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Bio-Fuels Can Help Bridge Energy Gap
Nebraska in Ideal Position to be Supplier of Biofuels

Tom Dorn
UNL Extension Educator

The United States is the world’s largest user of energy, both in terms of total consumption and per capita. Forty percent of our energy currently comes from oil and we import about 60 percent of the oil we consume. With unrest in the Middle East and the hurricane damage to Gulf coast oil platforms last fall, crude oil prices are at all-time high prices. Nebraska is uniquely situated to help the United States answer the question, “What can be done to reduce our dependence on foreign (and domestic) oil?”

Ethanol
One answer is gasoline blended with ethanol. According to the April 12, 2006 Renewable Fuels Association – Ethanol Report, “Nationally, 97 ethanol biorefineries are in operation with a combined annual capacity of nearly 4.5 billion gallons. Additionally, 33 new biorefineries and nine expansion projects are under construction that will add more than two billion gallons of annual capacity within the next 18 months. These numbers will continue to rise and new groundbreaking events are announced weekly.”

At present, 12 plants are producing ethanol in Nebraska and a reported 19 more are in various stages of planning and construction. By 2007, experts predict Nebraska will have the plant capacity to produce a billion gallons of ethanol annually. Nebraska ethanol plants have the secondary advantage of a ready market for the by-products of ethanol production. Distillers grains are used as a protein supplement in our cattle feeding and dairy industry.

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Can the U.S. replace a significant amount of petroleum with biofuels? One country already has. Brazil recognized many years ago, importing petroleum had the potential to cause an imbalance in trade which would eventually be unsustainable. They decided to take advantage of their bountiful land and climate resources and develop bioenergy as a substitute for foreign oil. They led the world in modifying gasoline engines to use ethanol as a substitute for foreign oil. They led the way.

The ethanol plant at Hastings.

Nebraska has unique position to supply the renewable fuels standard by 2013. Another biofuel making inroads into the American market is biodiesel. From a modest beginning of 500,000 gallons in 1999, biodiesel production had grown to an estimated 75 million gallons in 2005. There are 30 biodiesel plants currently in production in the U.S. and another 25 plants are under construction.

Biodiesel can be readily made from vegetable oils. The basic chemistry is simple: For every 100 pounds of vegetable oil, 10 pounds of methyl alcohol is added in the presence of a catalyst. This yields 2.3 gallons per bushel of corn in the late 1970s to about 2.7 gallons per bushel today — a 17 percent increase. The major improvement in alcohol yield, plus more energy efficient distilling plants and automation which has reduced labor costs has contributed to making ethanol cost competitive at the distributor level with unleaded gasoline.

On August 8, 2005, President Bush signed the Energy Policy Act of 2005 (H.R. 6) into law. This legislation directs the U.S. Environmental Protection Agency to promulgate regulations ensuring applicable volumes of renewable fuel sold or introduced into commerce in the United States annually. It includes a nationwide renewable fuels standard. This standard will double the use of ethanol and biodiesel by 2012. The target set by the legislation is for 7.5 billion gallons of renewable fuels by 2012.

Cellulosic Ethanol
Research is now being conducted on the feasibility of using cellulose as the feedstock for ethanol production. Using cellulose instead of grain as the feedstock will require somewhat different processing and fermenting processes than grain-based alcohol production. Once the mechanical and microbiological processes are perfected, we can begin making cellulosic ethanol from corn stalks, switchgrass, wheat straw and other low-value roughages—all found in abundance in Nebraska. The Energy Policy Act creates grant and loan guarantee programs to fund research and development of cellulosic ethanol production. The legislation set a target of 250 million gallons a year of cellulosic derived ethanol be included in the renewable fuels standard by 2013.
When to Harvest Bromegrass-Hay

You may have heard the story about the lady who always cut the end off a ham before placing it in the roaster pan to cook. When her daughter asked why she did this, the mother admitted she didn’t know the reason, but her mother always did so, therefore, it must serve some purpose. When the girl questioned her grandmother about it, grandma said, “I had to cut the end off, my roaster pan was too small to hold a whole ham.”

I wonder if people decide when to cut bromegrass hay using the same sort of logic. Many people cut bromegrass hay in mid- to late-summer—July, August, even September. The question to ask yourself is: Do people cut their bromegrass hay at this time because it makes the best hay or because it is when they have seen other people cutting their hay?

Cutting time in mid- to late- summer can have its/hers advantages. Weather damage is less likely because mature hay has lower moisture content when cut and we usually get less rain in July and August than in June. But what does waiting do to the nutrition quality of the hay?

Brome cut in early June, soon after heads appear, will have a crude protein content of around 10 or 11 percent and TDN (a measure of energy) of 55 to 60 percent (on a dry-matter basis). According to NU Extension Forage Specialist Bruce Anderson, that’s plenty adequate for wintering most beef cows or for most pleasure horses without additional concentrates or protein. However when cut in late summer, crude protein might be only six percent with TDN below 50. Anderson says all species of livestock need some supplements if fed that kind of hay.

Another advantage to cutting brome hay earlier is the possibility of grazing the regrowth in September, provided we get some fall moisture. Most pastures can use a little help this time of year. So, for the best quality hay and to possibly extend the grazing season, why not break with tradition and cut bromegrass when it has better nutritional quality instead of when the neighbors cut theirs.

—Tom Dorn, UNL Extension Educator

Sample Your Hay to Get Accurate Nutrient Analyses

Tom Dorn
UNL Extension Educator

Nutrient concentration varies considerably among forages. Values vary from one forage species to another, one cutting to another throughout the year, the stage of growth when harvested, whether the hay was rainfed on while in the windrow or whether the University recommends forage testing as a regular part of your livestock operation. For forage tests to provide an accurate reading of forage quality, the sample must accurately represent the hay. Reaching into a bale and pulling out a hunk of hay will not give you a good sample. Nor will getting a single flake of hay.

The only effective method to sample long hay is by using a core sampler. If you don’t have one, you can buy one from many ag supply catalogues or forage testing labs.

UNL Extension in Lancaster County has a probe you can check out by leaving a deposit which is returned when you bring the probe back. Once you have a hay probe, collect one core from 15 to 20 bales that came from the same field that were cut the same cutting and mix together to create a sample for analysis. Keep samples from different cutting separate. The proper sampling procedure is to probe the bales, cutting across the grass. On square bales, probe the center of the bale from the end (between the twine or wires). On round bales, probe toward the center of the bale from the rounded edge. Then combine all the samples from a cutting into one larger sample to send to the lab.

If there is decayed or moldy material you will discard or your samples will not include it in your sample. That way you will have a sample that is similar to the actual diet of your livestock. By following these sampling techniques, you will get accurate nutrient analyses of your hay and be able to use it more effectively. However, if you plan to sell the hay, you must include this kind of material in your sample to accurately represent all the hay to be sold.

Forage testing can be an effective marketing tool. If you were a hay buyer deciding between two hay sources, one where the nutrient analysis is known and the other where nothing definite is known about the quality, wouldn’t you buy the known commodity?

Hay tests report various nutrient values such as crude protein, energy values (expressed several ways) and minerals, (calcium, phosphorus, etc.). In addition to reporting specific nutrient values, most labs use the analysis to calculate a rating of overall quality. This is commonly referred to as the relative feed value (RFV).

Not everybody needs the highest quality hay to meet the nutrient requirements of their particular animals, but they need to know what they are getting so they match the hay quality to the species of animal and stage of pregnancy, lactating, breeding, etc.

To understand relative feed values, let’s look at three examples. RFV of 100 is mediocre hay, but it is usually adequate to meet the protein and energy requirements for older dry cows in the middle—one third of pregnancy. RFV of 120–140 is generally suitable for pregnant beef heifers that are still growing and for beef cows about to freshen. RFV of 150 and above is considered dairy quality.

Even when the quality of one batch of hay doesn’t meet the nutrient requirements of the animals, the livestock producer may be able to feed two or more forage sources in specified proportions that will provide the nutrient needs of the animals being fed. Alter- nately, one may feed non-forage supplements to balance the protein, energy, and/or mineral needs of the animals. Without the hay quality test, it is not possible to accurately develop the rations needed to meet the animal’s nutritional needs at least cost.

—Tom Dorn, UNL Extension Educator

Moving Round Hay Bales Can be Dangerous

Moving hay bales is essential to get feed to livestock, but farmers should be cautious. When taking bales out of storage or moving them with a front-end loader, they should be carried as low as possible to keep the center of gravity as low as possible. Top-heavy loads can cause machinery to overturn easily.

—Tom Dorn, UNL Extension Educator

Pumping Water for Ponds

Half Acre Pond Requires 1.2 Million Gallons of Pumped Water Annually

Tom Dorn
UNL Extension Educator

Occasionally, I visit with an acreage owner who would like to build a small fishing/swimming pond on their property. Their land area or topography is such they cannot count on surface runoff or natural spring water to contribute any significant portion of the water needed to fill the pond or keep it full. Eventually, the discussion turns to the feasibility of us installing a well to pump the water for the pond. Invariably, the acreage owner is surprised at the cost of water it takes. Let’s crunch some numbers for an example pond 160 feet by 150 feet.

The volume of the pond would be 333,000 cubic feet or a little over 1.1 million gallons.

Domestic ponds usually deliver between eight and twelve gallons per person (300–360 gallons per day) but let’s assume the well driller can find the water. Allow 20 gallons per minute (GPM) or a charge of 20 GPM for 24 hours a day for a total of 480 gallons per day (480 x 24 = 11,520 gallons per week or 1.6 million gallons per year). This would require an 8-inch well to deliver that much water.

If there is decayed or moldy material you will discard or your samples will not give you a good sample. Nor will not giving a single flake of hay. On round bales, probe toward the center of the bale from the rounded edge. Then combine all the samples from a cutting into one larger sample to send to the lab.

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Half acre pond requires 1.2 million gallons of pumped water annually. Each half acre pond requires 1.2 million gallons of pumped water a year to keep full. By way of comparison, a family of four will use about 230 gallons of water per person per day (72,000 gallons a year) for domestic uses. If the family also irrigates a 10,000 square foot (0.33 acre) lawn, they would “consume” about as much water as it takes to fill initially as a family of four would use for the household and lawn in six years. It will then require as much water each year to keep full as the family would have used in 6.5 years. I always ask an acreage owner considering a groundwater fed pond, “Is this a sustainable use of our limited groundwater resource in eastern Nebraska?”

—Tom Dorn, UNL Extension Educator
Controlling Pests with Home Remedies

Barb Ogg
UNL Extension Educator

Home Remedy. del. A treatment or cure for a disease or other ailment that employs certain foods or other common household items. Home remedies may or may not have actual medicinal properties and may not be effective against the disease or ailment in question; many are merely used as a result of tradition or superstition even when they are quite effective in inducing the placebo effect. (Wikipedia)

It seems universal for people to have heard about or used a home remedy for pests or pest control. Some examples:

• The lady who used baking powder for ants coming into the house after hearing someone mention it on a radio show and then called the pest control office because it wasn’t working.
• There is no evidence baking powder or baking soda has any insecticidal effect against insects.
• The pest control guy who told me you could kill moles and gophers with Wigley’s Juicy Fruit gum, by putting it in their holes. The theory is the varmints eat the gum which gummed up their intestines (or constipated them) then they died. There is no evidence that moles and/or gophers would even eat the gum or any adverse effects from it.
• The mom who used mayonnaise on her child’s head as a way to get rid of lice. The child had a head lice and became frustrated her daughter continued to have live lice. A research study at the University of Miami School debunked several over-the-counter “natural” remedies for head lice. The researcher found live lice after infesting children with overnight wash with mayonnaise, petroleum jelly or olive oil in their hair.
• The homemaker who puts bay leaves, orange peels or sprinkles herbs and spices in cupboards to keep insects out. These herbs and spices don’t repel roaches.
• Using sandalwood to keep rabbits, ants and other critters away. There have been no studies showing mothballs (naphthalene) have any effect on wildlife.

Grain of Truth

While some old wives tales are completely off base (i.e., baking powder, baking soda, juicy Fruit gum), for others, there is

More Home Remedies Debunked

It would be great if we could control insects around the house simply by mixing up a few ingredients from the cupboard and sprinkling the concoction around the kitchen. Unfortunately, it just isn’t that easy.

Mint oil. One study conducted at the University of California found commercial products containing 8 percent and 4 percent mint oil did not repel ants. The researcher put pieces of whole goods in cups treated with mint oil products and left them overnight. After one treatment, the number of ants on the treated and untreated cups was statistically the same.

Soybean oil and lemon juice. Vinegar and lemon juice are recommended for all sorts of household cleaning chores, but they aren’t good insecticides. Another study at the University of California showed vinegar and lemon juice were also ineffective against roaches.

Bleach (sodium hypochlorite) and ammonia. These household cleaning products may mask ant trails, but there’s no lasting residual insecticide effect from their use.

Chalk Line. And finally, a chalk line will not deter ants from coming into a structure.

~ Barb Ogg

What Does Work: Boric Acid and Borates

Boric acid is a mineral-based inorganic pesticide derived from the element boron. It is relatively nontoxic to people and pets, although people should take care not to inhale it. As an insecticide, boric acid acts as a stomach poison interfering with the insect’s metabolism and development. The dust also adheres to the exoskeleton and helps to desiccate the insects.

Ant control. Boric acid has been formulated into slow-acting bait products. These are cheap to buy and readily available for homeowners to purchase. The key to using an ant bait successfully is to first seal off gaps and cracks where ants enter. Leave the bait out as long as you see ants feeding on it. If ants don’t feed on the bait, it won’t work.

Termites. There are several professional-use borate products used as a wood treatment for termites. Application of these products to untreated wood surfaces provides long-term preventative protection against many wood destroying organisms, including subterranean termites, wood boring beetles, carpeners ants, and wood decaying fungi. The effectiveness of these products comes from their ability to diffuse deep into wood fibers, protecting the centers of large pieces of wood. Borate products cannot be used as soil termiticides, sprayed on the soil surface or applied to wood mulch. These products will have a limited lifespan if the borate-treated wood comes in contact with soil because the boron will diffuse out of the wood when in contact with moisture.

What Does Work: Insecticidal Soaps

Insecticidal soaps are detergent soaps that are applied to plants, soil, walls, furniture, and other surfaces where pests are located. The absorption of the soap into the insect’s skin causes the insect to dry out and die. Insecticidal soaps can be used as a contact or residual insecticide. Sprays can be applied to control pavement ants or flying termites, and liquid applications can be used in the control of many small insects that don’t move much, such as hoppers, whiteflies, leafhoppers, and aphids.

What Does Work: Pyrethrum

Pyrethrum is a natural insecticide derived from the flowers of species of the chrysanthemum. These herbs and spices in cupboards and drawers are also deterrents to ants, roaches don’t like to walk on them. They have no effect on cockroaches or ants. The insect will recover. To delay the insect’s ability to detoxify the chemical and the insect quickly to the insect’s nervous system and, shortly after exposure, the insect cannot recover.

The toxicity of each insecticide is based on the characteristics itself. Concentrated insecticides, whether natural or synthetic, can be hazardous to the applicator. Be sure to read and follow label directions for safe use.

Environmental Focus

Protect Stored Winter Clothing from Insect Damage

Barb Ogg
UNL Extension Educator

As spring and summer approach, there is a need to properly store wool clothing and blankets to protect them from insect damage. Carpet beetles and clothes moth larvae are the only insects that can digest keratin, a protein in hair and wool which makes these insects important fabric pests.

During the summer, warm clothing is susceptible to damage because that’s when these insects are most active. These insects like to stay in indoor places and can hide in the folds of clothing hanging in a closet.

Most people think about clothes moth as being the insect that damages fabrics, but, in Nebraska, the most common fabric pests are carpet beetles. Adult carpet beetles are small and hard to see in your clothes, but their larvae do the damage. The larvae feed on wool, wools, and other fibers such as cotton, silk, and nylon. They can also be found in stored fruit, spices and grain. It is usually the larvae that cause the damage. The larvae feed on wool, silk, and other fibers, eating them and creating small chambers in which they grow. The pupal case is usually added to the pyrethrin, called pyrethroids. These pyrethroids include permethrin and most of the common over-the-counter insecticides used today.

Other botanical insecticides include:

• Emenone, dried derris root, used in gardens, food crops and to kill fish in lakes and ponds.
• Sabadilla, the powdered ripe seeds of a South American Lily, used to kill ectoparasites on various animals and humans.
• Azadirachta, an insect-growth regulator, derived from the neem tree. It interferes with the insect molting hormone ecdysone.
• Limonene is derived from citrus peel. It is used to repel or kill mosquitoes, cockroaches, silverfish and some external pests of pets. It is relatively nontoxic.

Environmental Focus

Using Botanical Insecticides Safely

Some people believe natural insecticides are safer than synthetic ones. This isn’t necessarily true. Nicotine, from tobacco leaves, is a very old and dangerous “natural” insecticide. Black Leaf 40 was a popular garden product for many years, but its use was curtailed by the EPA, because it was too toxic. Also, many people believe that being “natural” makes the insecticide less harmful to people and pets, although these insecticides often have an equally adverse effect on non-target organisms (other insects). In general, “natural” insecticides can be as toxic as synthetic ones. This isn’t necessary the case. Some people believe natural insecticides are safer than synthetic ones. This isn’t necessarily true. Nicotine, from tobacco leaves, is a very old and dangerous “natural” insecticide. Black Leaf 40 was a popular garden product for many years, but its use was curtailed by the EPA, because it was too toxic. Also, many people believe that being “natural” makes the insecticide less harmful to people and pets, although these insecticides often have an equally adverse effect on non-target organisms (other insects). In general, “natural” insecticides can be as toxic as synthetic ones. This isn’t necessary the case.
Getting Past the Nutrition Headlines

The new MyPyramid guidelines for nutrition and physical activity suggest most adults receive health benefits if they are moderately active on a regular and consistent basis for more than six months if you are a daily walker.

• If walking doesn’t work out as easily as you anticipated, your stride should be comfortable to you and not overtire your leg muscles as a part of your planned walks.

Tips for Planned Walks

Here are some tips to help you enjoy and stay with a walking program:

• Begin with a slow pace for about five minutes before you get into the walking pace that you will continue through the rest of the walk. This will allow your muscles to warm up. At the end of your walking time, use a five to ten minute slow down to cool yourself down. Also, stretch your leg muscles as a part of a cool down period.

• Purchase a walking meter (pedometer) to count the number of steps or measure the distance you have gone. Walking meters have the advantage of giving you a tool that measures all of your steps in a day. Clip it on for the entire day and you will record the steps you get in your normal daily activities as well as your planned walks.

• If you don’t wish to use a walking meter, you can go on planned walks according to the clock. Gradually aim for an accumulation of at least 30 minutes of planned walking each day. If you are already close to 30 minutes each day, it’s okay to increase your time beyond 30 minutes.

• Consider making walking arrangements with a friend or a walking group.

• Scout your community for walking paths and other safe places to walk.

• Walk at the time of the day most convenient for you. Walking time can be in the morning, mid-day or evening. For some, it will be easier to break up your walking time throughout the day and that is okay, too.

• Think through how you will handle walking when the weather is bad. Check if a nearby school, church, mall or other facility will allow you to walk there during bad weather.

• If walking doesn’t work out for you on this day, pick it up the next day. Keep it fun rather than a chore.

A “Virtual” Walk Through Nebraska

If you can’t visit these Nebraska sites in person, visit http://www.walknebraska.org. This Web site, developed by the University of Nebraska–Lincoln Extension, encourages walkers to complete a “virtual walk” on five different trails in the State of Nebraska. At key points along each trail ‘walkers’ receive helpful tips to learn more about how to take care of themselves nutritionally, how to protect themselves from the sun or how to use their physical activity to their best benefit. As you continue to walk each day, you will be able to check your progress on your trail.

Chimney Rock, near Scottsbluff, was one of the most famous landmarks on the Oregon Trail.
How White are Your White Clothes?

White clothing, whether it be a shirt, blouse, or a pair of cotton pants, always looks nice when the garment is new. The challenge is to keep the fresh white look.

Our grandparents used to add chlorine bleach to the wash water. Adding chlorine bleach today, however, may actually cause white fibers to yellow or gray.

Here are some steps to take to keep those whites looking their best.

• Avoid overwashing white clothing to light. Light can break down fluorescent brighteners. A garment laid out in the sun to dry may turn yellow, but the back will remain white. Once this happens, the damage usually cannot be corrected.

• Do not bleach clothes on whites, especially rayon, nylon, and acetate. Chlorine bleach causes fluorescent brighteners to break down more rapidly.

• Always pre-soak heavily-soiled garments to ensure adequate soil removal.

• Use enough detergent and adequate water temperatures.

• Do not overload the washing machine and sort clothes correctly.

Clothing dingy gray from soil build-up may be restored with these methods. (Dorothy Appleyard’s fame was playing at Lee’s Restaurant and is the mother of Kathy Blythe, KFOR fame.) I think you will enjoy the evening so mark your calendar. The cost is only $10 so come and enjoy the evening. Remember to have your club ready for the raffle. Tickets will be sold that evening for $1 each or 4 for $5. All the money goes to our FCE Scholarship Fund. Looking forward to seeing you at the Council meeting, June 26 and the Sizzling Summer Sampler on July 11.

Summer Energy Saving Tips

This summer save electricity, save money and save the environment by following these energy saving tips.

• Clean or replace your air conditioner filter regularly.

• Use night air to cool when you’re not home.

• If you have central air, raise the thermostat setting on your air conditioner.

• Use ceiling fans, rather than air conditioners, to circulate air.

• Close blinds and curtains during the day to keep the heat out.

• Cook outdoors.

• Create natural cooling with shade trees on the west and south sides of your house.

Are you looking forward to those lazy, hazy days of summer? You know those kind of days, where the sun radiates 90 degree temperatures all day in a cloudless sky. You can enjoy those days more if you remember to practice sun safety.

The American Academy of Dermatology estimates children receive about 80 percent of their lifetime sun exposure before the age of 18. Evidence of long-term sun exposure may appear on the skin 20 or 30 years later. This may be premature skin aging, cataracts or other eye damage and skin cancer. Your skin conditions every sunburn you have ever had, which means the damage has occurred by the age of 18. There is no such thing as a “healthy tan.” A tan means you have damaged your skin.

Follow these guidelines for a safe summer in the sun.

• Check the ultraviolet (UV) radiation index in your area. Since 1994 the National Weather Service has implemented the UV index, 0-2 minimal to 10+ high. This rating is the burning potential of daily UV exposure.

Read your local newspaper for the rating if given, or access the Web at www.epa.gov.

• Shower and run your dish washer, washer and dryer early in morning or late at night.

• Dry clothes outdoors. They smell wonderful!

• Don’t use an air conditioner in small rooms. (Better to use fans.)

• Keep your pool water at a comfortable temperature, not too warm or too cold.

• Most swimmers are made of a blend of nylon and spandex, which lets the suit stretch. Although spandex has good resistance to sunlight damage and deterioration, fabric yellowing may occur with repeated use and exposure. It is very important to rinse the chlorine out of swimwear after each wearing and at the end of the season.

I hope everyone’s favorite swimming suit is still being worn and enjoying use. Thank you for your encouragement and service as a swim camp director or Swim Team Coach. Have a wonderful summer!
Bagworms, Look for Them Now!

Bagworm eggs hatch in early June and young worms will begin to feed on junipers, cedars and arborvitae in eastern Nebraska. Bagworms also occur on various deciduous trees such as flowering crab, plums, linden and dogwood. The bags attached to the trees now are those left off from last year and are empty, except for the remaining egg masses that will finish hatching. The worms are very tiny, probably 3/8 inch in length or less, and each will feed until it is large enough to construct a small protective sack or bag which they construct of silk and plant material. At this stage, the larvae are susceptible to insects but after six weeks they will be difficult to control. Suggested materials are Bacillus thuringiensis (Bt) (Dipel), Acephate (Orthene), Carbaryl (Sevin) and Permethrin (Targa). Follow label directions and be sure to spray trees and shrubs thoroughly to penetrate foliage. Good coverage is essential if control is to be effective.

— Mary Jane Frogge, UNL Extension Associate

All American Roses for 2006

There are four All American Rose Selection Winners for 2006. As usual, one or more of the diverse offerings is sure to suit almost any landscape and garden. This year’s winners will convince you to plant more roses.

— Mary Jane Frogge, UNL Extension Associate

Bagworm bags at completion of larval development are difficult to control.

THINGS TO DO THIS MONTH

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Smart Watering Techniques Conserve Water in the Yard

Don Janssen
UNL Extension Educator

With continuing water shortages, applying simple water conservation tips when practicing lawn care is beneficial for both hom­owners and the environment.

Instead of developing high water bills or allowing lawns to be drier and discolored, compromise by developing the most efficient time to water lawns is in the early morning, from 4 a.m. to 10 a.m. At this time, the sun is low, the temperature is cooler and winds are milder than during the day, so there is less water loss due to evaporation. Also try leaving clippings on the lawn after mowing as a good nutrient source as well as a way to keep moisture in the ground. Another way to work with nature is to put out large containers to catch rain water for more efficient watering use later. But don’t let water containers sit uncovered long enough that mosquitoes use the standing water for a breeding ground. Conserve moisture by mowing Kentucky bluegrass lawns to 2.5 to 3 inches tall and cut around lawns to about 3 or 4 inches. Think about reducing the number of fertilizer applications or the amount of fer­tilizer applied so the grasses don’t grow as quickly and thus don’t use as much water. Otherwise, cut grass clippings on dormant turf and irrigate it if no rain for three weeks. Design home landscapes so plants with similar water needs grow side-by-side. According to Roch Gautsin, Ph.D., turfgrass specialist you should group ornamentals and plants into low, moderate and high watering needs and water them accordingly, tak­ing into consideration the time of year, actual precipitation and weather condi­tions. Also, try to put the plants in places where they’ll grow and use water most efficiently, consid­ering characteristics such as sun and shade, dryness and wetness. Planting native and adapted plants that are drought-resistant decreases the need for supplemental irriga­tion once the plants are established. Surround garden plants with a 2- to 3-inch layer of mulch to reduce evaporation and weed competition. Mulch also improves soil moist­ure. Soils can be amended with compost, manure or leaf mold to improve their water holding capacity and infiltration of soils as well as plant vigor and health during dry conditions.

Water plants to the bottom of their roots. Determine root depth and water infiltration by stick­ing a screwdriver or soil probe into the ground. When pulled out of the ground, the probe should be moist—not dry or soggy wet. Then try to keep soil moist about 1/2-inch deeper than the deepest living roots or, if the root depth is unknown, 8 or 9 inches into the ground. Woody plants should be watered more deeply and infrequently to promote extensive rooting. New plants require supple­mental irrigation at first—consider wa­tering the area around the plant so they get enough water without all the water running into the area having to be watered in the same way. When overwatering, irrigate lightly and frequently to accom­modate the new turf plants’ shallow root system.

Maintain irrigation systems by keeping track of the weather and the watering systems. Use empty coffee cans, tuna cans or other containers to measure the amount of water sprinklers put out and adjust the run time so it delivers the required amount, changing run time seasonally as plants’ water needs change and subtracting any rainfall.

John Fech, extension educa­tor says, “Once a month, inspect automatic sprinkler systems. Look for turf growth around the heads of the sprinklers, broken or damaged heads, clogged nozzles and other complications.” Adjust sprinkler heads as plants grow or decorative items such as decks are built and start blocking the spray pattern. Make sure they don’t spray sidewalks or other surfaces water will flow off. When watering on a slope, run sprinklers until there is runoff; then stop. After three hours, water the slope again. Aerating soil in fall or spring increases infiltration.

Soil with water provides no resistance when inserting a screwdriver – where a screwdriver meets resistance is the depth of water infiltration.

Summer Blooming Perennials

Don Janssen
UNL Extension Educator

After the first flush of early summer blooming perennials, the garden often has a lull during the “dog days of summer.” This is not true some new, rarely used perennials that provide color. Many people are familiar with Stachys coccinea or Agastache. This plant looks attractive to butterflies and other pollinators. It puts out graceful, golden­yellow flowers on a 3-foot-tall stem]{7}© Colorado State University Cooperative Extension. All rights reserved.

The flowers are brilliant red spikes, speckled with white throats. Although hardy in Zones 5 to 9, with winter mulch­ing, it is worth a try in a protected area of the Zone 4 garden. Remove or deadhead the flower spikes to encourage reblooming. Some Other Factors To Consider

Don Janssen
UNL Extension Educator

Note: This is the final of a series of articles related to the “Age of Enterprise.”

Farm community. An active farm community promotes group learning, in­novation and cooperation. Quality suppliers of equipment, services and information are more available where there is a “critical mass” of farmers. Nevertheless, isolated farmers can join commodity organizations and take other steps to open access to shared marketing skills.

Isolation. If you are isolated, you must carry larger parts and supplies with you and, most significantly, you probably cannot contract as easily for custom farm work. Thus, you must have the ability and equipment to do all of the work yourself. This requires a much higher up-front investment in capital, time and equipment, which is more difficult to attract buyers for the crop.

Labor pool. Many horticultural crops are high labor intensive and must be harvested and marketed in a timely fashion. Access to reliable and productive labor can mean the difference between success and failure. Are you comfortable managing labor? Are you willing/able to supervise and do the additional paperwork involved with having employees? Can you pay for labor before you are paid for your crop?

Access to markets. This factor is cru­cial for the small farmer who must get a high percentage of the crop dollar to survive.

Summary

Small-farm operators develop economic vitality by:
• Having a passion for what they do.
• Watching their cash flow cycle.
• Producing crops for small but well-paying markets.
• Utilizing diverse marketing outlets but understanding the costs of low-volume loca­tions.
• Marketing aggressively and creatively.
• Searching out and using information to reduce production and marketing risks.
• Underwriting the learning curve to new enterprises and not expecting to make any money for several years.
• Investing in good soils and water.
• Locating near a major population center on a paved road.
• Employing used (versus new) equipment and being able to do at least preventive maintenance on the farm.
• Using equipment to carry out some cap­i­tal-intensive parts of the enterprise in the beginning.
• Matching work to the family’s time, desires and abilities.
• Diversifying sources of earnings, including off-farm income, to produce a solid, year­round cash flow.

Small farms can be a springboard to significant business opportunities. They can be an incubator for skills and creativity. Many large enterprises started from very modest bases. However, there are significant risks as­sociated with a commercial farm. Successful enterprises are exceedingly well managed and focused on a profitable marketing niche.

Fireworks Goldenrod

Sunset Hyssosp

Scarlet Hederette is a native to southern Arizona and will bloom non-stop from mid­summer on. The flowers are brilliant red spikes, speckled with white throats. Although hardy in Zones 5 to 9, with winter mulching, it is worth a try in a protected area of the Zone 4 garden. Remove plant posts on a show of orange and lavender flowers with a soft, waxy look. With a fragrance reminiscent of licorice, Sunset HyssoSp gives a fresh, clean smell to the garden when its leaves are touched. It’s also attractive to butterflies and other pollinators.

An often overlooked plant family in many gardens is the gold­enrosp. This plant is often accused of causing allergies, when in fact other blooming but less conspicu­ous plants are creating the problem for allergy sufferers. For a spectacu­lar addition try Solidago rugosa ‘Fireworks’ which is an appropriate name. It puts out gracefully arching flowers and can be easily mixed in with other plants in the perennial border. All of these plants are consid­ered xeric, or water-wise plants. After establishment (which does require some supplemental water), these and other xeriscape plants will thrive in summer. Plants that have silvery, gray foliage or foliage with a tough or fuzzy feel can often be great choices for the low water garden.

 Greene Acres June 2006

Urban Agriculture

http://lancaster.unl.edu
Ron Dowding
Lancaster County 4-H is proud to announce Ron Dowding of Bennet as winner of June’s ‘Heart of 4-H Award’ in recognition of outstanding volunteer service.

Ron has volunteered for Lancaster County 4-H for more than 20 years. He was organizational leader of Happy Go Lucky club for many years (in photo, he is wearing a belt buckle presented to him by the club). The club has been one of the larger 4-H clubs in Lancaster County. Ron has served as a county fair 4-H Sheep superintendent, 4-H recruiter, 4-H Council Council, livestock VIP’s committee member and Extension Board member. He also sponsors several livestock trophies.

Being a 4-H volunteer is a great opportunity to give back to a program that’s been a big part of my life,” says Ron. “From that first rabbit at 8 years old to showing swine, sheep, dairy and beef cattle in Otoe County 4-H, to raising a small herd of registered shorthorns today in Lancaster County. My favorite part of volunteering is watching the youth not only of our club, but the youth of all Lancaster County 4-H grow into champions!!! It is very rewarding watching that little brother or sister too young for 4-H grow and mature through 4-H.”

Ron has been married to Arlene for 30 years and their children Jana and Nate were 4-H members. Recently, Ron became a grandpa to daughter Jana’s quadruplets! He works at Goodyear Tire & Rubber Co. Ron is a Lancaster County Agricultural Society board member (he currently is Vice President) and he volunteers through his church.

Congratulations to Ron! Volunteers like him are indeed the heart of 4-H!

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

Pre-Fair Leader Training, May 23

New leaders, experienced leaders, 4-H members and parents are invited to this leader training on Tuesday, May 23, 9:30 a.m. or 7 p.m. at the Lancaster Extension Education Center. Come and receive information on how to fill out the entry tags, the in’s and out’s of interview judging, contests and other important county fair information. Preregister by May 22 by calling 441-7180.

Presentation Workshop, June 15

There will be a Presentation Contest workshop on Thursdays, May 1, 11:30 a.m. and 7 p.m. at the Lancaster Extension Education Center to prepare for the Presentation Contest. This workshop will teach youth and volunteers about the three presentation classes, give tips on how to be a great presenter and help with presentation ideas.

Animal ID’s Due June 15

All identifications for 4-H/FFA sheep, goats, swine, breeding beef, bucket calves, dairy cattle and rabbits which will be entered in the Lancaster County Fair must be entered through the extension office by Friday, June 15.

Nebraska State Fair 4-H Broiler Show

Broilers for the Nebraska State Fair 4-H Broiler Show must be ordered from 30 from Gage County Extension Office. There is a minimum order of 100 birds per order. Order forms can be picked up at extension office or online at http://lancaster.unl.edu/4h.

State Fair Horse Judging Forms Due June 1

Hippology and judging entry forms for the State 4-H Horse Exposition at Fonner Park are due to the extension office on Thursday, June 1. Contest entry forms are available at the extension office or online at http://lancaster.unl.edu/4h.

Note: to be eligible for the State 4-H Horse Show All-Around Awards, a 4-H member must compete in either the Horse Judging Contest or the Hippology Contest, or have competed in one of the judged contests. The 4-H members in these contests will be judged in the following 4-H manuals: Fast Foods, You’re the Chef, Food Judging, Shopping in Style, Attending Shoppers, Design Decisions and Home Building Blocks. Contest questions will be based on the following 4-H manuals: Six Easy Bites, Attending Shoppers, Health A “Discovering Me” and The Siter.

Premier Animal Science Events, June 26–27

The state-wide 4-H Premier Animal Science Events (PASE) will be held June 26–27 at the Animal Science Department on UNL’s East Campus. If you are interested in being on one of the county’s livestock judging, meats, poultry or dairy judging teams, please contact Deanna by June 5 to register for the event.

Counties must order the following 4-H manuals:
- Animal Science
- Home Building Blocks.
- Fast Foods, You’re the Chef.
- Food Judging.
- Shopping in Style
- Attending Shoppers
- Design Decisions
- Health A “Discovering Me” and The Siter

Horticulture Judging Contest, July 7

The Horticulture Judging Contest will be held Friday, July 7, 10 a.m.—Noon at the Lancaster Extension Education Center. Contest is open to all 4-H’ers — need not be enrolled in a horticulture project. Preregistration is not required. Study material is available from extension. Contact Mary Jane at 441-7180 for more information.

Horse Judging Contest

There you choose which of the following portions of the contest to participate in:
- Tree Identification — identify 20 trees with proper name and spelling.
- Grass & Weed Identification — identify 20 grass and weed samples with proper name and spelling.
- Horticulture Judging Contest — consists of a written test, identification and judging.

State Fair Horse Judging Forms Due July 7

Due June 1

Hippology and judging entry forms for the State 4-H Horse Exposition are due to the extension office on Thursday, June 1. Contest entry forms must be entered in the Lancaster County Fair by June 7. NO LATE entries will be accepted.

Note: to be eligible for the State 4-H Horse Show All-Around Awards, a 4-H member must compete in either the Horse Judging Contest or the Hippology Contest, or have competed in one of the judged contests. The 4-H members will be judged in the following 4-H manuals: Fast Foods, You’re the Chef, Food Judging, Shopping in Style, Attending Shoppers, Design Decisions and Home Building Blocks. Contest questions will be based on the following 4-H manuals: Six Easy Bites, Attending Shoppers, Health A “Discovering Me” and The Siter.

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As of March 18, 2006, all riding skills level tests must be done in groups. Individual tests done by leaders will no longer be accepted. Remaining test dates (location and times to be announced) will be Tuesday, June 13 and Saturday, July 8.

New Horizons Book is Available

The new revised 4-H Horsemanship, Training Guide is now available at the extension office.

Salt Creek Wranglers Hold Pre-District Practice, May 20 and June 11

The Salt Creek Wranglers are providing a chance to practice for districts within their 4-H Hills and Barrens Dollar Series. The show on Saturday, May 20 will highlight the English classes using the districts format. The show on June 11 will be the western classes will be run in the district format. Registration starts at 8 a.m. Showtimes on these and other area horse shows are online at http://lancaster.unl.edu/4h/news.html or call (402) 444-7804.

Pre-Fair Leader Training, May 23

New leaders, experienced leaders, 4-H members and parents are invited to this leader training on Tuesday, May 23, 9:30 a.m. or 7 p.m. at the Lancaster Extension Education Center. Come and receive information on how to fill out the entry tags, the in’s and out’s of interview judging, contests and other important county fair information. Preregister by May 22 by calling 441-7180.

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- Health A “Discovering Me” and The Siter

As of March 18, 2006, all riding skills level tests must be done in groups. Individual tests done by leaders will no longer be accepted. Remaining test dates (location and times to be announced) will be Tuesday, June 13 and Saturday, July 8. Please RSVP at least one week in advance of the test date for your: Friday, July 14 beginning at 1 p.m., or Saturday, August 5 beginning at 8 a.m. Preregister by Friday, July 7. See Fair Book page 35 for complete contest information.

Counties must order the following 4-H manuals:
- Animal Science
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- Fast Foods, You’re the Chef.
- Food Judging.
- Shopping in Style
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Horse Judging Contest

There are three methods in which 4-H’ers can participate: 1) using LCD, slide or overhead projector; 2) presentation using posters; or 3) multimedia presentation. You choose which date works for you: Friday, July 7, beginning at 1 p.m., or Saturday, August 5, beginning at 8 a.m. Preregister by Friday, July 7. See Fair Book page 35 for complete contest information.
**CLOVER COLLEGE REGISTRATION FORM**

To register, complete the registration form (one person per form) and return with payment (check payable to Lancaster County Extension). Registrations are received on a “first come” basis and will only be accepted upon receipt of fees. Classfills up quickly — early registration is recommended. Telephone registration not accepted. All fees are nonrefundable unless a class is filled to capacity or canceled. Make check payable to Lancaster County Extension.

Assume your registration is confirmed unless you contact us about filled classes.

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If you are interested in this opportunity, contact Tracy Kulm at 441-7180 or tkulm1@unl.edu.

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**WORKSHOP DESCRIPTIONS**

**1-Day Workshops**

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**2-Day Workshops**

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**Adult and teens volunteers are needed to help during Clover College! No experience needed!**

Volunteer for one session or all four days!

If you are interested in this opportunity, contact Tracy Kulm at 441-7180 or tkulm1@unl.edu.
Bennet Celebrates Successful Visioning Process

Community Garden Open House, June 24
Community CROPS, Lincoln's community garden and farm project, will be having a garden open house on Saturday, June 24, 10 a.m.-2 p.m. Select gardens will be open for viewing with gardeners on-site to showcase their plots. We will have various garden and food related demonstrations and refreshments at each garden. Tickets will be available to purchase at all open garden locations, including the 46th and P Community Garden.

Community CROPS: Combining Resources, Opportunities and People for Sustainability is a community-supported project that provides garden space to people in the Lincoln area, as well as helping refugee and immigrants to start farm projects. To learn more about Community CROPS, go to www.communitycrops.org or call 730-2532.

When Property with Private Water, Wastewater is Sold, Systems Must Be Inspected

By John Chess
Lincoln-Lancaster County Health Department

Effective May 29, 2006, Lancaster County Resolution R-06-0005 and Lincoln Municipal Code 24.42 requires prior to the sale, transfer or conveyance of property upon which an on-site wastewater treatment system and/or on-site water supply system is located, it shall be the duty of the owner to have each system inspected by a Property Transfer Inspector (PTI) and secure a determination letter from the Lincoln-Lancaster County Health Department (LLCHD). PTIs must hold a valid permit from LLCHD to conduct inspections on the on-site wastewater system and/or the on-site water system. A current list of PTIs is available by contacting the LLCHD.

The PTI will conduct inspections of the on-site waste-water and/or the onsite water system based on the criteria set by the LLCHD. The inspection results will be submitted to the LLCHD along with a $75.00 fee for review and issuance of a determination letter. After reviewing the inspection report, LLCHD will issue one of three letters of determination. They are:

- Approval: This means at the time of inspection the on-site wastewater system and/or the on-site water system found the structure and operational status were in substantial compliance with applicable local and state codes.
- Denial: This means either one or both of the on-site systems may adversely affect public health. The denial status does not preclude the sale, transfer or conveyance of property. However, if a serious public health violation does exist, LLCHD may take legal steps to make sure the violation is corrected.
- Undetermined: This means the system could not be inspected due to weather conditions. The inspection must be completed when the weather conditions are favorable.

The property code does provide exceptions to the inspection requirements and issuance of the determination letter. Examples of the most common exceptions: 1) when a determination letter was issued within the past 36 months; 2) a new system installed in the previous 36 months; 3) transfers from spouse to spouse; and 4) transfers between immediate family members.

If you have questions about the property transfer code, contact Doug Smith at 441-8031 or Doug Smith at 441-8031.

The Nebraska LEAD Program (LEADERSHIP EDUCATION/ACTION DEVELOPMENT)
Applications are now being accepted for Nebraska LEAD Group XXVI, which begins in the fall of 2006. Thirty highly motivated individuals with demonstrated leadership potential will be selected. Application deadline is June 15.

The Nebraska LEAD Program is specifically designed for both males and females involved in production agriculture or agribusiness, in the general range of 25-50, who are intent on making a difference by providing quality leadership for the future of the industry and agriculture of the state of Nebraska.

For application or re-application materials and/or further information, call the Nebraska LEAD Program at 472-6810 or e-mail aolebeke1@unl.edu.
Bio-Fuels
continued from page 1
systems necessary to reduce emissions. The standard is being raised by petroleum refining as being too costly.

Rotary distributor injection pumps rely on the diesel fuel itself for lubrication. Sulfur compounds in diesel fuel have lubricating properties. The main lubricity problem is these pumps sustain accelerated wear with lower sulfur diesel. Newer pumps built to new sulfur standards will need lubricity enhancers added to the fuel.

Lubricity problems typically result in reduced performance. Increased wear of components of the fuel injection system may also result in a reduction in fuel efficiency and increased fuel consumption.

The lubricity characteristics of biodiesel, plus the long-term benefits of replacing a portion of fossil fuel with a renewable source should result in a growing and on-going demand for biodiesel in the future. Statistics show an estimated 45 billion gallons of diesel fuel was used over-the-road trucks in 2001. If all over-the-road truck diesel fuel contained a 2 percent blend of biodiesel (B2), about a billion gallons of petroleum diesel per year would be replaced by biodiesel which, in turn, would reduce our dependence on foreign oil.

Many Nebraska farmers are using B2 in their diesel tractors, combines and pickups. In fact, at least one major farm equipment manufacturer is shipping their tractors with a tank of biodiesel. The number of diesel automobiles is expected to double in the next 20 years. If biodiesel were used not only in trucks and cars but also in diesel-electric locomotives, construction equipment, etc., we could further reduce our dependence on foreign oil.

What does the future hold for biofuel production in Nebraska?

Nebraska will continue to be a reliable supplier of feed grain and oilseed, as a result of our irrigated crops production. Some of this production is already going into biofuel production and as more biofuel plants go into production, they can be located so as to be as sure of a reliable supply of feedstock. Nebraska has a very well-developed transportation infrastructure — truck and rail. Our central location within the country puts us in an ideal position to be a supplier of biodiesel to the Midwest region and both coasts.

When cellulotic ethanol production is perfected, Nebraska has millions of acres of hogsage production as well as millions of tons of crop residues which could be utilized for ethanol production.

Finally, we have a thriving cattle and hog feeding and dairy industry to utilize the by-products of the grain ethanol plants and oilseed crushing industries, thus adding to the profitability of both the biofuel industry and the livestock industry in the state. We have often said, Nebraska is the Saudi Arabia of fresh water, having two billion of the estimated total 2.98 billion acre-feet of water stored in the High Plains Aquifer. Someday, we also could be known as the Saudi Arabia of renewable fuels.

ABC’s for Good Health, June 1, 8 & 15
A 3-Part Series Which Can Change Your Life

UNL Extension Nutrition Education Program (NEP) is presenting “ABC’s for Good Health,” a free series aimed at limited-to moderate-income women. Upcoming dates are Thursday, June 1, 8 and 15. Choose between two time slots, 10 a.m. – 12:30 p.m. or 6-8:30 p.m.

Learn that good health is as easy as:
A) Active fitness = Increase your physical activity with a personalized walking program.
B) Build a healthy base = Use MyPyramid to guide your food choices.
C) Choose sensibly = Balance the foods you need and enjoy.

Participants can expect:
• A pedometer and inspiration to stay fit
• A notebook with practical nutrition instruction
• New recipes and food preparation ideas
• A cookbook (valued at $15) after completing the series

Sessions are held at the Lancaster Extension Education Center, 444 Cherry creek Road in Lincoln. Please register by May 24. Call NEP at 441-7180 for more information or to register.

The Nebraska is published monthly (except December) and mailed to more than 10,500 households in Lancaster County.

The Nebraska may be reprinted without special permission if the source is acknowledged as “University of Nebraska–Lincoln Extension in Lancaster County.”

Subscriptions to The Nebraska are free to Lancaster County residents. There is an annual $5 mailing and handling fee to addresses in zip codes other than 68523, 68003, 68004 and 68065.

Order subscription □ Change of address □

Name ________________________________
Address ________________________________
City, State, Zip ____________________________
Mail to: UNL Extension in Lancaster County 444 Cherry creek Road, Suite A ● Lincoln, Nebraska 68528-1507

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln, cooperating with the Counties and the United States Department of Agriculture.
Can You Guess It?

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

Animal Science Youth Field Day, June 2
Open to all youth ages 10 and up, University of Nebraska–Lincoln Animal Science Field Days present a variety of fun, hands-on activities which teach about beef, sheep and swine evaluation, breeding, meats and feeds. In Lincoln, a Field Day will be held on Friday, June 2, from 9 a.m. to 3:30 p.m. at the Animal Science Department on UNL’s East Campus. No preregistration is needed. The $5 registration fee payable the day of the event — lunch is included. Parents and other adults with interests in the livestock industry and educating youth are also encouraged to attend and participate. If you need additional information please call Deanna at 441-7180.

Jammie Jamboree Saturday, June 17, 9 a.m.
Lancaster Extension Education Center
444 Cherry Creek Road, Lincoln
Join us at the Jammie Jamboree and make jammie bottoms! Bring the Simplicity pattern 5338, prewashed flannel or 100% cotton fabric for the bottoms only and matching thread. Also bring your sewing machine, basic sewing equipment such as scissors, pins, measuring tape, etc. and a sack lunch.

Club members wore the new aprons at the 4-H Spring Rabbit Show which Rabbits ‘R’ Us presents every year.

Rabbits ‘R’ Us 4-H Club Donates Aprons

When the 4-H Council discussed purchasing aprons for 4-Hers working in the 4-H Food Booth at the Lancaster County Fair, members of the Rabbits “R” Us 4-H Club stepped forward with a plan. They volunteered to purchase, decorate and donate 100 aprons to the 4-H Council to be used at the 4-H Food Booth and other approved events, as they arise.

The funds to purchase the aprons came from the club’s main fundraiser, the Dunking Booth and Duck Pond at the Lancaster County Fair. Funds generated from the Dunking Booth and Duck Pond are annually used to do landscaping work at the Lancaster Event Center and other community service projects.

Approximately 15 Rabbits ‘R’ Us club members helped decorate the aprons with the 4-H logo using a fabric resist method. One of the members, Jessica Stephenson, had demonstrated the technique as part of last year’s Presentations Contest. Therefore, Jessica and her sister Jaime, led Rabbits ‘R’ Us members in the process and laundered the aprons after the meeting. They will also be presenting this technique at this year’s Clover College (see page 9).

Thanks to the Event Center for providing space for the club to decorate the aprons.

—Submitted by Chris and Jessica Stephenson

4-H Speech & PSA Contest Winners

This year was the second year the Lancaster County 4-H Speech and Public Service Announcement (PSA) Contest was split into two events and dates to make it easier for youth to participate in both contests. These are the first 2006 Lancaster County Fair 4-H contests. Waverly Grange and Lancaster County Farm Bureau donated cash awards. The top three winners in each division will go to regionals, held May 30 at UNL East Campus. Complete results and photos are online at http://lancaster.unl.edu/4h/Fair

SENIOR PSA: Amanda Peterson (1st), Kyle Pedersen (2nd)
INTERMEDIATE PSA: Jessica Stephenson (1st), Erica Peterson (2nd), Rachel Pickrel (3rd)
JUNIOR PSA: Trenton Craig (1st), NOVICE PSA: Jaime Stephenson (1st), Jacob Pickrel (2nd)
SENIOR SPEECH: Amanda Peterson (1st), Catherine Dowd (2nd), Kyle Pedersen (3rd)
INTERMEDIATE SPEECH: Caleb Swanson (1st), Jessica Stephenson (2nd); Erica Peterson (3rd)
JUNIOR SPEECH: Charles Dowd (1st), Abigail Swanson (2nd)
NOVICE SPEECH: Jaime Stephenson (1st), Molly Noel (2nd), Mary Dowd (3rd)

Choose from More than 40 Nebraska 4-H Summer Camps

Open to all youth ages 5-19, 4-H summer camps are a great opportunity to meet new friends and experience a wide variety of exciting activities such as canoeing, mountain biking, horseback riding, rappelling or climbing, volleyball, basketball, art, dancing, backpacking, shooting sports, water skiing and fishing!

There are more than 40 camps and trips scheduled in May, June, July and August at the three 4-H camp locations in Nebraska:

• Eastern Nebraska 4-H Center, Gretna
• Nebraska State 4-H Camp, Halsey
• South Central 4-H Center, Alma

Most camps include one to three overnight stays in comfortable cabins. Four camps aimed at youth ages 5-8 are one-day camps — adult chaperones are invited!

Brochures with camp descriptions, registration forms and more information are available online at http://4h.unl.edu/camp or at the extension office.

—Submitted by Chris and Jessica Stephenson

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The Lancaster County 4-H Council
http://lancaster.unl.edu

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