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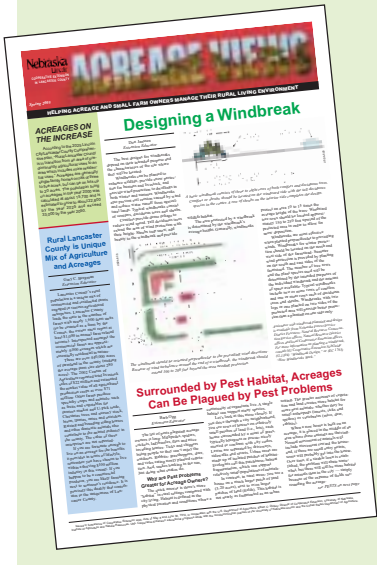
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Successful Shade Gardening

Key is Proper Plant Choice, Care

Don Janssen
Extension Educator

An abundance of large trees and shady areas in your yard can be a challenge to the creative gardener, rather than an obstacle to good gardening. Shady places that provide cool, refreshing areas of beauty during summer's heat also can contribute color and interest to the landscape throughout the growing season.

Gardening in the shade doesn't have to be frustrating. Some plants will tolerate relatively low light, and a few actually thrive in it. You can choose from an array of flowering annuals, perennials, bulbs and woodland plants for color. Many groundcovers do well in problem areas. In light shade, you might even be able to grow a few herbs or leafy vegetables. The trick is to know which plants are most likely to succeed and then to give them the kind of care that will improve their chances. You also have to be willing to experiment a bit to find which plants grow best on your property.

First, assess how much light the plants will actually receive. Densely shaded areas beneath large trees or under the overhang of a building, present more problems than do situations of partial or light shade. Although partially-or lightly-shaded areas receive direct sunlight for only a small portion of the day, light intensity is still quite bright. There are numerous plant choices you can make in these locations.

Light is not the only major concern when gardening in shady areas. Frequently, inadequate moisture can be a problem. The thick canopy of a large tree or the overhang of a house, will act as an umbrella, deflecting rainfall away from the ground directly beneath it. Worse yet, trees and shrubs will

compete with smaller plants for every drop of moisture that reaches the ground. It is vital that plants growing in the shade of large trees and shrubs, or sheltered by your home or garage, be watered regularly even during times of seemingly adequate rainfall.

Soil fertility also can be a source of trouble. Trees and shrubs fill the soil with feeder roots that greedily use up nutrients as readily as they are applied. It often seems that the more you water and fertilize, the more roots with which you have to contend. Yet adequate fertility is an absolute must for all your plants because without it, they are bound to be small and their growth will be weak. In most cases, a spring application of a balanced fertilizer, followed by one or two applications as the season progresses, will help your shade plants survive the competition of tree and shrub roots. If root competition is a serious problem, planting in containers above ground is a viable alternative. Containers should be replanted each spring with annuals, since bulbs or perennials cannot be expected to survive winter's cold.

With few exceptions shade-tolerant plants will do best in well-drained, relatively fertile soil. Both sandy soils and heavy, clay like soils will benefit from the incorporation of organic matter such as peat moss, compost, or well-rotted manure. Such materials are particularly helpful in areas of hard, compacted soils.

Annuals

Which plants will be the showiest in a shady situation? If you're looking for a continuous display of color from late spring



Before planting, assess how much light the plants will receive.



till frost, annuals will work well except in dense shade. Flowering annuals do not bloom well in heavy shade; they all blossom more profusely as light is increased. Some annuals, however, do better in light shade than in full sun, which may fade colors or cause wilting the moment there is any moisture stress.

Impatiens are becoming an increasingly popular annual since they are now available in a wide range of intense colors and heights. Browallias, coleus, wax begonias, dwarf salvias and other shade tolerant annuals will begin blooming soon after frost danger is past if you start with robust young bedding plants. It doesn't make sense to direct seed annuals for a shady garden in our climate. By the time they accumulate enough food reserves to bloom attractively, the growing season is almost over.

Bulbs

Spring flowering bulbs can be planted in deep shade provided you treat them as annuals, planting new bulbs each fall and then digging them up and discarding them once they've bloomed. The bulbs you buy already have miniature flowers inside. All that's needed is a cold winter in the ground for those flower buds to emerge in spring. In order to

repeat the performance the following year, though, the leaves must receive full sunlight for most of the day until they die back naturally. This builds up food reserves for the next blooming cycle. Without enough sunlight, you'll get leaves each year but no flowers.

Some spring bulbs such as crocus, scillas, snowdrops and species tulips bloom and produce leaves early enough, before the trees leaf out, so that they receive adequate amounts of sun to blossom annually in a lightly shaded area. Daffodils naturalize beautifully in an open wooded area.

Perennials

Many perennials bloom reliably in light shade, but some will blossom in fairly dense shade. Most of these are woodland plants that usually blossom very early in the season, though there are some exceptions. The fringed bleeding heart blooms all season, and black snakeroot blossoms mid to late-summer. Most woodland flowers are muted and delicate rather than bold and brightly colored.

Unlike the annuals, which tend to bloom throughout the

see *SHADE* on page 5



Perennials which do well in dense shade include: Japanese spurge, goutweed, spotted deadnettle and hosta.

Why So Many Weeds?

Gardeners often ask why they have so many weeds. The answer is quite simple, we plant them!

Weed seeds can blow in, wash in with surface water, or be introduced with the application of soils and organic matter, like manure. Birds and other wildlife also distribute weed seeds. However, the majority of weeds come from seed unsuspectingly planted by the gardener. In other words, weeds we allow to go to seed.

For example, a common pigweed plant, with its long reddish taproot, produces one hundred and seventeen thousand seeds per plant. That means just nine pigweed plants allowed to go to seed disseminate over one million seeds! And these seeds are viable for forty years. Purslane, with its pinkish, fleshy stems and leaves, produces fifty-two thousand seeds per plant. Purslane seeds are viable for twenty-five years. And how about the common dandelion? It typically produces only fifteen thousand seeds per plant. So do not let weeds go to seed. A gardener who does not let weeds go to seed will have significantly fewer weeds each year.

Each time the garden is cultivated or tilled, a new crop of weed seeds are brought to the surface and are ready to germinate. To suppress weed germination, avoid unnecessary tilling. Application of a surface mulch, like grass clippings, also helps suppress weed seed germination. (MJF)

2005 All-America Roses

The All-America Rose Selections (AARS) is a nonprofit association of rose growers and introducers dedicated to the introduction and promotion of exceptional roses. Since 1938 the AARS seal of approval has graced outstanding new rose varieties that have withstood the test of time and Mother Nature.

AARS operates a nationwide network of twenty official test gardens dedicated to evaluating roses on all of the characteristics consumers desire in a garden plant. Every AARS winning rose completes an extensive two-year trial program in these test gardens located throughout the country and representing all climate zones. New rose varieties in the AARS trials receive only as much care as would be given in the average home garden. This sophisticated evaluation process results in a new crop of AARS winning roses each year, guaranteeing that only the best make it into your garden. Visit the All-America Rose Selections Web site at www.rose.org

Here are the winners for 2005.

Day Dream is a low-growing compact landscape shrub rose reaching just 2 feet in height. The massive clusters of fuchsia blooms will flower all summer long. Each lightly scented single blossom is wide and flat, resembling a little button. Foliage is glossy, deep green and highly disease resistant. Day Dream's diminutive size and neat round habit make it an appropriate choice for a variety of garden situations.



Day Dream

An upright, spreading shrub rose, **Lady Elsie May** offers a vigorous, uniform growth habit and excellent disease resistance. The flower is coral pink and grows in



Lady Elsie May

clusters on strong 12 to 20 inch cutting stems. Each flower is approximately 3 to 4 inches wide and has 12 to 14 petals. The fragrance is slight and the foliage is dark green and waxed.

About Face is a grandiflora with a very novel "backwards" bicolor whose light color of deep golden yellow is carried on the inside of the petals with a darker bronzy orange-red backside. This

super-vigorous plant yields long stems with full old-fashioned blossoms that catch attention throughout the life of the bloom. The flowers, up to five inches in diameter, offer a mild fresh apple fragrance and are beautifully complemented by lush, clean green leaves.



About Face

ELLE combining a strong spicy, citrus fragrance with a high-centered classic rose bud. This rose is a hybrid tea that produces shell pink flowers with deep yellow undertones. The dark glossy foliage provides a nice contrast to the soft, non-fading flower, and offers above average disease tolerance to mildew and blackspot. Flowers bloom on 10 to 14 inch stems and are 4 to 5 inches wide. (MJF)



ELLE

Garden Guide

Things to do this month

Make successive plantings of beans and sweet corn to extend the harvest season.

Harvest rhubarb by cutting or by grasping the stalk and pulling up and gently to one side.

Grow your own dried flowers. Raise statice, globe amaranth, straw flowers and other everlastings to provide flowers for this year's arrangements.

Plant gladioli bulbs in late May.

Set out marigold, petunia, ageratum and fibrous begonia transplants. All are good border plants.

To grow annuals in containers on the patio, use a light weight soil mixture. Keep the plants well watered, because the soil dries out fast. Apply a water soluble fertilizer according to package directions every two weeks.

Watering roses with soaker hoses or drip irrigation will reduce the spread of black spot disease.

Plant ground covers under shade trees that do not allow enough sunlight to grow grass. Vinca minor or English ivy are ground cover plants that grow well in shade.

Mulch around newly planted trees and shrubs. This practice reduces weeds, controls fluctuations in soil temperature, retains moisture, prevents damage from lawn mowers and looks attractive.

When you visit botanical gardens and arboreta, take your camera and notepad with you. Plan now for changes you will make in your landscape.

For maximum landscape interest in a small, vertical space, try annual vines. They can disguise ugly walls and fences. When trellised, they can create shade and privacy while hiding undesirable views. Try morning glory, nasturtium vine and scarlet runner bean.

Plan a landscaping project on paper first. Do not over plant. Be sure you know the mature size of each plant and allow for growth.

Lawns maintained at the correct height are less likely to have disease and weed infestation. Kentucky bluegrass and tall fescue should be mowed at approximately three inches in height. Mow frequently, removing no more than one third of the blade at each cutting.

Grass clippings can be used as a mulch in flower beds and vegetable gardens if allowed to dry well before use. Never use clippings from a lawn that has been treated with a herbicide.

Cabbage loopers and imported cabbage worms are green worms. They eat large holes in the leaves of plants in the cabbage family. For control, caterpillars can be picked off by hand or sprayed with Bt (*Bacillus thuringiensis*), a natural, non-toxic preparation available by various trade names.

Newly transplanted vegetable plants should be protected from cutworms with collars. Cut strips of cardboard two inches wide by eight inches long, staple them into circles and place them around the plants. Press the collar about one inch into the soil. These collars will fence out the cutworms and protect the stems of the vegetable plants.

Stay out of the garden when the vegetable plant leaves are wet. Walking through a wet garden spreads disease from one plant to another.

Four or five layers of newspaper will serve as an effective mulch in the garden. Cover it with grass clippings or straw to prevent it from blowing away.

Put tools away at the end of the day. Clean them and hang them up so they are ready to use and easy to find when you need them.

Flowers That Tower

Tall perennial plants in your flower beds can bring a sense of drama to your landscape. If you have the space, consider a few of these giants.

Boltonia '**Boltonia asteroides**' — This plant has showy white, aster-like flowers in late

summer. It will get 5 to 7 feet tall and may need staking. Thrives in any garden soil and spreads rapidly in moist conditions. Prefers full sun.

Common sneezeweed or False sunflower '**Helenium autumnale**' — Showy yellow flowers in late summer. 3 to 6 feet tall. Very adaptable, but prefers moist soil and full sun.

False Indigo '**Baptisia australis**' — Forms large clumps. Grows 3 to 5 feet tall. Blue flowers bloom in spring. Prefers full sun to part shade.

Goatsbeard '**Aruncus dioicus**' — Stately perennial that produces creamy-white



Queen-of-the-prairie

plumes of blossoms in early summer. Will grow in sun to part shade. Reaches heights of 4 to 6 feet.

Joe-Pye weed '**Eupatorium purpureum**' — Very showy with purple flower clusters in the fall. 4 to 7 feet

tall. Prefers moist soil and full sun to part shade.

Plume poppy '**Macleaya cordata**' — Handsome, large perennial that grows 5 to 10 feet. Does best in rich, well-drained soil and full sun. Blossoms are creamy-white plumes that reach nearly a foot in length. Warning! This plant spreads vigorously.

Queen-of-the-prairie '**Filipendula rubra**' — Tall and wind tolerant. Reaches heights of 6 to 8 feet tall. Flowers are large, 6 to 9 inch, pink clusters. Prefers moist conditions and full sun to part shade.

Russian sage '**Perovskia atriplicifolia**' — This sage has aromatic gray-green leaves and pale blue flowers in summer. It prefers well-drained soil and full sun. Russian sage will grow to be 3 to 5 feet.

White Mugwort '**Artemisia lactiflora**' — Creamy-white flowers appear in late summer. Attractive foliage reaches 4 to 6 feet. Grows in full sun or part shade. (MJF)



Joe-Pye weed

Be Good to Your Worms

Barb Ogg
Extension Educator

Aristotle referred earthworms as “intestines of the earth” because they are important soil organisms that help decompose plant litter, (i.e., thatch) and recycle nutrients. Worms help break down and condition plant remnants in their gut. Their tunnels help oxygen and water enter the soil more easily and their castings (waste) enrich it.

Earthworms are the most numerous in the top six inches, but are also found in the subsoil, bringing mineral rich soil from below to the surface. Research shows in 100 square feet of garden soil, earthworms may bring four to eight pounds of soil to the surface each year.

Earthworm castings have organic matter levels much higher than the surrounding soil and significant levels of nitrogen, phosphorus, potassium and many micronutrients in a form all plants can use. For example, a 200 square foot garden with a low worm population of only five worms per cubic foot will provide over 35 pounds (about 1/3 pound per worm) of top-grade fertilizer each garden year.

Not only do they produce this fertilizer, but spread it

thoroughly within the top 12 inches of soil and incorporate it as far down as six feet. A soil that is well managed, rich in humus may easily support 25 worms per cubic foot, which translates into at least 175 pounds of fertilizer per year for the same 200 square foot garden.

This means your garden or lawn can be supplied with far more fertilizer and superior quality than a dry or granular, fast-acting chemical fertilizer of 10-20 pounds. In fact, these fertilizers may even repel the earthworms that are present. As the fertilizers become soluble, they may leach down into the soil and force the earthworms to seek refuge elsewhere.

Worms make other contributions, such as adding calcium carbonate, a compound which helps moderate soil pH. Over time, earthworms can help change acid or alkaline soils toward a more neutral pH.

Earthworm tunnels help to aerate and loosen the soil. This allows more oxygen in, which not only helps the plant directly, but also improves conditions for certain beneficial soil



bacteria. Finally, the tunneling of the earthworms provide an access to deeper soil levels for the numerous smaller organisms that contribute to the health of the soil.

How can you encourage earthworm activity? First, use a mulching mower (one that leaves the grass on the lawn)

or spread the lawn clippings in the garden area to “feed your worms.” Because earthworms are less active when the soil’s dry, watering may be necessary.

Since earthworms are beneficial, control measures are not required and there are no treatments registered for earthworm control. If the mounds of soil on your lawn really bother you, you can break them up with a rake.

In summary, earthworm activity in your soil is good for your lawn and garden. Earthworm activity should be encouraged. They help incorporate organic matter, improve the soil structure, improve water movement through the soil, improve plant root growth and minimize thatch build-up in lawns.

Thirteen-lined Ground Squirrels

These are Nebraska’s most common native ground squirrel. You can view these ground squirrels during the day in golf courses, cemeteries, parks, yards and open areas with closely-mowed vegetation. They are recognized by their thirteen light stripes with rows of light spots that run the length of its tan/brown-colored back. Thirteen-lined ground squirrels are usually about 11 inches long, including their 5 to 6-inch tail.

Thirteen-lined ground squirrels dig burrows 15 to 20 feet long and often have more than one entrance. Escape burrows are shorter and have only one entrance. The burrow entrances are inconspicuous, appearing only as small, two-inch diameter holes in the ground. Mounds are seldom present at the burrow entrances, but occasionally the grass will appear well worn. Burrow entrances often are plugged at night. These ground squirrels hibernate in their burrows from October to late March/early April.

BENEFITS: These ground squirrels are important prey food for many predators including badgers, coyotes, hawks, weasels and a variety of snakes. Thirteen-lined ground squirrels benefit people by feeding on many harmful



Copyright © Missouri Conservation Commission

Thirteen-lined ground squirrels (above) dig burrows with two-inch diameter entrance holes (right).

weeds, weed seeds and insects. They also provide people enjoyable opportunities to view wildlife with family and friends.

WHAT THEY EAT: Thirteen-lined ground squirrels feed primarily on seeds, garden vegetables, flowers and insects. During summer, insects can make up half their diet.

DAMAGE: Create burrows in lawns, golf courses, cemeteries, parks and earthen dikes. They can also dig up newly planted seeds, consume sprouting seeds and damage garden vegetables.

Control Options

We should not attempt to eliminate these ground squirrels, but rather, should manage their populations at levels where they can be appreciated.

FENCING: 1/2-inch wire

mesh can be used around gardens and flowerbeds. Should be at least 18 inches high and buried six inches into the ground.

CULTURAL: One of the best ways to discourage ground squirrels is to allow vegetation to grow taller. Urban resi-



dents can deter them by creating tall, dense plantings of shrubs, ornamental grasses or flowers around the borders of their property. Ground squirrels are not discouraged by rocks or soil blocking their entrances, they’ll just dig around them.

REPELLENTS: limited success — not usually recommended.

TRAPPING: Several types of traps are effective for ground squirrel control including live traps and wooden snap-type rat traps.

Learn more in the NebGuide (G92-1110-A) “The Thirteen-Lined Ground Squirrel: Controlling Damage” available at the extension office or online at lancaster.unl.edu

Winged Termites or Ants? Termite Control Workshop, May 19

To the untrained eye, winged termites look a little like winged ants. To add to the confusion, termites and ants both swarm during the springtime.

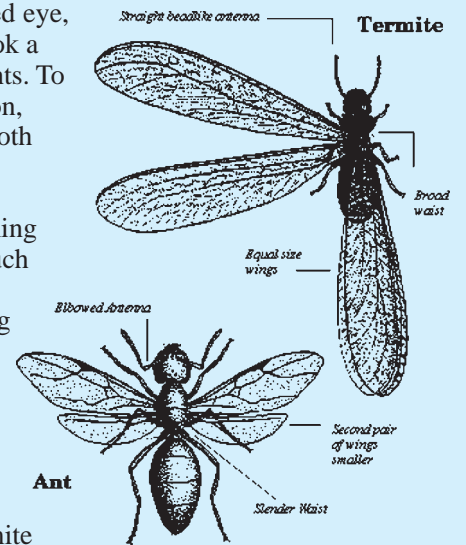
Termite swarming outdoors aren’t much cause for alarm. However, swarming termites inside the house are usually a sign the home has a termite infestation that needs attention.

Come to a termite workshop for homeowners.

“Everything Homeowners Need to Know About Termites and Termite Control” will be held Thursday, May 19, 6:30 - 9:30 p.m. Cost for this program is \$25 and includes up-to-date reference materials.

UNL faculty, Barb Ogg, Clyde Ogg and Dennis Ferraro will discuss termite biology, behavior, prevention, inspection, treatment options and effectiveness. Buzz Vance, from the Nebraska Department of Agriculture’s Pesticide Enforcement Program will discuss how education and understanding the termiticide label can help protect consumers against fraudulent practices.

Termites aren’t as much of a problem in Nebraska as compared with southern states, but this is one of the only homeowner workshops in the U.S., organized and delivered by cooperative extension personnel. Information presented is unbiased and based on results of research studies. (BPO)



What is Mange?

Most wild animals are hosts of numerous parasites, including ticks, fleas, lice and mites, that feed on blood or animal tissues. We have had calls from concerned citizens about ragged-looking squirrels that have lost large patches of fur. This is a typical sign of mange mites.

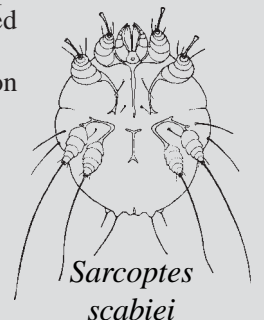
Mange is a term commonly used to describe the obvious signs of a burrowing mite infestation on an animal host. Mange mites are microscopic eight-legged arthropods, related to ticks and spiders. Each different animal species probably has some kind of burrowing mite parasite associated with it. Most mites are fairly host specific, meaning the mite variety survives best on one species of animal or closely related animals (like mice and rats). Some of these mites that infect other animals can attempt to feed on humans and non-related animals and cause some discomfort. However, the discomfort should be short-lived because these mites usually cannot establish on these other hosts.

Mange mites burrow into the skin of animals, feeding on subcutaneous tissues. The site of the infestation becomes irritated, itchy and results in scratching by the host animal. Hair loss results in a very unkempt appearance.

The human “mange” mite is caused by a mite species known as *Sarcoptes scabiei*. It produces a medical condition commonly called “scabies,” which is usually contracted from an infested person. It is highly contagious. These mites infest body areas where skin is thin, like between fingers, the bend of the knee and elbow. Elderly and babies are often more susceptible to scabies than the general population. Intense itching accompanies scabies, and scratching can result in secondary bacterial skin infections. A medical doctor must be consulted for proper diagnosis and treatment of scabies.

Dogs, cats and most domesticated animals also have mites associated with them. One particular group of mites, called cheyletiellid mites, parasitize small animals, specifically birds, cats, dogs and rabbits. They can cause itchy bites on people, including pet owners, who handle these animals. A veterinarian should be consulted for a proper diagnosis and treatment of the animal.

It is sad to see wild animals looking so ragged and pathetic, but very little can be done to help them. Control of burrowing mites would require catching the animal and treatment from a veterinarian. Like other natural afflictions, mange may be nature’s way of eliminating weak individuals, thinning populations so only the healthiest survive. (BPO)



Soybean Rust is on the Horizon Be Prepared to Scout, Assess and Plan for Management

Loren Geisler
Extension Plant Pathologist

Editor's Note: Geisler has been preparing for an outbreak of Soybean Rust in the United States for a couple of years. He toured the soybean producing areas of Brazil to learn how South American producers were coping with it and has become one of America's leading authorities on this new threat. The following information is taken verbatim from an article which appeared in a recent University of Nebraska Crop Watch Newsletter.

Soybean rust is a serious foliar disease causing millions of dollars of yield loss in soybean production areas around the world. In November 2004 it was first detected in the United States and since then has been identified in several southeastern states. The disease is not expected to have overwintered at all the sites identified last fall. The first U.S. case of soybean rust to have overwintered was reported in Florida the week of March 1. This, if it is the only location of overwintering, will supply the needed initial inoculum for the disease to spread and develop over the U.S. soybean crop.

Soybean rust, also referred to

as Asian soybean rust, is caused by *Phakopsora pachyrhizi* and is an aggressive pathogen that has spread in the past 10 years from Asia to Zimbabwe, South Africa, Paraguay, Brazil, and now the United States. Yield losses can be severe and have ranged from 10% to 80% of a field. In the last few years, Brazilian soybean producers have been significantly affected by soybean rust. In 2002-2003 they spent \$600 million for fungicide applications and in 2003-04 it's estimated they spent more than \$1 billion. USDA estimates U.S. losses could be in the range of \$640 million to \$1.3 billion in the first year and \$240 million to \$2 billion in subsequent years, depending on the severity and extent of spread.



This two-sided card, Identifying Soybean Rust, is available from the extension office or online.

I want to make note of a key point: This disease is manageable. U.S. producers will adapt to the needed management and our soybean crop will continue to be strong.

Symptoms

Soybean rust symptoms start in the lower canopy and are most commonly observed on the leaves. Lesions also can develop on petioles, pods and stems. Symptom development occurs rapidly once pod set occurs and can result in significant levels of defoliation under favorable environmental conditions. Lesions first appear as small yellow and irregularly shaped spots. As the disease progresses, lesions enlarge to 1/16- to 1/12-inch in diameter and are tan to dark reddish brown. Within each lesion are a few to several volcano-shaped uredinia (spore-producing structures). These features can only be seen under magnification (20X recommended). As rust severity increases, plants prematurely lose their leaves and commonly mature early. Lesions from soybean rust can appear similar to other foliar diseases of soybean and can be confused with brown spot and bacterial pustule. See *Identifying Soybean Rust* (Cooperative Extension EC05-1892) for more information. This I.D. card is available from local Cooperative Extension offices or online at www.aphis.usda.gov/lpa/issues/sbr/SBR_IDcard_11-04.pdf (TD)



Backlit soybean leaf showing severe soybean rust. (Brazil February 2005)

Soybean Rust Information on Lancaster Extension Web Site

The University of Nebraska Cooperative Extension in Lancaster County Web site has extensive information about soybean rust. Go to lancaster.unl.edu/ag and click on the Crops button and then on Crop Diseases. There are links to research-based information on identification, treatment and control, newsletter articles and Cooperative Extension publications. As the season progresses, this site will be continuously updated with the latest information.

Pioneer Farm Award Nominations Due May 1

The Knights of Ak-Sar-Ben Foundation and the Nebraska Association of Fair Managers are accepting nominations for the 50th annual Nebraska Pioneer Farm Awards. The program honors farm families in Nebraska whose land has been owned by members of the same family for 100 years or more. Each honoree receives an engraved plaque and gatepost marker as permanent recognition of this milestone.

If your family has owned your farm in Lancaster County for 100 years or more, consecutively, you are eligible to apply for the Nebraska Pioneer Farm Family Award. Nomination forms can be obtained by calling Deanna Karmazin at Lancaster County Extension at 441-7180 or by writing the Ak-Sar-Ben Pioneer Farm awards, 302 South 36 Street, Suite 800, Omaha, NE 68131. Applications must be received by the extension office or the Lancaster Event Center no later than May 1. Winners will be notified no later than June 1 and the award will be presented during a special ceremony at the 2005 Lancaster County Fair.

To date, over 6,000 families in 93 Nebraska counties have been honored at various county fairs. If you have any further questions regarding this award, please call the Knights of Ak-Sar-Ben office at (402) 554-9600, extension 100.

Effect of Increasing Energy Prices on Farming Costs

Tom Dorn
Extension Educator

Farm-delivered diesel prices increased from \$0.90 per gallon in the spring of 2003 to \$1.30 per gallon in the spring of 2004 to \$1.65 in the spring of 2005. What effect does this have on production costs?

To answer this question, one needs fuel consumption estimates for farm operations. If you routinely track fuel use for various tractors and combines while performing farming operations, you probably already have the information you need. Simply multiply your historical fuel consumption by the former price per gallon and by current price and compare.

Most folks don't track fuel consumption by field operation and need a research-based fuel use estimate to compute the effect a rise in price will have on overall production costs. A good reference that lists fuel use estimates is the "Minnesota Farm Machinery Economic Cost Estimates" (see footnote for Web site information). Using the fuel consumption estimates presented in the Minnesota publication, the fuel consumption estimate per hour for power units is presented in Table 1 and the estimate of fuel consumption per acre for field operations is presented in Table 2. Note: implements with a wider swath width require more horsepower overall but the horsepower hours per acre covered and, therefore, the fuel consumption per acre remain unchanged.

Table 1. Fuel costs per hour.¹

	Estimated Fuel, Gal/hr	2003 Cost/hr @ \$0.90/gal	2004 Cost/hr @ \$1.30/gal	2005 Cost/hr @ \$1.65/gal	2003-2005 Increased fuel cost, \$/hr
Tractors					
40 HP	1.8	\$1.62	\$2.34	2.90	\$ 1.28
60 HP	2.6	\$2.34	\$3.38	4.36	\$ 2.02
75 HP	3.3	\$2.97	\$4.29	5.44	\$ 2.47
105 HP MFWD	4.6	\$4.14	\$5.98	\$ 7.62	\$ 3.48
130 HP MFWD	5.7	\$5.13	\$7.41	\$ 9.44	\$ 4.31
160 HP MFWD	7.0	\$6.30	\$9.10	\$11.55	\$ 5.25
200 HP MFWD	8.8	\$7.92	\$11.44	\$14.52	\$ 6.60
225 HP MFWD	9.9	\$8.91	\$12.87	\$16.34	\$ 7.43
260 HP 4WD	11.4	\$10.26	\$14.82	\$18.88	\$ 8.62
310 HP 4 WD	13.6	\$12.24	\$17.68	\$22.51	\$10.27
360 HP 4 WD	15.8	\$14.22	\$20.54	\$26.14	\$11.92
425 HP 4 WD	18.7	\$16.83	\$24.31	\$30.86	\$14.03
Combines					
190 HP	8.4	\$7.56	\$10.92	\$13.86	\$ 6.30
220 HP	9.7	\$8.73	\$12.61	\$15.97	\$ 7.24
275 HP	12.1	\$10.89	\$15.73	\$19.97	\$ 9.08

Table 2. Fuel costs per acre for field operations.¹

Field Operation	Estimated Diesel gallon/acre	2003 Cost/acre @ \$0.90/gal	2004 Cost/acre @ \$1.30/gal	2005 Cost/acre @ \$1.65/gal	2003-2005 Increased fuel cost \$/ac
Tillage					
Field Cultivator	0.33	\$0.30	\$0.43	\$0.54	\$0.24
Tandem Disk	0.47	\$0.42	\$0.61	\$0.78	\$0.31
Tandem Disk (HD)	0.76	\$0.68	\$0.99	\$1.25	\$0.57
Planting Equipment					
Row Crop Planter	0.34	\$0.31	\$0.44	\$0.56	\$0.25
Minimum Till Planter	0.53	\$0.48	\$0.69	\$0.87	\$0.39
Grain Drill	0.49	\$0.44	\$0.64	\$0.81	\$0.37
Presswheel Drill	0.63	\$0.57	\$0.82	\$1.04	\$0.47
No-till Drill	0.81	\$0.73	\$1.05	\$1.34	\$0.61
Crop Maintenance Equipment					
Cultivator	0.46	\$0.41	\$0.60	\$0.76	\$0.35
Rotary Hoe	0.18	\$0.16	\$0.23	\$0.30	\$0.14
Boom Sprayer	0.11	\$0.10	\$0.14	\$0.18	\$0.08
Anhydrous Applicator	0.55	\$0.50	\$0.72	\$0.91	\$0.41
Stalk Shredder	0.74	\$0.67	\$0.96	\$1.22	\$0.55
Harvesting Equipment					
Mower conditioner	0.40	\$0.36	\$0.52	\$0.66	\$0.30
Hay Swather	0.35	\$0.32	\$0.46	\$0.58	\$0.26
Hay Baler PTO (twine)	0.40	\$0.36	\$0.52	\$0.66	\$0.30
Round Baler (1500 lb)	0.77	\$0.69	\$1.00	\$1.27	\$0.58
Combine (various heads)	2.00	\$1.80	\$2.60	\$3.30	\$1.50

¹ Fuel consumption information in Tables 1 and 2 taken from "Minnesota Farm Machinery Economic Cost Estimates" (FO-6696), by William Lazarus, University of MN and Roger Selley, University of Nebraska. Links to the 2000, 2001, 2003 and 2004 versions of this publication can be found on the Lancaster County Extension Web site - Machinery Page at lancaster.unl.edu/ag/crops/machine.htm

Buying High-Quality Trees

When you buy a high-quality tree, plant it correctly, and treat it properly, you and your tree will benefit greatly in many ways for many years.

When you buy a low-quality tree, you and your tree will have many costly problems even if you take great care in planting and maintenance.

What Determines Tree Quality?

A High-Quality Tree Has:

- An adequate-sized root ball. If possible, check to ensure there are enough sound roots to support healthy growth.
- A trunk free of mechanical wounds and wounds from incorrect pruning.
- A strong form with well-spaced, firmly-attached branches.

A Low-Quality Tree Has:

- Crushed or circling roots in a small root ball or small container.
- A trunk with wounds from mechanical impacts or incorrect pruning.
- A weak form where multiple stems squeeze against each other or where branches squeeze against the trunk.

Any of these problems alone or in combination with the others will greatly reduce the tree's chances for a long, attractive, healthy and productive life.

When buying a tree, inspect it carefully to make certain it does not have problems with roots, injuries or form. (Remember "R.I.F." It will help you remember Roots, Injuries and Form.)

Here are some details on potential problems and some other considerations that you should be aware of when buying a tree.

Root Problems

Roots on trees for sale are in three categories:

1. Bare roots, no soil; usually on small trees.
2. Roots in soil held in place by burlap or some other fabric. The root ball may be in a wire basket.
3. Roots and soil in a container.

BARE ROOT STOCK —

Bare roots should not be crushed or torn. The ends of the roots should be clean cut. If a few roots are crushed, re-cut them to remove the injured portions. Use sharp tools. Make straight cuts. Do not paint the ends. The cuts should be made immediately before planting and watering.

ROOT BALLED STOCK —

You should be able to see the basal trunk flare. The flare is the spreading trunk base that connects with the roots. Root balls should be flat on top. Roots in soil, in round bags, often have many major woody roots cut or torn during the bagging process.

The diameter of the root ball should be at least ten to twelve times the diameter of the trunk as measured 6 inches above the trunk flare.

Roots should not be crushed or torn. After placing the root ball in the planting site, cut the cords and carefully pull away the burlap or other fabric. Examine any roots that protrude from the soil. If many roots are obviously crushed or torn, the tree will have severe growth problems. If only a few roots are injured, cut away only injured portions. Use a sharp tool. Use care not to break the soil ball about the roots.

Cut the wire on wire baskets. Place the basket into the planting site. Cut away at least the top two wires without disturbing the root ball. Inspect exposed roots for injuries. If many roots are injured, the tree may have serious growth problems.

CONTAINER STOCK — Roots should not twist or circle in the container. Remove the root ball from the container. Inspect the exposed larger roots carefully to see if they are twisting or turning in circles. Circling roots often girdle and kill other roots. If only a few roots are circling, cut them away with a sharp tool.

Trunk flare should be obvious. Be on alert for trees planted too deeply in containers or trees "buried" in fabric bags. As with root balled stock, you

should be able to see the basal trunk flare with container grown plants.

Injuries

Beware of injuries beneath trunk wraps. Trunk wraps may hide wounds, incorrect pruning cuts and insect injuries. Never buy a tree without thoroughly checking the trunk. If the tree is wrapped, remove the wrap and inspect the trunk for wounds, incorrect pruning cuts and insect injuries. Wrap can be used to protect the trunk during transit but should be removed after planting.

Incorrect pruning cuts are major problems. Incorrect pruning cuts that remove or injure the swollen collar at the base of branches can start many serious tree problems, cankers, decay and cracks.

Incorrect pruning cuts that leave branch and leader stubs also start disease and defect problems. Do not leave stubs.

A correct pruning cut removes the branch just outside of the collar. A ring, or "doughnut", of sound tissues then grows around the cut. Do not make cuts flush to the trunk. The closing tissues may form only to the sides of the flush cuts. Trunk tissues above and below flush cut branches often die. When the heat of the sun or the cold of frost occurs, cracks or long dead streaks may develop above and below the dead spots.

Form

Good, strong form or architecture, starts with branches evenly spaced along the trunk. The branches will have firm, strong attachments with the trunk.

Squeezed branches with sharp branch angles signal problems. Weak branch unions occur where the branch and trunk squeeze together. As the squeezing increases during diameter growth, dead spots or cracks often begin to form below where the branch is attached to the trunk. Once this problem starts, the weak branch attachment could lead to branches cracking or

breaking during mild to moderate storms.

When several branches are on the same position on the trunk, the likelihood of weak attachments and cracks increases greatly. As the branches grow larger and tighter together, the chances for splitting increase.

Avoid trees with two or more stems squeezing together. As stems squeeze together, cracks often form down the trunk. The cracks could start from squeezed multiple leader stems, or where the two trunks come together.

If you desire a tree with multiple trunks, such as a birch clump, make certain that the trunks are well-separated at the ground line.

Remember, trunks expand in diameter as they grow. Two trunks may be slightly separated when small; but, as they grow in girth, the trunks will squeeze together.

Look for early signs of vertical trunk cracks. Examine branch unions carefully for small cracks below the unions. Cracks are major starting points for fractures of branches and trunks. The small cracks could be present for many years before a fracture happens. Always keep a close watch for vertical cracks below squeezed branches and squeezed trunks.

Corrective pruning helps. If your tree has only a few minor problems, corrective pruning may help. Start corrective pruning one year after planting. Space the pruning over several years.

Remove broken or torn branches at the time of planting. After a year, start corrective pruning by removing the branches that died after planting.

Trees Have Dignity Too

Most nurseries produce high-quality trees. When you start with a high-quality tree, you are giving that tree a chance to express its dignity for many years.

WATERWHEEL

Conserving Water in the Landscape



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

Traditionally, beauty and utility have been the purposes of home landscapes. Because water — in both quality and quantity — is becoming a limited resource, conservation has become a third goal. The homeowner can achieve all three by using careful, comprehensive planning.

You can reduce water consumption by 40 to 80 percent by following an appropriate sequence in designing and managing your site. This includes: a well-planned design, use of adapted, drought-tolerant plants, proper irrigation, soil improvement, mulches and appropriate, timely maintenance.

Careful planning must precede construction and planting. First, do a site analysis. Test your soil. Record wind speed and direction. Record sun and shade patterns. Record the pattern of water movement. Note the existing slope of the land. Identify and learn the characteristics of existing plants.

This information will influence how you select and place plants. It also will guide you into thinking carefully about where to place the patio, the possible need for a windbreak, and the benefits of soil modification and land reshaping.

Historically, up to 50 percent of the water used at a residential site is applied to the landscape. A significant part of this water is intended for turf. Consequently, the success of your conservation plan will depend on the characteristics of the grasses in your lawn and the efficiency of your irrigation. (DJ)

SHADE

continued from page 1

growing season, most perennials only flower for a few weeks. When not in bloom, though, their foliage still plays an important part in the shade garden, adding variety in form and texture as well as in shades of green. Flowers often are followed by interesting seed pods or bright berries. Some perennials, such as hosta lilies, usually are planted for their attractive leaves rather than for their flowers, which in most species are not particularly colorful or showy. Ferns don't bloom at all, but there's hardly a shady garden that wouldn't be enhanced by their grace and beauty.

In dense shade and problem areas where it's hard to tend plants, there are several perennial groundcovers that

can be used effectively. Most evergreen groundcovers like Japanese spurge and periwinkle require the insulation of a good snow cover to carry them through the winter. Other groundcovers such as wild violets, lilies of the valley, goutweed and spotted deadnettle are more durable. Many of these tough groundcovers can survive in a root-filled location that would be impossible for annuals or other perennials.

Herbs and Vegetables

Some herbs, particularly those in the mint family, seem to do quite well in a shaded area, though they prefer light rather than heavy shade. Their requirements also include adequate moisture and relatively fertile soil, which rules out locations where tree root



Annuals add seasonal color.

competition would be a problem.

Vegetables all do best in bright sunlight from early morning to nightfall, but a few of the leafier types can be tried in light or partial shade. These include plants grown for greens rather than for fruits or roots. Vegetables such as leaf lettuce, spinach, Swiss chard, kale, mustard greens and beet greens will be thinner leaved and less robust when grown in light shade rather than full sunlight, but they will be tasty even

though their growth is not luxurious.

A final suggestion for making use of the shady garden concerns putting houseplants out for the summer. Nearly all indoor foliage plants will benefit from outdoor growing conditions if they are protected from the hot midday sun, in such locations as a spot under a tree or on the north side of a house. Pots may be sunk into the soil to conserve moisture, but with frequent watering, they also could be set right on the soil surface, an ideal way to make use of those shade areas that are compacted with tree roots.

No doubt you'll choose a combination of different types of plants to create the effects you desire in the shady areas of your yard. Use your imagination and create something others will envy.



Alice Henneman, RD, Extension Educator

Some of us grew up hearing, "If you don't clean your plate, you can't have any dessert." Now we know if portions are too large, we may be wise to save some for another meal. So where does that leave dessert?

A dessert typically is defined as a dish or course served at the end of a meal. Many definitions say it is usually, although not always, a sweet dish. With the 2005 Dietary Guideline's recommendation to "Get the most nutrition out of your calories," can we have our dessert and eat it, too?

Baseball legend Yogi Berra is noted for saying, "When you come to a fork in the road, take it." Three food groups encouraged by the new 2005 Dietary Guidelines are fruits, calcium-rich foods and grains (especially whole grains). The Guidelines also recommend preparing foods and beverages with little added sugars.

When you're at the fork in the road regarding desserts, grab your fork or spoon — and try some of these recipe ideas.

Cocoa-Berry Yogurt Tarts

(Makes 6 servings • Prep time: 10 minutes)

- 1-1/2 cups low-fat vanilla yogurt**
- 1-1/2 cups reduced-fat ricotta cheese**
- 2 tablespoons sugar**
- 2 tablespoons unsweetened cocoa powder**
- 6 graham cracker tart shells**
- 3/4 cup strawberries, sliced (raspberries or blueberries also can be used)**

DIRECTIONS: Mix yogurt, ricotta, sugar and cocoa powder thoroughly with whisk until creamy. Spoon 1/6 mixture into each tart shell and top with sliced strawberries.

Nutritional Facts Per Serving: Calories: 260; Total Fat: 9 g; Saturated Fat: 3 g; Cholesterol: 20 mg; Sodium: 250 mg; Calcium: 20% Daily Value; Protein: 9 g; Carbohydrates: 37 g; Dietary Fiber: 3 g
Per serving: 1/8 fruit serving; 3/4 dairy serving; 1 teaspoon added sugar; (Note: 1/2 cup ricotta cheese equals 1 dairy serving)

Recipe courtesy of 3-A-Day of Dairy (www.3aday.org) and provided by Jennifer Meyer, RD, LMNT, Program Director, Dairy Council of Nebraska.



ALICE'S TIP:

This recipe also tastes delicious spooned directly into a serving dish and topped with berries. Dress it up for an elegant meal by serving it in a fancy glass!

Fruit Slush

(Makes 4 servings)

- 3 cups frozen fruit (such as frozen strawberries, blueberries, raspberries or melon)**
- 1 teaspoon vanilla extract**
- 1 cup fat-free milk or nonfat plain yogurt**
- Sweetener as needed: about 1 to 3 tablespoons sugar or the equivalent in artificial sweetener**

DIRECTIONS: Blend first three ingredients until smooth. Sweeten to taste.

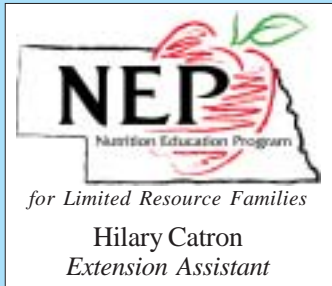
Source: Courtesy of the National Cancer Institute's Eat 5 to 9 A Day program at www.5aday.gov



ALICE'S TIPS:

1. This is a great recipe for using odds and ends of frozen fruit. The slush in the picture includes raspberries, strawberries and blueberries.
2. It may be difficult to blend very large frozen strawberries in some blenders. You may be more successful if you thaw the strawberries slightly until you can cut them into smaller pieces.
3. This slush is best if served immediately. It makes a great dessert and can be quickly assembled just before serving.

NEP Partners with LPS to Teach Nutrition in Teen Parenting Classes



Hilary Catron
Extension Assistant

This winter, Cooperative Extension's Nutrition Education Program (NEP) began a new venture with Lincoln Public High Schools to teach nutrition as part of teen parenting classes at North Star, Lincoln Northeast, Lincoln Southeast, Bryan Community and Lincoln High School. Students are pregnant teens and teen parents (male and female).

NEP staff visit each high school for one month to present lessons on:

- Food Guide Pyramid
- Five Food Groups
- Meal Planning
- Shopping
- Fast Food
- Feeding Infants and Children
- Physical Activity
- Food Safety
- Food Preparation

Most lessons are taught using a game or

activity rather than a lecture format. Students have commented the games are a lot of fun and they learn a lot about nutrition.

One activity involves students recording everything they eat during one day and then entering the information into the USDA's Interactive Healthy Eating Index online. This index gives students a visual picture of their diet. They then set a personal dietary goal to work on over the next month. One student whose diet consisted of three sodas and one taco at the start of the month, was eating two good meals a day by the end of the

nine lessons.

Another successful activity is the 10,000 Steps Walking Program. Every student receives a pedometer and walking log to keep track of their daily activity. Many teachers have commented students are still recording their activity up to two months after completing the NEP program.

The last nutrition lesson is NEP Graduation Day. The students participate in a food preparation activity and each participant receives a cookbook and graduation certificate. Graduates who participate in the Women, Infants and Children program (WIC) also receive nutrition education credit through their local WIC agencies.

The beneficial results of the NEP/LPS partnership are immediate. Some comments made by students after completing the program include. "I now try to drink more milk and eat more fruit." "I drink less pop and eat less candy." "I no longer thaw my meat on the counter." "I try to walk 10,000 steps each day."



The USDA's Interactive Healthy Eating Index is online at <http://209.48.219.53>

Enjoy Beef Nutrition during May, National Beef Month

As the weather starts warming up, we start thinking of cooler, lighter foods. Consider a cooling main dish salad topped with lean strips of protein- and nutrient-rich beef.

"A total of 19 cuts of beef qualify as 'lean' under government labeling guidelines, according to the USDA Nutrient Database," says Kaiti Roeder, Registered Dietitian and Director of Consumer Affairs for the Nebraska Beef Council.

These leanest cuts have, on average, only one more gram of saturated fat than a skinless chicken breast (per 3-ounce serving). The 19 leanest cuts are eye round, top round steak, chuck mock tender steak, bottom round, top sirloin steak, 95% lean ground beef, brisket (flat half), shank crosscuts, chuck shoulder roast, chuck arm pot roast, chuck shoulder steak, top loin (strip) steak, flank steak, ribeye steak (small end), rib steak (small end), tri-tip, tenderloin and T-bone steak.

If you're in the store and aren't sure what a lean cut is, Roeder advises you can be assured the cut is lean if it contains the word "loin" or "round."

Here's a salad idea from Roeder, courtesy of the Nebraska Beef Council to get you started. For more beef recipes from the Nebraska Beef Council, visit www.nebeef.org and search for recipes through an advanced recipe search.

Mexican Beef Salad

(Serves 4)

- 1 pound lean ground beef (95% lean)**
- 1 small onion, chopped**
- 2 teaspoons chili powder**
- 1/2 teaspoon ground cumin**
- 1/2 teaspoon garlic powder**
- 5 cups thinly sliced romaine lettuce**
- 1-1/2 cups (about 8 ounces) grape tomatoes or cherry tomatoes, halved**
- 1/2 cup drained, canned no-salt-added black beans, rinsed**
- 3 tablespoons canned chopped mild green chiles, rinsed and drained**
- 1/3 cup shredded fat-free or low-fat Cheddar cheese**
- 2 tablespoons snipped fresh cilantro**

In a large nonstick skillet, brown the ground beef and onion over medium heat for 8 to 10 minutes, or until the beef is not pink. Pour off and discard the drippings. Sprinkle with the chili powder, cumin and garlic powder. Cook for 2 to 3 minutes.

Meanwhile, prepare the dressing (recipe follows).

To serve, place the romaine lettuce on a large platter. Top the romaine lettuce with the tomatoes, beans, green chiles, and beef mixture, in that order. Sprinkle with the Cheddar and cilantro. Serve with the dressing.

Spicy Ranch Dressing

- 1/2 cup fat-free or light ranch dressing**
- 3/4 teaspoon ground cumin**
- 1/8 teaspoon red hot-pepper sauce**

In a small bowl, whisk together the dressing ingredients.

Nutrients per serving: Calories 292; Total Fat 7.9 g; Saturated Fat 3.3 g; Polyunsaturated Fat 0.9 g; Monounsaturated Fat 3.1 g; Carbohydrates 24 g; Fiber 5.1 g; Cholesterol 80 mg; Protein 32 g; Sodium 456 mg; Niacin 7.1 mg; Vitamin B6 0.6 mg; Vitamin B12 2.2 mg; Selenium 19 mg; Zinc 6.9 mg; Iron 4.8 mg. (AH)

ACREAGES ON THE INCREASE

According to the 2025 Lincoln City/Lancaster County Comprehensive Plan, "Rural Lancaster County is in transition from an area of predominantly agricultural uses to an area which includes more residential uses." Acreages are generally single-family homes on lots of three to five acres, but can be on lots up to 20 acres. The population living on acreages in the year 2000 was calculated at about 15,700 and is estimated to grow to about 22,800 by the year 2025 and exceed 33,000 by the year 2050.

Rural Lancaster County is Unique Mix of Agriculture and Acreages

Gary C. Bergman
Extension Educator

Lancaster County's rural population is a unique mix of commercial and residential farms engaged in various agricultural enterprises. Lancaster County leads the state in the number of farms with nearly 1,600 farm units (to be counted as a farm by the Census, the owner must report at least \$1,000 in annual farm-related income). Interspersed amongst the commercial farms are approximately 4,000 acreages which are essentially residential in nature.

There are over 440,000 acres of farmland in the county (making the average farm size about 280 acres). The 2002 Census of Agriculture reported total livestock sales of \$22 million and estimated the market value of all agricultural production crops at over \$71 million. Other farms produce specialty crops and animals, such as fruits and vegetables for farmers market and U-Pick trade, Christmas trees and nursery stock, bison, llamas, emus and ostriches. Raising and boarding riding horses and other domestic animals also contribute to the animal industry in the county. The value of these enterprises are not reported.

If you are fortunate enough to live on an acreage for the benefits it provides in terms of lifestyle, remember you have chosen to live within a thriving \$100 million industry in this county. If you happen to be a commercial producer, you are likely farming next to someone's residence. It is precisely this duality that contributes to the uniqueness of Lancaster County.

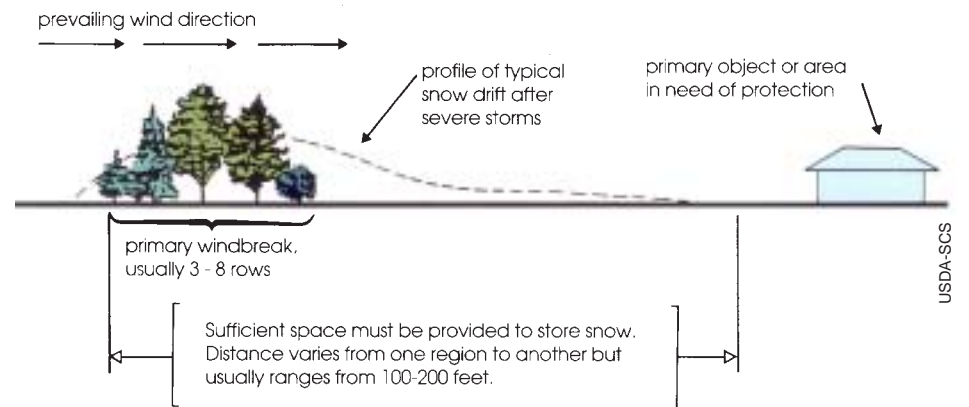
Designing a Windbreak

Don Janssen
Extension Educator

The best designs for windbreaks depend on their intended purpose and the characteristics of the site where they will be located.

Windbreaks can be planted to enhance wildlife, provide snow protection for humans and livestock, and provide wind protection to dwellings in both winter and summer. Windbreaks also prevent soil erosion caused by wind and reduce water runoff from agricultural lands. Typical windbreaks consist of conifers, deciduous trees and shrubs.

Conifers provide dense foliage to reduce wind speed. Tall deciduous trees extend the area of wind protection with their height. Shrubs trap snow, add beauty to the windbreak and provide



A basic windbreak consists of three to eight rows of both conifers and deciduous trees. Conifers or shrubs should be located on the windward side with the tall deciduous species in the center. A row of shrubs on the interior side completes the design.

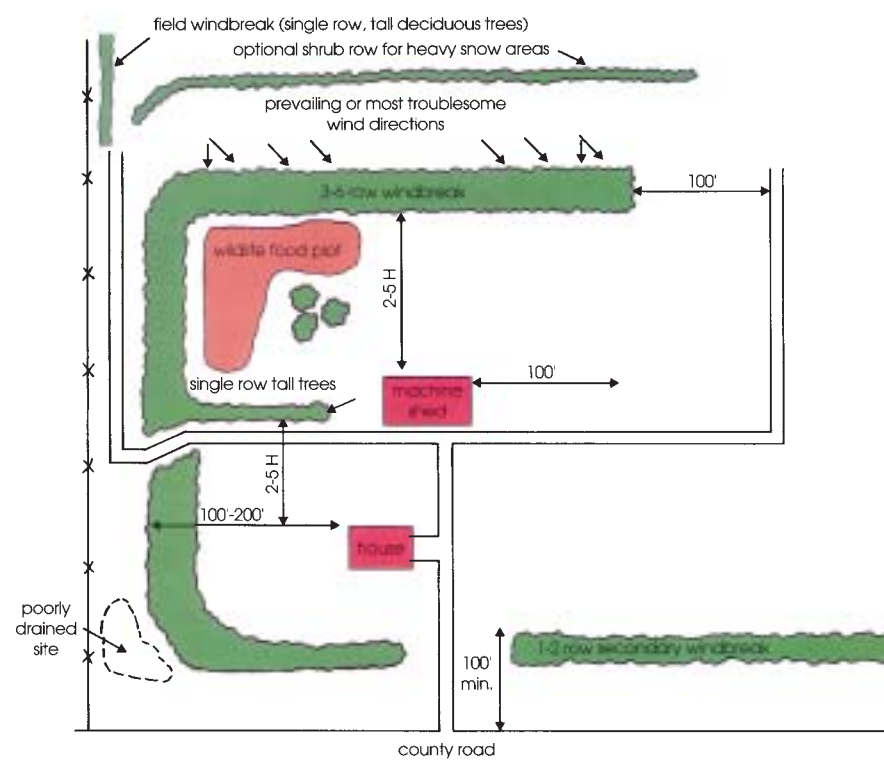
wildlife habitat.

The area protected by a windbreak is determined by the windbreak's average height. Generally, windbreaks

protect an area 10 to 15 times the average height of the trees. Windward tree rows should be located approximately 150 to 250 feet upwind of the protected area in order to allow for snow deposition.

Windbreaks are most effective when planted perpendicular to prevailing winds. Windbreaks for winter protection should be located on the north and west side of the farmstead. Summer wind protection is provided by planting on the south and east sides of the farmstead. The number of tree rows and the plant species used will be determined by the intended purposes of the individual windbreak and the amount of space available. Typical windbreaks include two or more rows of conifers and one or more rows each of deciduous trees and shrubs. Windbreaks with two legs or one planted on two sides of the protected area will provide better protection than a planting on one side only.

Assistance with windbreak planning and design is available from Nebraska Forest Service District Foresters, Natural Resource Conservation Service offices, Natural Resource District offices and local Cooperative Extension offices. For more information on planting a windbreak, consult NU Cooperative Extension NebGuide (G-1304) "Windbreak Design," or (EC 1763) "How Windbreaks Work."



The windbreak should be oriented perpendicular to the prevailing wind directions. Because of wind turbulence around the end of a windbreak, the windbreak should extend 100 to 200 feet beyond the area needing protection.

Surrounded by Pest Habitat, Acreages Can Be Plagued by Pest Problems

Barb Ogg
Extension Educator

The list of pests plaguing acreage owners is long. Millipedes, spiders, crickets, ladybeetles, flies and mice invading homes. Ticks and chiggers biting people so they can't enjoy the outdoors. Rabbits, grasshoppers, deer, and voles eating newly planted vegetation. And, snakes basking in the sun, just doing what snakes do.

Why are Pest Problems Greater for Acreage Owners?

The quick answer is there's more "habitat" in rural settings compared with city living. Habitat is defined as the physical location and conditions where a

community of organisms live. A single habitat can support many species.

Let's look at this more closely. If you drive through a city neighborhood, you see rows of houses on relatively small patches of land (i.e., lots), each house surrounded by a moat of grass, typically bluegrass or fescue, nicely mowed to conform with city codes. Lawns are separated by driveways, sidewalks and streets. Urban areas are made up of isolated patches of habitat. Ecologists call this patchiness, habitat fragmentation, which can support relatively small populations of animals.

In contrast, in rural areas, you see a house on a much larger patch of land (3-20 acres), next to even larger patches of land (fields). This habitat is not nearly as fragmented as an urban

setting. The greater amounts of vegetation and land creates more habitat for more pest animals, whether they be small arthropods (insects, ticks and spiders) or vertebrates (mice, deer, rabbits).

When a new home is built on an acreage, it is placed in the middle of an area where these animals are thriving. Normal movement of animals will include movement toward the house, and, if there are small entry points, some will probably get into the house. Over time, if a sizable lawn is established, the problem will abate somewhat, but there will still be more habitat for animals than in the city — simply because of the expanse of fields surrounding the acreage.

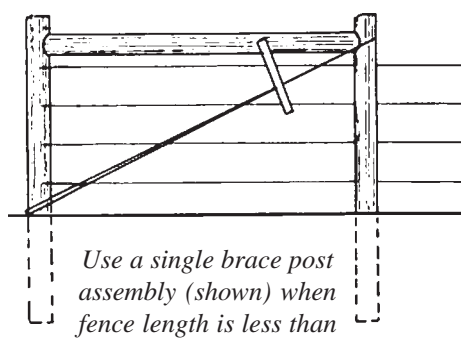
see PESTS on next page

Wire Fences for Livestock

Tom Dorn
Extension Educator

The basics of building a wire fence for livestock are:

- 1) Clear away brush and trees that would interfere with building the fence.
- 2) Establish corner post/brace assemblies at the corners of the property and where gates are wanted.



Surveyors use a measure of distance called a rod. A rod is 16.5 feet. Barbed wire comes in 80 rod (quarter mile) spools. One should not attempt to stretch more than 80 rods of wire in one pull. On longer runs, a puller assembly should be installed so each half of the fence can be stretched separately.

- 3) Stretch a wire between the corners to use as a guide for installing line posts. Line posts can be wooden (usually treated to resist insects and rot) or they can be made of steel. Corner posts should be made of wood or heavy



walled pipe to withstand the tension placed on them by the tightly stretched wires. Line posts can be either wooden or steel or a combination of wood and steel posts is sometimes used. A common combination is to alternate wood, steel, wood, steel. Wooden line posts can be as small as four inches in diameter. Line posts are commonly spaced a rod (16.5 feet) apart. This is about the right spacing to support a wire fence and it also makes estimating the number of posts required easy since 80 rods equal a quarter mile.

3) The final step is to stretch and fasten the wire to the posts. The number of wires needed depends on the type and size of animals to be fenced in. Three to five, most commonly four, barbed wires are used for large animals. For hogs and sheep, a woven wire topped by one or two barbed wires, respectively, is needed. If building a combination fence to hold any type of livestock, woven wire topped by up to three barbed wires is sometimes used. When fastening the wires to the fence posts, it is easier if one works from the top down, stretching and fastening one wire at a time. Staples are used to hold wire to wooden posts. Always use at least 1.5 inch staples and leave the staple a little bit loose so you don't pinch the wire. Galvanized wire fasteners are made for each specific type of steel post. These save considerable time in the field compared to using a spool of heavy gauge wire that one must cut and bend to fit.

For more information on constructing wire fences go to lancaster.unl.edu/ag/livestok/fencing.htm

well-kept lawn will reduce the number of insects. Decrease habitat further by creating a vegetation free zone of about 18" adjacent to the foundation.

2. Because lights attract night flying insects that serve as food for spiders, choose carefully what type of exterior lighting you install. Use yellow or sodium vapor lights near the home.

3. Spend as much time as needed to seal all your home's entry place to reduce cracks and crevices for overwintering pests, like spiders, multicolored Asian ladybeetles, face and cluster flies. Don't forget about attic vents — flies and ladybeetles can enter attics and upper stories. Sealing will also help reduce crickets and millipedes in the home.

4. Make sure there aren't rock piles or junk on the property that will provide harborage for rabbits, mice, snakes. Wood piles left for many seasons is food for termites and habitat for carpenter ants.

5. Outbuildings will shelter overwintering rodents that may nest in cluttered areas or stored vehicles. Starting in late summer, use rodenticides in outbuildings to prevent rodent populations from increasing. Animal feed should be placed in rodent-proof containers and the area kept free of food.

6. Plant trees and shrubs that deer and other herbivores don't like to eat. Assume that what you plant will be eaten by something and fence small

Fencing for Appearance

Shawn Shouse
Iowa State University Extension Ag
Engineering Specialist

Fences serve many purposes in the landscape. They may be built to contain or exclude animals, to mark property boundaries, to provide privacy or to add beauty to the property. When the primary purpose is appearance, board or rail fences often are chosen.

For small enclosures such as yards, picket fences or vertical board fences provide privacy and wind protection. For larger enclosures such as pastures

or entire properties, horizontal board or rail fences are more practical and economical.

The common horizontal wooden fence uses three or four boards (1" x 6" lumber) nailed or screwed to wooden posts every 8 to 10 feet. This fence adds striking contrast and definition, especially when painted white. The boards may be parallel horizontal or arranged in decorative "crossbuck" patterns.

Rail fences consist of heavy horizontal rails that generally have their ends chiseled down and inserted into holes in the posts. The rails may be

round or rectangular in section, with smooth or rough split surfaces.

Livestock pressure and cribbing (biting) of the wood can be reduced by placing one or more electric wires on the inside of the board or rail fences.

Wood fences can be painted, stained or left to weather to a natural wood color. Woods with natural decay resistance such as cedar, redwood and hedge (Osage orange) may be used without treatment. Other woods must be painted or treated with preservatives. Posts must be naturally decay resistant or pressure treated with preservatives and rated for permanent ground contact (preservative retention of 0.4 to 0.6 pounds per cubic foot of wood).

An alternative to painted wood is vinyl fencing. Rails and posts of polyvinyl chloride (PVC) plastic require no painting, but may require occasional washing to remove mildew and dirt. They are highly resistant to decay, but don't have the strength or stiffness of



wood. Flexible vinyl fencing uses high-tensile wires encased in a flexible PVC jacket that looks like a thin board. The resulting fence looks like a board fence at a lower cost.

White board fences look great when they are new and straight, but show the slightest imperfections. Be prepared to straighten leaning posts or replace warped rails. Painted fences will require frequent touch-up.

Preventing Rabbit Damage in Your Yard

Eastern cottontail rabbits are common in Lancaster County. These rabbits can cause damage any time of year.

For the gardener, the most permanent solution is to build a rabbit-proof fence around your garden. A one-inch mesh fence of poultry netting (chicken wire) is suitable. You might also try a two-foot high fence made of poultry netting and 3/8-inch fence rods spaced at three feet apart. For about \$50 (2003 prices), you can protect a 25 x 50 foot garden space.

For the owner of a perennial flower bed, the best approach may be to use motion-activated water sprays or a vigilant dog during the day to distract rabbits. You might also use a low, aesthetic plastic-mesh fence around flowers to protect the emerging blossoms. Keeping the soil wet may also repel rabbits from gardens or flower beds.

If you have young trees and shrubs in a backyard, consider low fences around clusters of plants, individual tree wraps or tree wraps incorporated with chemical repellents. Be sure to plan ahead in the event we have a winter with deep snow cover — you may have to extend the height of your fences.

Or, consider keeping rabbits out of your entire backyard. A wood privacy fence or chain link fence will not keep rabbits out of your yard. However, one-inch hardware cloth or hail screen added to the bottom two feet of your existing fencing creates an effective perimeter fence for your entire yard.

—By Soni Cochran, Extension Associate



A rabbit fence added to an existing fence.

PESTS

continued from preceding page

Another reason for why pests are more of a problem on acreages is many pests thrive in rural settings. Those pests may be associated with livestock and wild animals (flies and ticks) or specific conditions found abundantly in rural areas. Grasshoppers, millipedes, crickets, ladybeetles, chiggers, mice, rabbits and deer have specific requirements often found in greater abundance in rural areas. Rural homeowners may also have a pond or water feature which increase habitat for some pests.

A third reason is that some pests, like face and cluster flies, multicolored Asian ladybird beetles and mice seek overwintering shelter and a home with hiding places allows them to survive through our cold winters. Because of the relative abundance of these pests in rural areas and relatively few hiding places, rural homes are often inundated by these pests in the fall.

And finally, many acreage owners are unprepared for predatory animals, like coyotes, owls and hawks that are attracted to acreages where they kill livestock.

Minimizing Pests

1. Decrease habitat by creating more uniformity surrounding the home. Establishing and maintaining a

trees/shrubs/flower bulbs/garden areas to prevent damage. Some small mobile herbivores, like grasshoppers, will be difficult to deal with.

7. If you have animals, regularly clean up waste/feed that attract flies, rodents and birds.

8. Remember that mosquitoes breed in water, including barrels, water troughs, a pond or lagoon. Ponds

provide water for deer and attract Canada geese. Small garden ponds attract snakes.

9. If you have confined pets or livestock, be aware that they may be easy pickings for predators, including coyotes, hawks and owls, racoons, opossums and others. Livestock will also attract rats, which may be very difficult to eliminate once established.



Black-eyed Susan



Butterfly Milkweed



Purple Coneflower



Spreading Cotoneaster



Gayfeather

Hardy Plants for Acreage Landscapes

Are you trying to raise plants on your acreage and not having much luck? You are not alone. Your landscape plants have a lot of obstacles against them. Drought, rabbits, deer, the list goes on and on. Here is a list of plants drought tolerant once they are established and less likely to be eaten by our wildlife friends. (MJF)



Potentilla



Bridal Wreath Spirea

COMMON NAME	SCIENTIFIC NAME	PLANT TYPE	FLOWER COLOR	BLOOM TIME	HEIGHT	LOCATION
Barberry, Japanese	Berberis thunbergii	Shrub	Yellow	May	4–6'	Sun
Beebalm	Monarda fistulosa	Perennial	Lavender	June–Aug	24"	Sun to part shade
Black-eyed Susan	Rudbeckia fulgida	Biennial or short lived perennial	Yellow, brown center	July–Aug	24"	Sun
Blanket Flower	Gaillardia aristata	Perennial	Red with yellow	June–Aug	18"	Sun
Boltonia	Boltonia asteroides	Perennial	White	Aug–Oct	48"	Sun to part shade
Butterfly Milkweed	Asclepias tuberosa	Perennial	Orange	July	24"	Sun
Coneflower, Purple	Echinacea purpurea	Perennial	Purple	July–Aug	36"	Sun
Coreopsis	Coreopsis lanceolata	Perennial	Yellow	June–Aug	24"	Sun
Cotoneaster, Spreading	Cotoneaster divaricatus	Shrub	Rose	May	5–6'	Sun to part shade
Dogwood, Redosier	Cornus sericea	Shrub	White	May	8–10'	Sun to part shade
Gayfeather, Rough	Liatris aspera	Perennial	Deep purple	Aug–Sept	36"	Sun
Gayfeather	Liatris spicata	Perennial	Purple	Aug–Sept	18–24"	Sun
Honeylocust	Gleditsia triacanthos	Tree	Greenish yellow	May	40–50'	Sun
Lilac, Common	Syringa vulgaris	Shrub	White, Pink, Purple	May	8–15'	Sun
Potentilla	Potentilla fruticosa	Shrub	Yellow	June–Oct	2–4'	Sun
Sedum, Tall	Sedum telephium	Perennial	Rose to salmon	Aug–Oct	18"	Sun
Spirea, Bridal Wreath	Spiraea prunifolia	Shrub	White	May	6–10'	Sun
Spruce, Colorado Blue	Picea pungens	Tree			40–60'	Sun
Sumac, Staghorn	Rhus typhina	Shrub	Greenish yellow	July–Aug	15–20'	Sun
Wormwood	Aartemisia absinthium	Perennial	Gray	July–Aug	24–36"	Sun
Yucca	Yucca filamentosa	Perennial	Creamy white	June–Aug	36"	Sun



Colorado Blue Spruce



Staghorn Sumac

Septic Tanks Must Be Pumped By Certified Professionals

Sharon Skipton
Extension Water Quality Educator

It is illegal for anyone to pump septic tanks, including homeowners

pumping their own tank, unless they are certified by the Nebraska Department of Environmental Quality (NDEQ). Septage that is improperly handled and applied can be a public health hazard due to the pathogens it contains, and can be harmful to the environment if pathogens, organic matter or nutrients enter lakes, streams or groundwater. There are also Federal regulations and record keeping requirements for the proper disposal, including land application, of septage.

The Private On-site Wastewater Treatment System Contractors Certification and System Registration Act requires anyone who works on a septic system to apply to NDEQ to become

certified to perform the work. The requirement for certification includes pre-installation tasks such as doing a site evaluation, a soil evaluation, or a percolation test. It also covers all aspects of working on a system including designing, installing, inspecting, repairing, or altering. And, it includes pumping and disposal of the septage.



If a homeowner wants to pump a tank, including his or her own, he or she must be certified. Individuals pumping a tank without proper certification would be in violation of NDEQ regulations and subject to enforcement action including potential fines.

Hiring a certified professional to pump a septic tank is the best option available for most homeowners. NDEQ has posted a list of certified professionals on their Web site at www.deq.state.ne.us. For more information, contact NDEQ at 471-2186.

Staying Connected in the Country

For people who live in the country, options for staying connected in a digital age may be limited and/or more expensive than if you lived somewhere with a denser population.

INTERNET—Dial-up connections are readily available, but finding an Internet Service Provider (ISP) with a local number may be more of a challenge. Distance may also play a factor in the quality of connection you may get once you set up your account.

Broadband options are usually not as varied also. Cable often does not extend past city limits. A Digital Subscriber Line (DSL) from the phone company is limited by the number of 'wire miles' a subscriber is located from the central office that serves your phone. Point-to-point wireless may be available. This type of connection works much like a broadcast television station, but the communication is two-way. An external, directional antenna is required. Connections via satellite are literally available anywhere, but are two to three times more expensive

than wired broadband services.

For more information, look in the yellow pages of your phone book under Internet – Access Providers or contact your local cable, satellite or phone company.

CELL PHONE—While signing up for cell phone service may be as easy as in the city, the quality of service may not be as homogeneous. Generally, cell tower concentrations mimic population densities, providing service in rural areas that is sometimes described as 'hill-top cellular.'

ELECTRICAL RELIABILITY—Electrical service to power your equipment may not be as reliable in the country. A range of devices that can prevent digital disaster start with an Uninterruptible Power Supply (UPS) and end with a portable electric generator. A UPS is a battery back-up you can purchase separately to power your computer or other devices for a short time if the power goes out. Another option would be to use a laptop, most of which have a built-in battery.

—By Jim Wies,
Extension Assistant

Acreages Can Offer 4-H Families “Room to Grow”

Vicki Jedlicka
Extension Assistant

The University of Nebraska Cooperative Extension 4-H Youth Development program offers more than 150 project areas. Youth can choose which, and how many, projects they participate in. Some projects take more resources than others.

Acreages offer 4-H families a range of resources. Land is the primary one, providing space to raise animals, plant larger gardens and for other needs. In Lancaster County, acreages provide country living within driving distance of city opportunities.

Here is a look at two Lancaster County 4-H families living on acreages.

Henshaw Family — South of Lincoln

Emily Henshaw’s 4-H projects take up a lot of space: 10 dairy goats (including four kids born this spring and more on the way), 12 rabbits, 10 ducks, four geese and one house cat. She gardens and helps care for the family fruit trees. Her family’s acreage south of Lincoln provides plenty of space — eight acres of it.

Prior to living on the acreage, Jim and Bonnie Henshaw lived in Lincoln with Emily’s three older siblings, Carrie, James and Erin. The children were in 4-H and participated in projects such as rocketry and baking.

When the family moved to the acreage in 1986, they found expanded opportunities for 4-H projects. Though they had a garden in Lincoln, the acreage has room for a bigger garden. There is room to raise animals. Even rocketry seemed easier, because instead of having to go to a park to do launches, it could be done in their pasture.

The Henshaws did find a few challenges they didn’t have



Emily Henshaw raises goats and poultry on eight acres south of Lincoln. She also helps with the family’s large garden and fruit trees.

in town: grasshoppers, the wind, and wildlife such as coyotes and hawks trying to go after their poultry. There were few trees on the land when the family moved, so they planted all kinds of fruit and windbreak trees.

Their youngest daughter, Emily (currently age 15) has lived on the acreage her entire life. She joined 4-H when she was nine and her parents let her choose a couple of goats to raise. Emily is now showing the granddaughters of those goats. Last year, two of her Oberhasli dairy goats received Senior Champion and Junior Champion at the Nebraska State Fair.

Emily helps out in the large family garden with planting, weeding and harvesting. On Saturdays, May through October, the family sells produce at the Farmers Market in Lincoln. Emily usually helps with setup and takedown of the stall. At the County Fair, she exhibits whatever vegetables and fruits are ripe. Emily also helps with home canning and has exhibited jellies, jams and canned vegetables.

Jim and Bonnie have volunteered for the 4-H program for more than 20 years. Bonnie is Lancaster County superintendent of the 4-H Dairy Goats and has been a presenter at the Ag Awareness Festival. Jim is a long-time member of the County Fair Livestock Booster Club, is Nebraska State Fair assistant superintendent of 4-H Dairy

Goats and has been County Fair superintendent of 4-H Poultry.

The family has provided goats to 4-H youth living in Lincoln who want to learn about goats but don’t have room to raise them. These 4-H’ers “adopt” a goat and then come to the Henshaw’s acreage on a frequent basis to help care for their goat and practice their showmanship skills.

“4-H is a fun experience,” says Emily. “It broadens one’s horizons and you get to meet people you wouldn’t meet otherwise. You get to do fun stuff like waking up at 6 a.m. to feed the kids. It is a family experience.”

Davis Family — Northeast of Lincoln

Tim Davis grew up on a cattle ranch near Valentine, and Jill grew up in Lincoln. When they married, they knew they wanted their children to be able to show cattle, so in 1990, they settled on four acres northeast of Lincoln. Before Will and Whitney were old enough to show cattle, the Davis’s built a show barn and marketed “club calves” from the family ranch to local 4-H and FFA families.

Between the ages of five and eight, Will and Whitney participated in a 4-H Clover Kids pilot club (now a standard part of 4-H) along with four to five other families. Club parents



Members of 4-H Teen Council, Will (above) and Whitney Davis have helped with the past two 5th & 6th grade 4-H Lock In’s.

took turns teaching projects — Tim taught beef cattle.

At age eight, Will and Whitney started showing cattle and “building” their herds. At the present, Will (age 18) and Whitney (age 16) have 15 registered cows. They keep their show heifers on the acreage and the rest on a pasture near Seward.

The youth have total responsibility of their show cattle: feeding twice a day (at 5 a.m. and at 5 p.m.), stacking hay, cleaning up manure, grooming, practicing showmanship and even giving shots if needed. It is an exciting time when their heifers give birth — Will and Whitney have even sent out “birth announcements.” So far this spring, two calves have been born on the acreage.

Will and Whitney attend Waverly High School. They show their heifers in 4-H and FFA shows at the Lancaster County Fair, Nebraska State Fair, Ak-Sar-Ben 4-H Youth Livestock Exposition, Nebraska Junior Beef Expo, and progress shows throughout the year.

They also show at regional and national Simmental shows. Whitney is the current Nebraska Simmental Queen Alternate and represents Nebraska Junior Simmental Association (NJSA) at various events. Will is the state secretary and board trustee of NJSA.

They have also exhibited other 4-H projects, including baked goods and photography. Jill, a former Miss Nebraska, passed along her love of sewing and modeling to Whitney, who has exhibited numerous sewing projects and qualified for the State 4-H Fashion Revue every year since age eight.

Jill has been a longtime 4-H volunteer as County Fair co-superintendent of the 4-H Style

Revue. Jill and Tim are both active members of the County Fair Livestock Booster Club.

When Will and Whitney became old enough to drive, it was easier for them to commute to various activities. They joined 4-H Teen Council (both are officers) and they are officers of Waverly FFA. Whitney is currently the 4-H Council secretary and is involved in the 4-H Citizenship



Every morning, Whitney Davis gets up at 5 a.m. to feed her show cattle.

Washington Focus group.

Will and Whitney have participated in speech, demonstration, and the Premier Animal Science Events livestock and meats judging contests.

The Davis’s say living on an acreage links them to both rural and urban experiences. From their gravel road, they can see the state capitol.

“With more space, you have the option for animals,” says Will. “It’s as close as you can get to a farm without all the responsibilities. You have a smaller space to take care of.”

“In the country, you work and interact more with the outdoors,” says Whitney. “I love that by showing cattle, I have friends from around the state and the world.”

Will says he sees more families moving to acreages so they have more space. “Acreages offer more room to grow.”

Extension’s Acreage Resources Online

Web Site: acreage.unl.edu

The University of Nebraska Cooperative Extension’s educational resources for acreage owners are available 24-hours a day, seven days a week on its “Acreage & Small Farm Insights” Web site. Updated weekly, the Web site features research-based information on:

- Animals
- Buildings
- Business
- Crops
- Custom applicators
- Farm management
- Haylands and pastures
- Home environment
- Landscaping
- Machinery
- Safety
- Water
- Waste water management
- Weeds
- Wildlife



Acreage E-News

Acreage owners can receive timely information by signing up for “Acreage and Small Farm Insights eNews,” a FREE monthly e-mail newsletter from the University of Nebraska Cooperative Extension. To sign up, go to acreage.unl.edu/Newsletter/newsletter.htm

Additional Resources

UNIVERSITY OF NEBRASKA COOPERATIVE EXTENSION IN LANCASTER COUNTY
Phone: 441-7180 • Web site: lancaster.unl.edu
Educational resources on landscaping, water issues, livestock, wildlife, pest management and much more.

THE ACREAGE OWNER’S GUIDE
Web site: lancaster.unl.edu/acreageguide/localcontact.htm
Find your local fire district, a listing of utility companies and county offices.

NEBRASKA ASSOCIATION OF RESOURCES DISTRICTS
Phone: 471-7670 • Web site: www.nrdnet.org
Locate your local NRD office which can provide information on erosion control, soil conservation, flood plain protection, irrigation wells and water quality protection.

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
Phone: 441-8040 • Web site: www.ci.lincoln.ne.us/city/health
Animal Control: Animal bites and rabies, wildlife.
Environmental Quality: Waste management, air and water quality and illegal dumping.

NEBRASKA DEPARTMENT OF AGRICULTURE
Phone: 471-2394 • Web site: www.agr.state.ne.us
Information on certification for private and commercial pesticide applicators, drought assistance, laws and regulations for noxious weeds, livestock and more.

LANCASTER COUNTY WEED CONTROL AUTHORITY
Phone: 441-7817 • Noxious weed complaints and control.

LANCASTER COUNTY ENGINEER
Phone: 441-7681
Maintenance and repair of county roads, streets and bridges.

NEBRASKA DEPARTMENT OF NATURAL RESOURCES
Phone: 471-2363 • Web site: www.dnr.state.ne.us
Well registration, groundwater, soil and water conservation.

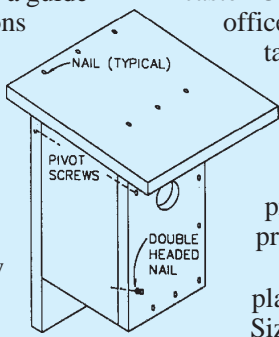
FAMILY & COMMUNITY EDUCATION (FCE) CLUBS

President's Notes — Janet's Jargon

Janet Broer
FCE Council Chair



Two weeks ago a friend stopped by and brought a most unusual gift — a bluebird nest box mounted on a pole. She had already eyeballed my yard and knew it could provide a suitable site for attracting bluebirds. With more urbanization, the natural habitat has been reduced and population has decreased. Fern also included a guide book with directions for mounting the box, monitoring it for predators, identifying the nests and examples of record keeping. It is important to know how many bluebirds are



fledged — able to fly — each year. I've also got the names and phone numbers of Bluebirds Across Nebraska (BAN members) and they would offer any assistance I

need. If I have sparked a bluebird interest in you, give me a call and I will pass this info along.

We had a good council meeting in March. Todd Duncan from the Lancaster County Sheriff's

office did an excellent talk about their many jobs that keep us safe. We owe them a mighty big thank you for the protection they provide.

We are in the planning stages for the Sizzling Summer

Sampler; give any council or independent member a call if there is a particular program or suggestion you might have. Each club is asked to supply one basket for the raffle to be used for the Scholarship Fund.

June 27 will be our next council meeting, at which time, Heritage Skills entries will be due. There is still time to create something in the Sculpture, Fiber Arts, Scrapbooking or Photography categories; a member may enter each division. One from each division will be chosen to represent our county at State Convention in September.

I hope you are enjoying a nice spring. It is a beautiful time of year and hopefully I can see some bluebirds fledged.



FCE News & Events

Next FCE Council Meeting, June 27

The next FCE Council meeting will be Monday, June 27, 1 p.m. Helpful Homemakers and Home Service are responsible for the program. Entries for the Heritage Skills Contest should be brought to this meeting. All FCE members are invited to attend. For more information, call 441-7180 or look in the next issue of THE NEBLINE.

Sizzling Summer Sampler, July 12

Mark July 12, 6 p.m. on your calendar for the Sizzling Summer Sampler. Learnshops will follow a light meal. Invite your friends to join you for this fun evening. Everyone is welcome.



Club Baskets

FCE clubs are asked to prepare a basket for the scholarship raffle. Choose any theme. Use your creativity as to size, shape or even container. The raffle will be held at the Sizzling Summer Sampler. (LB)



by Lorene Bartos, Extension Educator

No- or Low-Cost Ways to Save Energy

Here are some no- or low-cost ideas to help you save energy and money at your home or small business:

- Replace incandescent bulbs with compact fluorescents.
- Air-dry dishes instead of using your dishwasher's drying cycle.
- Use your microwave instead of a conventional electric range or oven.
- Turn off your computer and monitor when not in use.
- Plug home electronics, such as TVs and VCRs, into power strips and turn power strips off when equipment is not in use.
- Lower the thermostat on your hot water heater; 115 degrees is comfortable for most uses.
- Take showers instead of baths to reduce hot water use.
- Wash only full loads of dishes and clothes.

Cut Cooling Costs

Warm weather is here and hot weather will be here in the near future. Saving energy and lowering your energy bill is important for all families.

During the hot weather, you can cut your cooling costs and lower your energy bill by following a few simple tips.

- Open windows and use portable or ceiling fans instead of operating your air conditioner.
- Use a fan with your window air conditioner to spread the cool air through your home.
- Use a programmable thermostat with your air conditioner to adjust the setting at night or when no one is home.
- Don't place lamps or TVs near your air conditioning thermostat. The heat from these appliances will cause the air conditioner to run longer.

You can save as much as 10 percent a year on your heating and cooling bills by

simply turning your thermostat back 10 to 15 percent for eight hours. You can do this automatically without sacrificing comfort by installing an automatic setback or programmable thermostat.

Using a programmable thermostat, you can adjust the times you turn on the heating or air-conditioning according to a pre-set schedule. As a result, you don't operate the equipment as much when you are asleep or when the house or part of the house is not occupied. (These thermostats are not meant to be used with heat pumps.) Programmable thermostats can store and repeat multiple daily settings (six or more temperature settings a day) that you can manually override without affecting the rest of the daily or weekly program. When shopping for a programmable thermostat, be sure to look for the ENERGY STAR® label. (LB)

Three Strategies to Help Manage Anger

All of us get angry. It is a normal and healthy human emotion. Anger tells us something is wrong and we need to fix it. Anger can give us energy and motivation to right a wrong, solve a problem and find a solution. Anger can also be a destructive force that hurts relationships, ruins health and shatters peace of mind. When anger is habitual and uncontrolled, it can destroy the love in our homes or the positive atmosphere at work.

While we may have legitimate reasons for feeling angry, how we handle this strong emotion will determine whether we have a positive or negative outcome. Learning to handle anger in positive ways is a life long challenge for most of us. These three strategies are key in managing anger positively:

- Recognize early warning signs of anger.
- Learn to calm yourself down.
- Think and solve the problem.

Early Warning Signs

Losing your temper is like climbing a ladder. With each

rung, you get farther from having your feet on the ground, and more likely to have a dangerous accident. When anger escalates out of control, you and others do things you later regret. You may not remember what you said or did while in a rage, but the people around you always will. If you recognize early signs of anger, while you are still on the ground, you can avoid escalating your anger and climbing the anger ladder. Typical early warning signs of anger include:

- Tense muscles
- Gritting teeth
- Flushed face
- Clenched hands
- Raised voice

Calm Down

It's time to slow down and get calm when you recognize your first early warning sign. It's too late if you have already climbed to the top of the anger ladder. Take three deep breaths. This will help your body relax. Your mother was right, counting to ten really helps. Sometimes you may need to count to 20. Avoid expressing your

anger aloud, this will usually make you angrier. Instead say things to yourself like:

- Calm down and think!
- I'll take a break until I can think straight.
- I will deal with this when I am calm.
- I will use this energy to fix things.
- Will this matter next year?

These are examples of de-escalating thoughts that can reduce anger. Escalating thoughts however, make us angrier. Most of us recognize them. They include thoughts like, "She did this on purpose to make me mad!" or, "He never..." or "he always..." or "Stupid so and so." Most of us have favorite escalating thoughts. Sometimes, we even say them aloud! This is bound to escalate an argument and now two people teeter on top of the anger ladder. If you can keep quiet, you won't say something hurtful you will later regret.

Another important way to calm anger is physical exercise. Take a brisk walk. Clean house. Pull weeds. Shot some hoops.

When we get angry, our bodies produce energy we can put to good use. Other people calm down by listening to soothing music, taking a bath or meditating. What calms you down?

Prevention is the most important anger management tool. It is easier to not allow anger to get out of control, than to pull it back once it is unleashed and doing damage.

Solve the Problem

Something made you angry and if you don't address the problem, you will continue to get angry. You can count to ten all day, but if no changes are made, you will still be mad. But please, remember we make ourselves angry. It isn't really the boss, or the wife or the husband or the kids. We are in control of how we handle our anger, and no one else can do it for us. Once you are calm, look for solutions.

Solve the problem — or at least change the way you look at the problem. When you are calm, say what is on your mind in a polite, respectful and direct way. "I don't like it when you

mess up the kitchen. Please put the dishes in the dishwasher."

Tell how you feel — Others will show more understanding for us if we share our feelings about why we are angry. "I was really frightened when you didn't come home on time."

Avoid putdowns — Try not to accuse others, or place blame. It will escalate an argument.

Show respect — Even if you are mad, do not shame or ridicule others. Insults will not solve problems or gain cooperation. Listen to other's feelings. It will show respect and help you find a solution.

Stop Controlling — Other people will not always do things the way we think they should. We should not expect everyone to do what we want. Concentrate on controlling your own behavior instead of others.

Forgive — Drop resentments. Let go of what you feel they owe you. Do it for yourself. It will take time, but it will ease anger.

May



Denise Farley

Lancaster County 4-H is proud to announce Denise Farley as winner of May's "Heart of 4-H Award" in recognition of outstanding volunteer service. She has been involved in 4-H since her daughter joined 10 years ago.

Denise is organizational leader of Star City Explorers 4-H club (her husband, Quentin, is co-leader). She has assisted as a parent and volunteer with the Creative Clovers, Extreme Green and Shooting Sports 4-H clubs, and the Citizenship Washington Focus group. Denise has also assisted with Clover College (as co-presenter), Kiwanis Carnival, Lancaster County Fair (in the 4-H food booth) and Nebraska State Fair (as a 4-H judging assistant). A member of the Nebraska 4-H state marketing committee, Denise helped develop the 4-H/Library partnership.

"I like to see kids learn and experience new skills," she says. "I am a strong believer in exposing youth to as many career experiences as possible. I think 4-H can really prepare youth for life by teaching life skills and leadership, as well as creating a desire for life-long learning."

Denise lives in Lincoln with Quentin and their two children, Grace and Spencer. She also volunteers for Messiah Lutheran Church and School, the Lincoln Iris Society, and for many years has co-sponsored a toy benefit for Friendship home.

Many people might not know Denise was 4-H Queen in Keith County. Her mother and grandmother were also 4-H leaders. Congratulations to Denise! 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.



Quality Assurance Training, May 4

Quality Assurance (QA) certification is required for all 4-H or FFA youth wanting to exhibit market livestock. There will be a QA training on Wednesday, May 4 at 6 p.m. at Waverly High School. Exhibitors who have not yet been certified need to call Deanna at 441-7180 to get certified.

Sheep Tagging Days, Week of May 16

4-H members who will be exhibiting sheep at this year's county fair need to have their animals tagged by June 15. Deanna Karmazin will be visiting farms the week of May 16. Contact her at 441-7180 to set up a tagging time. All lambs which might go on to the Ak-Sar-Ben Youth Livestock Exposition need be DNA tested — cost is \$5 per head.

CWF Reorganizational Meeting, May 19

Lancaster County 4-H Citizenship Washington Focus (CWF) is now taking applicants for the June 2008 trip to Washington D.C.! If you will be the age of 15-18 as of June 1, 2008 and are interested in joining an adventure of a lifetime, please call Deanna Karmazin at 441-7180. A reorganizational meeting will be held Thursday, May 19 at 7 p.m., held at the Lancaster Extension Education Center.

Pre-Fair Leader Training, May 24

New leaders, experienced leaders, 4-H members and parents are invited to this leader training on Tuesday, May 24, 9:30 a.m. and 7 p.m. at the Lancaster Extension Education Center. Come and receive information on how to fill out the new entry tags, the in's and out's of interview judging, Life Challenge information, the Presentations Contest and other valuable county fair information. Preregister by May 20 by calling 441-7180.

Senior Life Challenge Contest May 25

A county-level Senior Life Challenge (for ages 12 and up) is scheduled for Wednesday, May 25, 7 p.m. at the Lancaster Extension Education Center. Preregistration is not needed. Contest questions will be based on the following 4-H manuals: Financial Champions "Money Moves" Book 2, Clothing Level 1, The Sitter, Youth in Motion and Fast Foods. Books may be checked out prior to the contest for studying purposes.

The statewide FCS Life Challenge (for ages 12 and up) will be held Monday, June 27 and Tuesday, June 28 on UNL East Campus. To participate, please call Tracy at 441-7180 by May 27. Information is online at 4h.unl.edu/programs/pascl

4H Sewing Fun Class, June 22

The Bernina shop at Hancock Fabrics will teach a Crazy Quilt Block class Wednesday, June 22. There will be two sessions: 1-4 p.m. or 5:30-8:30 p.m. Cost is \$15 for the class and \$5 for materials. Participants must be 4-H members enrolled in Clothing Level II or higher.

Learn about foundation piecing, decorative stitching, couching and decorative threads. The block you will work on could be used as part of a wall hanging or pillow for home environment or a Decorate Your Duds project.

Register by June 17 by calling 464-0505. Please indicate at registration if you will bring your own machine or will use one provided by Bernina. Special arrangements could be made for a club. (TK)

Clothing Level 1 Patterns Available

The 2005 pattern selection for 4-H Clothing Level 1 has been developed. Contact Tracy at 441-7180 for pattern brands and numbers.

Seeking Style Revue Superintendents

Volunteers are needed to help facilitate the 4-H Style Revue Contest. If interested, please contact Tracy Kulm at 441-7180.

HORSE BITS

2005 4-H Incentive Program Starts May 1

Back by popular demand! The Lancaster Horse VIPS Committee will again be sponsoring an incentive program for 4-H members enrolled in a horse project. The incentive program will run from May 1 to June 30. Participants need to log the hours spent doing horse activities during that time period.

The more hours invested, the more valuable the reward.

Participants logging:

- 40 hours will receive a T-shirt.
- 80 hours will receive either an embroidered bridle/halter bag or an embroidered folding event chair.
- 160 hours will receive an embroidered hoodie or embroidered English pad.

For complete information and log sheet, go to lancaster.unl.edu/4h/news.htm or stop at the extension office.

District/State Entries Due May 13

Entry forms for 4-H Horse District competitions and State 4-H Horse Exposition are due to the extension office by Friday, May 13. No late entries or changes will be excepted!

Anyone planning on going to state must also have their horse ID's turned in and level tests passed by May 13. In order to qualify for state, you must be 12 years of age before January 1 and must have passed all level two requirements.

Entry forms, entry guidelines, entry procedures and the 2 & 3 year old western

pleasure affidavits are available online at animalscience.unl.edu/horse/page2.htm or at the extension office.

This year, a saddle will be awarded at the State 4-H Horse Expo to the high-point 4-H'er in the following categories: junior performance division, junior working division, senior performance division and senior working division. To be eligible for one of these awards, a 4-H'er must compete in either the horse judging or hippology contest, or have competed in one of the contests at this year's 4-H Horse Stampede.

For more information, call Marty at 441-7180.

Salt Creek Wranglers Hold Pre-Districts Practice for 4-H'ers, April 24 and June 12

Because district horse shows follow a different format than "regular" horse shows, the Salt Creek Wranglers are providing a chance to practice for districts within their 4-H Silver Dollar Series. In the Sunday, April 24 show, all English Equitation and English Pleasure classes will follow the district format. The show being held on Sunday, June 12, will highlight the Western Pleasure and Horsemanship classes using the district format. Registration for both shows start at 8 a.m. on the Wranglers grounds. For more information, call Tausha Dybdal at 761-2070. Showbills on these and other horse shows are online at lancaster.unl.edu/4h/news.htm.

4-H Stampede Results

Approximately 125 4-H youth from across the state participated in the third annual 4-H Horse Stampede held March 12. The Stampede consists of the 4-H state horse-related competitions: Horse Bowl, Public Speaking, Demonstration and Art contests. This was the first year it was held at the Animal Science Building on University of Nebraska East Campus, and the UNL Equestrian Team offered tours of the building in conjunction with the Stampede.

Lancaster County participants and their placings were:

- Rachael Pflug earned a purple ribbon in the Art Contest for her "Untitled" colored pencil drawing in the Art Contest.
- Gabby Warner earned a blue ribbon in the Demonstration Contest for her presentation, "Competing on a Budget."
- This year's Lancaster County Quiz Bowl Team (competing for their first time) made it into the quarterfinals, earning a blue ribbon. Team members were: Frances Anderson, Alex and Will Scheider and Gabby Warner.



Untitled colored pencil drawing by Rachael Pflug

Clover College

Tue., June 21–Fri., June 24

Lancaster Extension Education Center, 444 Cherrycreek Rd
Open to 4-H & non-4-H youth ages 6–19

Four days of “hands-on” workshops full of fun and learning! Youth may attend as many workshops as they wish. Youth attending workshops that overlap the lunch period should bring a sack lunch. Food will not be available (unless otherwise stated in the workshop description). If you have questions, contact Tracy Kulm at 441-7180.

WORKSHOP DESCRIPTIONS

	TUE, JUN 21	WED, JUN 22	THU, JUN 23	FRI, JUN 24
8:00–10:00	CLOVER KIDS ROCKETS TABLESETTING FUN BEG. LEATHER CRAFT	CLOVER KIDS ROCKETS SUMMER CRAFTS	CLOVER KIDS ROCKETS JUICE POUCH PURSE BEG. LEATHER CRAFT	CLOVER KIDS ROCKETS MEMORY BOXES NO THYME LIKE...
10:15–12:15	CLOVER KIDS LET'S SOAR SCRAPBOOKING ADV. LEATHER CRAFT	CLOVER KIDS MONEY, MONEY SCRAPBOOKING ADV. LEATHER CRAFT FISHING FUN	CLOVER KIDS HORSE OF COURSE I JUICE POUCH PURSE ADV. LEATHER CRAFT	CLOVER KIDS GPS BASICS COLOR GALLERIA ADV. LEATHER CRAFT
12:45–2:45	BIRDHOUSE/FEEDER FUN IN THE KITCHEN GEL-QUARIUM	BIRDHOUSE/FEEDER GREAT GOATS DELIGHTFUL DECORATING NAIL ART	BIRDHOUSE/FEEDER HORSE OF COURSE II IT'S GREEK TO ME MAKE A NEB. QUARTER	BIRDHOUSE/FEEDER TERRA COTTA CRAFTS FABULOUS FILO MAKE A NEB. QUARTER
3:00–5:00	STYLE REVUE CHOCOLATE FUN PAWS UP!	FUN, SUN PINATA FACE PAINTING LOVEABLE LIZARDS WATERCOLORS	FUN, SUN PINATA MOUSETRAP CAR GARBAGE GETTERS MOSAIC FRAMES	FUN, SUN PINATA MOUSETRAP CAR PAWS UP!

For a current listing of which classes are full, please go to <http://lancaster.unl.edu/4h/Programs/CloverCollege/schedule.htm>

4-Day Workshops

#1 Clover Kids Day Camp
Clover Kids will participate in several hands-on activities while learning about animals, food fun, science, the outdoors and more. Refreshments provided for this workshop.
TUE-FRI, JUNE 21-24;
8AM-12:15PM
AGES: 6 & 7 • FEE: \$20

#2 Rockets... Countdown to Family Fun
3...2...1...blast off! Have you ever wanted to build a rocket and launch it? Come to this workshop and receive a rocket kit and one engine.
TUE-FRI, JUNE 21-24; 8-10AM
AGES: 8-12 • FEE: \$7
INSTRUCTOR: Ron Suing, 4-H volunteer

#3 Advanced Leather Craft
Practice the eight steps of leather craft to make a sampler coaster, book mark, and coin purse. Need to have had minimal prior leather work experience. Tools provided, please bring if you have them.
TUE-FRI, JUNE 21-24;
10:15 a.m.-12:15 p.m.
AGE: 11 and up • FEE: \$7
INSTRUCTOR: Jane Dowd, 4-H volunteer

#4 BirdHouse and Feeder
Fly in and make a birdhouse and birdfeeder! Learn basic woodworking skills and learn about habitats for backyard animals. All materials provided.
TUE-FRI, JUNE 21-24;
12:45-2:45PM
AGES: 8 and up • FEE: \$7
INSTRUCTOR: Shirley Condon, 4-H volunteer

3-Day Workshop

#5 Fun, Sun Pinata
Make your own fun, sun pinata filled with candy. This sun pinata is the inspiration for the this year's County Fair theme!
WED-FRI, JUNE 22-24; 3-5PM
AGES: 8 and up • FEE: \$10
INSTRUCTOR: Cathy Hurdle, 4-H volunteer

2-Day Workshops

#6 Beginning Leather Craft
Learn the three basic steps of tooling leather and make a leather project. No prior experience necessary. Tools provided, bring if you have them.
TUE, JUNE 21 & THU, JUNE 23; 8-10AM
AGE: 9 and up • FEE: \$5
INSTRUCTOR: Jane Dowd, 4-H volunteer

#7 Fun with Scrapbooking
Learn scrapbooking techniques to create a bound anytime calendar. Bring 12 photos, 1 appropriate for each month.
TUE-WED, JUNE 21-22;
10:15AM-12:15PM
AGES: 9 and up • FEE: \$10
INSTRUCTOR: Kitt Saathoff, owner of A Page in Time and 4-H Volunteer

#8 Paws Up!
Meet trained and certified Paws Up! therapy dogs and their handlers. Also make all natural dog treats and a craft. Lots of hand-on time with dogs.
TUE, JUNE 21 & FRI, JUNE 24; 3-5PM
AGES: 8 and up • FEE: \$4
INSTRUCTORS: Vikki O'Hara, President of Paws Up! and Paws Up! volunteers

#9 Create Your Own Nebraska Quarter
Carve your own design into a printing block. This will then be used as a mold to form polymer

clay into your own 3" quarter!
THU-FRI, JUN 23-24; 12:45-2:45PM
AGES: 10 and up • FEE: \$8
INSTRUCTOR: Vicki Jedlicka, Extension Assistant

#10 Mousetrap Car
Build a toy car powered by a mousetrap. Also learn about antique cars and how the automobile was developed.
THU-FRI, JUNE 23-24; 3-5PM
AGES: 8 and up • FEE: \$10
INSTRUCTOR: Myron Smith and Gene Veburg, 4-H volunteers

1-Day Workshops

#11 Tablesetting Fun
Make a wheatgrass centerpiece and coordinating tablecloth while you learn all you need to know to participate in the table setting contest.
TUE, JUNE 21; 8-10AM
AGES: 8 and up • FEE: \$3
INSTRUCTOR: Karen Wedding, Extension Staff

#12 Let's Soar!
What do you get with some dowel rods, packing tape, string and some paint? A high flying kite! Make your own kite with these simple materials....then we'll see who can get their kite to fly the highest (weather permitting).
TUE, JUNE 21; 10:15AM-12:15 PM
AGES: 10-13 • FEE: \$3
INSTRUCTOR: Trudy Pedley, 4-H volunteer

#13 Fun in the Kitchen
It's easier than it looks to mix and shape bread and rolls. Learn mixing and shaping techniques through this hands-on workshop.
TUE, JUNE 21; 12:45-2:45PM
AGES: 11 and up • FEE: \$5
INSTRUCTOR: Lorene Bartos, Extension Educator

#14 Gel-quarium
Here is an opportunity to show off your creativity by designing and making a one of a kind gel-quarium with globe, gel, shells, plastic fish and sand.
TUE, JUNE 21 • 12:45-2:45 p.m.
AGES: 8 and up • FEE: \$4
INSTRUCTOR: Karen Wedding and Karen Evasco, Extension Staff

#15 Style Revue Workshop
Style Revue will be here soon! Come to this workshop and learn new styling procedures and practice your modeling technique.
TUE, JUNE 21; 3-5PM
AGES: 8 & up • FEE: No charge

#16 Chocolate Fun
Have fun with chocolate by creating your own chocolate masterpieces.
TUE, JUNE 21; 3-5PM
AGES: 8 and up • FEE: \$5
INSTRUCTOR: Cathy Hurdle, 4-H volunteer

#17 Sensational Summertime Crafts
Create your own sensational summertime arts & crafts in this hands-on workshop.
WED, JUNE 22; 8-10AM
AGES: 8 and up • FEE: \$5
INSTRUCTOR: Jami Rutt, Extension Intern

#18 Fishing Fun
Let's head on over to "Catfish Hole." Bring your fishing pole, complete with line, hook and bobber for fishing fun at a nearby lake. Extra tackle is optional. Bait and a "wormy snack" for humans provided.
WED, JUN 22; 10:15AM-12:15PM
AGES: 9 and up • FEE: \$5
INSTRUCTORS: David Smith, Extension Technologist & Soni Cochran, Extension Associate

#19 Money, Money, Money
Learn the basics of banking and how to spend and save wisely.
WED, JUNE 22; 10:15AM-12:15 PM
AGES: 10 and up • FEE: None
INSTRUCTOR: TierOne Bank, Clocktower Branch

#20 Great Goats!
In this hands-on workshop, you will learn about dairy goat breeds, care of the young goat, showing goats and how to milk a goat.
WED, JUNE 22; 12:45-2:45PM
AGES: 8 and up • FEE: \$3
INSTRUCTOR: Leeza Moyer, 4-H Volunteer

#21 Delightful Decorating
Ever wonder how the bakery makes their cakes and cookies look so inviting? Attend this workshop and you, too, can learn the techniques to decorate like a professional.
WED, JUNE 22; 12:45-2:45PM
AGES: 8 and up • FEE: \$5
INSTRUCTOR: Lorene Bartos, Extension Educator

#22 Nail Art
Have fun learning how to create different designs on your nails using decals, rhinestones, striping tape and beautiful nail paints. Please come prepared with clean finger and toe nails.
WED, JUNE 22; 12:45-2:45PM
AGES: 8 and up • FEE: \$10
INSTRUCTOR: Jhoni Kucera, 4-H volunteer

#23 Fabulous Face Painting
Come learn fun techniques of face and body painting. You'll learn how to paint faces, arms and legs. Lot of glitter will be used so plan to sparkle when you leave.
WED, JUNE 22; 3-5PM
AGES: 10 and up • FEE: \$10
INSTRUCTOR: Jhoni Kucera, 4-H volunteer

#24 Loveable Lizards
Using beads, create your own lizards. Use them as key chains, charm pets or give them away as gifts.
WED, JUNE 22; 3-5PM
AGES: 9 and up • FEE: \$5
INSTRUCTORS: Christian and Evan Kucera, 4-H volunteers

#25 Watercolors
Have fun learning basic water-color techniques. Come dressed in "painting clothes." Bring a large

container (i.e. a coffee can) to hold water. All other supplies provided.
WED, JUNE 22; 3-5PM
AGES: 8 and up • FEE: \$8
INSTRUCTOR: Marty Cruickshank, Extension Assistant, M.A. in Art Ed.

#26 Jazzy Juice Pouch Purse
Recycle juice pouches with this jazzy craft idea. Juice pouches will be provided (or bring 8 pouches EMPTY, CLEAN and DRY). Bring a sewing machine, basic sewing tools and one yard of cotton or poly/cotton woven fabric for lining and thread to match. Basic sewing skills necessary.
THU, JUNE 23; 8AM-12PM (double session)
AGES: 8 and up • FEE: \$3
INSTRUCTOR: Jo Fujan, 4-H Volunteer

#27 A Horse Of Course I
THU, JUNE 23; 10:15AM-12:15PM

#28 A Horse Of Course II
An introduction to grooming, tacking and safety around a horse. Dusty, a gentle quarter horse, will help teach. Must wear closed-toed shoes; sandals not permitted.
THU, JUNE 23; 12:45-2:45PM
AGES: 8 and up • FEE: \$3.50
INSTRUCTOR: Marty Cruickshank, Extension Assistant

#29 It's Greek to Me
Learn how to make Greek pastry BAKLAVA. This heirloom recipe will give a new twist to the modern recipe. Sample to take home.
THU, JUNE 23; 12:45-2:45PM
AGES: 12 and up • FEE: \$10
INSTRUCTOR: Evan Kucera, 4-H volunteer

#30 Mosaic Mayhem
Create a stylish tiled mosaic picture frame to show off your favorite photo. Bring your favorite 3x5" photo to place in your beautiful handmade picture frame.
THU, JUNE 23; 3-5PM
AGES: 10 and up • FEE: \$4
INSTRUCTOR: Jessica Bauman, Extension Intern

#31 Garbage Getters
Learn about the world of worms and how they turn our garbage into healthy food (called vermicompost) for your plants and flowers. Create a worm habitat and take home your very own worm friends.
THU, JUNE 23; 3-5PM

AGE: 8 and up • FEE: \$8
INSTRUCTOR: Roberta Sandhorst, Master Gardener

#32 Memory Boxes
Create your own personal memory box for all your special keepsake items.
FRI, JUNE 24; 8-10AM
AGES: 8 and up • FEE: \$3
INSTRUCTORS: Debi Schulz, Extension Intern

#33 No Thyme Like the Present!
Learn about herbs and horticulture by planting herbs in a pot that you decorate yourself.
FRI, JUNE 24; 8-10AM
AGES: 8 and up • FEE: \$5
INSTRUCTOR: Nicole Pedersen, 4-H Volunteer

#34 GPS Basics
Learn the basics of using a Global Positioning System (GPS) unit and about the sport of geocaching.
FRI, JUNE 24; 10:15AM-12:15 PM
AGES: 12 and up • FEE: \$5
INSTRUCTOR: 2nd Lt. Steve Hubbell, Civil Air Patrol

#35 Your Color Galleria
Learn how to look your best by wearing the right colors. Make your own color book in this interactive and fun workshop! Bring empty 4X6 photo album and fabric scissors.
FRI, JUNE 24; 10:15AM-12:15PM
AGES: 8 and up • FEE: \$8
INSTRUCTOR: Jackie Zimmerman, Full Image Consultant

#36 Terra Cotta Crafts
Explore your creative side using terra cotta pots in this hands-on fun workshop.
FRI, JUNE 24; 12:45-2:45PM
AGES: 8 and up • FEE: \$3
INSTRUCTORS: Pam Branson and Karen Evasco, Extension Staff

#37 Fabulous Filo
Learn how to make tasty treats with this light and flaky dough. If you really want to impress someone with your cooking, here's the place to start. Sample to take home.
FRI, JUNE 24; 12:45-2:45PM
AGES: 12 and up • FEE: \$10
INSTRUCTOR: Christian Kucera, 4-H volunteer

CLOVER COLLEGE REGISTRATION FORM

To register, complete the registration form (one person per form) and return with payment (make check payable to Lancaster County Extension). Registrations must be received by June 13. **Registrations are handled on a "first come" basis and will only be accepted upon receipt of fees.** Classes often fill up, early registration is recommended. **Telephone registration not accepted.** All fees are nonrefundable unless a class is filled to capacity or canceled. May photocopy form if needed.

Name _____	Age _____
Parents Name(s) _____	
Address _____	
City _____	State _____ Zip _____
Daytime Phone _____	Evening Phone _____
Special Needs (allergies, etc.) _____	
Workshop(s) # _____	Title _____ Fee _____
# _____	Title _____ Fee _____
# _____	Title _____ Fee _____
# _____	Title _____ Fee _____
Use additional sheet of paper if needed	
Total _____	
I give permission to use my child's name/photograph in publications, news articles, advertisements or Web sites pertaining to 4-H. <input type="checkbox"/> yes <input type="checkbox"/> no	
Parent/Guardian Signature: _____	Date: _____

Mail or bring registration form and payment to:
UNL Lancaster County Extension, 444 Cherrycreek Rd., Ste. A, Lincoln, NE 68528

Analyzing Community Problems

Yelena Mitrofanova
Extension Educator

Communities have problems, just like people. Problems are part of our lives — they go together with being alive. Every human being, sooner or later, experiences some kind of problems in their lives. And every community has problems, too. That is a fact of community life.

In the dictionary, the word “problem” is defined as “a difficult situation or an obstacle.” We usually define a problem fairly negatively: a problem is a hassle; it is a damage, suffering, stress, etc. This is often true, but more generally, a problem can be considered the difference between *what is* and *what might or should be*.

Defining Community Problems

Below are examples of problems present in any community: crime, drugs, child abuse, poverty, unemployment, housing deterioration, teenage pregnancy, neighborhood disinvestment, vandalism, etc. What is seen as a problem can vary from neighborhood to neighborhood, and from group to group in the same community.

There is no official definition of a community problem, but there are some criteria,

which might be used to define a problem in some particular community/neighborhood.

Criteria for defining a community problem:

- **FREQUENCY** — the problem occurs frequently (frequency of violent crime, improper parking in the neighborhood, etc.).
- **DURATION** — the problem has lasted for a while (for the last five years, 40 percent of neighborhood housing has deteriorated).
- **SCOPE OR RANGE** — the problem affects many people (in some community, half of the youth drop out of high school).
- **SEVERITY** — the problem is disturbing and possibly intense; it disrupts personal or community life (neighborhood traffic—speeding on neighborhood streets caused many injuries of local residents, etc.).
- **LEGALITY** — the problem deprives people of legal or moral rights (dealing with the properties owned by absentee landlords).
- **PERCEPTION** — the problem is perceived as a problem (if people think the neighborhood school is rotten, that is a problem, no matter what objective facts are offered).

The last criterion, perception, is perhaps the most important one. A problem does not have to be based on statistical data or any other

hard evidences. If people perceive the neighborhood streets as unsafe, that is a problem; otherwise they will not feel this way.

Why Analyze a Community Problem?

Communities, like people, try to solve their problems. How do you solve a problem if you do not know what a problem is? Community/neighborhood problems must be identified before they can be resolved and analyzing those problems helps find solutions.

It may seem obvious the first step to solving a problem is figuring out exactly what the problem is, but a surprising number of problem-solving efforts fail when groups skip right to the solution part of the process without first clearly identifying the issues and concerns of the community. By failing to define the problem we may head to soon for solutions or come to conclusions that are ineffectual, irrelevant, meaningless or even counterproductive.

Before you start identifying community problems, remember two general principles:

- **DEFINE THE PROBLEM IN TERMS OF NEEDS OR WHAT IS LACKING, NOT IN TERMS OF SOLUTIONS.** If you define the problem in terms of possible solutions, you will never get to the “root” of the problem, only to the “symptoms.” For example, kids gather on a street. Sometimes they drink; sometimes they get rowdy. The violence and vandalism in our neighborhood is unacceptably high. Without

thinking, people immediately are jumping to the solution: “We need more police patrols on our streets.” What is the problem here? The drinking? The rowdy gathering itself? Attitudes toward vandalism? Or the possible fact teenagers have nowhere else to go and nothing else to do? Unless you are clear about the problem, it is hard to move forward.

- **DEFINE THE PROBLEM AS ONE EVERYONE SHARES; AVOID ASSIGNING BLAME FOR THE PROBLEM.** This

... a surprising number of problem-solving efforts fail when groups skip right to the solution part of the process without first clearly identifying the issues and concerns of the community.

is particularly important if different people (or groups) with a history of bad relations need to be working together to solve the problem. For example, teachers may be frustrated with low attendance rates, but blaming students uniquely for problems at school is sure to alienate students from helping to solve the problem.

Gathering Information

Now the group has defined the problem and agreed to work toward a solution, the next step will be gathering information on the problem. You might collect several types of information available. Most commonly, it will fall into one of the following categories:

- **FACTS** (15 percent of the children in our community do not get enough to eat).
- **INFERENCE** (a significant percentage of children in our community are probably malnourished/ significantly underweight).
- **SPECULATION** (many of the

hungry children probably live in the poorer neighborhoods in town).

- **OPINION** (I think the reason children go hungry because their parents spend all of their money on cigarettes).

When you are gathering information, you will probably hear all four types of information and all can be important. Speculations and opinions can be especially important in finding out how public feels about this particular issue. If public opinion on your issue is based on faulty assumptions, part of your solution strategy will probably include some sort of informational campaign.

For example, teen pregnancy is a problem in your community and you find most people incorrectly believe only teenage girls from dysfunctional families and poor neighborhoods get pregnant. As a part of your solution strategy, you will probably want to make it clear to the public it simply is not true.

Where and how do you find this information? It depends on what you want to know. A very few of the possibilities may include:

- Surveys
- Interviews
- The Library
- The Internet

The Next Steps

The next step in analyzing a community problem is recognizing barriers and resources associated with addressing the problem. It is a good practice and planning to anticipate barriers and obstacles before they might emerge. Also, it will help you understand and find resources you need to address this problem. After you have finished this analysis, you can start identifying some possible solutions and developing an action plan.

Source: *Community Tool Box, ctb.ku.edu/tools*

Training on Measuring Progress, May 17 & 18

Everyone likes to see progress. Measuring progress helps you know where you now are and get to where you want to be. UNL Cooperative Extension in Lancaster County is sponsoring “You Get What You Measure,” a powerful evaluation and planning tool for organizations, agencies and businesses. This training will be May 17 and 18 from 8:30 a.m. to 4:30 p.m. at the Lancaster Extension Education Center in Lincoln.

This two-day workshop allows staff of organizations, businesses, and government to learn the measurement process while applying it to issues central to their missions. Cost is \$349 per participant. For more information, contact Helen Mitrofanova at 441-7180. Registration deadline is May 3.

Measurement provides tangible evidence of progress, which, in turn, motivates one to keep at it. This is true whether the goal is physical fitness or fund-raising, environmental health or literacy. Choosing what you will measure and how you will measure it is a creative process. You can use this process to test your assumptions about the way the world works, to redefine what is important to you, and to create a new focus for your energies.

What you measure is what you get. For example, there are many ways of measuring employment. You might focus on the number of people in your community how have employment that meets their needs; or you might simply count the number of jobs created and lost. If you focus on the number of jobs, you may lose sight of important considerations: What kind of jobs? Jobs for whom? At what cost to the community? If you want to shift and broaden your focus, you need to create new and different measures of progress toward your goals.

“You Get What You Measure,” presented by Yellow Wood Associates, has been provided to clients nationally, including the United States Department of Agriculture, the United States Forest Service, the Missouri Department of Economic Development, Rural Action of Ohio, and the Massachusetts Rural Development Council.



At Nebraska, this Lincoln Student Works Smarter, not Harder

Alexis Wismer, a junior industrial and management systems engineering major at the University of Nebraska–Lincoln and a Lincoln Christian alum, knows there isn’t one solution for every problem. In her major, she uses her critical thinking skills to come up with new ways to make work safer, easier and more rewarding. This year, she is redesigning laparoscopic surgical tools. “We went to the Medical Center and observed surgery, had us work on their tools. It’s a great chance to be a part of the research – I have gotten to know the professors really well.”



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EXTENSION CALENDAR

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

APRIL

- 24 Nebraska State 4-H Camp Open House, near Halsey 1-4 p.m.
- 24 Salt Valley Wranglers Pre-Districts Practice for 4-H'ers,
Wranglers Grounds 8 a.m. registration

MAY

- 1 Eastern Nebraska 4-H Center Open House, near Gretna 1-4 p.m.
- 3 4-H Council Meeting 7 p.m.
- 4 4-H MQA Training, Waverly High School, Ag Room 6 p.m.
- 5 Beef Clinic, Lancaster Event Center 6:30-9 p.m.
- 13 Lancaster Extension Board Meeting 8 a.m.
- 13 County Deadline for District/State 4-H Horse Show Entries, I.D.'s,
Level Tests
- 17-18 "You Get What You Measure" Workshop 8:30 a.m.
- 19 "Everything Homeowners Need to Know about Termite Control"
Workshop 6:30-9:30 p.m.
- 19 2008 4-H Citizen Washington Focus (CWF) Reorganizational Meeting 7 p.m.
- 24 4-H Pre-Fair Leader Training 9:30 a.m. & 7 p.m.
- 25 4-H County-Level Senior FCS Life Challenge Contest 7 p.m.

Beef Clinic Focuses on Nutrition & Showing, May 5

UNL Cooperative Extension in Lancaster County and Farmers Cooperative Co. will present a Beef Clinic on Thursday, May 5 from 6:30-9 p.m. at the Lancaster Event Center. The event is free and open to anyone. 4-H and FFA youth are especially encouraged to attend.

The evening starts with supper from 6:30-7 p.m. followed by a nutrition workshop featuring Cheryl Leonard, the beef specialist for Purina Land O'Lakes. The evening will conclude with a fitting and showing demonstration by former 4-H members Greg Gana, Anthony Nisley and Squire Johnson. Livestock will be provided to practice on.

Preregistration is requested by May 2. To preregister or for more information, call Deanna Karmazin at 441-7180. Event space provided courtesy of the Lancaster Event Center.

Poultry Judging Clinic, June 16

The 4-H South Central Six Poultry Judging Clinic and Contest will be held June 16 at the Nuckolls County Fairgrounds in Nelson, NE. Registration begins at 10 a.m. For more information, call Nuckolls County Extension at (402) 225-2381 or email cfangmeier2@unl.edu

Sewn Bags Needed by May 5 for Community Service Project

The Lincoln Action Program (LAP) is distributing disaster materials to families in need and are asking people, including 4-H'ers, to donate their sewing skills and fabric and make bags for the materials. They would like the bags to be made of durable fabric (strong polyester, denim) and be 12 x 15 inches with a strong drawstring cord that would also serve as a handle. They are in need of hundreds of bags by May 5. If you can help out please call Tracy at 441-7180.

Painting Workshop for Youth, July 15

The "Let's Paint Run-A-Ways" organization is presenting a workshop for youth ages 8-19 on Friday, July 15, from 9 a.m. to noon at the Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln.

Instructors use a step-by-step method of instruction. Acrylic paint, brushes and canvas are supplied. Registration is due by July 8, it is limited to the first 25 youth. Cost is \$15 and due upon registration (checks payable to Lancaster County Extension). For more information, or to register, call 441-7180.

Lancaster County Fair Books Now Available

The 2005 Lancaster County Fair will be held Aug. 3-7 at the Lancaster Event Center. The Fair Book includes all the information needed to enter an exhibit or participate in a contest. Anyone can enter "Open Class" categories, which include youth divisions (no entry fee for youth). The Fair Book is distributed at numerous locations throughout Lincoln and Lancaster County, including the Lancaster Event Center, Lancaster County Extension office, Lincoln City Libraries, grocery stores, Shopkos, Wal-Marts, and village banks, post offices and co-ops. It is also online at www.lancastereventcenter.com



The NEBLINE



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All programs and events listed in this newsletter will be held (unless noted otherwise) at:

Lancaster Extension Education Center
444 Cherrycreek Rd. (event rooms posted), Lincoln
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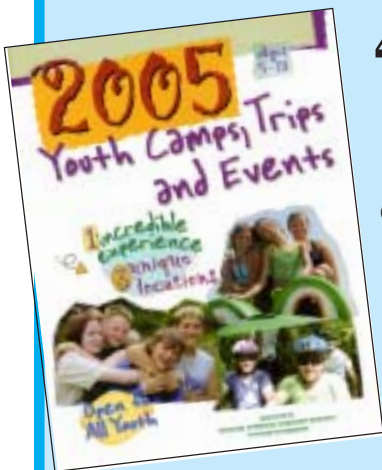
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4-H Camps Open House, April 24 and May 1

The Nebraska State 4-H Camp near Halsey will have a FREE Open House on Sunday, April 24, from 1-4 p.m. and the Eastern Nebraska 4-H Center near Gretna will have a FREE Open House on Sunday, May 1, from 1-4 p.m. Bring your family and friends to help kick off the 2005 summer camp season by exploring the facilities and participating in some of the activities that will be offered this summer.

Open to all youth ages 5-19

There are more than 40 day and overnight camping programs and trips scheduled in May, June, July and August at the three 4-H camp locations in Nebraska. Camps are a great opportunity to meet new friends and experience a wide variety of exciting activities such as canoeing, mountain biking, horseback riding, rappelling or climbing, volleyball, basketball, art, dancing, backpacking, shooting sports, water skiing and fishing!

Brochures with camp descriptions, registration forms and more information are available online at 4h.unl.edu/camp or at the Lancaster County Extension office.

5th Graders Learn about Land, Water & Air at earth wellness festival

Nearly 2,500 fifth graders from Lincoln Public Schools and other Lancaster County classrooms attended the 11th annual **earth wellness festival (ewf)** held mid-March. Students rotated among 25-minute sessions to discover the relationships and interdependency of land, water, air and living resources. The **ewf** steering committee is comprised of ten local educational agencies, including University of Nebraska Cooperative Extension in Lancaster County. Hundreds of volunteers, area educators, environmentalists and donations from local businesses make this educational experience possible.



UNL Pesticide Education specialist Larry Schulze discusses nature's role in field pest management.



A stream table demonstrates the dynamic nature of rivers and streams.



Barb Ogg (of Lancaster County Extension) and Marshall Coleman (of Wastewater Operations) explain how Lincoln's wastewater treatment plant converts sewage into cleaned water, carbon dioxide and wastewater solids.



Students learn about the factors that affect water quality as they limbo in a session presented by Lancaster County 4-H staff and volunteers.



At the end of the "Rep-Tales" presentation by the World Bird Sanctuary of St. Louis, students had the opportunity to touch a seven foot-long boa constrictor.

Can You Guess It?



Photo by Dr. R. Hays Cummins, Miami University

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

Did you guess it from the April NEBLINE? The answer was the strong mouthparts of a pine sawyer beetle grub.

Students Watch Eggs Hatch in the Classroom!

Embryology is a 4-H School Enrichment project sponsored by the UNL Cooperative Extension. Classrooms receive a dozen fertile eggs and students care for the eggs during the 21-day incubation period. In Lancaster County, nearly 3,000 third graders participate in Embryology each spring.

This year, the University of Nebraska Poultry Division supplied some "mystery" eggs for the project. The students learned after the hatch these were White-Crested Black Polish chicks. Messiah Lutheran's third grade classroom captured on video one of the little Polish hatching. A special thanks to university poultry specialists Lyle Robeson and Chad Zadina for gathering and donating the mystery eggs!

The hatching video can be viewed on the 4-H Embryology Web site at lancaster.unl.edu/4h/Embryology. In the upcoming weeks, EGG Cam will feature a live view of chicks and guinea hatching.



UNL student Ann Barnett (left) helped pick up chicks from classrooms, including Fredstrom.

4-H Speech/PSA Contest Winners

This year's Lancaster County 4-H Speech and Public Service Announcement (PSA) Contest was split into two events and dates to make it easier for youth to participate in both contests. The PSA contest was held April 5 at the Lancaster Extension Education Center and the Speech Contest was held April 9 at the State Capitol Building. These are the first 2005 Lancaster County Fair 4-H competitions. Waverly Grange and Lancaster County Farm Bureau donated cash awards. The top three winners in each division will go to regionals, held May 31 in Seward. Complete results and photos are online at lancaster.unl.edu/4h/Fair.

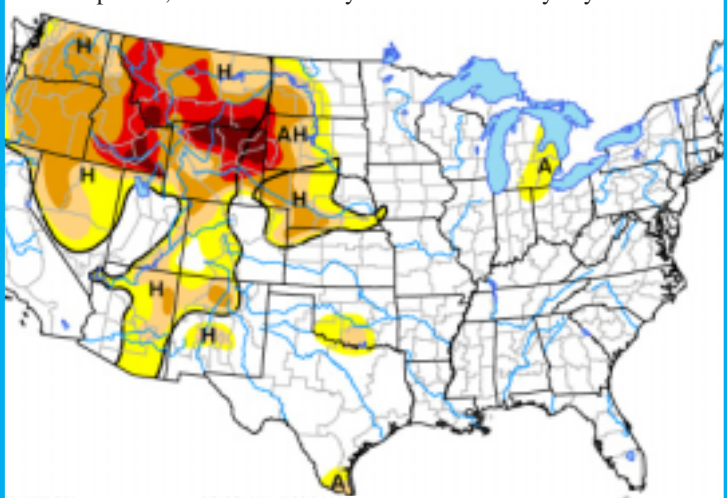
- SENIOR PSA: Nicole Pedersen (1st), Amanda Peterson (2nd)
- INTERMEDIATE PSA: Ryan Keys (1st), Hannah Spencer (2nd), Terra Garay (3rd)
- JUNIOR PSA: Lisa Keys (1st), Jessica Stephenson (2nd), Spencer Farley (3rd)
- NOVICE PSA: Jamie Stephenson (1st), Amy Keys (2nd), Matthew Grimes (3rd)
- SENIOR SPEECH: Amanda Peterson (1st), Nicole Pedersen (2nd), Grace Farley (3rd)
- INTERMEDIATE SPEECH: Carmen Claesson (1st), Ryan Keys (2nd), Kyle Pedersen (3rd)
- JUNIOR SPEECH: Jessica Stephenson (1st), Erica Peterson (2nd), Lisa Keys (3rd)
- NOVICE SPEECH: Abigail Swanson (1st), Jaime Stephenson (2nd), Sadie Hammond (3rd)



(Left to right) Grace Farley, Alice Doane (representing Waverly Grange), Amanda Peterson and Nicole Pedersen

U.S. Drought Monitor Map

As of April 12, Lancaster County was in abnormally dry conditions.



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- A = Agricultural crops, pastures, grasslands
- H = Hydrological (water)
- (No type = Both impacts)

For the most recent map, visit www.drought.unl.edu/dm

Source: National Drought Mitigation Center, University of Nebraska