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The NEBLINE, March 2000

The NEBLINE®

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Lancaster County

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"Helping Nebraskans enhance their lives through research-based education."

Stormwater Management and Water Quality
Urban Nonpoint Source Pollution

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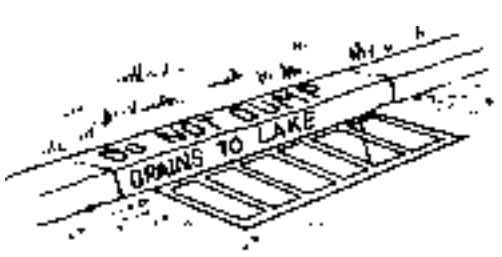
Extension Educator

What is nonpoint source pollution? Water washing over the land from rain, snowmelt and our everyday activities picks up an array of contaminants including oil and sand from roadways, agricultural chemicals from farmland and

nutrients and toxic materials from urban and suburban areas. This runoff finds its way into our waterways, either directly or through storm drain collection systems.

The term *nonpoint* is used to distinguish this type of pollution from *point* source pollution, which comes from specific sources such as sewage treatment plants or industrial facilities. Although huge strides have been made in cleaning up major point sources, our water resources are still threatened by the effects of polluted runoff. The U.S. Environmental Protection Agency has estimated that this type of pollution is now the single largest cause of the deterioration of our nation's water quality.



With urbanization comes more intensive land use. People and the pollutants that result from their lifestyles are concentrated in areas largely covered by impervious surfaces (roads, parking lots, driveways, rooftops). This combination of people, pollutants and pavement produces runoff that can carry a greater pollutant load than municipal sewage. Sediment from construction sites, chemicals over-applied to lawns and golf courses, automobile wastes (petroleum products, heavy metals), road salt, pet wastes and industrial contaminants all end up in the nearest body of water.

Current Issues for Municipal Officials

Urban nonpoint source pollution and its management are likely to affect you and your town in the near future. Concern over polluted runoff has resulted in an ever-increasing number of state and federal laws enacted over the last five years. The federal government is currently finalizing regulations for storm water management in smaller communities. The regulations are known as the National Pollutant Discharge Elimination System (NPDES) Phase II Rule. The purpose of the NPDES Phase II Rule is to comply with the requirements of the 1972 Clean Water Act and to further protect our nation's streams, rivers, wetlands and lakes. Proposed Phase II regulations follow the 1990 NPDES Phase I Rule. The Phase I Rule addressed storm water discharges from medium and large separate storm sewer systems (those serving communities with a population of at least 100,000), as well as discharges associated with industrial activity.

Two important changes are the NPDES Phase II Rule will affect small municipal separate storm sewer systems (serving populations of less than 100,000 and located in an urbanized area or designated by the permitting authority), and construction activities disturbing between one and five acres. In addition to implementing these federal programs, many states have passed laws altering local land use (planning and zoning) processes and building codes to address the problem of polluted runoff.

What We Can Do

Preventing pollution by better land use planning is by far the least expensive and most effective way to protect our critically important water resources. Minimizing impacts to natural drainage ways and vegetation increases stormwater infiltration, decreases flooding and pollutant loading during storm events, reduces erosion and sedimentation, and protects wildlife habitat. Development can be directed to appropriate land parcels based on soils and natural resources inventories. Better site designs that reduce grading and filling and reduce the amount of impervious surface in a watershed can save money for developers.

So why haven't we done this before? The economic, social and environmental costs of suburban sprawl are just now becoming better understood. Polluted runoff is largely the result of how we develop, use and maintain our land. These policies are usually decided at the municipal level, through the actions of local officials and commissions. While stormwater runoff problems are nothing new to our officials, historically the focus of stormwater management was public safety, getting the most water off paved surfaces as quickly as possible. Little thought was given to the increased volume and velocity of runoff, increased erosion, increased frequency and severity of flooding, reduced groundwater recharge or the receiving waters of stormwater runoff. Informed, community level decision-making is becoming more and more critical in the effort to preserve the quality of our neighborhoods and environment.

If you are on a local commission or board, learn a little about polluted runoff and how you can combat it in your everyday decisions. Does your municipal master plan identify important natural resources? Does it address potential impacts of development on water resources? Do local ordinances allow for innovative site design? Are your storm drains properly maintained? There are many techniques and regulations that can greatly reduce the effects of polluted runoff, and there are more being developed every day. Also, there are many good publications and programs that can help each citizen do simple, but important things to help reduce runoff pollution like conserving water, properly disposing of hazardous wastes, and gardening and maintaining lawns in an environmentally responsible manner. (KH)

In this issue...

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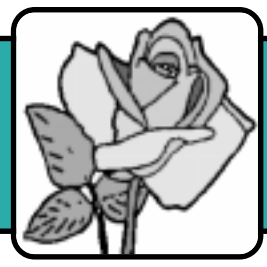


Horticulture

Pruning Mature Deciduous Shrubs

Correct pruning is one of the most essential of all management practices for shrubs in the home landscape. Proper pruning will help keep shrubs vigorous, maintain them in proper shape and form for a desirable landscape effect and add years to their usefulness.

Prune deciduous shrubs to maintain a natural habit of growth. Also remember to remove dead, diseased or broken branches. With most shrubs, the ideal time to prune is during the dormant season before new growth begins. Spring flowering shrubs, such as forsythia and lilac, should

be pruned shortly after flowering to avoid removing flower buds. Prune shrubs that bloom after the end of June in the winter or spring before new growth starts. These plants develop their flower buds during the spring growth period. Shrubs that bloom on current season's growth include Rose-of-Sharon.

In general, most deciduous shrubs should be thinned out rather than sheared or cut back. Thinning out prevents excessive or unsightly branch formation at the top of the plant and maintains the natural habit of growth. Thinning is done by cutting off a branch where it is attached to the main stem. This method, the least conspicuous of all type of pruning, is best used on plants that are too dense. To develop branches that grow toward the outside of the plant, remove the inward growing branches and prune to an outward facing bud or branch.

Prune branches at the point of attachment to another branch or back to a bud. Pruning just above a bud prevents dieback of the stem, and a new branch will develop from the bud. Shearing causes dense growth to develop at the ends of the branches. Such growth shades the rest of the plant, which gradually loses its lower foliage and becomes sparse and spindly looking.

You can maintain plants at a given height and width for years by thinning out. This method of pruning is best done with hand pruning shears, not hedge shears. Thin out the oldest and tallest stems first.

Older shrubs that have become too large or contain considerable unproductive wood should be rejuvenated. Prune the plant by cutting off the oldest branches at the ground, leaving only the young stems. If there are not many younger stems, remove the older wood over a three year period to maintain the overall shape of the plant. New shoots that develop can be cut back to various lengths by the thinning out method, which encourages the development of strong branches. Plants that often become overgrown and benefit from rejuvenation include forsythia, honeysuckle, spirea, viburnum, weigela and other fast growing types. These plants, if extensively overgrown, severely weakened or otherwise unhealthy, can be cut back to the ground but may not bloom for one to two years, depending on the rate of regrowth. (MJM)

Educate Yourself Before You Buy

It is probably safe to say that the majority of mail order plant companies are legitimate businesses that strive to supply quality products to their customers. They can be a reliable source for unique plants that otherwise can be hard to find.

Whenever you are buying plants by mail, it pays to be cautious. Ads that make fantastic claims for plants should make you wary. Often a plant that sounds too good to be true will not live up to the claims made for it.

To avoid disappointment, read the ads closely. Find out everything you can about the plant being sold. First, find out what the plant is. Plant ads that use common names and do not give the botanical names of the plants being sold make it difficult or impossible for you to learn more about the plant from other sources. The same common name may apply to several plants or a cute, catchy name may be made up for advertising purposes to attract potential buyers. Study the ad copy, what is missing may be more important than what is there.

Before you order plants, it is a good idea to comparison shop. Get catalogs from several companies and compare plant sizes, ages, hardiness zones, growing conditions, warranties, shipping or handling details and costs. Educate yourself before you purchase plants and then enjoy the quality plants you receive. (MJM)

All America Selection 2000 Winners

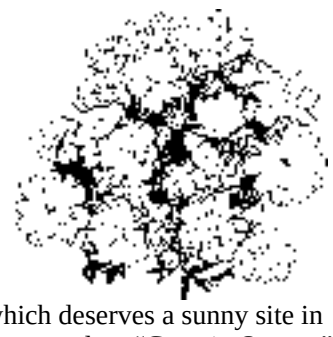
Cabbage "Savoy Express"
This is the earliest savoy

(crinkled) cabbage with a sweet, non-bitter, flavor perfect for slaw or other cabbage salads. "Savoy Express" heads mature in about 55 days from transplanting. The compact plant can be grown at close spacing about a foot apart in the garden. The small heads are about 1to 1 1/2 pounds. "Savoy Express" cabbage is recommended for planting as a spring or fall crop and it may be the earliest cabbage on the block.

Sweet corn "Indian Summer"
The first sweet corn with

colorful kernels. "Indian Summer" kernels are yellow, white, red or purple. "Indian Summer" ears are large, eight inches, and gardeners need to check the corn silk for maturity about 79 days from sowing seed.

Cosmos "Cosmic Orange"
"Cosmic Orange" is an improved Cosmos sulphureus



which deserves a sunny site in your garden. "Cosmic Orange" reaches a height of about 12 inches in a full sun garden. The vigorous plants provide abundant, bright orange two inch blooms all summer. Basically pest and disease free, "Cosmic Orange" is adaptable and easy to grow. This annual will thrive on minimal care. Only water, sun and fertile soil are needed for "Cosmic Orange" to bloom all summer and into the fall.

Dianthus "Melody Pink"
Sprays of single pink blooms distinguish "Melody

Pink" from other annual dianthus. Bred specifically for use as a cut flower, this dianthus produces one inch flowers with a serrated petal edge, giving it an old fashioned lacy look. The long stems are desirable for fresh bouquets. "Melody Pink" will mature to a height of 22 to 24 inches. "Melody Pink" is quite heat and cold tolerant offering gardeners many months of flowering.

Pea "Mr. Big"
"Mr. Big" is a superior English or garden pea. There are

several significant improvements including consistently large pea pods. The larger pods are easier to shell. The fresh sweet peas taste delicious. "Mr. Big" produces a high yield, because the plants are early, set two pods per node and is disease resistant. "Mr. Big" is an indeterminate vine reaching two to three feet in the garden. Plants will need a trellis for vertical support. Harvest mature pea pods in 58 to 62 days.

Pepper "Blushing Beauty"
The name "Blushing

Beauty" describes the color changes of this productive sweet

*See **WINNERS** on page 11*

2000 March/April Garden Calendar

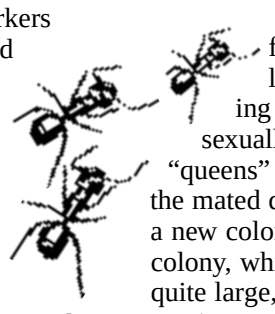
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Order seeds	2 Put up bird houses	3	4
5	6	7 Prune fruit trees	8 Start a garden journal	9 Make a garden plan	10	11
12	13 Prune grape vines	14	15 Service lawn mower & garden equipment	16	17	18
19	20	21	22	23 Start seeds indoors for transplants	24	25
26	27	28	29 Turn compost pile	30	31	1
2	3	4	5	6 Plant cool season vegetable seeds outside	7	8
9	10 Power rake or aerify bluegrass	11	12 Apply fungicide to pines for tip blight	13	14	15
16	17 Fertilize bluegrass	18 Fertilize tall fescue	19 Apply pre-emergence	20 Apply fungicide to crabapples for cedar apple rust and scab	21	22 Earth Day
23	24	25	26 Control iris borer	27	28 Arbor Day	29 Spring Affair at State Fair Park
30						

Many of us need reminders. That is the purpose of this calendar. Check the calendar each month and follow the recommendations if they are necessary in your landscape situation. (MJM)

Carpenter Ants are Frustrating !

More people bring carpenter ants to the extension office for identification than any other insect. Carpenter ant colonies can occur in the structural part of the house where it is warm. Sometimes carpenter ants are active and even swarm when temperatures are quite cold outside.

In Nebraska, there are two species of carpenter ants that can infest structural wood of homes. The black carpenter ant, *Camponotus pennsylvanicus*, is very large (3/8 to 5/8 inch) and jet black. The other species, *Camponotus nearcticus*. *C. nearcticus* has no common name, but we refer to is as the "reddish carpenter ant." It is smaller in size than the black species (1/4 to 1/2 inch) and has a reddish brown head, thorax, legs and a black abdomen. Carpenter ants differ from other types of ants because they have workers that vary in size, called "major" and "minor" workers.



By the time homeowners are aware of a carpenter ant problem, the colony is several years old. The colony begins with a single, winged queen who has mated. After the mating flight, she searches for a suitable location, usually wood that is damp or wet. The queen lays eggs and cares for immatures that develop into minor workers that begin to forage and help care for eggs and additional immatures that the queen produces. The colony grows slowly; it takes at least 2 to 3 years for major workers to be produced. A colony can be 6 to10 years old before swarmers are produced.

Swarming results from individuals in a large colony developing wings and becoming sexually mature. After "queens" and "kings" mate , the mated queen flies off to start a new colony. The mature colony, which, by this time is quite large, remains behind and continues to produce workers. A mature black carpenter ant colony, Nebraska's most common species, may have several thousand workers.

Habits

The diet of carpenter ants is quite varied and includes living and dead insects, honey-dew from aphids, sweets, meat and fats. They do not eat wood. Foraging workers collect all the food for the colony and can forage up to 100 yards from

See **ANTS** *on page 12*

"Tiny Red Dots Moving on My Window Sill"

Clover mites are common nuisance pests in Lancaster County. They are especially annoying in early spring and fall when they appear on window sills. With our relatively warm winter, we've had people reporting clover mites in December and January.

Clover mites are slightly smaller than a pin head and has a reddish-brown body. They look like dark specks crawling around windows, drapes, curtains and furniture. These mites are not insects, but are relatives of spiders.

Clover mites do not damage your home, furniture or injure your family or pets. They do, however, leave a nasty stain on fabrics when crushed. I remember one story of a flustered mother who found her young boys using the mites to "paint" pictures on their white bedroom walls. For this mom, these critters were much more than just a nuisance.

For clover mites indoors, use a vacuum cleaner or moist dust cloth or paper towel to gently dab up the pests. Avoid smearing the mites because they will stain.

This summer, you can try several management strategies to reduce the numbers next spring. This may include:

- Controlling or removing grasses and weeds around foundations.
- Create a barrier of gravel/ marbles, sand or lava rock around the foundation.
- Planting flowers and other plants that aren't attractive to clover mites can be used as a barrier.
- There are insecticides available to the general public to help control clover mites.

Unfortunately, these strategies won't help you deal with the critters on your window sill today. Your best bet is to work on adding these management strategies this summer so the clover mites won't find it as easy to get in your house this fall.

For more detailed information, pick up "Clover Mites and Their Management," NebGuide G93-1131 at the Lancaster County Extension Office. (SC)

Spring Housecleaning?

Take Advantage of the Household Hazardous Waste Collection Days

Date

Saturday, April 8
Saturday, May 20

Location

Lincoln-Lancaster County Health Department (LLCHD
3140 "N" Street, south parking lot
State Fair Park, parking lot, northeast of Ag Hall

Latex Paint Exchange Day. Only good, usable latex paint is accepted. Containers must be at least half full.

Time

9 a.m. – 3 p.m.
9 a.m. – 3 p.m.

Items that you can bring for disposal:

- Heavy metals: items containing mercury such as thermometers and thermostats. Fluorescent bulbs and many batteries contain heavy metals but can now be recycled locally.
- Solvents: mineral spirits, turpentine, paint strippers and thinners, oil-based paints, varnishes.
- Pesticides: weed killers, garden sprays, wood preservatives, roach powder, rat poisons. You may also bring banned products, like DDT, chlordane, 2,4,5-T, pentachlorophenol, silvex.
- PCBs: Ballasts from old fluorescent fixtures and capacitors from old appliances including radios, motors and televisions.

Leave products in their original container and keep the label intact. Open, leaking or rusted containers should be placed in a clear plastic bag during transport. Do not mix chemicals.

Do not bring medicines, explosives, fertilizers, used oil, general household trash, antifreeze, batteries or latex paint, except on May 20. For more specific information, call the Lincoln-Lancaster County Health Department at 441-8040. (BPO)

Environmental Focus

Get Ready for Babies!

Before you know it, songbirds will begin searching out sites to build a nest. Are you ready? March is a perfect month to get ready for this exciting springtime event. And, we've got help for you at the extension office.

Single-compartment nest boxes are the easiest to build and most frequently used by birds. You can use the same basic box design for all types of birds. You just need to change the dimensions and hole sizes for the species of bird you want to attract.

One of our popular in-house fact sheets, "Build a Nest Box to Attract Birds," gives you tips on building a nest box for House Wrens, Chickadee, Nuthatch, Downy Woodpecker, Eastern Bluebird, Common Flicker, Screech Owl, American Kestral and Wood Duck. The fact sheet also covers information on nesting, protecting birds from predators and maintaining your nest box.

To obtain the fact sheet, 024-99, "Build a Nest Box to Attract Birds," call (441-7180) for your copy. The fact sheet can be mailed to you when you send a business-sized, self-addressed, stamped envelope to "Build a Nest Box to Attract Birds," 444 Cherrycreek Road, Suite A, Lincoln, NE 68528-1507. Or, visit our Environment and Natural Resources web site on the internet at http://www.Lanco.unl.edu.

With a little help from you, birds will find plenty of places in your yard to make a home. (SC)

Cats—Keeping the Urban Predator in Check

Cats sit like statues on sunny window sills. They loll peacefully on sidewalks on nice days. Americans love cats. There are an estimated 50 million plus cats in the United States.

Multiply 50 million cats by an occasional backyard bird kill and you can soon see that cats contribute to a significant loss of songbirds and other ground nesting birds. Already beleaguered in numbers by habitat loss and environmental degradation, native birds need all the help they can get.

How can cat owners prevent their cats from killing birds?

- Put a bell on your cat. It may not be a perfect solution, but it may help.
- Hang or post bird houses and feeders on cat-proof metal posts or wooden posts with a metal collar near the top.
- Houses or feeders should be at least five feet above the ground and away from objects that cats can climb on.
- Place feeders and birdbaths away from concealing vegetation, where cats can lurk. Many birdbaths are too low and allow easy access by cats.
- Keep cats inside more often.
- Contact your local animal control agent if you see feral (wild) cats in your neighborhood. Source: Oregon State Extension Service (SC)

Bluebird Conference on April 8

Bluebirds Across Nebraska (BAN) will host its sixth annual conference on April 8 at Waverly High School, located one-half mile west of Waverly on Highway 6. This conference is open to the public and will run from 8 a.m. until about 4:30 p.m. The registration fee is $10. Lunch will be available at a cost of $5 before April 1 and $8 after April 1.

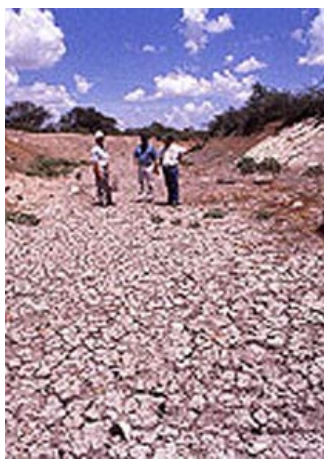
The Saturday conference will include presentations from experts from Wisconsin, Ohio, Minnesota and Montana on bluebird biology and adaptability to a variety of nest boxes, purple martin and wildlife research.

For more information or to register, phone Leland Osten at 402-423-8678 or email LO54101@navix.net. (BPO)

Farm Views

Could We Still Have a Y2K Disaster?

As we all know, January 1, 2000 dawned on an anxious, but normally functioning world. Lights and telephones worked, stores and banks conducted business as usual and people went on with their lives. The Y2K bug turned out to be, perhaps, the biggest non-event in history, due to hard work and well over $100 billion spent in the U.S. alone to fix the Y2K bug before it had a chance to bite us. Could we still have a disaster in 2000? In the non-irrigated grain producing areas of the U.S., a disaster is a very definite possibility, not from new-fangled computers, but from an old-fashioned drought.



The Drought Mitigation Center at the University of Nebraska produces maps, updated weekly, showing the severity of the drought in the U.S. To view the latest map, point your web browser to the Lancaster County Ag/Acreage page at www.lanco.unl.edu/ag/ and look for Drought Severity Map under the "Other University of Nebraska Web Sites" heading. This information can also be accessed from the weather page of the Nebraska Production Agriculture web site at http://www.ianr.unl.edu/ianr/lanco/ag/weather/weather.html.

As this article is being written, essentially all of the grain producing area between the Rockies and Appalachian Mountains is experiencing abnormally dry to first-stage drought conditions with second-stage (severe) drought indicated though large areas of Texas, Louisiana and Mississippi; most of the eastern 2/3 of Nebraska, western Iowa and into southwestern Minnesota. Smaller pockets of severe drought also occur in Indiana and Georgia.

Precipitation in the final six-month period of July to December 1999 was only 8.25 inches at Lincoln. This is six inches below normal for the six month period (58 percent of normal precipitation). The combination of spring planting delays which resulted in late maturing crops and the dry period beginning in July, has left soil reserves at extremely low levels. Our soils in eastern Nebraska currently hold only one to two inches of moisture compared to a normal six inches or so at this time of year. Most of the moisture is in the top 18 inches of the profile (much of which would be lost if the soil were tilled).

A corn crop requires about 25 inches of total soil moisture for normal growth. Most years, we rely on moisture stored in the soil profile to supply around six inches of this total with the remaining 19 inches or so coming from precipitation. Assuming none of the current soil moisture is lost as a result of tillage operations, at present we would need to receive an additional 23-24 inches of effective precipitation between now and harvest to produce a normal crop. Average rainfall effectiveness is about 70 percent in eastern Nebraska (for each inch of rain, about 0.7 inch of moisture is stored in the root zone).

Climatologists have developed computer models to predict precipitation patterns months into the future. The models are based on many factors, including the effect that the El Nino/La Nina phenomenon has on our climate. Based on these models, there is only about a 10–15 percent probability that we will receive the required precipitation between February and the end of the growing season to produce a normal crop. If one wants better odds, there is a 50–50 chance we will receive a total of 17 inches or more of effective precipitation during that period. Considering the dry soil profile, if we would receive 17 inches of effective precipitation, we could be short six to seven inches of the total moisture needed for a normal corn crop. Read *Farming in a Drought* in this issue of the NEBLINE for ideas on what farmers can do to deal with this situation. (TD)

A REMINDER FOR INTERNET USERS:

Lancaster County Extension Office has a new, shorter home page address: www.lanco.unl.edu

Some shortcuts:

www.lanco.unl.edu/food	**www.lanco.unl.edu/hort**
www.lanco.unl.edu/ag	**www.lanco.unl.edu/family**
www.lanco.unl.edu/enviro	**www.lanco.unl.edu/4h**
www.lanco.unl.edu/nebline	**www.lanco.unl.edu/contact**

Farming in a Drought

With much of Nebraska already in a severe drought situation this spring, is there anything farmers can do to prepare? Unfortunately, we can't make it rain. However, we can change farming practices and we can select crops that reduce water demand.

Under normal conditions, about one inch of soil moisture is lost with each tillage pass (requiring 1.4 inches of 70 percent effective rainfall to replenish). In marginal years, conserving soil moisture with no-till farming has proven to be the difference between a crop failure and harvesting a crop in some cases.

Selection of which crop to grow can be the most important decision of the year. Corn will continue to grow physiologically until all available moisture is gone and then tissue death occurs. Once corn has "fired," it does not recover. During the 10 days following silking, corn is twice as sensitive to stress than before or after. Under drought stress, corn may produce tassels, but silking may be delayed enough that most or all of the pollen is gone by the time silks emerge, if they emerge at all.

Changing from corn to grain sorghum could be a wise decision in 2000. Milo uses less total water than corn (20 inches vs. 25 inches) and has some ability to go dormant during a dry spell and then recover and produce grain if rain is received in time. Soybeans also use less total water than corn (22 inches vs. 25 inches) and are generally considered to be a poor dry-weather crop, but they can stand more drought stress than corn. Somewhat like sorghum, soybeans will stop growth when under moisture stress. After drought stress, if rains are adequate in August and the season is long enough, soybeans can produce a good seed crop.

Water demand can be affected by plant population but not as much as might be expected. Evapo-transpiration (ET) is the sum of evaporation from the soil surface and transpiration through the plant. Before the crop reaches full canopy cover, the soil is exposed and surface moisture evaporates readily. If the soil surface is protected by crop canopy or plant residue, the evaporation component is reduced.

Under full canopy conditions, ET reaches a peak value at a leaf area index (LAI) threshold of 2.7. If the plant population is adequate to produce an index above the 2.7 LAI threshold, little difference in ET can be measured. Therefore, to affect crop water use significantly, populations need to be low enough to keep the LAI below the threshold for most or all of the growing season. (Minor differences in total seasonal water use do occur because higher plant populations reach the threshold sooner in the growing season and remain above the threshold a bit longer at the end of the growing season than lower populations.) To get significant savings in total water use, populations of modern, upright leaf corn varieties would need to be under 16,000 to 17,000 plants per acre for medium and short season varieties, respectively (assuming two ton per acre of corn stubble residue). No advantage has been shown for reducing grain sorghum populations under 60,000 or soybean populations under 150,000 plants per acre. (TD)

Stockmen Prepare for Drought

Adapted from information provided by Extension Forage Specialist, Bruce Anderson.

Are you ready for this summer's drought? It may seem too early to talk of drought before spring rains begin, but who knows what summer will bring.

Have you ever heard anyone announce, "Look out for the drought?" Probably not. Droughts are sneaky. The weather service doesn't issue drought alerts like they give blizzard, tornado and flash flood warnings. So, by the time most of us realize a drought has begun, it's too late to make the best adjustments needed to avoid serious losses.

But this year is different. We already know how little moisture is in the soil and the low probability of getting average pasture and dryland hay production. So, what will you do if it stays dry this summer? What if your pastures dry out? Are you prepared to wean early, to cull heavy, to remove yearlings from pasture or to save fewer heifers? These livestock practices will save forage for your base herd, especially if you do it early enough.

Do you have alternative grazing areas? Like adjacent corn fields or hay meadows that might help stretch summer pastures. Or maybe use some extra hay from last year's abundant supply. And how about your grazing management? The sooner you group livestock into a few small paddocks, the better. Grazing will be more uniform and complete with high stock density. Maybe you should even plan to feed your extra hay periodically in drylot as part of your rotation to allow rested pastures to accumulate more growth before grazing them again. This can help increase the total number of grazing days from your pastures.

Listen. Are you hearing any warning signs of drought? If you're ready, it's nothing to fear. (TD)

Tanks vs. Ponds and Creeks for Livestock Water

Could watering cattle from tanks be better than using ponds or creeks? Both amount and quality of water should be considered. The current drought is drying up many ponds and creeks. If you rely on them for cattle water during summer, alternatives might be needed this year. If you decide to change your water supply situation, consider identifying ways to put all water into tanks rather than allow cattle to wade into it.

Tank water is better for cattle and they prefer it to ponds or creeks. It usually is cooler and offers easier access. Plus, when cows walk into ponds and creeks, they stir mud and sediments into the water and often deposit urine and manure. No wonder calves consistently choose tank water over ponds when given a choice!

Investing in a tank will pay for itself. Reports from Montana, Oregon, Canada and elsewhere show that the higher water quality found in tanks provides a boost in cattle gains. Calves often weigh an extra 50 pounds at weaning when tank water is available instead of ponds and yearling steers can gain an extra three to four tenths of a pound per day. With this much added performance, water tanks, pipes and pumps can be paid off in just a few years.

In addition, pumping water into tanks usually improves grazing distribution by attracting cattle to graze areas near the tanks instead of spending time in

the ponds or creek. This can increase your pasture's carrying capacity or grazing season.

Think of it, better grazing, higher gains and reliable water. So much to gain and so little to lose.

Source: Bruce Anderson, Extension Forage Specialist. Bruce credits the February 2000 issue of 'Beef' magazine. (TD)

Dry Conditions Expected Through Spring

Eastern Nebraska and western Iowa continue to be at the center of a severe drought, according to the National Drought Monitor. Precipitation shortfalls across Nebraska have steadily increased since mid-September. Precipitation has averaged 20 – 40 percent of normal which are averaging four inches below normal across central Nebraska to nearly eight inches below normal across the northeastern corner of the state.

In most landscapes there are plants that survive periods of drought. Placing these plants in the garden reduces the need to supply extra water during periods of inadequate rainfall. While cacti and succulents may have a place in some drought-tolerant gardens, they are not the only alternatives. There are other choices available and appropriate for dry areas. With careful selection, planning and execution, drought-tolerant landscapes can be as pleasing as those needing heavy irrigation.

Select plants for the growing conditions in a given area when planning and designing the landscape. Each area should be irrigated separately, according to specific water needs. Incorporate leaf size, color, bloom period, size and shape of plant, to create visual interest.

Turfgrass requires more water than other plants in the landscape. By isolating turf from gardens, trees and shrubs, a gardener can separate irrigation zones and waste less water. Limit turf to areas that are regular in shape and easily irrigated. Cultivar selection should be appropriate to the climate, site, level of maintenance, intended use and reduced water consumption. Although coarse in texture and appearance, tall fescue mixes offer good heat and drought tolerance. Cut the grass at a height of 3 to 3 1/2 inches. Longer leaf blades help to shade and cool the ground, reducing evaporation from the soil and lessening the need to irrigate.

Efficient irrigation may mean including an irrigation system. The least efficient system is the sprinkler. It delivers a large amount of water in a short period, but loses excessive amounts of moisture to evaporation. Sprinklers that apply water early in the morning are the only choice for turf areas. Low-volume trickle or drip irrigators and soaker hoses deliver moisture over a long period, losing little water due to evaporation or runoff. Check all systems regularly. An improperly calibrated, clogged or leaking system can waste a great deal of water. Carefully probe the root zone to help determine the moisture content in the soil. With some low-volume systems, the surface of the soil will not appear to be saturated, while the root zone will receive the proper amount of moisture.

Properly mulching an area lowers the soil temperature and decreases the loss of moisture due to evaporation. In addition to creating texture in the landscape, organic mulch decay adds nutrients to the soil. Appropriate depth of the mulch is important: two to three inches for trees and shrubs and one to two inches for vegetables, annuals and perennials.

Carefully planned landscapes and sound cultural practices reduce water needs. Controlling weeds will lower moisture competition with other plants. Lessening competition will strengthen existing plants and make them less susceptible to disease, insects and drought. By carefully preparing and meeting plant requirements, a gardener can develop a landscape full of color and texture, while reducing water requirements.

Irrigation Zones

Very Low Water Zone

This area is typically farthest from a source of water. Plants in this area must be chosen carefully, requiring little or no supplemental irrigation. Some of these plants may show problems in years of abundant rainfall.

Low Water Zone

Plants chosen for this area will require more water than that which is available naturally. During severe drought, supplementing the water supply will become necessary.

Moderate Water Zone

This zone will use the greatest ratio of water in the landscape. Keeping this area small will help limit water needs. It is possible to grow drought-intolerant plants in this area.

Plants Selected for Low and Very Low Water Zones

Hardiness may be microclimate dependent. This is not a complete list, but rather a sample of drought-tolerant species.

Many species require well-drained soils and will not grow well in poorly drained, clay soils. Some species resistant to drought may perform more vigorously when grown in ideal conditions.

Trees and Shrubs

Amur Maple
Lead Plant
Japanese Barberry
Butterfly Bush
Peatree
Hackberry
Flowering Quince
Cotoneaster
Washington Hawthorn
Russian Olive
Honey Locust
Kentucky Coffee Tree
Juniper
Privet
Osage Orange
Bayberry
Nine-Bark
Jack Pine
Cinquefoil
Plum

See **DRY** *on page 11*

Acreage Insights

The Business Plan: Executive Summary

By Frank Leibrock, Small Business Support

Colorado State University Cooperative Extension

Now that you have opened the door to the possibility of starting your own business, you need to look carefully at how your business will function. In order to do that, you need to develop a plan that outlines all the details associated with the enterprise. You began with the end in mind when the idea of starting a business first surfaced. Now you will begin at the beginning.

The Executive Summary

This section of the plan should outline the basic idea of the business. It should be brief, but still have an impact on the reader. The summary should stand on its own, but so capture the readers' imaginations, they will want to delve more deeply into the details.

Your opening remarks should provide all who read them a brief but clear understanding of, not only what your business is about, but how you plan on conducting business. Your executive summary should address the following questions and points:

• What is your product or service? Although this may seem obvious, without a clear and concise definition, the remainder of your plan may be weakened from the start.

• What makes it salable, marketable — in other words, a winner? Why would a consumer (or another business) buy your product or service instead of something already on the market?

• What are your competitors' strengths and weaknesses? As you assess this issue, remember the words of Jack Welsh, the CEO of General Electric: "If you don't have a competitive advantage, don't compete."

• Exactly how are you going to operate? If you are in production, describe how you will manufacture your product. If you are in a service industry, tell exactly how you will deliver your service.

• What makes your product or service hard to imitate? Many successful enterprises have come onto the market after modifying something that was a good idea, but was not quite "right" before it was presented. Look hard at what you are going to do. Be sure you recognize the need to innovate as you grow.

• Who are you selling to and how? Please note the reference to "other businesses" mentioned previously. There are all kinds of customers out there. Be sure you clearly identify the ones you will serve. The "how" of your service is just as important as the "who" you are serving.

• Different customers want the product or service delivered in different ways. Be sure you understand those differences.

• What innovative technology is involved in your business? Patents? Licenses? In many cases, these become your competitive advantage.

• Lastly, and probably most importantly, your executive summary should highlight your management team. In the beginning, this will be you and possibly a few others. It is critical you clearly illuminate the qualifications of all involved in running the business. Not only will this provide you an opportunity to discover gaps in the management and leadership, it will give you time to close those gaps before you embark upon your enterprise.

In our next article, we will look, in detail, at the management team; the people upon whose talents the success of the business depends. Begin thinking now of what talents will be necessary to develop and deliver your product or service. It is true in almost any business– people do indeed make the difference!

To Prune is to Care

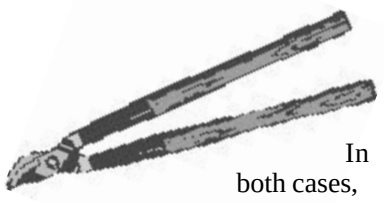
Fear of pruning shouldn't stop you from planting fruit trees — unless it's going to stop you from pruning them.

Young trees need pruning to develop a desirable shape; mature, bearing trees need pruning to stay healthy and productive. Pruning, in other words, is a basic part of fruit tree care and maintenance. If you keep in mind why you're pruning and what you want to accomplish, taking a saw in hand doesn't have to be scary.

Young trees are pruned to encourage them to develop a strong, but open branch structure that will expose leaves and fruits to sunlight and pest control materials. The two methods ordinarily used are the open center and the central leader methods.

Peach and Japanese plum trees are usually shaped by the open center method. The central upright trunk is removed and branches are selected and directed so the mature tree has a sort of wide, flat vase shape. As the name suggests, the center of the tree is open.

Apples and other fruits are trained by the central leader method. The main upright stem is retained and two or three branches are selected each year for two to three years to form the basic structure of the tree. If the tree was viewed from directly above, the lateral branches would look like spokes of a bicycle wheel.



In both cases, you select branches that form wide angles with the main stem. Sharp, V-shaped crotches are weak and prime to break under the weight of a heavy fruit crop or a load of ice or snow.

Mature, bearing trees are pruned each year during the dormant season, usually in late winter.

The first step is to remove dead, broken or diseased branches. Cut them back to the trunk or to healthy buds. It's important to remove dead or broken branches because they can provide an entryway for disease organisms and insects.

See **PRUNING** *on page 12*

Learn at your convenience

—24 hours a day, 7 days a week—

NUFACTS (audio) Information Center

NUFACTS audio message center offers fast, convenient information. In the Lincoln area call 441-7188; for the rest of Nebraska call 1-800-832-5441. When directed, enter the 3-digit number of the message you wish to hear.

Acreage & Small Farm Insights Web Site

Visit our Internet web site at: **http//www.ianr.unl.edu/ianr/dodge/acreage/index.htm** to learn about Extension programs, publications and links to other acreage and small farm information.

"Part-time Farming" video

"Part-time Farming" will help develop your country environment and improve your quality of life. Just one hour of ***"Part-time Farming"*** provides tips that will save you costly mistakes and precious time. Call 402-441-7180 to order your copy.

Food & Fitness

Healthy Eating
Enjoy Nebraska Foods!

Alice Henneman, RD, LMNT, Extension Educator

People often call our office asking about using applesauce instead of fat in recipes. Here's a recipe from the American Dietetic Association using apple butter or applesauce in place of much of the fat. If you have access to the Internet, you can find several more recipes at the Mott's Applesauce Web site: www.motts.com

Chewy Oatmeal Raisin Bars
3/4 cup packed brown sugar
1/2 cup sugar
4 tablespoons margarine, softened
3/4 cup apple butter or applesauce
2 egg whites
2 tablespoons skim milk
2 teaspoons vanilla
1 1/2 cups all-purpose flour
1 teaspoon baking soda
1 teaspoon cinnamon
1/2 teaspoon salt (optional)
3 cups oats (quick or old fashioned, uncooked)
1 cup raisins

Heat oven to 350 degrees. Beat together sugars and margarine until well blended. Add apple butter, egg whites, milk and vanilla; beat well. Add combined flour, baking soda, cinnamon and salt; mix well. Stir in oats and raisins; mix well. (Dough will be moist.) Spread dough in ungreased 13 x 9 inch baking pan. Bake 25 to 30 minutes or until light brown. Cool before cutting into bars. Makes approximately 32 bars.

One bar has:
Calories: 90
Total Fat: 2 grams
Saturated Fat: 0 grams
Cholesterol: 0 milligrams
Dietary Fiber: 1 gram
Soluble Fiber: 1/2 gram
Protein: 2 grams

 (AH)

On the Plate... Supplement Label Changes

In January of this year we not only celebrated a new millennium, but also had a change in the Dietary Supplement Act of 1994. Dietary supplement labels can now make what is known as "structure/function" claims which means that manufacturers can claim how their product can affect the structure or function of the body without prior approval from the Food and Drug Administration. Examples of structure/function claims are: "for muscle enhancement," "maintains a healthy blood system," "helps you relax," or "for common symptoms of PMS." However, they may not, without prior FDA review, bear a claim that the supplement can prevent, treat, cure or diagnose a disease. This is called a disease claim. Examples of disease claim are "prevents osteoporosis," "prevents coronary heart disease," or "can be used in the treatment of depression."

The label on dietary supplements will look very similar to the nutrition facts label on foods. The new labels have to be implemented by September, 2000. An example of a supplement fact label is shown below.

As you can see the label will contain the following information:

- Serving size
- List of ingredients
- % Daily Value for vitamins and minerals
- The label must also include a set of ingredients that may not be safe or effective with recommended daily amounts.
- Herbs must state the common name of the plant, the part of the plant used and how much of the herb is in each serving.

The FDA is hoping this will help consumers make better decisions on dietary supplements and their usage. (MB)

Supplement Facts
Serving Size: 1 tablet
Servings Per Container: 45

Amount Per Serving		% Daily Value
Vitamin C (as ascorbic acid)	200 mg	333%
Niacin (as niacinamide)	80 mg	400%
Bee Pollen Powder	25 mg	*
Oriental Ginseng, powdered (root)	250 mg	*

*Daily Value not established

Nutrition Education Program

Nutrition Education Program
for Limited Resource Families

Dr. Wanda Koszewski, RD, LMNT

Convenient, Safe and Nutritious Foods: It's in a Can

March is National Nutrition Month (NNM), a nutrition education and information campaign sponsored annually by The American Dietetic Association (ADA) and its Foundation. With the safe passage of Y2K, a timely topic for many might be: How nutritious are all those extra canned foods I bought "just in case." Here's some information from ADA on canned foods.

When it comes to eating right for a healthy lifestyle, you have more food options than ever before. These options are available in a number of packages—in bags, cartons, bottles and cans. For those seeking convenience, safety and a variety of nutritious foods, canned foods offer one smart choice. Busy cooks are returning to using canned foods to fit into their hectic and nutrition-conscious lifestyles.

How does the nutrition profile of canned foods compare with fresh and frozen?

Canned food is a convenient and versatile option for nutritious eating. Fresh, frozen and canned foods can help you prepare easy and nutritionally balanced meals for the whole family. Canned food is as nutritious as its fresh and frozen counterparts upon preparation. Because fruits and vegetables are processed a few hours after harvesting, canning food locks in taste and nutrients. It can also offer a variety of essential vitamins, minerals and fiber that the body needs to stay fit and healthy.

What varieties will I find in the canned food aisle?

More than 1,500 varieties of canned foods are available, ranging from artichokes to zucchini. Most brands offer canned food varieties in sodium-

See **CONVENIENT** *on page 11*

Focus on Food

Alice Henneman, RD, LMNT, Extension Educator

This month's Focus on Food offers some "food myths" and "truths" from the American Dietetic Association.

1. MYTH OR TRUTH: A food that is labeled "98% fat-free" contains only 2% of its total calories from fat.

2. MYTH OR TRUTH: Brown bread has more fiber than white bread.

3. MYTH OR TRUTH: Cottage cheese is a great source of calcium.

ANSWERS:

1. MYTH. The "98% fat-free" claim refers to the weight of the food, not it's calories. If a food is labeled fat-free, it contains 3 grams of fat or less per serving. Read the Nutrition Facts label for grams of fat per serving.

2. MYTH. Being brown in color does not mean a bread is high in fiber. If the bread's ingredient list states it contains whole wheat or other whole grains, then it probably has fiber. The brown color is likely from caramel coloring found in the ingredient list. Check the Nutrition Facts label for the number of grams of fiber per serving.

3. MYTH. Cottage cheese supplies only 65 mg calcium in a half cup. If you are eating it for it's calcium content, try more calcium dense foods, such as 8 ounces of milk or yogurt, which contain 300 mg of calcium or 1 ounce of cheddar cheese which contains 200 mg calcium.

 (AH)

Clean Hands Campaign

Have fun using "glo-germ" to teach handwashing to youth and adults. Receive handouts for your group and a copy of reproduction ready handwashing activities. Call Alice Henneman (441-7180) to schedule a time to checkout the Clean Hands Kit and receive your materials. Kit must be checked out and returned within the same week. Available on a first come, first served, basis. This activity can be used with any number and takes about 20 minutes, depending on the size and age of your group. (AH)

NEW!

YOUR information center... around the clock

NUFACTS

NUFACTS offers information 24 hours a day, 7 days a week. In the Lincoln area call 441-7188; for the rest of Nebraska call 1-800-832-5441. When directed, enter the 3-digit number of the message you wish to hear.

331 How Long Should You Keep Commercial Canned Foods?
348 Safe Refrigerator and Freezer Temperatures
349 Can You Freeze Fresh Meats in Supermarket Wrappings?

and many more...

Cook It Quick!

Tips and recipes fpr cooking healthy foods in a hurry: **www.lanco.unl.edu/food**

FREE monthly Food Relections e-mail newsletter.

To be added to the mailing list, e-mail Alice Henneman at AHENNEMAN1@UNL.EDU

Diabetes Study Course

Call Alice Henneman (441-7180) for more information.

Noxious Weed Control Authority

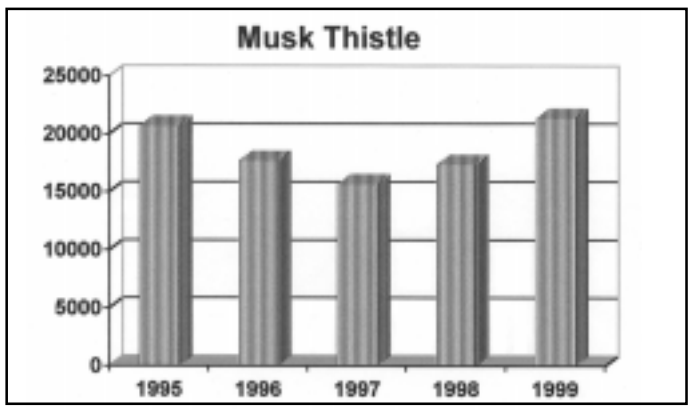
Russell Shultz, Superintendent
Barb Frazier, Chief Inspector

Weed Awareness

Year in review

The Weed Control Authority is responsible for administering the State Noxious Weed Control Act county-wide. The authority also administers the Weed Abatement Program in the City of Lincoln as a result of an interlocal agreement between the city and county.

Both the noxious weed and weed abatement seasons started early due to the mild spring temperatures and good soil moisture conditions that was ideal for germinating weed seeds. There was a 19 percent increase in weed abatement violations over 1998 requiring 800 additional inspections. The 5,333 acres of musk thistle infestations found were more than double than that found in 1998. There was an estimated 23 percent increase in the total acres of musk thistle in the county.



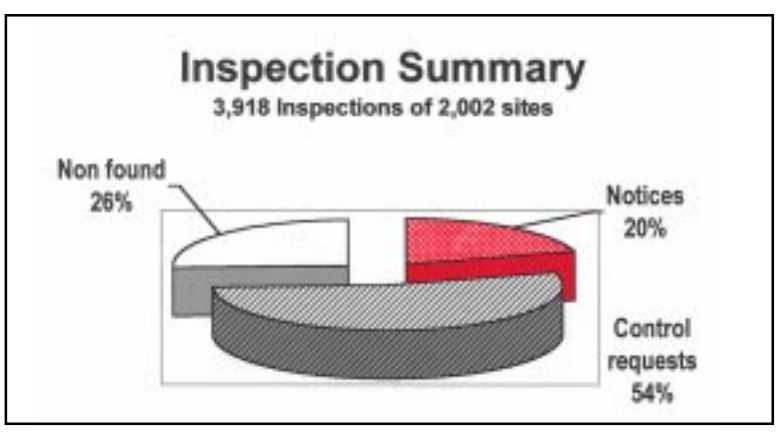
The fall was very dry which reduced the opportunity for fall noxious weed control. The dry weather decreased the amount of germination and reduced the effectiveness of herbicides. There were 339 problem sites inspected in the fall. Of these sites, 136 had only a trace infestation and no infestations were found at 100 sites. Of the 240 infested sites, 177 were deferred until spring for better conditions for control.

Inspection activity

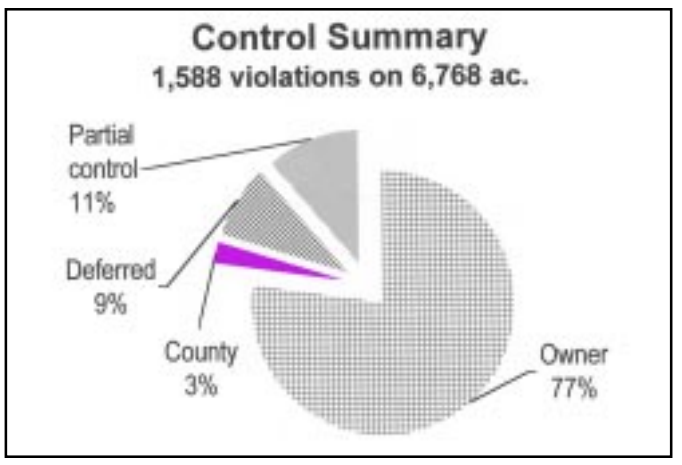
A total of 9,442 inspections have been made on 4,387 sites on 34,743 acres this year. Inspection activity for the year:

Noxious Weeds

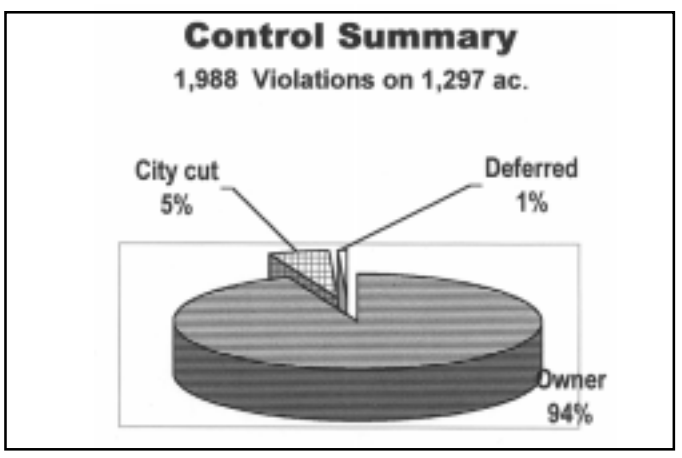
The inspectors made 3,918 inspections of 2,002 sites. They found 1,588 violations on 6,768 acres on the 27,266 acres inspected.



Landowners responded very well even with the difficult control conditions. Legal notices were required on only 27 percent of the 1,214 control requests. Owners controlled almost 85 percent of the infested acres not deferred.



Three percent of the acres were controlled by inspectors or force controlled.



Weed Abatement

Almost 2000 violations were found as a result of inspecting 2,385 sites. After being notified of a violation, 94 percent of the owners cut and removed overgrown vegetation. Of this, 110 were force cut by contractors.

Biological Control

The musk thistle head weevil population has increased enough over the past 30 years that they are reducing the amount of viable seed production. They have been found in 70-80 percent of flowering musk thistle heads the past two years.


A.czwalinae adult on leafy spurge

Three biological control sites have been established in the county. Two for leafy spurge and one for purple loosestrife. The hope is that these areas can be harvested to make additional releases resulting in beneficial populations in the future.

Control recommendations for musk and plumeless thistle

Early spring is a good time to control musk and plumeless thistles when they are in early, actively growing rosette stages. Scout and control the infested area on a weekly basis until you have all the plants killed. Assume there are “escapees” – plants you didn’t see the last time. Musk and plumeless thistles are easily controlled in small areas or lightly scattered areas by hand digging or pulling the entire plant. Sever the root at least one inch below the soil surface. If the soil is loose or wet, the entire plant is easily pulled. Use necessary protective clothing. BEFORE USING ANY HERBICIDE, ALWAYS READ AND FOLLOW LABEL DIRECTIONS.

Roundup is not the preferred herbicide to use.

When using hand sprayers, for 1 qt/acre recommended rate add 1.5 tablespoons (0.75 oz) herbicide per gallon of water. One gallon will cover about 1000 sq. ft. Example: recommended rate of 2 qts/acre converts to 3 T/gal of water (1.5 x 2 qt = 3 T).

Cropland

For crop land, use a broadleaf herbicide labeled for the crop. For fallow land, 2,4-D LVE at 2# active ingredient/acre may be used. Hand digging or tillage, severing roots two inches below the surface will also provide control.

Pasture, CRP and non-agricultural land

In seedling and rosette stage, Grazon P+D at 3 pt/acre may be used on pasture and CRP land. Other options are Clarity 8 oz + 2,4-D LVE 1# active ingredient/acre; or 2,4-D LVE at 2# active ingredient/acre; or hand digging or tillage severing roots two inches below the surface. Once the thistles have bolted or are blooming, Escort .3 oz/acre + surfactant + 2,4-D LVE 1# active ingredient/acre; or Clarity 2 pts + 2,4-D LVE 1# active ingredient/acre or hand digging or tillage severing roots two inches below the surface. Escort does reduce the formation of viable seed. Once the thistles have bolted (formed flower stalks) or flowering occurs, they are much more difficult to control. Once flowers mature and seeds have formed, minimize the spread of seeds by removing heads and burning them or mowing with a sickle-bar mower and then gathering and burning mowed debris. Always comply with any burning restrictions.

Alfalfa

For alfalfa there are no herbicides labeled for broadcast spraying of musk and plumeless thistles. Spot spraying thistle plants with 2,4-D is an option. Remember these herbicides may kill any alfalfa plants contacted. Another option is hand digging or pulling individual plants. If alfalfa is cut prior to thistle flowering, any regrowth may be easily spotted and treated. IF THISTLES ARE ALLOWED TO FLOWER, A QUARANTINE WILL BE ISSUED. If the thistle infestation is scattered throughout or moderate to severe, consider breaking up the alfalfa and planting the field to a different crop. The alfalfa could be cut for hay prior to thistle flowering. Any regrowth could be killed with 2,4-D + Banvel or Roundup may be broadcast applied. Then a row crop no-tilled into the dead alfalfa residue. Check with the US Natural Resources Conservation Service office before proceeding if the field is part of a conservation compliance plan.

Weed Awareness

North American weed conference

Nebraska has the honor of hosting The Eighth Annual North American Weed Management Association Conference and Trade Show. This conference is being held at the Arbor Day Farm Lied Conference Center, Nebraska City, Nebraska August 8-10, 2000. Russ Shultz is serving as the program chairman.

The North American Weed Management Association (NAWMA) is a network of professional weed managers who are involved in implementing any phase of a local, state, provincial or federal weed law. The mission of NAWMA is to provide education, regulatory direction, professional improvement and environmental awareness to preserve and protect our natural resources from degrading impacts of exotic, invasive noxious weeds.

The theme of this conference is "More invaders are coming! Are you ready?" Across the United States the major thrust of the noxious weed control effort has been directed at noxious weeds that are already well established. In most cases, control efforts do not include aggressive control of newly found, highly invasive weeds. Preventing the establishment of these invasive weeds is the most efficient and effective approach at weed control. The conference will emphasize the establishment of a framework at the national, state and local level for early detection and rapid response to highly invasive weeds.

Presentations will include highlights of the newly developed National Invasive Species Management Plan and Australian experience in fighting newly found invading weeds. Other speakers will address plant data systems, early response efforts, GIS/GPS in weed management, the Nebraska program and other related topics. It is also an excellent opportunity for one-on-one interaction with other attendees about their experiences.

If you desire more information, call 441-7817. Conference information is available now and registration information will be available about June 1 at www.nawma.org. Room reservations should be made now to assure lodging at the conference site.

Noxious weed control on public lands

The weed control authority maintains contact with 30 different public land managers in a coordinated effort of noxious weed control. They represent the following agencies and departments:

City of Lincoln
- Airport Authority
- County/City Property Management
- Lincoln Electric System
- Lincoln Public Schools
- Parks and Recreation
- Public Works & Utilities

County
- County Engineer

State of Nebraska
- Air National Guard
- Army National Guard
- Education Lands & Funds
- UNL Landscape Services
- Department of Roads
- Department of Corrections
- Game & Parks Commission

Other
- Lower Platte South NRD
- NE Public Power District

Each of these land mangers has a noxious weed control program. A meeting was held with all of these managers discussing noxious weed control and management. They all have committed significant resources to planned on-going noxious weed control on property that they own or control. Names of contacts are kept current. Two-way communication is maintained throughout the year. When there is a need to request some follow-up control work of any of these land managers they provide immediate response. The efforts of these land managers are a key part of keeping noxious weeds under control in the county.

Adopt-A-Clean Road and noxious weed control

The Lancaster County engineer's office introduced the Adopt-A-Clean-Road program in 1991. The program is designed to clean litter from county roadsides. Volunteers "adopt" a road segment and agree to collect litter along their adopted miles for a minimum of two years. Last year 65 permits were active, covering approximately 148 miles of county roadsides.

Packets are distributed to each volunteer group by the county engineer's office. Included in each packet is information about noxious weeds in Lancaster County. By studying this information, the Adopt-A-Clean Road sponsors become aware of the noxious weeds within the county. They are asked to report any and all infestations found along their adopted county roadside to the Weed Control Authority office. The county engineer's staff then provides the needed control of the weeds.

What are noxious weeds?

Noxious weed is a legal term used to denote a destructive or harmful weed for the purpose of regulation. These non-native plants aggressively compete with desirable plants and affect man, livestock and wildlife. This not only directly affects landowners, but erodes the tax base for all residents. The business of noxious weed control is everyone's concern and their control is to everyone's benefit. Effective control needs to include controlling the existing infestations and preventing new infestations. The Director of the Nebraska Department of Agriculture establishes which plants are noxious and the control measures to be used in preventing their spread. The following non-native weeds have been officially designated as noxious in Nebraska:

Canada Thistle *(Cirsium arvense L. Scop.)*
Diffuse Knapweed *(Centaurea diffusa Lam.)*
Leafy Spurge *(Euphorbia esula L.)*
Musk Thistle *(Carduus nutans L.)*
Plumeless Thistle *(Carduus acanthoides L.)*
Spotted and Diffuse Knapweed *(Centaurea maculosa Lam.)*

Following is a list of those noxious weeds commonly found in Lancaster County, along with a brief description and growth habit

Canada Thistle *(Cirsium arvense L. Scop.)*

Life span: perennial
Stems: 2 to 4 feet tall; hollow; erect; branched above; no leafy wings or spiny margins on upper stems below flowers.
Leaves: moderate to coarsely lobed, usually wavy with spiny margins. Upper side light to dark green, shiny, hairy to hairless.
Inflorescence: small 1/2 to 3/4 inch diameter rose purple, sometimes white color, male/female flower on separate plants.
Roots: extensive vertical and horizontal root system.

Leafy Spurge *(Euphorbia esula L.)* ▶

Life span: perennial
Stems: 1 to 3 feet tall; thickly clustered; erect; branched at the top; milky white sap.
Leaves: long and narrow, 1/4 inches wide and 1 to 4 inches long.
Inflorescence: flower very small, surrounded by showy yellow-green heart-shaped bracts.
Roots: deep, spreading, brown with numerous pink buds which may produce new shoots or roots.

Musk Thistle *(Carduus nutans L.)*

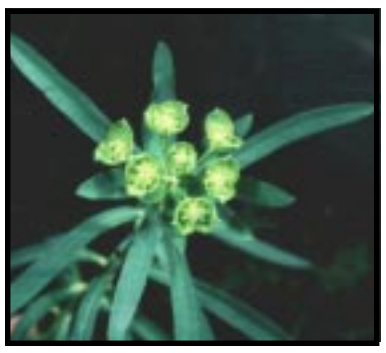
Life span: biennial or occasionally an annual. Rosette formed first year.
Stems: up to 6 feet tall; main stem and major branches are hairless. The stem bearing flower head is covered with fine gray hair. The first few inches below the flower head has no leaves attached.
Leaves: dark green, prominent light green midrib, usually smooth or hairless on both sides. Deeply lobed with spiny margins up to 20 inches in length.
Inflorescence: large, solitary 1 to 2-1/2 inches in diameter, usually nodding slightly. Deep rose or purple color. Average plant produces 5,000 to 10,000 seeds; some up to 20,000 seeds.

Plumeless Thistle *(Carduus acanthoides L.)* ▶

Life span: biennial or occasionally an annual. Rosette formed in first year.
Stems: 1 to 4 feet tall, leafy to the base of flower heads.
Leaves: dark green with light midrib. Leaf surface sparsely hairy on top and hairy beneath. Leaves deeply lobed, with narrow spiny margins.
Inflorescence: solitary in cluster of two to five, blooms 1/2 to 1 inch in diameter, erect and usually not drooping.
Roots: stout, fleshy, taproot.
Source: Weeds of Nebraska and the Great Plains, published by the Nebraska Department of Agriculture.

Leafy spurge control recommendations

It is extremely difficult to achieve long-term control of leafy spurge. The most cost-effective control method depends on the size and location of the infested area. Small patches of leafy spurge can be permanently eliminated with a persistent



herbicide program. However, all areas will require continued control measures. This plant spreads by underground roots and there is always a fringe area of younger plants that do not bloom. There are also roots underground that extend beyond the younger plants. A 15-foot perimeter should be treated around leafy spurge patches to control seedlings and spreading roots. Treated patches should be watched carefully for at least eight years and any regrowth or seedlings should be aggressively retreated.

Chemical control

The key to controlling leafy spurge is early detection and treatment of the initial invading plant. Because the weed is difficult to eradicate, a persistent management program is needed to control top growth and to gradually reduce the nutrient reserve in the root system. The most commonly used herbicides to control leafy spurge include Tordon 22K and 2,4-D. Plateau has been granted a special labeling for use on pastureland and CRP as well as other non-ag situations. These herbicides are selective for broadleaf weed control and generally do not harm grasses when applied at recommended rates. Plateau DG is available as water-soluble eco-packets used for weed control in native grass and wildflower establishment and other non-crop areas. Glyphosate (Roundup) is a nonselective herbicide that controls both grass and broadleaf weeds. BEFORE USING ANY HERBICIDE, ALWAYS READ AND FOLLOW LABEL DIRECTIONS.

Timing herbicide applications

Herbicides should be applied to leafy spurge at the proper growth stage so optimum control can be achieved. Spring herbicide applications are most effective when applied about June 1 when the true flowers (not the yellow bracts) begin to appear on the leafy spurge plant. The optimum treatment time ends when the seeds begin to mature. Fall is also an excellent time to control leafy spurge. Fall regrowth will begin in leafy spurge in late August or September. During this time, carbohydrates are being transported to the roots for winter storage; herbicide translocation to the roots should also increase resulting in improved control.

Small infestations

Plateau DG eco-paks are for the acreage owner or for smaller infestations. One eco-pak will cover two acres at a rate of 4 oz/acre. Roundup Pro as a spot treatment is also effective. Plateau may be applied 12 oz/acre, fall only, or 8 oz/acre in the fall followed by 4 oz/acre in the spring.

Cropland

Use only those broadleaf herbicides listed on the label for the intended crop(s).

Pasture, range and cropland

Plateau is quite effective for controlling leafy spurge. It may be applied as one application in the fall at a rate of 12 oz/acre or a split application of 8 oz/acre in the fall, followed by a spring application at a rate of 4 oz/acre. At no time should you apply more than 12 ounces of Plateau in a one-year period. Tordon 22K is also effective for controlling leafy spurge. Treat with Tordon 22K at 1 qt/acre applied about June 1 or early September. However, this application rate may not be economically feasible if a large area is infested with leafy spurge. A more cost-effective option is a tank mix of Tordon 22K at 1-2 pts/acre plus 2,4-D at 1 qt of a 4#/gal concentration/acre applied about June 1 and repeated annually. Annual applications at these rates will gradually reduce leafy spurge infestations. Control of leafy spurge seeding can be achieved with 2,4-D 1qt of a 1#/gal concentrate/acre, but will not provide control of the roots. The most aggressive approach is to apply herbicides in both the spring and fall. Whatever control measures you choose, a consistent and thorough control plan should be implemented.

Control among trees and in residential areas

Leafy spurge top growth in trees can be controlled by 2,4-D applied at the rate of 1qt/acre of a 4#/gal concentrate. Care must be taken to avoid contacting tree foliage with either the herbicide or spray drift to prevent tree injury. Roundup applied in the spring and fall will control top growth and reduce roots. Apply to only active growing plants, taking special care not to get any chemical on other desired plants.

Weed Awareness

Extent of noxious weeds in the county

Noxious weed acres in the county had been on a declining trend from 1993 to 1997. The sole reason for this decline was the result of the control efforts of both public and private landowners. However, 1998 and 1999 did not follow this trend. Moisture conditions these two years resulted in more noxious weeds germinating and made control more difficult. In the spring of 1999, the growing season started early with mild temperatures and good soil moisture. As a result, seeds dormant in the soil, as well as newly produced seeds, germinated to increase the total number of infested acres. The fall was very dry, reducing seed germination and reducing the effectiveness of herbicides. If the control efforts are not maintained, the infested acres will increase at a more rapid rate than the decline seen in previous years.

Where are the noxious weeds?

All land uses have significant infestations of noxious weeds. Approximately 12 percent of the pastureland acres are infested. Non-ag land, which includes the City of Lincoln and rural lots, is second in the amount of noxious weed infestations. Cropland infestations are found mostly in alfalfa fields and idle cropland. The most visible infestations are on roadsides and railroads. Yet they have less than two percent of the total infested acres. There has been an aggressive control effort on these transportation corridors resulting in a sharp drop in the acres infested.

Infested acres by weed

Over four percent of the land area is infested with noxious weeds. Musk thistle makes up 94 percent of the noxious weed infested area. Musk thistle has been found in almost all the sections in the county. Leafy spurge does not cover a lot of acres, but it has been found on over 400 sites and in 1 out of 7 sections. Plumeless thistle and Canada thistle infest less than 500 acres. Diffuse knapweed has only been found on one site. Follow-up inspections of this site indicate that this infestation has been eradicated.

Purple loosestrife a noxious weed?

The Nebraska Department of Agriculture held a public hearing December 15, 1999 on rules and regulations that would add purple loosestrife to

the state's noxious weed list beginning 2001. The director will be making a decision on this proposed addition. If the addition is made, an extensive awareness and education program is needed to inform the public.

Threat

The Congressional Research Service portrays purple loosestrife as one of the most harmful, non-native plants in its issue paper on invasive species. They quote a source saying this one plant currently contributes $45 million in damages annually. This damage will increase rapidly if aggressive control actions are not taken. Purple loosestrife is on the Nature Conservancy's "America's Least Wanted" list. Twenty-two states and two provinces in Canada have already designated it a noxious weed. These states include five of our neighbors.

Sterile seed issue

Purple loosestrife is naturally self-sterile and may not cross with the same cultivar. Cross-pollination is possible with other cultivars of a different flower type. Insects, including honeybees, are very effective pollinators of purple loosestrife plants even a long distance apart. Research in Minnesota and Canada found that all cultivars, including cultivars sold as sterile, will cross-pollinate and produce viable seed. This was substantiated by seed collections made of horticultural plantings in Lincoln in 1995 and in Omaha in 1999. Seeds collected from all plants were highly viable. These seeds may or may not germinate in the flower garden, but the millions of very small seeds are readily carried by water to wetter locations more desirable for germination.

Situation in Lancaster County

Some wild purple loosestrife plants were found around some of the Salt Valley Lakes in the early 90's. The Game and Parks Commission employees have been keeping these infestations contained. Lythrum has become a very popular planting around many homes in Lincoln. Escape plants are showing up in wet and low lying areas. Some of these areas include Holmes Lake, Pine Lake, a drainage north of Van Dorn, just west of South 84 Street and a drainage crossing South 40 Street across from Williamsburg.

Why eliminate ornamental lythrum plantings?

Seed from ornamental plants are easily spread by water through storm sewers as well as other man-made and natural drainage systems. Purple loosestrife also is spread from ornamental plantings into

aquatic areas by depositing lawn and/or garden clippings along creeks, drainage or even in public landfills. The above picture shows plants spread from landscape plantings in Lincoln. Clippings from these plantings may contain viable seed and/or plant parts from purple loosestrife. Wind, birds, insects and small animals also are responsible for dispersing seed originating from ornamental loosestrife. Purple loosestrife is a designated noxious weed in neighboring states and may soon become a noxious weed in Nebraska .

What can you do?

- If you have lythrum in your garden, please remove it.
- Dig out plants including all roots.
- Place in a dark garbage bag and take to landfill.
- DO NOT COMPOST.
- Use alternate perennials in your garden.
- Report any wild purple loosestrife plants to the Weed Control Authority.

Alternative plantings

Ornamental purple loosestrife can be replaced with:

- Blazing star (Liatris spp.),
- Fireweed (Epilobium angustifolium),
- Obedient plant (Physostegia virginiana), or Spike speedwell (Veronica spicata).

For additional alternative plantings, contact the University of Nebraska Cooperative Extension Service at (402) 441-7180.

Weed Awareness

Find us on the web

Accessing information about the City of Lincoln departments and Lancaster County agencies is easy using their combined web page. On the Internet simply go to http://interlinc.ci.lincoln.ne.us and you will find the InterLinc home page. You may choose any city department or county agency. Scroll to the bottom of the page for weed control under county agencies. The following information is available along with links to related sites:

- Weed Control Authority mission and goals
- Frequently asked questions
- Tell us how we are doing
- Contacting the Weed Control Authority

Articles

- Weed complaint form
- What are the noxious weeds? (includes pictures and a short description)
- Extent of noxious weeds in the county
- What are weeds and worthless vegetation?
- Programs
- City of Lincoln Weed Abatement Program
- Lancaster County Noxious Weed Control Plan
- 2000 Annual Plan
- City of Lincoln Combined Weed Program
- Lancaster County Noxious Weed Control Program
- Monthly report
- Recommended noxious weed controls
- Musk and plumeless thistles
- Leafy spurge
- Canada thistle
- Planning tips for noxious weed control in CRP contracts
- Preventing noxious weeds
- Planting prairie grass & wildflowers
- Purple loosestrife (lythrum salicara)
- Invader species – tomorrow's weed challenges
- Purple loosestrife is not just another pretty plant
- Why eliminate ornamental lythrum plantings
- Roadside noxious weed dissemination control
- Test your knowledge about Nebraska weeds

Weed free forage program

When forages are transported, be it across the road or across the United States, the potential for the spread of weeds is present. A regional weed free forage program was formulated and implemented to prevent the spread of weeds from one location to another. There is a growing demand in all of North America for the use of certified weed free forage and mulch as a preventative measure to limit the spread of noxious weeds. The North American Weed Management Association developed the North American Weed Free Forage Program. These standards have been adopted by the Nebraska Department of Agriculture. The standards are designed:

1. to provide some assurance to all participants that forage certified through this program meets a minimum acceptable standard;

2. to provide continuity between the various provinces and states in the program; and

3. to limit the spread of noxious weeds though forage and mulch.

The Lancaster County Noxious Weed Control Authority will, upon request, inspect any forage prior to harvest as to the presence or absence of the designated noxious weeds of the participating states and provinces. The forage is required to be inspected in the field of origin prior to cutting or harvesting. Forage containing any noxious weeds or other listed weeds, may be certified if prescribed treatments are followed. An inspection certificate will document that the requirements were met. Interstate shipments of forages must be accompanied by a transit certificate and/or certification marking issued by the Weed Control Authority in the state of origin. Shipments into restricted areas not accompanied by the proper transit certificate or certification marking may be rejected.

State and regional lists of available certified weed free forage are maintained and provided to potential customers. There is potential for increased value forage.

Please contact our office for assistance with the certification process or if you have questions about this program.

The truth about invasive plants

The terms "non-native," "exotic," "alien," "pest plant," "problem species" and "noxious weed" have been used for plants from other continents or distant parts of another country which disrupt native plant communities and other desirable vegetation. Most non-native plants do not become problems, but too often plants out of their natural range crowd out natives and create adverse economic impacts.

You can help control known invasive plants and avoid introducing new threats by understanding the problem:

What characteristics make invasive plants a problem?

High productivity. More seeds mean more seedlings. Purple loosestrife produces hundreds of thousands of seeds or more, per plant. By prolific seed production, they quickly establish in disturbed areas, crowd or shade out other plants, gradually spreading into less disturbed areas.

Seed dispersal. Exotics whose seeds easily get around, tend to quickly surround. Sericea lespedeza seeds are eaten by birds, which deposit undigested seeds everywhere on the fly.

Growth period or seasonal advantages. When sunlight and soil conditions are right for growth, exotics will grow, even if the season has shifted from their home and the local native weeds are dormant.

Lack of natural controls. Insects and plant diseases seldom travel to new habitats with their exotic host.

How do plants move from their natural range to new, distant places? Accidentally and when well-intentioned people move them. Eurasian watermilfoil seeds and plant parts traveled from Europe to the eastern U. S. coast in ship ballast, then spread to the Midwest by waterbirds and boats. Exotic modes of travel: Ship ballast/boat bilge, boat propellers, bird ingestion, floodwaters, nursery sales, contaminated fill soil and with agricultural seed.

Whose problem is it? Exotic plant control costs millions of dollars each year. Herbicides, labor and research top the bill in the fight against plants which threaten to clog waterways, ruin fisheries, turn pasture to wasteland, compete with agricultural crops, shade out forest regeneration and overrun natural areas.

How to stop exotics: Get to know the common exotic threats. Inform friends and neighbors. If you see these offered for sale, explain the problem to your nursery, grower or supplier. If you find any on your property, inform the Weed Control Authority. Support national, state and local efforts of early detection and rapid response to newly found invasive plants.

Some invasive plants to watch out for:

Known invasive plants well established in the county

Musk thistle, *carduus nutans L**

Leafy spurge, *euphorbia esula**

Plumeless thistle, *carduus acanthoides**

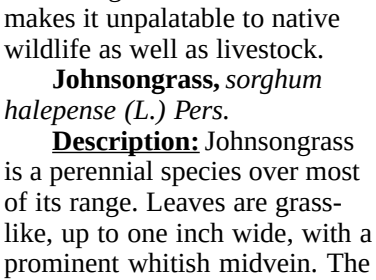
Canada thistle, *cirsium arvense (L.) Scop.**

Known invasive plants with increasing populations in the county

Purple loosestrife, *cythrum salicaria*

Sericea lespedeza, *cespedeza cuneata*

Description: A warm season, perennial herb in the pea family, or Fabaceae. It has an erect growth form, ranging from 3 to 5 1/2 feet in height and



leaves that alternate along the stem. Each leaf is divided into three smaller leaflets, 1/2 to 1 inch long, which are narrowly oblong and pointed, with awl-shaped spines. Leaflets are covered with densely flattened hairs, giving a grayish-green or silvery appearance. Mature stems are somewhat woody and fibrous with sharp, stiff, flattened bristles. Violet to purple flowers emerge either singly or in clusters of 2 to 4, from the axils of the upper and median leaves.

Ecological threat: Sericea lespedeza, is primarily a threat to open areas such as meadows, prairies, open woodlands, wetland borders and fields. Once it gains a foothold, it can crowd out native plants and develop an extensive seed bank in the soil, ensuring its long residence at a site. Established dense stands of lespedeza suppress native flora and its high tannin content makes it unpalatable to native wildlife as well as livestock.

Johnsongrass, *sorghum halepense (L.) Pers.*

Description: Johnsongrass is a perennial species over most of its range. Leaves are grass-like, up to one inch wide, with a prominent whitish midvein. The

ligule is short and membranous with a hairy fringe; auricles are lacking. Stems can grow up to eight feet in height, but our annual specimens will be closer to three or four feet tall. Large, open panicles are up to one foot long and emerge in midsummer. Spikelets are reddish in color and most are tipped by bent awns. Scaly, finger-thick rhizomes are produced from the crown.

Ecological threat: Johnsongrass is an invasive grass that forms dense spreading patches that completely smother other grasses. Like all sorghums, Johnsongrass can be toxic to livestock, especially during adverse growing conditions or periods of new growth. This grass is extremely difficult to control and can become a major problem in pasture and cropping areas.

Known invasive plants with few or no plants found in the county

Spotted and Diffuse Knapweeds, *centaurea sp.**

Description: Each plant produces up to 25,000 seeds that are dispersed by wind, animals and people. Seeds may remain viable for eight years. Spotted knapweed is a biennial or short-

lived perennial. Mature plants may be three feet in height and are much branched. The weed forms a basal rosette the first year and stem leaves are pinnately divided. Flower heads are abundant, 1/2 inch wide and generally solitary on branch tips. Flowers are pink to purple, or occasionally white and appear from midsummer to fall. Each stiff flower head bract has a dark comb-like fringe resembling a black spot at the tip. Seeds are dark brown to tan and are tipped by plumes that fall off at maturity.

Eurasian watermilfoil, *myriophyllum spicatum L.*

Description: The exotic Eurasian watermilfoil is submersed. It tolerates a wide range

of water conditions and often forms large infestations. Eurasian watermilfoil stems are reddish-brown to whitish-pink. They are branched and commonly grow to lengths of six to nine feet. The leaves are deeply divided, soft and feather-like. Leaves are about two inches long. The leaves are arranged in whorls of three to six leaves about the stem. The flowers of Eurasian watermilfoil are reddish and very small. They are held above the water on an emersed flower spike that is several inches long.

Ecological threat: Eurasian watermilfoil can form large, floating mats of vegetation on the surface of lakes, rivers and other water bodies, preventing light penetration for native aquatic plants and impeding water traffic. The plant thrives in areas that have been subjected to various kinds of natural and manmade disturbance.

*Designated noxious weeds in Nebraska

Clarice's Column

Clarice Steffens
FCE Council Chair

It's a cold, snowy, gray afternoon as I begin to think about an article for the March NEBLINE. Even though our winter has been quite mild, I appreciate knowing that by this time of year, spring can not be too far off. At our house, you also know spring is just around the corner because the orders from the nurseries have already begun to arrive. Soon a corner of our basement will become a mini greenhouse as the seeds are started and home-grown tomatoes will begin their journey to our table for summer enjoyment.

In January, our thoughts were still with snow and cold as a good number of you attended the council meeting. Many snowmen, each with his or her own personality, were created by our talented members. We also enjoyed a very good lunch and a very nice installation of officers. Thanks to all who attended.

Our thoughts will definitely be on spring as we meet for the March Council meeting at 1 p.m. on March 27. Start looking for those long forgotten hats and gloves as we are invited to a Tea Party hosted by the Busy Bees, Emerald and Tuesday Tinkers Clubs. No excuses for not wearing a hat as we will have a few extras on hand for the meeting. Please join us for a cup of tea and a fun afternoon. The host clubs have also asked that we each bring a dozen cookies (with recipes) for a cookie exchange.

Spring also means that applications are due for the FCE scholarship. This scholarship will be presented to a Lancaster County graduate. Applications should be received at the extension office by April 1.

I hope to see many of you on March 23 at the **earth wellness festival** at Southeast Community College. You will enjoy your day with many of Lancaster County's fifth graders.

See you at the Tea Party!

Family Living

HOUSEHOLD HINTS

by Lorene Bartos, Extension Educator

Wallpaper Remover Solution

To remove wallpaper, use one cup of vinegar to one gallon very hot water. Wipe it on, wait a couple minutes, then pull or scrape it off. (LB)

- FCE News -

FCE Scholarship
A $125 scholarship provided by Lancaster County FCE Council is available for a graduate of a high school in Lancaster County or a permanent resident of Lancaster County majoring in family and consumer science or a health occupation. This is open to full-time students beginning their sophomore, junior or senior year of college in the fall of 2000 or who have completed two quarters of study in a vocational school. Applications are due April 1 in the extension office. (LB)

FCE Council
It's Tea Party time in Lancaster County. The March 27, 1 p.m. FCE Council meeting will feature a Tea Party and business meeting. All members are asked to "dress up" with hat and gloves and come for tea. Bring one dozen cookies for a cookie exchange. All FCE members are invited to attend. (LB)

FCE Leader Training
The April FCE leader training, "Heart Healthy Foods that Help You Keep on Ticking," will be March 28, 1 p.m. You'll taste heart-healthy foods, take home 33 tips on heart healthy and FUN things you can do for your health and receive LOTS of materials and good-for-you recipes from the American Heart Association and Nebraska Food Commodity Groups! Alice Henneman and Lorene Bartos, Extension Educators, will present this training.
If you are not an FCE member and would like to attend, call 441-7180 to pre-register so materials can be prepared.

Child Care Providers Conference

Saturday, April 8
8 a.m.-4 p.m.
Lancaster Extension Education Center

"Creating a Galaxy of Stars" is the theme of the conference for daycare providers of infants and toddlers. Speakers include Kathy Moore, Voices for Children, George Williams, Ph.D., Shirley Trout, Parent Educator and author and many more. Cost is $10 which includes lunch. For a conference flyer call the extension office, 441-7180 or Family Service, 441-7949. Preregistration is due March 24. In-service hours will be given for this conference. Plan now to attend. (LB)

National Poison Prevention Week March 19-25

The theme of National Poison Prevention Week 2000 is "Children Act Fast...So Do Poisons!" This means that parents must always be watchful when household chemicals or drugs are being used. Many incidents happen when adults are using a product but are distracted for a few moments. Children act fast and adults must make sure that household chemicals and medicines are stored away from children at all times.

The kitchen, bathroom and the garage or storage area are the most common sites for accidental poisonings. Ask yourself the following questions and take steps to fix any situations that you may answer "no" to.

The Kitchen

1. Do all harmful products in the cabinets have child-resistant caps? Products like furniture polishes, drain cleaners and some oven cleaners should have safety packaging to keep little children from accidently opening the packages.

2. Are all potentially harmful products in their original containers? Labels on the original containers often give first aid information if someone should swallow the product.

3. Are harmful products stored away from food?

4. Have all potentially harmful products been put up high and out of reach of children?

The Bathroom

1. Did you ever stop to think that medicines could poison if used improperly? Many children are poisoned each year by overdoses of aspirin.

2. Do your aspirins and other potentially harmful products have child-resistant closures?

3. Have you thrown out all out-of-date prescriptions?

4. Are all medicines in their original containers with the original labels?

5. If your vitamins or vitamin/mineral supplements contain iron, are they in child-resistant packaging? A few iron pills can kill a child.

The Garage or Storage Area

1. Did you know that many things in your garage or storage area that can be swallowed are terrible poisons? Death may occur when people swallow such everyday substances as charcoal lighter, paint thinner and remover, antifreeze and turpentine.

2. Do all these poisons have child-resistant caps?

3. Are they stored in the original containers with the original labels?

4. Have you made sure that no poisons are stored in drinking glasses or pop bottles?

5. Are all these harmful products locked up and out of sight and reach?

If you think someone has been poisoned, call your Poison Control Center immediately. The phone number can be found on the inside cover of the yellow or white pages of the telephone directory. Keep the number on your phone. Poison Control Centers maintain information for the doctor or the public on recommended treatment for the ingestion of household products and medicines. They are familiar with toxicity (how poisonous it is) of most substances found in the home or know how to find this information. The number for our local Poison Control Center is 1-800-955-9119. (LJ)

Help Your Child Bike Safely

With the rapid approach of spring, children will soon have their bicycles out of storage and may be asking for new ones. A few facts to remember about bicycles will help keep kids safe.

A big bike "to grow into" is not easy to learn on or to ride safely. A child should be able to sit on the seat with knees straight and feet flat on the ground. Also make sure he can straddle the bike with at least one or two inches between the top bar and crotch.

Always insist on bike helmet use. A brain injury cannot be cured! Bike helmet use can reduce the risk of head injury by 85 percent when worn correctly. Make it clear to your child they must wear a helmet on every ride. (LJ)

Character Counts! Corner
Responsibility

For many, learning to take personal responsibility is a lifelong process. It is far too easy to blame someone else for everything that happens. We have all heard about the court cases where parents, police, neighbors or teachers are blamed for a wrong-doing. It seems hard for some to accept personal responsibility for actions and accept the natural consequences of those actions. The idea it is someone else's fault is far too pervasive.

How do we teach responsibility? It's important to let children volunteer or to assign them tasks to do. Then we need to let them do them. If they run into difficulty, encourage but don't take over. Learning to persevere is an important aspect of responsibility. Caring for animals or plants, earning money for projects or trips and completing projects are all building blocks for responsibility. At home, the best way to teach responsibility is to model it. Are you reliable? Do you do your best or give up easily? Are you disciplined? Do you blame others? Do you keep your word? Your kids will do just what you do. (LJ)

CHARACTER COUNTS!

4-H & Youth

4-H Bulletin Board

- 4-H camp flyers for the Eastern Nebraska 4-H Center are available at the extension office. Invite your friends to join you at camp. (TK)
- April 9, 3-5 p.m. 4-H Teen Council Meeting. All interested teens are invited. (TK)

Bake & Take Days

Bake & Take Days, sponsored by the Nebraska Wheat Board, are scheduled for Friday and Saturday, March 24-25. Bake & Take Days are a time to bake an item and take it to someone to let them know you're thinking about them. This "someone" could be a friend, neighbor, elderly person or shut-in who is frequently alone. If you want to deliver baked goods to a nursing home resident, be sure to check for dietary restrictions.

Stickers and pamphlets are available at the extension office. This is a great community service activity for 4-H or FCE clubs or families. (LB)

Music Contest

Join the fun and enter the 4-H Music Contest! Your club can sing and/or dance at this exciting 4-H event. The 2000 Music Contest will be held Sunday, April 30, 2 p.m. at Dawes Middle School Auditorium. Stop by the office or call Tracy for a registration form and for more information. Rules can also be found in last year's fair book. All registration forms are due to the office by Friday, April 21. (TK)

Campus Encounters -Clothing Kind-

What: A college campus experience for 4-H members
When: June 14-16, 2000
Where: East Campus-College of Human Resources and Family Sciences
Age Level: 4-H members-ages 14-18
Why attend? Use the serger, make boxer shorts, learn a creative surface design technique and apply to a garment, create a computer generated design and transfer it to a t-shirt, and experience a wardrobe planning challenge at Gateway Mall. Stay three days on a college campus, learn about careers, colors and much more.
Prerequisite: Must have completed Clothing Level 2
Cost: $100
To apply: Contact Tracy for an application form. Application deadline: May 1 (TK)

Kiwanis Karnival

Karnival time is here! The Kiwanis Karnival is a free family event sponsored by Lincoln Center Kiwanis and the 4-H Council. It is scheduled for Saturday, April 15, 7-9 p.m. at State Fair Park in the Lancaster Building. All 4-H families are invited to attend this fun and free activity.

4-H clubs or families are needed to provide carnival-type game booths for the evening. Each booth will have an area 4' x 6' to use. Prizes are provided. If your club or family would like to provide a booth, call the extension office to register by March 31.

There will be bingo for the adults and treats for all. Plan now to attend this fun, family activity. For more information, call Lorene at 441-7180. (LB)

Invitational Cat Show

Saturday, April 15, 2000
Cost: $5 per cat.

Exhibitor may enter one long hair and one short hair cat.
8:30-9:30 a.m.: Check-in and vet check.
(Shot records will be checked.)
9:30 a.m.-noon: Judging of cats and showmanship.
Noon-1 p.m.: Lunch on your own.
1 p.m.: Awards presentation.
For more information, contact Julie Monroe at 421-3729. (ALH)

4-H Livestock: Spring Kick-off

This year's PAK 10 Livestock Judging Contest will be April 8, 10 a.m. at the University of Nebraska, Lincoln, in the Animal Science Complex. Registration begins at 10 a.m. with the contest starting at 10:30. The contest will be followed by lunch and breakout session about the skill-a-thon or the quiz bowl. At 1:30 p.m. there will be a tour of the animal science facilities along with the announcement of judging results. There will be a $5 registration fee that will cover the days activities and lunch. To request a detailed brochure, contact Deanna at 441-7180. (DK)

Camp Counselors Needed

If you are 14 years of age or older and enjoy working with youth and sharing your skills, this is a great opportunity for you. Camps are held at the Eastern Nebraska 4-H Center during June and July. Camp counselor applications are available at the extension office and due by April 12. A training will be held at the 4-H Center for all selected counselors. (LB)

It's Steak Time Again

The Lancaster County 4-H Citizenship Washington Focus group will start steak sales April 11. The group will be selling boxes of sirloin steaks, chicken breasts and pork loin chops. All steaks, breasts and chops are individually wrapped for your convenience. $7 of every sale will be put towards travel costs for the group's trip in 2002. The group sold these items last year and they were a huge success. They are quick, convenient and best of all...delicious! For more information or to place an order, call Deanna at 441-7180. (DK)

Come to the Record Book Workshop

Saturday, April 1, 9:30 a.m.

Do 4-H record books confuse you? Would you like to learn some record book "how-to's"? Did you know you can complete your record books on the computer? Attend this workshop and discover answers to your record book questions, tips to make your record books shine and how to successfully complete them. (TK)

Turkey Time

The time is approaching for all interested 4-H members to sign up for the 4-H turkey project. The turkeys cost $4.33 each and you must order a minimum of 15 turkeys (total cost $64.96). Payment and application forms are due no later than March 24. Turkeys arrive April 26. If you are interested in participating, pick up the application at our office or call Ellen at 441-7180. (EK)

Want Your Name in History?

Each 4-H club has the opportunity to help support the upcoming Lancaster County Event Center by purchasing a brick for $100. The brick will have your club's name inscribed on it and will be placed in the main entrance area. For more information, contact Deanna or Lorene at 441-7180 or send your donation to the Lancaster County Agricultural Society, Inc., P.O. Box 29167, Lincoln, NE 68529. (DK)

Rabbit Clinic & Show

The Lancaster County 4-H Rabbit VIPS Committee will sponsor a rabbit clinic Saturday, March 25 from 9 a.m. to 1 p.m. There will be sessions on rabbit grooming, rabbit care, showmanship and stationary exhibits. This clinic would be helpful for anyone showing at rabbit shows or planning to participate at county fair.

Saturday, April 1, the Rabbits 'R Us and Star City Rabbit Raiser 4-H clubs will host a spring rabbit show at the Lancaster Building, State Fair Park. The show will begin at 9 a.m. Registration will be offered on day of show, but early registration is encouraged and helpful. Registration forms are available at the extension office or on the Lancaster County 4-H website at http://www.ianr.unl.edu/ianr/lanco/4h/news.htm

If you have questions, call Ellen at 441-7180. (EK)

4-H Camp Dates

4-H camps at the Eastern Nebraska 4-H Center, near Gretna, are summer adventures that allow your child to have an experience of a lifetime. 4-H camp allows your child to become more independent, build self-confidence and self-worth, discover new recreational skills and develop a sense of love and respect for others as well as the out-of-doors.

If you'd like to see your son or daughter enjoying the fun and excitement of summer camp, help put them in position to do so. Enroll them with a friend in a 4-H camp. All camps include overnights. Check in time is 10 a.m. of the first day of camp and release time is 3 p.m. on the last day of camp. Brochures are available at the Lancaster Cooperative Extension Office.

Outdoor Skills June 5-7
Spotlight on Talents June 8-10
Fish Camp June 12-14
Discovery I June 15-17
Earth, Water & Sky June 19-21
First Timers June 22-23
Summer Sports June 25-27
Wet-n-Wild I June 28-30
Discovery II July 5-7
Niobrara Trip July 10-13
Wet-n-Wild II July 16-18
Boldly Bound July 19-21
Teen Leadership Camp July 31-August 3

Go to http://www.ianr.unl.edu/ianr/lanco/4h/ for more information. (TK)

HORSE BITS

Feeding Horses: Reading the FeedTag

Horses need a balanced ration for proper growth, maintenance and reproduction. A new NebGuide (G00-1403A) has been issued explaining what necessary nutrients do and how to read the tag of a manufactured horse feed. By knowing what you are feeding and why, horse nutrition can be complicated but also accurate and can be customized at low cost in ways never before possible. Identifying the nutrients of major concern for your horse's stage of production, age and activity allows you to purchase the most balanced diet that uses the most digestible ingredients and costs the least per unit of nutrient.

We rely on ready-mixed feeds to provide a balanced, quality ration for our horses, but remember, the tag only represents what is in the feed. Selection of a horse feed also depends on the animal's age, use, activity level and what else it may be eating. Two additional resources are NebGuides *Basics of Feeding Horses: What to Feed and Why* (G98-350) and *Basics of Feeding Horses: Feeding Management* (G98-1344). These NebGuides are available at your local extension office. (EK)

4-H Project Leader Training

There will be a 4-H horse project leader training Wednesday, March 29, 6:30-9:30 p.m. Kathy Anderson, UNL Horse Specialist, will present information on basic horse health care and current horse nutrition. The clinic is free and all are welcome to attend.

Call the extension office to register. (EK)

Roping Clinic (date change)

The date of the roping clinic has been changed to Saturday, April 29, 1:30-4:30 p.m. at the arena of Brad and Susan Frink. Be sure to change your calendars! (EK)

4-H & Youth

4-H Speech Contest

Join the fun and enter the 4-H speech contest! You can give a speech or a Public Service Announcement. The Contest will be held March 19 at the State Capitol. Registration will begin at 1:30 p.m. For more information about this contest, call the office at 441-7180 or look at the rules in last year's fair book. Speech registrations are due into the extension office by Friday, March 10. (DK)

2000 Clover College

Do you want to learn some new and exciting things? Do you like making projects and meeting new people? Then plan on attending the 2000 Clover College Tuesday, June 13-Friday, June16, 8 a.m.-4:30 p.m. Some possible workshop topics include sewing, table setting, outdoor education, nutrition and many others. Most workshops will consist of one to four sessions with each session lasting two hours. A fee will be required for most of the workshops. You may sign up for as many or as few of the workshops as you like.

Look in next month's NEBLINE for more information and registration forms. Call Tracy if you have any questions or may be interested in presenting a workshop. (TK)

4-H Leader Training

Want to learn new and innovative ideas for your 4-H club? Then plan to attend the 4-H leader training Tuesday, March 27 at 9:30 a.m. or 7 p.m. 4-H leaders who recently attended the State Volunteer Forum will share information, tips and ideas they learned at the forum. Topics include quilting in the 4-H program, heritage projects, jazzing up your 4-H meetings and many others. Bring your 4-H parents! (TK)

Achievement Night Highlights

The 4-H Achievement Night and 4-H: What's It All About? program was held February 8. The night began with 4-H members giving demonstrations, speeches, modeling clothing items, performing musical

selections and sharing information about other 4-H events and opportunities. 4-H youth and volunteers were also recognized for their achievements in 1999 and the time they have given to the program.

Receiving the Meritorious

Service Award was Gerald and Janice Halling. This award recognizes the many years of dedicated service they gave to the 4-H program. Community service awards were presented to the following 4-H'ers: Ashley Asche, Karen Clinch, Holly Kohel, Ian Beck-Johnson, Ashley Dryer, Jeri Vallicott, Sam Beck-Johnson, Becky Fiala, Emily Veburg, Megan Bergman, Will Fox, Michaela White, Nick Bevans, Andrew Kabes and Sean White. This award is given to those 4-H'ers with the largest numbers of volunteer hours.

Each year 4-H members turn in record books to show their accomplishments in the 4-H program. This year's county award winners were Rachel Rentschler, Andres Kabes and Becky Fiala. County winners selected to represent Lancaster County at the district competition were Megan Bergman, Brenda Fiala, Andrew Kabes and Becky Fiala.

Receiving the Outstanding 4-H member award was Valerie Lemke. I Dare You awards were presented to Brenda Fiala and Michaela White.

The 4-H Council gave eight scholarships. Receiving these awards were Brenda Fiala, Todd Filipi, Sarah Fry, Lindsey Johnson, Valerie Lemke, Sara Messick, Jesse Schrader and Michaela White. Sara Messick

was presented the Jonathan Backes scholarship. Valerie Lemke and Sara Messick received the Lincoln Center Kiwanis scholarship and Sara Messick received the Lane scholarship.

The 1999 Outstanding 4-H Club awards, sponsored by the Lincoln Center Kiwanis, were presented to the following clubs:

Prairie Pals Dairy, led by Deb Heidtbrink, Clover & Company, led by Kay Clinch and Happy Go Lucky, led by Ron Dowding. (TK)

Fair Exhibit Changes:

Challenging Patterns & Challenging Fabrics

A purchased top can be included with the two piece outfit. A jumper is not a two piece outfit and requires a constructed top.

Meals:

Cornbread—cornbread (any recipe or shape) - At least 3/4 of baked product or 4 muffins on a paper plate. May be baked in disposable pan. Include cost of making the recipe and a menu for a complete meal where this recipe is served.

No cracker or chips exhibit.

Tasty Tidbits

No pretzels

Creative Mixes—creative mixes (any recipe, at least 3/4 of baked product or 4 muffins or cookies on a paper plate. May be baked in a disposable pan.) Baked item made form a mix (commercial or homemade mixes acceptable). Food product must have been modified to make a new or different baked item. (Poppyseed Quick Bread from a cake mix, cake mix cookies, Streusel Coffee Cake from a cake mix, etc.) Tell what you learned about making this product using a pre-measured mix instead of a recipe made from scratch. Does it make it better or easier to use a mix?

Biscuits—4 biscuits on a small paper plate. May be rolled, dropped or cut into shape. Any recipe.

Photography

Exploring Photography-Unit II

Digital photography display: An entry will consist of 5 different pictures taken with a digital camera OR a series of 5 pictures showing how computer software to enhance or change a single digital camera picture.

Adventures With Adjustable Cameras-Unit III

Special effects exhibit print: Selection categories for enlargement include: (1) double exposure, (2) light painting, (3) flash multiple exposure, (4) filters, (5) night time exposure (6) computer scanner and software adjustment of 4-H'ers photo (7) zooming (using a slow shutter speed while simultaneously sliding the zoom barrel on the lens either in or out. Zooming in or out will cause lines to shoot in towards or outward from your subject creating th effect of motion on the subject.)

Nebraska theme exhibit print: "Nebraskans at Work"-Catch working Nebraskans in action.

Digital photography file: A jpeg, gif tif file of a digital photo will be submitted to the photography superintendent in one of the following ways: (1) 100 mg zip disk, (2) e-mail, (3) posted to a web page, (4) FTP. (LB)

Community Focus

National Ag Week is March 19 thru 25, 2000

A "Salute" to Nebraska Agriculture– Sharing the Facts!

Nebraska's Top National Rankings:

1st Commercial cattle slaughter, 1998, live weight–9,052,420,000 lbs.

Great Northern beans production, 1998–1,855,000 cwt.

2nd Commercial cattle slaughter, 1998–7,300,700 head

Alfalfa meal production, 1998–148,200 tons

All cattle and calves, January 1, 1999–6,650,000 head

Cattle on feed, January 1, 1999–2,240,000 head

3rd Grain sorghum production, 1998–56,400,000 bushels

Pinto beans production, 1998–1,386,000 cwt.

All dry edible beans production, 1998–3,666,000 cwt.

Sorghum silage production, 1998–330,000 tons

Corn for grain production, 1998–1,239,750,000 bushels

Cash receipts from all livestock marketings, 1997–$5,542,050,000

4th Land in farms and ranches, 1997–46,400,000 acres

On-farm storage capacity, 1998–1,050,000,000 bushels

Commercial grain storage capacity, 1998–628,610,000 bushels

Cash receipts from all farm marketings, 1997–$10,092,232,000

5th Non-oil variety sunflower production, 1998–33,900,000 lbs.

All hay production, 1998–7,680,000 tons

Alfalfa hay production, 1998–5,250,000 tons

See **AG WEEK** *on page 11*

Nobuko Nyman to Retire March 23

Nobuko Nyman and Governor Johanns recognize EFNEP's 50 year anniversary in 1999.

Nobuko Nyman, nutrition advisor with the Expanded Food and Nutrition Education Program will retire March 23. She will be recognized by UNL for 15 years of service in April.

Nobuko is very skilled at serving at-risk teens. Jasmine, a member of the Y-Teen Moms Program, writes, "Nobuko, thanks for the nutritional information and cooking ideas. The fruit pizza is one of my daughter's favorite." Program director for TLC says, "The young women always look forward to your nutrition sessions and most of all enjoy you because of your accepting attitude."

Nobuko says, "I like to help people succeed. It's been rewarding to watch teenage parents learn to care for their babies."

She has taught nutrition at St. Monicas, Lincoln Action Program Job Readiness, Boys and Girls Group Homes, Commodity Foods, WIC, Lincoln Medical Education Foundation, Parent Support System Mom's Group.

A native of Japan, she speaks Japanese and English. Nobuko is known for oriental cooking classes which she taught at Southeast Community College for ten years. Her NEP vegetable stir-fry demonstrations always receive outstanding evaluations.

Nobuko enjoys reading, playing Japanese musical instruments, classical music and cooking. She looks forward to more time with her husband and granddaughter during her retirement. (MB)

Ward "Gus" Shires to Retire March 31

Ward "Gus" Shires, Extension Educator, will retire from University of Nebraska Cooperative Extension in Lancaster County on March 31, 2000. He will complete 15 years of service to Lancaster County and 23 years with the UNL Cooperative Extension system. Prior to coming to Lincoln, in 1985, Shires worked in Nemaha County as the extension agent-agriculture.

Shires earned his Bachelor of Science in Agriculture degree in 1954 and entered the Air Force the same year. His military career consisted primarily as a pilot and military aircraft instructor. Experienced with fighter planes, bombers, transports, tankers and airborne command post aircraft, Shires also served as an aircraft maintenance officer and squadron commander.

Shires and a A37 Air to Ground Fighter Support Aircraft; Phan Rang, Vietnam, 1971.

He served overseas duties in England, Turkey, Germany and Vietnam. While in Vietnam, Shires flew combat missions and was awarded two Distinguished Flying Crosses and four Air Medals. During his Air Force career, Shires flew over 7,500 hours and today he is fast approaching over 10,000 hours of total pilot time.

Following retirement from the Air Force with 20 years service, Shires earned a MS degree in Agricultural Education from the University of Nebraska and began work with UNL Cooperative Extension. While in Lancaster County, his primary program duties have focused on Agriculture and Natural Resources education. He also provided substantial leadership in establishing Lancaster County as one of Nebraska's leading 4-H horse programs.

An early assignment for Shires was serving on Lincoln's landfill site selection committee. One of his more notable accomplishments has been working with the City of Lincoln on solid waste management and land application of Biosolids on area farmland. This program has saved an estimated $3.25 million dollars in landfill tipping fees, a direct savings to taxpayers. Application of biosolids to farm fields has also added a nutrient value of over $400,000 for Lancaster County farmers.

Ward Shires and Richard Krueger discussing a wheat disease problem on Krueger's rural Roca farm.

Shires is a native of Elliot, Iowa. In retirement, he plans to continue his involvement as a Lt. Colonel and the Vice Wing Commander of the Nebraska Wing of the Civil Air Patrol. The Civil Air Patrol is an auxiliary of the U. S. Air Force. (GB)

Open House Retirement for Warder "Gus" Shires, Extension Educator

Friday, March 31, 2000
3 to 5:30 p.m.
Lancaster Extension Education Center
444 Cherrycreek Road

"Come and wish Ward the best in his retirement years."

Five Cents Can Improve the World

Rural Nebraskans know what it's like to drop what they're doing to help out a neighbor in need. It's not too often we reach out to help someone on the other side of the world. But you can do that for as little as 5 cents. We know it sounds too good to be true, but 5 cents can insure a baby is born with a healthy brain. 5 cents can insure a child does not develop physical or mental handicaps. 5 cents can improve Nebraska's farm income, and thereby, help you and I. You see, 5 cents is all it takes to give a child a tiny dose of iodine that will change their lives forever.

How is this possible? In the 1920's, the Swedish people convinced some key people in America that eating iodized salt would eliminate goiter, an enlarged thyroid. Today, it is known that iodine also prevents brain and organ damage in fetuses, children and adults. Today, all Americans get some iodized salt.

In the 1980's, the World Health Organization learned that 1,500,000,000 people in the world lived in countries that don't have or eat iodized salt. In 1995, Kiwanis and UNICEF formed a partnership to teach the remaining people how to eliminate this costly disease. Today, there are still about 26,000,000 babies born each year to mothers that do not use iodized salt. About $26,000,000 is still needed to correct the problem. Studies have shown that if these babies were to grow up healthy, they would be more likely to afford Nebraska grain.

The ABC program 20/20 put together a special on this problem. It's available to help show the story and Kiwanis speakers are also available to help tell the story. A walkathon is planned on the morning of May 6, 2000 at the Lincoln Saline Wetlands Nature Center in West

See **FIVE CENTS** *on page 11*

WINNERS

continued from page 2

bell pepper. On bushy, compact plants, peppers turn color from ivory to pink and red as they mature. The peppers are sweet at any color. "Blushing Beauty" peppers can be harvested in 72 to 75 days from transplanting. The compact plant reaches a mature height of about 18 inches and is attractive when grown in patio containers. The multiple disease tolerances lengthen plant life for a higher yield of ivory, pink or red sweet peppers.

Sunflower "Soraya"

"Soraya" is the first sunflower in All America Selection (AAS) history to earn an AAS Award. One of the distinct qualities is the orange petals, most sunflowers have

golden petals. "Soraya" sunflowers are eye catching because of the orange petals with a chocolate brown center. The plants are branching and vigorous producing 4 to 6 inch blooms on long stems perfect for cut flowers. "Soraya" will flower in 80 to 90 days from sowing seed. Plants are self supporting and may attain a height of five to six feet in the full sun garden. "Soraya" flowers can produce seed for birds, if left on the plants to mature.

Vinca "Stardust Orchid"

This lovely plant has 11/2 inch blooms, which are placed above glossy, dark green foliage. "Stardust Orchid" is relatively pest free, heat and drought tolerant. When grown in full

sun, "Stardust Orchid" will reach 14 to 16 inches tall and wide when mature. "Stardust Orchid" will provide a long show of flower color with minimal garden care.

Tithonia "Fiesta Del Sol"

The first dwarf Mexican

sunflower, "Fiesta Del Sol" thrives in summer heat and humidity and will attain a mature height of two to three feet. The single, orange daisy flowers are two to three inches across. They are excellent cut flowers and may attract butterflies. Easy to grow from seed or plants, "Fiesta Del Sol" is carefree in the garden. You will find the best performance for this plant in a full sun garden. (MJM)

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DRY

continued from page 5

Burr Oak
Chestnut Oak
Sumac
Locust
Perennials
Hedge Rose
Virginia Rose
Nannyberry
Yarrow
Stonecress
Hollyhock
Alyssum
Pussytoes
Wormwood, Mugwort
Butterfly Milkweed
False Indigo
Blackberry-Lily
Low Poppy Mallow
Serbian Bellflower
Bachelor's Button
Snow-in-Summer
Sweetfern
Tickseed
Gasplant
Coneflower
Sea-Holly
Mistflower, Joe-Pye-Weed
Spurge
Fescue
Blanket Flower
St.-John's-Wort
Hyssop
Pincushion Flower
Gay-Feather
Toadflax
Musk Mallow
Catnip
Prickly Pear
Oregano
Russian Sage
Cinquefoil
Prairie Coneflower
Sage
Stonecrop
Hens-and-Chicks
Campion
Goldenrod
Lamb's Ears
Thyme
Dakota Verbena
Rose Verbena
Barren-Strawberry
Adam's Needle
Cosmos
California Poppy
Blanket Flower
Globe Amaranth
Strawflower
Morning Glory
Rock-Rose
Creeping Zinnia
Marigold
Mexican Sunflower
Nasturtium (DJ)

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AG WEEK

continued from page 10

6th Winter wheat production, 1998–82,800,000 bushels

Commercial hog slaughter, 1998–6,283,300 head

All hogs and pigs on farms, Dec. 1, 1998–3,400,000 head

Oil variety sunflower production, 1997–47,120,000 lbs.

Cash receipts from all crop marketings, 1997–$4,550,182,000

All sunflower production, 1998–81,020,000 lbs.

Harvested acres of principal crops, 1998–18,565,000 acres

7th Soybean production, 1998–165,000,000 bushels

More facts:

• Production agriculture contributes more than $9 billion to Nebraska's economy each year.

• One of every four Nebraskans depends upon agriculture for employment.

• Every dollar in ag exports generates $1.59 in economic activities such as transportation, financing, warehousing and production. Nebraska's $3.5 billion in ag exports translate into more than $5 billion in additional economic activity each year.

• Nebraska has 55,000 farms and ranches; the average operation consists of 844 acres; average net income per farm ranged from $30,000-$60,000 during the last four years.

• Over 40% of the feed grains grown in Nebraska are fed to livestock in this state.

• Nebraska's livestock industry accounts for approximately 60% of the state's total agricultural receipts each year. Three out of four Nebraska farms have livestock or poultry operations.

• One American farmer/rancher produces enough food for 129 people—95 in the U.S. and 34 abroad.

• Of every dollar spent on food the farm value is $.21: $.37 goes to labor used by manufacturers, wholesalers and retailers. The remaining $.42 pays for marketing costs such as packaging, transportation and advertising.

• In 1998, Nebraska's commercial banks loaned $5.4 billion to finance ag production and real estate. Those loans involved 98.75% of Nebraska banks.

Nebraska's Natural Resources

• Nebraska's farms and ranches utilize 46.4 million acres—96% of the state's total land area.

• Nebraska is fortunate to have aquifers below it, making it possible to irrigate 8.1 million acres of cropland. If poured over the surface of the state, the water in those aquifers would have a depth of 37.9 feet.

• Nearly 24,000 miles of rivers and streams add to Nebraska's bountiful natural resources.

• There are nearly 23 million acres of rangeland and pastureland in Nebraska—half of which are in the Sandhills. (GB)

Source: Nebraska Agriculture FACTCARD-A cooperative effort of the Nebraska AgRelations Council, Nebraska Bankers Association, Nebraska Department of Agriculture. February, 1999.

Miscellaneous

CONVENIENT

continued from page 6

free, low-sodium, low-fat, reduced-fat and fat-free options for balanced food choices and for those with special dietary restrictions. Many out-of-season foods, such as pineapple and asparagus, can be found in cans year-round.

How do I include canned foods as part of a sensible meal plan?

Nutrition experts recommend eating a variety of foods to stay healthy and using the Food Guide Pyramid as a practical tool to make wise food choices. Canned food is represented in all of the five food groups of the Pyramid. For example, you can enjoy rice and pasta in soups as a good selection of grain; evaporated milk fits in the milk, yogurt and cheese group; and canned chicken and beans fit into the meat, poultry and fish group. You can find your favorite canned fruits and vegetables in all shapes and sizes.

Canned Food: Uncanny Safety in the Package

Long shelf life. Canned food will be safe as long as the container remains intact. Although more canned products are coded with "use-by" dates, it is still wise to rotate use of canned products for turnover at least every other year.

Tamper resistance. Cans are one of the most tamper-resistant forms of packaging available, since any opening of the package is clearly evident. Rust spots or dents do not affect the contents of the can, as long as it does not bulge or leak.

Food safety. Food is heated to destroy bacteria and then sealed in cans within hours of harvesting. For maximum flavor and value from canned foods, it is best to use the product immediately after opening. However, if that is not possible, canned foods should be stored in sealed containers in the refrigerator to retain taste and nutrient quality.

 (AH)

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FIVE CENTS

continued from page 10

Lincoln behind the extension office. Prizes and freebies are planned for walkers. Walkers can walk as far as they want or just turn in money for prizes. Walkers can learn more about iodine and the unique saline wetlands found in Lancaster County.

If you would like to learn more, request a presentation, become a walker or form a team of walkers, you can contact a Kiwanian at 423-9029 or e-mail: saltwalk@prodigy.net

What: Kiwanis "Salt Walk"

When: May 6, 2000

Where: Lincoln Saline Wetlands Nature Center (behind extension office)

Why: Raise money by walking. We want to help ensure children around the world grow up healthy

More Information: 423-9029 or e-mail: saltwalk@prodigy.net (GB)

Applications:

Nebraska Pioneer Farm Family Award applications can be obtained by contacting:

Leon Meyer, CFE
Lancaster County Ag Society, Inc.
P.O. Box 29167
Lincoln, NE 68529
(402) 441-6545

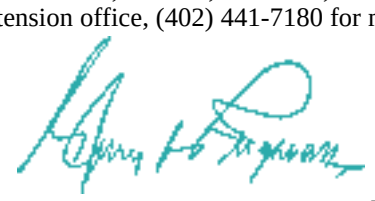
Applications for this year's recognition are due May 1, 2000. (GB)

Fellowship applications for the Nebraska LEAD Program are available for LEAD Group XX.
Due June 15, 2000, additional information and applications can be obtained by calling the LEAD office at (402) 472-6810. (GB)

The NEBLINE

Nebraska Cooperative Extension Newsletter
Lancaster County

THE NEBLINE is published monthly by the University of Nebraska Cooperative Extension in Lancaster County, 444 Cherrycreek Rd. • Suite A, Lincoln, Nebraska, 68528-1507. Contact the extension office, (402) 441-7180 for more information.



Gary C. Bergman, Extension Educator–Unit Leader

NOTICE: All programs and events listed in this newsletter will be held at the Lancaster Extension Education Center unless noted otherwise. Use of commercial and trade names does not imply approval or constitute endorsement by the University of Nebraska Cooperative Extension in Lancaster County.

Mary Abbott, Extension Assistant
Lorene Bartos, Extension Educator
Corey Brubaker, Extension Educator
Maureen Burson, Extension Educator
Linda Detsauer, Nutrition Advisor
Tom Dorn, Extension Educator
Soni Cochran, Extension Associate
Arlene Hanna, Extension Associate
Alice Henneman, Extension Educator
Karen Hansen, Extension Educator
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LaDeane Jha, Extension Educator
Ellen Kraft, Extension Assistant
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WORLD WIDE WEB ADDRESS ..... www.lanco.unl.edu

OFFICE HOURS: 8 a.m. to 4:30 p.m. Monday-Friday

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In order to best serve our subscribers, this form will appear in every issue of THE NEBLINE. You can use this form to:

1. Change your address or order a subscription *(please print)*
2. Submit general comments and/or story ideas

Name _____

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❑ Change of Address

Comments _____

_____

Story Idea(s) _____

_____

Return to:
University of Nebraska
Cooperative Extension in Lancaster County
444 Cherrycreek Road • Suite A, Lincoln, Nebraska 68528-1507

Extension Calendar

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

March 12
4-H Ambassador Meeting ..... 2 p.m.
4-H Teen Council Meeting ..... 3-5 p.m.

March 13
4-H Shooting Sports Meeting

March 15
4-H Beef, Swine, Dairy Cattle, Goat, Llama, Rabbit and Sheep ID's Due

March 16
Fair Board Meeting ..... 7:30 p.m.

March 19
4-H Speech Contest—*State Capitol* ..... 1:30 p.m.

March 23
earth wellness festival—*Southeast Community College* ..... 9 a.m.-4 p.m.

March 25
Rabbit Clinic ..... 9 a.m.-noon

March 27
4-H Leader Training ..... 9:30 a.m. or 7 p.m.
Pet Pals 4-H Club Meeting ..... 7 p.m.
FCE Council Meeting ..... 1 p.m.

March 28
FCE & Community Club Leader Training 1 p.m.

March 29
4-H Horse Leader Training ..... 6:30-9:30 p.m.

March 31
Be A Better Gardener Preregistration Deadline
Ward Shires Retirement Open House ..... 2:30-5 p.m.

April 1
4-H Rabbit Show—*Lancaster Building, State Fair Park* ..... 9 a.m.
4-H Record Book Workshop ..... 9:30-11 a.m.

April 4
4-H Council Meeting ..... 7 p.m.

April 8
"Creating a Galaxy of Stars" Childcare Provider Conference ..... 8 a.m.-4 p.m.

April 9
4-H Ambassadors ..... 2 p.m.
4-H Teen Council ..... 3-5 p.m.

April 10
4-H Shooting Sports Meeting ..... 7 p.m.

April 11
CWF Meeting ..... 7 p.m.

ANTS

continued from page 3

their colony in search for food. Researchers are looking for baits that will control carpenter ants, but, because carpenter ants eat such a wide variety of foods, researchers have not had very good success controlling colonies with baits.

Carpenter ant colonies can be outdoors in hollow trees, logs, posts, landscaping timbers or inside in the structural wood of houses. The most successful colonies are found in wood that is moist.

To create their galleries, the ants chisel out the softer part of the wood with their mouthparts and produce a coarse sawdust–like material, and push it out of the colony. Small piles of sawdust are evidence of carpenter ants. In addition to sawdust, there may be other debris from the nest, including bits of soil, dead ants and insect parts.

Control

The secret to controlling carpenter ants is *find the nest and treat it*. Finding the colony can be difficult. Clues that may help you are finding small piles of sawdust or swarming ants. Following the movements of workers, usually in the early morning hours, can also help locate the colony. Spraying individual ants with insecticides will not be effective because the colony will continue to produce more workers.

Once the colony is found, the carpenter ant problem can be solved. There is such a high affinity between carpenter ants and moisture, it is smart to fix a moisture problem before treating with an insecticide. In some cases, replacing wet wood and fixing the water problem will solve the problem without having to use any insecticides. In situations where there doesn't seem to be a moisture problem, insecticides can be injected into wall voids. For more information about carpenter ants, call 441-7180 and ask for fact sheet 04-97, Carpenter Ants. (BPO)

PRUNING

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Pruning away branches infected with diseases such as black knot of plum, is the main means of controlling their spread.

Next, remove large branches that have grown so vigorously that they shade the lower ones or make the tree difficult to spray or harvest. In some cases, removing large branches can correct earlier pruning mistakes. Remove large limbs where they originate or shorten them back to small, healthy sized branches.

Another goal of pruning is to remove less productive wood — i.e., overly vigorous, vertical branches such as water sprouts and suckers and weak, downward drooping limbs.

Pruning tools should be sharp for clean cuts that will heal quickly. To remove a large branch safely and avoid tearing the bark, undercut it partway, then finish removing most of the length with a cut from the top side. A third cut removes the stub. Wounds need not be painted or sealed. (DJ)