program is administered by the Internal Revenue Service and has grown to become one of the United State's largest programs to support low-income families. According to Pamela Friedman, "By reducing the tax burden on families, the EITC strengthens their self-sufficiency and provides them with more disposable income."

Eligibility Requirements

To claim the EITC on your 2004 tax return, taxpayers must meet the following requirements:

- Must have earned income.
- Must have a valid Social Security number.
- Investment Income is limited to $2,650.
- Your filing status cannot be "married filing separately."
- Generally, must be a U.S. citizen or resident alien all year.
- Cannot be a qualifying child of another person.
- Cannot file Form 2555 or 2555-EZ (related to foreign earned income).
- Legal immigrants can qualify for the EITC, as long as they meet the eligibility requirements.

For earned income eligibility requirements to claim EITC or any other information on the EITC, visit www.irs.gov/eitc or call 1-800-TAX-1040.

Why EITC Is Important?

Many families eligible for the Earned Income Tax Credit do not claim the credit. According to the Center on Budget and Public Policy Priorities, recent surveys indicate 15 to 25 percent of families fail to claim the EITC. The EITC credits that go unclaimed by low to moderate-income workers represent millions of dollars of lost revenue.

2003 EITC Statistics for Nebraska and Neighboring States

State	# of Recipients	$ Received
Nebraska	104,382	$173,598,154
South Dakota	52,772	$87,042,713
Wyoming	32,270	$52,224,241
Colorado	245,363	$398,739,138
Kansas	167,194	$282,543,030
Missouri	441,032	$723,478,556
Iowa	164,600	$261,558,935
National Totals	21 million	$37.5 billion

These millions of dollars of unclaimed EITC credits would be spent on the local economy in these communities. Educating workers about EITC and providing free tax assistance possibly will bring millions of dollars into the community, which then circulate through the local economy by strengthening neighborhoods, assisting small businesses, and stimulating local economic development.

For more information, call 1-800-TAX-1040 go to www.irs.gov/eitc.

(Sources: www.irs.gov/; Facts about the Earned Income Credit, 2005, The Center on Budget and Policy Priorities, www.cbpp.org; Maximizing the Earned Income Tax Credit in Your Community, National League of Cities, 2004; Pamela Friedman, Earned Income Tax Credit, 2000)

Lincoln's Volunteer Tax Assistance Program

Many families that apply for EITC pay someone to complete their tax forms. This can often cost between $55 and $150 and can be more. Paying for tax preparation takes away from the value of the EITC.

Volunteers throughout Lincoln are now offering free federal and state tax return preparation through the Volunteer Income Tax Assistance (VITA) program. The VITA is a national program providing free assistance to low income, elderly, limited English proficient and disabled individuals who require assistance in preparing their tax returns and cannot afford the services of a paid professional tax preparer.

According to Miriam Bede, a tax specialist with the Internal Revenue Service, "The VITA program has provided free tax assistance to the Lincoln community for over 30 years. The volunteers are the heart of this program and represent the diversity present in this community." Vietnamese, Arabic, Hispanic, Indian, Russian and Bosnian speaking volunteers will be available at some locations for translation and tax preparation.

Volunteers are taught basic tax preparation techniques and technology, enabling them to easily handle most returns or at least know where to find the answer in the IRS quick reference guides. Volunteers are trained to prepare basic Forms 1040 tax returns, including, Schedule A for itemized deductions, claims for the Earned Income Tax Credit, other tax credits and the comparable state tax forms. **Volunteers do not prepare business or complex tax returns**.

Free electronic filing of the Federal Tax return will also be available at some locations. Electronically filed tax forms greatly increase the speed of filers' returns and help reduce return errors. Combined with direct deposits, the refunds can be received within 10 to 14 days.

What You Need to Bring to Tax Preparation Sites:

- A photo identification.
- Social Security Cards (or Individual Taxpayer Identification Number) for yourself, spouse and dependents listed on the return.
- All wage and earning statements (W-2).
- Any interest and dividend statements (Form 1099).
- A copy of last year's return (if available).
- Child care provider name, address and tax ID number.
- A sample check if you want direct deposit of your refund.
- Any other information concerning income and expenses for 2004.

Lincoln VITA Program Tax Sites and Hours

All sites operate until April 15 and provide electronic filing unless noted. No appointment necessary!

Lincoln Action Program — 210 "O" St.
- Mondays, 1-4 p.m.
- Thursdays, 5:30-8:30 p.m.
- Fridays, 9:30 a.m.-12 p.m.

U.S. Bank — 56th & "O" Street
- Tuesdays, 10 a.m.-1 p.m.
- Wednesdays, 10 a.m.-1 p.m.
- Thursdays, 1-4 p.m.
- Saturdays, 9-11:30 a.m.

Anderson Library — 3635 Touzalin Ave.
- Wednesdays, 5:30–8:30 p.m.

Eiseley Library — 1530 Superior St.
- Mondays, 5:30-8:30 p.m.
- Thursdays, 1-4 p.m.

Bennett Martin Library — 14th & "N" St. (E-filing closes 2/27/05)
- Tuesday 5:30-8:30 p.m.
- Wednesday 1-4 p.m.
- Sunday 1:30-4:30 p.m.

"F" Street Recreation Center — 1225 "F" St. (no E-filing)
- Tuesdays, 11:30 a.m.-2:30 p.m.

Salvation Army — 2625 Potter St. (E-filing closes 2/22/05)
- Tuesdays, 1-4 p.m.
- Thursdays, 1-4 p.m.

Hawthorne Elementary School — 300 S. 48th St. (E-filing closes 2/24/05)
- Tuesdays, 5-8 p.m.
- Thursdays, 5-8 p.m.

Elliott School — 225 S. 25 St.
- Saturdays, 9 a.m.-12 p.m.

Hispanic Center — 2300 "O" St. (No E-filing)
- Mondays, 1-4 p.m.
- Saturdays, 10 a.m.-1 p.m.

Asian Community Center — 140 S. 27th St. (No E-filing)
- Mondays-Fridays 9 a.m.-5 p.m.

Nebraska Beef Leadership Symposium Applications Due March 15

The second annual Nebraska Beef Leadership Symposium will include instruction on leadership development, discussion of the beef industry and current topics, a chance to interact with University of Nebraska faculty and students, discussion on careers and tours of the campus and Memorial Stadium. This is a great way to determine if a career in the beef industry is for you, plus make many new contacts!

Nebraska Youth Beef Leadership Symposium

If you are interested, application and additional information can be obtained from Deanna. Applications are due by March 15, along with a registration fee of $50. Information is also online at animalscience.unl.edu/youth/beefsymp.htm.

2005 Big Red Summer Camps

Open to all high school youth, the Big Red Academic Camps are a great way to explore career options and discover the University of Nebraska-Lincoln campus!

Camps include: Fashion Design, Culinology, Golf, Child Development, Movie Making, Unicameral Youth Conference, and Horsemanship. Hosted by Nebraska 4-H and UNL faculty members, the camps held in June and July.

Early bird special — save 10% by registering before April 1! Information and applications are available at the extension office or online at bigredcamps.unl.edu, or by calling Peggy Jeffries at 472-2805.

EXTENSION CALENDAR

All programs and events will be held at the Lancaster Extension Education Center unless otherwise noted.

FEBRUARY

21–27 Dine Out for 4-H's CWF, *Bruegger's Bagels*
22 Commercial Pesticide Applicator Recertification Training . . . . . 9 a.m.
22 FCE & Community Leader Training Lesson, "Home Fall Prevention" . . 1 p.m.
22 4-H Speech & Public Service Announcement (PSA) Workshop . . . . . 7 p.m.
23 Private Pesticide Applicator Certification . 8:30–11:30 a.m. & 1:30–4:30 p.m.
23 Chemigation Certification Training . . . . . 6:30 p.m.
24 Commercial Pesticide Applicator Initial Training and Testing . . . . . 9 a.m.
24 4-H Horse Knowledge Club Meeting . . . . . 7 p.m.

MARCH

1 4-H Council Meeting . . . . . 7 p.m.
3 Private Pesticide Applicator Certification . . . . . 8:30–11:30 a.m.
3 "Fertilizing Cropland With Biosolids" Workshop . . . . . 3:30–8:30 p.m.
3 4-H Spring Rabbit Clinic . . . . . 6:15–8:30 p.m.
5 4-H Spring Rabbit Show, *Lancaster Event Center, Pavilion 3, Exhibit Hall* . . . . . 9 a.m.
10 4-H Horse Knowledge Club Meeting . . . . . 7 p.m.
10 Acreage Insights: Rural Living Clinic "Create a Prairie With Native Grasses and Wildflowers" . . . . . 7–9 p.m.
11 Lancaster Extension Board Meeting . . . . . 8 a.m.
12 4-H Horse Stampede, *UNL East Campus, Animal Science Bldg.* . . . . . 8 a.m.
12 Beginning Beekeeping Workshop . . . . . 9 a.m.–5 p.m.
13 4-H Teen Council Meeting . . . . . 3 p.m.
14 4-H Leader and Volunteer Satellite Training . . . . . 7 p.m.
16 Pesticide Disposal Collection, *Waverly Farmers Coop* . . . . . 8 a.m.–12 Noon
16 Private Pesticide Applicator Certification . . . . . 1:30–4:30 p.m.
22 FCE & Community Leader Training Lesson, "Healthy Cooking for 1 or 2" 1 p.m.
24 4-H Horse Knowledge Club Meeting . . . . . 7 p.m.
28 Family & Community Education Council Meeting . . . . . 1 p.m.
28 4-H Speech & PSA Contest Registrations Due

Irrigation Costs

continued from page 1

To simplify comparing alternative energy sources or irrigation distribution systems, the program is structured with eight scenarios laid out in a notebook. The user must specify lift, system pressure, acres irrigated, inches of water applied, fuel type and fuel price (user defined areas are indicated in blue). To compare ownership cost for different types of systems, the actual cost of various components such as engine and distribution system cost should be specified.

Table 1. The Nebraska Pumping Plant Performance Criteria (NPC)

Energy Source	hp•h [a] (energy unit)	whp-h [b, c] (energy unit)	Energy units
Diesel	16.66	12.5 [d]	gallon
Gasoline	11.50	8.66	gallon
Propane	9.20	6.89	gallon
Natural gas [e]	82.20	61.7	1000 ft^3 (MCF)
Electricity [f]	1.18	0.885	kW•h

[a] hp•h (horsepower hours) is the work accomplished by the power unit with drive losses considered.
[b] whp-h (water horsepower hours) is the work accomplished by the pumping plant (power unit and pump) at the NPC
[c] Based on 75% pump efficiency
[d] Assumes an energy content of 925 BTU/cubic foot
[e] Assumes 88% electric motor efficiency
[f] Water meter volume conversion to acre-inch equivalents:
- If the water meter totalizer registers in gallons, divide gallons by 27,154
- If the water meter totalizer registers in acre-feet, multiply acre-feet by 12
- If the water meter totalizer registers in cubic feet, divide cubic feet by 3,630

Table 2. Equivalent Price Factors for Irrigation Energy Sources

	Diesel	Natural Gas	LP Gas	Electricity	Gasoline
Diesel	1.0	4.936	0.551	0.071	0.693
Natural Gas	0.203	1.0	0.112	0.014	0.140
LP Gas	1.814	8.955	1.0	0.128	1.257
Electricity	14.124	69.718	7.785	1.0	9.785
Gasoline	1.443	7.125	0.796	0.102	1.0

Energy Units: Diesel, LP Gas and Gasoline (gallons); Natural Gas (mcf*); Electricity (kWh)

* The factors for natural gas assume 925,000 BTU per 1,000 cubic feet (mcf). To convert price per therm to equivalent price per mcf, multiply the price per therm by 9.25.

Note: This table compares energy prices based on the Nebraska Pumping Plant Performance Criteria. It provides an estimate of equivalent energy cost assuming the pumping plants being compared are all operating at the NPC. It does not consider differences in ownership cost or differences in labor requirements, repair costs or annual hookup charges, if any. Fuel prices are constantly changing — over time, this could affect the relative cost ranking of one energy source versus another.

Animal Science Youth Field Day April 2

The Southeast District Animal Science Youth Field Day will be held Saturday, April 2, 9–4:30 p.m. on UNL East Campus at the Animal Science Complex. All high school youth ages are invited to participate — no cost to attend. Fun activities will increase your science-based knowledge of animals. The event is sponsored by UNL Cooperative Extension. Pre-registration not required, but requested — call Deanna at 441-7180.

Nebraska Agricultural Youth Institute Applications Due April 15

High school juniors and seniors are invited to take part in the Nebraska Agricultural Youth Institute (NAYI) which will be held July 10–14. The NAYI is to help build leadership skills, explore new aspects of agriculture and encourage young people to become more involved with and remain in agriculture. The Institute takes place at the University of Nebraska-Lincoln. All meals, lodging and activities are sponsored by the Nebraska Department of Agriculture. The only expense for students is transportation to and from the Institute. Applications are due April 15. If interested, contact extension at 441-7180 for an application.

The NEBLINE

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Horseless Horse 4-H Club is Off and Running

It started as an idea. Marty Cruickshank, 4-H staff member in charge of the Lancaster County 4-H horse program, saw a need for a club aimed at youth who want to participate in a 4-H horse project but don't have access to horses.

"I see a horseless club as a great way for kids who probably will never have a horse but have a love for the animal to learn about horses and hopefully have the opportunity to ride a little," said Cruickshank. "It is also a chance for kids who are thinking about getting a horse to be around horses and find out if they really do want to take on the commitment. Kids and their parents can find out how to take care of a horse and what type of equipment is needed."

Enter Jen DeBusk. She recently moved to Lincoln from California. She wanted to help with 4-H but didn't feel ready to head up a riding club. Cruickshank mentioned the need for a horseless club and DeBusk bit immediately. DeBusk volunteered to be club organizational leader.

A Broomtails club member wore a bicycle helmet and cowboy boots for a horse ride courtesy of the Riding Wranglers 4-H Club.

"I was a horse-crazy kid, so I completely understand kids who love horses. I wanted to share what I knew with them," said DeBusk. "I totally empathize with kids who don't have horses. There are different reasons why they can't have horses — usually financial or time constraints. But this club gives them a way to learn about and be around horses."

The Lincoln Broomtails 4-H club is the first horseless horse 4-H club in Lancaster County, and only the second one in Nebraska. They started meeting in January 2004 at the Bess Dodson Walt library. Members researched horse breeds, styles of tack and riding clothes. In March, the club attended the Nebraska Horse Expo as a group.

DeBusk owns a mustang, Libby. Club members use Libby to learn ground skills such as grooming, leading a horse, putting on a halter, and safety around horses.

During the 2004 Lancaster County Fair, Libby was a club project. The Broomtails decorated their club area and participated in the herdsmanship contest (in which clubs are judged on cleanliness of stall areas, attention to safety, care of animal and courteousness of members). Members took turns feeding and watering Libby. During the Western Horse Show, they handed out ribbons to winners.

4-H parent Kay said, "The members are learning what it realistically takes to take care of a horse. They haven't done it full time, but they've done most of the steps."

Last October, members of the Riding Wranglers 4-H club invited The Broomtails out to ride their horses. The Wranglers led the horses as Broomtails members rode, some for their first time. The Wranglers also gave a mini-clinic about the differences between English and Western horses, tack and riding.

The Broomtails visited a tack shop, "Tack 'n' Togs," in December. Owner Marge Davenport showed club members different types of saddles, bridles and other equipment.

"We try to do a hands-on activity each month," explains DeBusk.

The Lincoln Broomtails currently has ten members, and is always open to new members. For more information about The Broomtails club or 4-H Horse program, call Marty Cruickshank at 441-7180. 4-H is part of UNL Cooperative Extension.

If anyone would like to host The Broomtails for a visit to their horse barn, or to share a horse-related activity, please contact 4-H staff member Marty by calling 441-7180.

Club members participate in herdsmanship duties at the Lancaster County Fair.

OPEN TO ALL YOUTH

4-H Rabbit Clinic

Thursday, March 3, 6:15–8:30 p.m.

Lancaster Extension Education Center, 444 Cherrycreek Rd, Lincoln

Learn about the 4-H Rabbit Program. FREE to attend!
SESSIONS INCLUDE: Grooming, Judging, Rabbit Breed ID Contest, Showmanship, Quiz Bowl, Static Exhibits

Spring Rabbit Show

Saturday, March 5, 9 a.m.

Lancaster Event Center, 84th & Havelock, Lincoln, Pavilion 3 Exhibit Hall

Classes: Fancy Rabbits, Commercial Rabbits, Pet Class and Pee Wee Class. Registration Fees: $2.50 per rabbit or cavy, $1.50 Showmanship. Trophies & ribbons will be awarded!

Please bring a raffle prize to donate to the 4-H Rabbit Program of Lancaster County

For more information, call Rodney at 782-2186 or Marty at 441-7180

Can You Guess It?

Did you guess it? Find out at
lancaster.unl.edu

Did you guess it from the February NEBLINE*?*
The answer was raspberries.

HORSE BITS

4-H Horse Stampede March 12

This third annual 4-H Horse Stampeded will be held Saturday, March 12 at the Animal Science Building on UNL East Campus. The Stampeded consists of the 4-H state horse-related competitions: Horse Bowl, Public Speaking, Demonstration and Art contests. It is free to watch Stampede events. All 4-H members in the horse program are encouraged to attend — it's a good way to see what the competition is about and to consider competing next year. Schedule is:

8–4 p.m.	**Art Contest Judging and Display**
8:30 a.m.	**Demonstration Contests**
9 a.m.	**Public Speaking Contests**
10:30 a.m.	**Horse Bowl**
7 p.m.	Awards Presentation*

**held at the Lancaster Event Center as part of the evening performance of Horse Expo*

Nebraska Horse Expo March 11–13

The 2005 Nebraska Horse Expo will be March 11–13 at the Lancaster Event Center. Presented by the Nebraska Horse Council, the Expo brings together horse enthusiasts from all disciplines for three days of entertainment and information. Exhibitions take place all day. Visit the vendor hall and see what's new in equine products. Special clinicians and speakers include horse trainer Curt Pate, Susan Harris and horse trainer Kevin Wescott.

"Anatomy in Motion: The Visible Horse," is Susan Harris' unique demonstration. She paints the muscles and skeletal system on a living horse, to show how the anatomy of the horse works in motion at all gaits. The skeletal system, painted on one side, demonstrates the structure and movement of body and limbs. On the other side, the painted major muscle groups show how the muscles work to produce good movement and balance. As the horse works, it's easy to see and understand the function of the bones and muscles, what causes good and poor movement and common causes of movement problems.

For more information about the Horse Expo, go to nebraskahorsecouncil.org.