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The NEBLINE, May 2010

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Groundwater is vital to Nebraska, so it merits taking a closer look at this important resource. UNL Research Hydrogeologist James Goeke provides an insight into Nebraska’s abundant groundwater resources. Goeke reports Nebraska has over two billion acre-feet of recoverable groundwater in the High Plains Aquifer.

Groundwater resources are in balance when recharge is equal to withdrawals. Goeke reminds us recharge from precipitation is the source of most of our groundwater. The thickness of and types of sediments in the unsaturated zone determine how long it takes recharge from precipitation to reach our groundwater reservoirs. Depending on local conditions it might take days, months, or years for recharge to reach the water table. Withdrawals go toward irrigation, domestic (drinking water) use, power generation, manufacturing, and other various uses.

Groundwater quality must be considered in addition to quantity. Although groundwater was once thought to be protected by layers of rock and soil, we now know groundwater is vulnerable to many types of contamination. Contaminants can enter groundwater from landfills, fertilizers and pesticides, sewage, animal waste, fuel storage tanks, and many other sources. In addition, some contaminants are introduced to groundwater from naturally occurring sources, such as the rock and minerals that make up an aquifer. Once groundwater becomes contaminated, clean-up is difficult, if not impossible, and expensive. It is clear good management presents the best opportunity to preserve groundwater resources.

Agriculture is the leading consumer of water. While figures can vary slightly with individual studies and by year, a 2005 USGS report indicated up to 90 percent of the groundwater consumed in the state is for irrigation. According to a 2007 Census of Agriculture report, Nebraska ranks first nationally with about 8.5 million irrigated acres. UNL Irrigation and Water Resources Specialist Derrel Martin reports most of those irrigated acres receive groundwater, followed by acres receiving commingled ground and surface water. Martin goes on to say over 90,000 active irrigation wells have been in operation, with the highest density in the Central Platte Valley where over 16 irrigation wells have been installed per square mile of land. This density reflects the availability of groundwater, the suitability of the land for irrigation, and the need for irrigation to meet crop water requirements. Corn is grown on 70 percent of the land irrigated for crops, followed by soybeans on 19 percent.

Groundwater irrigates many Nebraska crops and contributes to our economy. While groundwater normally is provided with some protection by the natural filter of the soil profile, our actions can put groundwater at risk of contamination. We can all follow good groundwater protection practices, including the following:

- **Have out-of-service wells properly decommissioned.** They provide a direct path for contaminants to enter groundwater. Nebraska’s Natural Resources Districts assist well owners with the cost of decommissioning out-of-service water wells.
- **Have septic systems inspected by a certified professional** and have the tank pumped on a regular basis. Poorly functioning systems risk pathogen, nutrient, and other chemical contamination.
- **Properly apply fertilizers and pesticides to lawns, crop land, parks, golf courses, and other landscapes.** Improper use can result in contamination, including high nitrate concentrations.
- **Dispose properly of hazardous materials;** a few of which are vehicle oil, old gasoline, paint, and solvents. Hazardous materials dumped on the land surface can move into groundwater.

Marin reports irrigation development has caused declines of groundwater levels in some areas of the state. The most severely affected areas are the Box Butte area, western end of the Republican River Basin, and parts of the Blue River Basin. Natural Resources Districts have implemented management plans to regulate groundwater resource use in impacted areas.

UNL’s Business Research conducted an economic impact study in 2003, a drought year, to determine the impact of irrigated agriculture on Nebraska’s economy. The actual net total economic impact was computed as more than $4.5 billion; adjusted to $3.6 billion for normal precipitation conditions.

While the percentage of groundwater used for human consumption and personal hygiene is low, it is vital to all Nebraskans. Water is second to oxygen as being essential for life. People can survive days, weeks, or even longer without food, but only a few days without water. Therefore, a safe and adequate drinking water supply is essential for all Nebraska residents.

About 80 percent of Nebraska’s population consumes drinking water obtained from groundwater sources. Only five Nebraska public water systems obtain their water from surface water including Beaver Lake, Blair, Cedar-Knox Rural Water District, Chadron, and Metropolitan Utilities District (MUD). MUD, which serves the Omaha metro area, currently operates three drinking water plants; only one of these obtains its water from a surface water source. An additional 14 public water systems purchase their water from these five.

People in the rest of the state drink water that originates from underground public or private wells.

Groundwater’s influence on Nebraska’s surface water flows must also be considered. In the publication “Surface Water and Groundwater Relationships in Nebraska” Goeke states, on the average since 1950, 1.7 million acre-feet of surface water flow into Nebraska and 8.9 million acre-feet flow out. He goes on to say it has been estimated that groundwater makes up to 10 to 20 percent of the flow of the Big Blue, Little Blue, and Republican Rivers and 50 to 90 percent of the flow of the Platte, Loup, Elkhorn, and Niobrara Rivers. The difference in contribution is a reflection of more overland runoff from the fine textured soils in the Blue and Republican drainages and less overland runoff and much more groundwater contributions from the coarse textured sandy soils of the Platte, Loup, Elkhorn, and Niobrara drainages.

What challenges do we face regarding our groundwater resources? We must ensure the continued availability of groundwater for its many uses. We must work toward ensuring a groundwater supply of adequate quantity and quality to meet our needs today and in the future. In this challenge, all Nebraskans share a responsibility for making wise management choices.

For More Information
University of Nebraska–Lincoln Water Web site at http://water.unl.edu

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Hand Pick Bagworms by Mid-May

See page 7
### Fertilizing Grass Pastures and Haylands

By Tom Dorn
UNL Extension Educator

Pastures are important to many livestock producers in Nebraska, but production from pastures is low. Research shows fertilizing, weed control, and rotational grazing increases grass production from pastures, resulting in greater livestock production.

Fertilizing and controlling weeds on haylands also increases production. Since more nutrients are removed from a field when it is harvested as hay than when it is pastured, even more attention needs to be paid to fertilization for haylands than pastures.

In addition to increasing grass production, fertilization can improve forage quality. On-the-farm demonstrations show fertilizing increases the amount of beef produced per acre, even in a dry year. This increased production is primarily a result of added carrying capacity, rather than an increase in average daily gain.

### Nitrogen Management on Grasslands

Apply nitrogen (N) fertilizer yearly to grass pastures and haylands to maximize production. Nitrogen may be applied as a liquid or as a dry, granular form. The liquid is more readily soluble and may increase available soil moisture and increase weed invasion. When adequate soil moisture is present, economical rates of nitrogen can more than double forage production.

Note fertilization with nitrogen is mostly economical where weeds have been controlled and additional grass growth is needed for livestock. If additional forage can be purchased or pasture rented at a lower cost than fertilizer, these alternatives may be better choices than applying fertilizer to the pasture. Naturally, if you fertilize to increase production but do not need the extra forage, fertilization will not be an economically-sound practice.

Nitrogen fertilizer applied just prior to the period of most rapid grass growth assures the applied nitrogen is available to the plants.

#### Fertilizing Cool-Season Grasses

For cool-season grasses, such as smooth brome, maximum growth occurs in mid- to late-spring. These grasses grow very little in July and August. Growth resumes on cool-season grasses in late-August and September if soil moisture is adequate and temperatures are favorable. Fall growth, however, is only a small portion of the total growth for the entire growing season.

Nitrogen can be applied in either fall or spring on cool-season grasses. The risk of losing applied nitrogen by either leaching or run-off is reduced if it is applied in early spring. Therefore, spring applications are preferred. Some people will apply two applications of nitrogen, this practice is known as split application of nitrogen. Split applications of nitrogen for production of cool-season grasses under dryland conditions are useful only when more than 100 lbs of nitrogen per acre are to be applied during the growing season and good growing conditions are anticipated during September and October.

#### Fertilizing Warm-Season Grasses

Apply fertilizer in mid- to late-May to pastures and haylands containing warm-season grasses, such as Switchgrass, Indiangrass, Big bluestem, and Little bluestem. Do not fertilize warm-season grasses in early spring. Early spring application increases the risk of leaching nitrogen fertilizer below the rootzone and it will stimulate growth of cool-season species that compete with the warm-season grass species. Begin fertilizer application in mid-May in southern Nebraska and delay until late-May in the northern portion of the state.

#### Fertilizing Mixed Grass Pastures

Some pastures and haylands contain a mixture of both cool- and warm-season grasses. Fertilizing these pastures with nitrogen in early spring stimulates the cool-season grasses which crowd out any warm-season grasses present. To maintain warm-season grasses in such a mixture, fertilize in late-May. It also may be necessary to apply herbicides or conduct prescribed burns to suppress the cool-season grasses.

Liquid and dry forms of nitrogen fertilizer are equally effective for increasing pasture production when certain precautions are taken. Do not apply urea nitrogen to pasture or haylands on high pH calcareous soils when air temperatures are above 85°F. Nitrogen fertilizer from ammonia volatilization can be high under these conditions. Since urea supplies more than half the nitrogen in 28% liquid N (urea ammonium nitrate), be aware of the potential for volatilization losses from this nitrogen source, as well. Pasture production is highly dependent on rainfall, so nitrogen recommendations are adjusted accordingly. Suggested application rates for nitrogen are shown in Table 1. The lower rates listed are the minimum amounts recommended for average conditions and management situations. Even in years when summer rainfall is below normal, the use of 80 lbs of nitrogen per acre usually will increase production economically on pastures and haylands in eastern and northeastern Nebraska. Use the higher rates listed for each zone when there is a full profile of subsoil moisture at the start of the growing season.

### Phosphorus Fertilizer on Pastures and Haylands

In addition to nitrogen, phosphorus fertilizer is needed on many pastures in Nebraska. Research in eastern and northeastern Nebraska shows the combination of nitrogen and phosphorus frequently produces higher yields than the application of either nutrient alone. Phosphorus recommendations are based on the availability of phosphorus in the soil as measured by a soil test. Phosphorus recommendations for grasslands are listed in Table II. If legumes make up one-fourth or more of the stand, apply 50 percent more phosphorus than for grass alone. Phosphorus fertilizers can be applied with the nitrogen in either spring or fall.

Repeated applications of phosphate fertilizers may increase the level of available phosphorus in the soil. When soil phosphorus levels are in the high range, phosphate application can be eliminated at four soil test levels fall below the high range. When grasslands are used as hay lands, soil sample more frequently. Phosphorus may need to be applied more often, since removal of nutrients will be greater than on grazed land.

### Other Nutrients

Results of studies conducted throughout eastern and northeastern Nebraska indicate applying potash, sulfur, and zinc does not improve pasture production. There is a small possibility some pastures and grasslands on sandy soils may require sulfur. This need for sulfur, however, has not yet been demonstrated in research trials.

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**TABLE I. NITROGEN RECOMMENDATIONS FOR PASTURES AND HAYLANDS IN NEBRASKA**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Pasture</th>
<th>Hayland</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>80–120</td>
<td>100–150</td>
</tr>
<tr>
<td>II</td>
<td>50–80</td>
<td>60–90</td>
</tr>
</tbody>
</table>

*Use the higher rate when a full profile of subsoil moisture is present.

**TABLE II. PHOSPHORUS RECOMMENDATIONS FOR GRASSLANDS IN NEBRASKA**

<table>
<thead>
<tr>
<th>Soil Test Levels</th>
<th>Bray &amp; Kurtz P1</th>
<th>Olsen P (Na HCO₃)</th>
<th>Phosphorus Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ppm</td>
<td>lbs P₂O₅/Acre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Low</td>
<td>0–5</td>
<td>0–3</td>
<td>40</td>
</tr>
<tr>
<td>Low</td>
<td>6–15</td>
<td>4–7</td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td>16–25</td>
<td>8–14</td>
<td>10</td>
</tr>
<tr>
<td>High</td>
<td>25+</td>
<td>15+</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**Tips for Making Pasture Fertilizing Pay**

With nitrogen fertilizer costing about 40 cents per pound this spring, you may be asking whether it pays to fertilize pastures.

Our Nebraska research shows you get about one pound of additional calf or yearling gain for every pound of nitrogen fertilizer applied. However, this fertilization rule-of-thumb assumes the nutrient is applied in accordance with general recommendations, which are based on the potential amount of extra grass growth expected. This is affected mostly by moisture. (These recommendations can be found in NebGuide (G1977) “Fertilizing Grass Pastures and Hayland.”) It also assumes your grazing management will efficiently harvest this extra growth.

If you fertilize pasture in spring and then let animals graze continuously on one pasture throughout the season, much of the extra growth is wasted. They trample, manure, foul, bed down on, and simply refuse to eat much of the grass. Eventually, less than one-third of the extra grass ends up inside your livestock.

**Get Your Money’s Worth**

To make fertilizing pasture pay, manage grazing so more of what you grow actually gets eaten.

- Subdivide pastures with cross-fences and control when and where your animals graze.
- Give animals access to no more than one-fourth, and preferably less, of your pasture at a time.

- Grazie off about one-half of the growth before moving to another subdivision.
- If your pastures aren’t already subdivided to at least four paddocks, your fertilizer dollar might be better spent on developing more cross-fences and watering sites.

Follow these suggestions and more of your pasture growth will be eaten, and more profits will come from fertiliz- er and pastures. —Bruce Anderson

UNL Extension Foreage Specialist
Best Management for Pests Found in and Around the Home

If you call our office about a wildlife or insect pest problem, you will be encouraged to use Integrated Pest Management techniques even though we may not use those specific terms. What is Integrated Pest Management? Integrated Pest Management, or IPM, is a method used to control pests in an environmentally-responsible manner. IPM practices include monitoring, modifying pest habitats, protecting natural enemies, and, when needed, the use of pesticides. Instead of treating large areas of the home and property for pests that don’t really need treating, you target the pests. This reduces pesticide use, focuses control efforts on the problem pest and its location. In the end, you save time and money.

Pests need food, water, and shelter to survive and breed. If you get rid of those requirements, pests will not survive or will have to go somewhere else.

1. Identify and remove. A pest’s life cycle and behavior is an important part of IPM. This knowledge helps you manage pests effectively. Your local extension office and/or pest control professional can help you learn more about pests found in your area and offer suggestions for control.

It’s easy to begin using an IPM approach to monitor and control pests in and around your home:

1. Exclusion: Keeping your home in good repair is always important. Caulk around windows and other openings, patch holes, and make sure weatherstripping is secure. You’ll make it harder for pests to find a way in and you’ll save on energy costs.

2. Property Maintenance: Keep your yard mowed. Many nuisance pests usually have a healthy outdoor population, so by maintaining your yard and garden areas, you also help keep their populations under control. Trim trees and shrubs so they don’t get overgrown. Trees, shrubs, and other plants should not touch your home. When pest touch buildings, they give pests an easy bridge to crawl up and find places to come in.

3. Sanitation: Keep your inside living space and outdoor areas clean and tidy. Food left out in the open is attractive to pests. Put food away immediately and store in proper containers. Clean up spills and food inside and outside. Keep garbage lids secure. Remove clutter and debris. Dispose of old tires and other waste properly. Piles of clutter can create shelter and breeding sites for pests.

4. Traps: There are a variety of traps for mammals (mousetraps, live traps), and for insects (pheromone traps, sticky traps). These traps can be used to determine what kind of problem you have and help you track pests, and can also be a way to help reduce populations.

5. Identifying Your Pests: By learning about the type of pests you have, you can determine how best to control it. Contact your local extension office or pest control professional for assistance in identifying pests. Many pests are considered accidental invaders. Accidental invaders wander in and can’t live and breed in your home. Insecticides are usually not recommended. Other pests may need to be controlled with insecticides, but there may be low-toxic options to help resolve the issue. Baits are just one example of a low-toxic option that may work as well, or better, than traditional pesticides in certain situations.

And remember, IPM can be used anywhere — wherever pests are found: homes, apartment buildings, schools, farms or acreages, hospitals, restaurants, golf courses, and more. For more information on pests found in this area, visit http://lancaster.unl.edu/pest

Sources: Xtenion, EPA & University of Massachusetts.

Removing Bats from Homes

Barb Ogg
UNL Extension Educator

This past year, we had more phone calls about bats than other years. We don’t exactly know why, but more people were calling in a ripe example of people who might find droppings on their porch each morning. In these cases, the bats were roosting under the porch during the day, taking a break from their night-time feeding. But people were calling about bats throughout the winter months. Sometimes people could hear them inside walls or up in the attic; occasionally bats found their way into the living part of the home and folks had to deal with them.

Bats are a mixed bag when it comes to whether they are good or bad pests. Bats are beneficial because they feed on night-flying insects in the summertime. One bat can consume up to four to one-half of its body weight in insects each night. But, because bats can carry rabies, it’s best not to have them living inside your houses. Over time, a bat colony will produce a lot of guano. Bat guano can be a source of histoplasmosis, a fungus that causes a disease of the lungs.

The presence of bats in the winter in caves, attics, church bellfies, and other cool places in the spring is usually the result of the bats wintering roots and finding temporary summer places to live, under shutters, and behind doors and windows. Some bats, like big brown bats found throughout Nebraska, may live year-round in the same location.

Unfortunately, there’s no easy way to get bats out of a home. Moth balls and ultrasonic devices have not proven to be effective in repelling bats from a structure.

Bats cannot create openings in houses, but squeeze through 1/4 to 3/8-inch openings. Bats leave smudges of oil around the entry points.

If a colony of bats is residing in the attic or hidden area in the structure:

• Locate all exit/entry points by standing outside of the structure on a warm evening looking for bats exiting the building to go foraging at night.

• Create a one-way door by hanging 1 foot strips of flexible 1/4-inch netting over the exit/entry points.

• Fasten the netting by the top edge just above the entry points. Existing bats will hit the netting, fall to the bottom of the barrier and take flight. When they return, the bats will be unable to find their way through the netting into the structure.

• Allow at least one week to pass, then seal and patch all entry points.

• Do not install one-way doors or seal exit/entry points during June through July when young bats are likely to be in the roost (June through July — let them fly!).

It is important to make sure you don’t seal bats inside the home. Decaying bats will create an odor problem and produce fly fly. Bats abandoned or sealed in a structure will move about the structure looking for a way out. If it seems to be too much work, some pest control companies will remove bats and fix openings to prevent future problems.

EXCLUSION

1. Exclusion: Caulk around windows and other openings.

2. Property Maintenance: Keep your yard mowed. Many nuisance pests usually have a healthy outdoor population, so by maintaining your yard and garden areas, you also help keep their populations under control. Trim trees and shrubs so they don’t get overgrown. Trees, shrubs, and other plants should not touch your home. When pest touch buildings, they give pests an easy bridge to crawl up and find places to come in.

3. Sanitation: Keep your inside living space and outdoor areas clean and tidy. Food left out in the open is attractive to pests.

4. Traps: There are a variety of traps for mammals (mousetraps, live traps), and for insects (pheromone traps, sticky traps). These traps can be used to determine what kind of problem you have and help you track pests, and can also be a way to help reduce populations.

5. Identifying Your Pests: By learning about the type of pests you have, you can determine how best to control it. Contact your local extension office or pest control professional for assistance in identifying pests. Many pests are considered accidental invaders. Accidental invaders wander in and can’t live and breed in your home. Insecticides are usually not recommended. Other pests may need to be controlled with insecticides, but there may be low-toxic options to help resolve the issue.

Bats are just one example of a low-toxic option that may work as well, or better, than traditional pesticides in certain situations.

And remember, IPM can be used anywhere — wherever pests are found: homes, apartment buildings, schools, farms or acreages, hospitals, restaurants, golf courses, and more. For more information on pests found in this area, visit http://lancaster.unl.edu/pest

Sources: Xtenion, EPA & University of Massachusetts.

Household Hazardous Waste Collections

These collections are for households only, not for businesses. Only residents of Lincoln and Lancaster County can bring items to collections.

Some items you can bring for disposal:

- Thermometers, thermostats containing mercury, solvents, oil-based paint, paint thinner, stripper and stain, old gasoline, transmission fluid, pesticides, (even banned products like DDT), items containing PCB’s (ballasts from fluorescent fixtures and capacitors from old appliances). These collections are a good place to dispose of compact fluorescent light bulbs (CFLs), which contain mercury.

- Paints will be accepted. Good, usable latex paint will be accepted. And remember, IPM can be used anywhere — wherever pests are found: homes, apartment buildings, schools, farms or acreages, hospitals, restaurants, golf courses, and more. For more information on pests found in this area, visit http://lancaster.unl.edu/pest

Sources: Xtenion, EPA & University of Massachusetts.

DO NOT bring asbestos, tires, batteries, used oil, antifreeze, medicines, fertilizers, explosives and ammunition.

For more information, call the Lincoln-Lancaster County Health Department at 441-8040.

Friday, April 23 • 9 a.m.–1 p.m.
Wol-Mart South, 8700 Andermatt Dr. (B7th & Hwy 2)
Saturday, May 22 • 9 a.m.–1 p.m.
Pfizer, Inc., 601 West Cornhusker Highway
Friday, August 27 • 9 a.m.–3 p.m.
By appointment only, call 441-8040
Saturday, August 28 • 9 a.m.–1 p.m.
Veyance Tech, 4021 North 56 Street
Saturday, Sept. 18 • 9 a.m.–3 p.m.
Lincoln Industries, 600 West E Street
Friday, Oct. 22 • 9 a.m.–3 p.m.
Ranchers, a special event.
Saturday, Oct. 23 • 9 a.m.–1 p.m.
Woods Park (31 & J Streets)

Usable Latex Paint Exchanges

These usable latex paint exchanges will be held at the EcoStores Nebraska at 530 West P Street, Lincoln. Paint is free and anyone is welcome to come and take paint! Only full or nearly full cans of good, usable latex paint will be accepted.

Friday, May 22 • 9 a.m.–2 p.m.
Saturday, Sep. 18 • 9 a.m.–2 p.m.
Saturday, Nov. 13 • 9 a.m.–2 p.m.
Cooking for Large Groups: Keep Hot Foods Hot and Cold Foods Cold

Spring is a time many of us may be preparing food for larger groups of people, such as for showers, wedding receptions, graduation parties, and other events. Avoid inviting a foodborne illness to the happy occasion. Here are some tips on keeping food at safe temperatures from Cooking for Groups: A Volunteer’s Guide to Food Safety, a publication of the USDA Food Safety and Inspection Service. For additional information from this booklet, visit http://www.fsis.usda.gov/Fact_Sheets/Cooking_for_Groups/index.asp

When You Shop

Buy cold foods last. Plan to drive directly home from the grocery store. You may want to take a cooler with ice or frozen gel packs for perishables. Always refrigerate perishable foods within two hours. Refrigerate within one hour when the temperature is above 90°F.

When You Store Food

Make sure the temperature in the refrigerator is 40°F or below and 0°F or below in the freezer. Check these temperatures with an appliance thermometer. Refrigerate or freeze perishables, prepared foods, and leftovers within two hours (one hour when the temperature is above 90°F) of shopping or preparing. Place raw meat, poultry, and seafood in containers in the refrigerator, to prevent their juices from dripping on other foods. Raw juices may contain harmful bacteria.

Danger Zone

Bacteria multiplies rapidly between 40 and 140°F. To keep food out of this “Danger Zone,” keep cold food cold and hot food hot. Keep food cold in the refrigerator, in coolers, or on the serving line on ice. Keep hot food in the oven, in heated chafing dishes, or in preheated steam tables, warming trays, and/or slow cookers.

Never leave perishable foods, such as meat, poultry, eggs, and casseroles in the “Danger Zone” over two hours; one hour in temperatures above 90°F.

When You Cook

Use a food thermometer to check the internal temperature of meat, poultry, casseroles, and other foods. Check the temperature in several places to make sure the food is properly heated. Wash the thermometer with hot, soapy water after use.

When You Chill Food

• Place food in the refrigerator.
• Don’t overfill the refrigerator. Cool air must circulate to keep food safe.
• Divide food and place in shallow containers. Slice roast beef or ham and layer in containers for serving.
• Divide turkey into smaller portions or slices and refrigerate. Remove stuffing from cavity before refrigeration.
• Place soups or stews in shallow containers. To cool quickly, place in water ice bath and stir.

When You Transport Food

Keep cold food cold. Place cold food in a cooler with a cold source such as ice or frozen gel packs. Use plenty of ice or frozen gel packs. Keep an appliance thermometer in the cooler. Cold food should be held at 40°F or below.

Hot food should be kept hot at or above 140°F. Wrap well and place in an insulated container.

When You Reheat Food

Heat cooked, commercially vacuum-sealed, ready-to-eat foods, such as hams and roasts, to 140°F. Foods cooked ahead and cooled should be reheated to at least 165°F.

Reheat leftovers thoroughly to at least 165°F. Reheat sauces, soups, and gravies to a boil.

In Oven — Place food in oven set no lower than 325°F. The food should reach at least 165°F on a food thermometer when done.

In Microwave — Stir, cover, and rotate fully cooked food for even heating. Allow standing time. Heat food until it reaches at least 165°F throughout.

In Slow Cooker, Steam Tables or Chafing Dishes — Not Recommended — Reheating leftovers in slow cookers, steam tables, or chafing dishes is not recommended because foods may stay in the “Danger Zone,” between 40 and 140°F, too long. Bacteria multiplies rapidly at these temperatures.

When You Keep Food Cold

Store food in refrigerator at 40°F or below. If there is not enough room in the refrigerator, place food in coolers with ice, or frozen gel packs. Always keep cold food cold.

When You Serve Food

Use clean containers and utensils to store and serve food. Do not use a plate that previously held raw meat, poultry, or seafood unless the plate has been washed in hot, soapy water. When a dish is empty or nearly empty, replace with a fresh container of food, removing the previous container.

see COOKING on next page

Mardel Meinke
UNL Extension Associate and
Kristi Anderson
UNL Dietetic Intern

Have you recently thought of pork as healthy and easy to add to your diet? Pork is a great source of B-vitamins and protein, while naturally low in sodium. In fact, pork can be just as lean as skinless chicken breast on top of its great nutrient value. Pork can be broiled, grilled, or sautéed in about eight minutes. Here are a few tips on how to select the right cut of pork and recipe for any occasion.

First, think about how much time and effort you will have while cooking. Chops and steaks cook faster than a roast, but require more attention. To cook pork even faster, try boneless cuts. Then, consider the number of people you will be feeding. A large roast will require less attention than cooking individual portions. To cook quickly, place in water ice bath and stir.

Cutlets
Cut the tenderloin or loin roast across the grain for more tender pieces. Trim any extra fat from the meat before cooking. The shoulder blade roast, which is an economical cut, is also known as a Boston or Boston Butt Roast. The name is misleading because the cut actually comes from the top of the shoulder. You may also cut pork steaks from this roast.

Remember pork is usually lean and therefore may be easy to overcook. The U.S. Department of Agriculture recommends cooking pork to 160°F for juicy, tender, and safe to eat pork. There are endless possibilities for cooking with pork. Check out the following recipes using only three ingredients or less.

$stretch Your Food Dollar With Easy Pork Dishes

Here is a guide for the most popular cuts of pork:

<table>
<thead>
<tr>
<th>Type of Cut</th>
<th>Best Cooking Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenderloin</td>
<td>Grill, roast, sauté, braise</td>
</tr>
<tr>
<td>Chop</td>
<td>Brase, sauté, grill, bake</td>
</tr>
<tr>
<td>Ham</td>
<td>Roast, Boston Roast</td>
</tr>
<tr>
<td>Loin Roast</td>
<td>BBQ, roast</td>
</tr>
<tr>
<td>Boston Butt</td>
<td>Cut pork across the grain for more tender pieces</td>
</tr>
<tr>
<td>Country-Side Ribs</td>
<td>BBQ, roast</td>
</tr>
<tr>
<td>BBQ Pork for Sandwiches</td>
<td>Use tangs instead of a fork to turn ribs while cooking, piercing allows juice to escape</td>
</tr>
</tbody>
</table>

Pork Chops with Apples and Stuffing (serves 6)

6 boneless pork loin chops, ¼-inch thick

1 can (14 oz) barbecue sauce

1 bottle (18 oz) barbeque sauce

1 can (14 oz) beef broth

1 package (6 oz) stuffing mix for chicken

3 pounds boneless pork ribs

1 bottle (18 oz) barbecue sauce

BBQ Pork for Sandwiches (serves 12)

3 pounds boneless pork ribs

1 can (14 oz) beef broth

1 bottle (18 oz) barbecue sauce
Irene Colborn  
FCE Council Chair

When we first met, we had meetings many years. When I am hoping some of you attended the District Meeting at Wahoo. Live today, because tomorrow is not promised.

COOKING
continued from preceding page

Keep It Cold
Place cold food in containers on ice. Hold cold foods at or below 40°F. Foods portioned and served by using a heat source. Place this container inside a deep pan filled with ice to keep food cold.

Foods like chicken salad and desserts in individual serving dishes can also be placed directly on ice, or in a shallow container set in a deep pan filled with ice.

Drain off water as ice melts and replace ice frequently.

Keep It Hot
Once food is thoroughly heated on stovetop, oven, or in microwave oven, keep food hot by using a heat source. Place food in serving dishes, preheated steam tables, warming trays, and/or slow cookers.

Check the temperature frequently to be sure food stays at or above 140°F.

When You Finish Up
• Discard all perishable foods, such as meat, poultry, eggs, and casserole, left at room temperature longer than two hours; one hour in temperatures above 90°F. Some exceptions to this rule are foods such as cookies, crackers, bread, and/or slow cookers.

Sponges. You mop up a spill with a sponge, rinse it out and set it next to the sink to dry. Or you keep using the same sponge over and over to clean dirty pots and pans. Sponges should be washed and disinfected regularly. One way is to soak them for five minutes in a solution of ¼ cup of chlorine bleach and 1 gallon of water. Rinse and air-dry. An even easier solution is to run them through the dishwasher. Rotate your sponges so as soon as the dishwasher is emptied, you can tuck a dirty sponge into the silverware basket where it’s ready and waiting to be cleaned. If you don’t have a silverware basket, a small, plastic dishwaher basket (the type that’s sold for cleaning children’s cups, toys, and utensils) is an ideal alternative.

Hand-held vacuum cleaners. The handy little vacuum great for quick crumb pickup can be a nesting place for germs if you leave food particles sitting in the bag. When you’re finished cleaning up, open the vacuum, remove the dirt receptacle and dump the crumbs in the trash. Brush off the filter to remove any additional food particles.

A certified AARP instructor will teach the session. Cost is $13 for AARP members and $14 for non-members payable at the door. To register for the class, call 441-7180.

The AARP Drives Safety program is the nation’s first and largest classroom course, designed especially for those 50 and older. The course will be presented in a one-hour session on Tuesday, May 4, 8 a.m. to noon at the Lancaster Extension Education Center, 444 Cherry Creek Road. A certified AARP instructor will teach the session. Cost is $13 for AARP members and $14 for non-members payable at the door. To register for the class, call 441-7180.

The course is geared especially to your safety needs.

• Learn safe driving strategies
• Learn defensive driving techniques

No test. For more information about the course, call 1-888-227-7669.
Hand Picking Bagworms an Effective Control

If you have noticed small bagworm infestations in your landscape, hand picking can be an effective control measure. Take a walk through your landscape and check all your landscape plants, especially spruce and junipers. You have just a few weeks left to hand pick bagworms from your plant material. Bagworm caterpillars will start emerging from the bags the end of May through early June.

After picking the bagworms from your plant material, place them in a bag and put the sealed bag in the trash. If you have large trees or too many bagworms to effectively pick off your plants, chemical control will be needed after they hatch in June.

The primary goal of ReTree Nebraska is to work in partnership with people across Nebraska to foster the proper planting and maintenance of one million new trees by 2017.

ReTree Nebraska is an important initiative to raise public awareness of the value of trees, reverse the decline of Nebraska’s tree and forest resources, and improve the health and sustainability of trees and forests across our state for future generations. The primary goal of ReTree Nebraska is to work in partnership with people across Nebraska to foster the proper planting and maintenance of one million new trees by 2017. As residents of the Arbor Day state, Nebraskans recognize the value of trees. Forests foster economic development by supporting businesses, creating jobs, and generating rural and urban income. Trees clean the air, extend the life of roads, save tax dollars by reducing the need for expensive “hard” infrastructure, and reduce heating and cooling costs. In fact, properly placed trees can reduce cooling costs by up to 25 percent. Trees preserve “The Good Life” in Nebraska by creating more livable communities situated in a predominantly agricultural landscape.

Nebraska’s community tree resources have steadily declined in recent decades. A combination of severe weather events like the 1991 freeze, 1997 snowstorm, 2007 ice storm, tornadoes and high winds, chronic drought, poor planting practices, poor species selection, poor pruning practices, the rapid spread of pine wilt, and a preponderance of older trees near or past their average life span have severely reduced the number of trees in our communities across the state. Trends gleaned from more than 200 community tree inventories conducted by the Nebraska Forest Service since 1977 showed that the state has lost approximately one-half of its community tree resource since the late 1970s. Fewer community trees mean fewer benefits and a reduced quality of life in our towns and cities.

In addition to recent tree losses, an invasive pest called emerald ash borer (EAB) has the very real potential to kill most of the state’s ash trees, resulting in a potential loss of 25 percent, or more of the existing community forest resource in many communities. This canopy loss equates to approximately 2.2 million ash trees with an estimated value of $120.8 million annually. Ultimately, the total costs for removing and replacing urban ash trees killed by (EAB) in Nebraska could reach $1.65 billion. Most experts agree it is not a matter of if EAB will arrive in Nebraska, but rather when. When it arrives, the state will endure catastrophic losses not only in our community forests, but in conservation plantings and native forests as well.

When replanting trees, it is important to diversify. The trees being promoted for 2010 are pictured here. To receive updates about ReTree Nebraska, as well as tips on planting and conservative practices, visit RxTree Nebraska® and sign up for a free electronic list serve. Email retreenebraska@unl.edu with your e-mail address and first and last name to join.

Source: Nebraska Forest Service

Northern catalpa — Catalpa speciosa (in bloom)
Kentucky coffee tree — Gymnocladus dioicus (fall color)
Elm hybrids — Ulmus cultivars: Accolade™, Cathedral, Frontier, New Horizon, Pioneer, Triumph™, Vanguard™

Hand picking bagworms is an effective control method to deal with infestations in your landscape.
Trees from pine wilt should be removed now to help prevent the disease from spreading to nearby trees, says a Nebraska Forest Service expert.

Because trees infected with pine wilt die from the disease, it is important to take steps to prevent its spread. "Removing dead trees is one of the best ways we have of preventing pine wilt's spread," said Laurie Stepanek, Nebraska Forest Service forest health assistant.

Pine wilt is caused by a microscopic, worm-like organism called the pinewood nematode. These nematodes live in pines and are carried from tree to tree by insects called pine Sawyer beetles. Once inside the tree, the nematode disrupts the flow of sap, causing the tree to turn brown and die.

The pine Sawyer beetle is active from May through September. If trees dying of pine wilt are discovered during the fall and winter, the deadline for safely removing and destroying them is the first of May.

Trees that die while the beetle is active should be removed within a month of the tree's death to prevent the beetles from re-emerging and spreading the disease to new trees. Once removed, trees should be disposed of by chipping, burning or burying to ensure beetles in the wood are killed. Chipped trees can safely be used as mulch in gardens or around trees, even pines. Because mulch resting against a tree's trunk can trap moisture and lead to decay and diseases, mulch should be kept several inches away from the trunk.

Additionally, research shows a slight risk of pine wilt spreading through infected mulch that comes in contact with trunk wounds on Scotch pine. Keeping the mulch away from the tree's trunk can help prevent this. Approximately 95 percent of the pines killed are Scotch pines, but Austrian pines occasionally are killed from the disease as well. While trees stressed by drought are slightly more susceptible to pine wilt, it easily can kill healthy trees, Stepanek said.

Ponderosa pine, eastern white pine, and spruce, fir, and juniper are resistant to pine wilt.

Pine wilt is very common in southeast Nebraska and is spreading to the west and north. The leading edge along which many trees are beginning to die extends from Holdrege in the west to Norfolk in the north.

Outside Nebraska pine wilt is a problem in Iowa, Kansas, Missouri, and Illinois.

Source: The Nebraska Forest Service

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**Remove Dead Trees to Help Prevent Pine Wilt’s Spread**

Trees and buildings. The protecting humans, livestock, and enhancing their effectiveness in reducing wind speeds.

Most old windbreaks can be expensive, particularly if heavy equipment is needed or the trees need to be removed. However, cost-sharing programs are available to help defray renovation costs.

Windbreak renovation can be expensive, particularly if heavy equipment is needed or the trees need to be removed. However, cost-sharing programs are available to help defray renovation costs.

When water temperatures are below 50°F, it takes approximately six to eight weeks for the straw to produce enough growth inhibiting chemical to effectively control the algae. However, it only takes one to two weeks when water temperatures are above 68°F. Once the straw produces sufficient amounts of the chemical, it is likely to control algae for about four to six months.

The amount of straw required to control algal growth depends on the surface area of the pond. The recommended rate for ponds with a history of algae problems is 225 pounds of barley straw per acre or 0.8 ounces of straw per 10 square feet of surface area. Lower doses can be tried, but should not fall below 90 pounds of straw per acre or 0.3 ounces per 10 square feet. In lakes that contain a lot of sediment, apply 450 pounds per acre or 3.3 ounces per 10 square feet. The decomposition of straw requires oxygen and applying excessive amounts of straw could reduce oxygen content of the water to levels that stress or kill fish.

Bales must be broken apart, otherwise there will be inadequate water movement through the straw, which inhibits decomposition and chemical release. Loose straw should be placed in some form of netting or loose woven sacks, such as an onion sack. Place nets equidistant from other nearby nets and the shore. The placement of nets does not need to be exact, but practical considerations must be considered. On small ponds where only one net of straw is required, place the net in the middle of the pond.

Use floats to suspend the straw filled netting in the upper three to four feet of the pond. The straw loses its effectiveness if it sinks below this depth. Floats should be inserted inside the netting at the same time the netting is filled with straw. Then anchor into place using rope attached to bricks or concrete filled buckets.

Water movement near the surface area will keep the straw well oxygenated and distribute the growth inhibiting chemical throughout the upper portion of the pond. This ensures that the chemical新农村 where the majority of the algae are growing and away from the bottom sediments which will inactivate the chemical.

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**Barley Straw Can Control Algae Growth**

Tadd Barrow
UNL Extension Educator

Algae comprise a critical component of a pond's food chain and can color the water green or brown. However, uncontrolled growth can lead to nuisance surface scums, poor water quality, nuisance odors, and an overall reduction in the pond's recreational and aesthetic value.

Excessive levels of algae occur when nutrients, especially phosphorus, are abundant. After taking steps to reduce the amount of phosphorus entering a pond, control algae growth directly. While it can have varying effects upon algae control, it is relatively cost-effective and an environmentally acceptable way to control algae in ponds, so it is a technique worth considering.

In Nebraska, barley straw should be applied in mid-to-late April to control summer growth. As the straw decomposes in the pond, it releases a chemical which inhibits algal growth. The effectiveness of barley straw is dependent upon complete decomposition and release of the growth inhibiting chemical. When water temperatures are below 50°F, it takes approximately six to eight weeks for the straw to produce enough growth inhibiting chemical to effectively control the algae. However, it only takes one to two weeks when water temperatures are above 68°F. Once the straw produces sufficient amounts of the chemical, it is likely to control algae for about four to six months.

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Water movement near the surface area will keep the straw well oxygenated and distribute the growth inhibiting chemical throughout the upper portion of the pond. This ensures that the chemical is reaching the pond where the majority of the algae are growing and away from the bottom sediments which will inactivate the chemical.
Lancaster County 4-H is proud to announce Kath Conroy as winner of the 2010 4-H Award in recognition of outstanding volunteer service.

Kath Conroy

Lancaster County 4-H

4-H/FFA Sheep

Weigh-In, May 6

4-H/FFA members planning to exhibit market sheep need to have their lambs officially tagged and weighed by June 15. County-wide sheep weigh-in date has been set for Thursday, May 6, 6–8 p.m. at the Lancaster Event Center - Pavilion 2.

4-H/FFA Livestock Training Clinic, May 8

All 4-H & FFA livestock exhibitors are invited to attend the free 2010 Livestock Show Training Clinic on Saturday, May 8, 9 a.m.–2 p.m. at the Lancaster Event Center – Pavilion 1 (note this new time). Experts in the field will be giving live animal demonstrations and will focus on showing, fitting, nutrition and management of cattle, sheep, swine and goats. A free lunch will be sponsored by Southeast Nebraska 4-H FMGs. Pre-registration is required. For more information, please contact Deanna at 441-7180 or dkarmazin2@unl.edu. This event is sponsored by Lancaster County 4-H and ADM Alliance Nutrition.

4-H/FFA Livestock Quality Assurance Training, May 11

All 4-H & FFA members wanting to exhibit market animals at the county or state fair must be quality assurance certified. Our county training is scheduled for Tuesday, May 11 at 6:30 p.m. at the Lancaster Extension Education Center. To register, please call Deanna at 441-7180 by Friday, May 7.

4-H Camp Scholarships

There are two local scholarships available for attending Nebraska 4-H summer camp(s). Deadline is May 1. Applications are available at the extension office and at http://lancaster.unl.edu/4h/Programs/award.html.

Pre-Fair 4-H Leader Training, May 13

This three-day training is required for new, less experienced leaders, 4-H members, and parents are invited to this leader training on Tuesday, May 13, 9:30 a.m. to 6:30 p.m. (you choose which time to attend) at the Lancaster Extension Education Center. Come and receive information completing entry tags, the in and out of interview judging, Life Challenge, presentations contest, and other important county fair information. Also, get tips and ideas for your club through sharing with other 4-H volunteers. MUST pre-register by May 11 by calling 441-7180.

Furniture Painting Workshop, May 20

All 4-H volunteers are invited to participate in a furniture painting workshop on Thursday, May 20, from 9 a.m. to 3 p.m. at the Lancaster Extension Education Center. Bring a small piece of furniture to repaint red, white, and blue. Lunch will be provided. Mail $20 registration by May 14 to Janet Hanna at University of Nebraska–Lincoln Extension in Garfield, Loop & Wheeler County, PO Box 638, Burwell, NE 68823.

Lancaster County Horse VIPS to Host a Pre-District Show/ Clinic/Fundraiser, June 5

To help everyone prepare for districts and state, the Lancaster County 4-H Horse VIPS Committee is hosting a special pre-districts show/clinic/fundraiser on Saturday, June 5 at the Lancaster Event Center - Pavilion 3, beginning at 9 a.m. All counties are welcome.

The show will follow the district format and all age groups — elementary, junior and senior — can participate in the English Pleasure and Equitation, the Western Pleasure and Horsemanship. All age groups can compete for prizes in a Hippology Contest. This will be an excellent opportunity for all 4-H riders to practice for districts. It will also be a great opportunity for elementary age riders to experience the district format even if they aren’t yet old enough to show horses in state. Depending on size of the classes and show — if there is time, the judge will be able to do a little teaching/comments at the end of each class. Reining, poles, and barrel races are included in the show but are available to junior and seniors only.

Horses may be shown off the trailer. Stalls are also available. Anyone wishing to use a stall will need to call the Lancaster Event Center at 441-6545 to make arrangements before the show. This is a fund raiser for Horse VIPS so there will be one time charge of $5 and a $3 charge per class. Pre-registration is not required but must be in by June 19.

Concessions will be available onsite. Show flyer is available at http://lancaster.unl.edu/4h and at the extension office. For more information call Marty at 441-7180.

Life Challenge Contests

County-Level Senior, May 22

4-H Life Challenge judging contests help youth learn more about issues related to family and consumer science (FCS). Contests are open to all 4-H’ers, need not be enrolled in a specific project. Contact Tracy at 441-7180 for more information.

County-level Senior Life Challenge (ages 14-17) is scheduled for Monday, May 22, 9 a.m. at the Lancaster Extension Education Center. Preregister by May 21 by calling 441-7180. Contest questions will be based on the following 4-H curriculum areas: food and nutrition, child development, design and wardrobe.

Statewide FCS Life Challenge (for ages 12 and up) will be held Monday, June 28 and Tuesday, June 29, 9 a.m. at the Lancaster Extension Education Center. Preregister by July 5 by calling 441-7180. Contact Karen Clinic for study packet.

4-H Clover Challenge, June 2

Sign up now for the 2010 Clover Challenge! This head-to-head competition with 4-H’ers ages 12 to 18 from across the state is similar to a quiz bowl. The challenge consists of a series of multiple choice questions based on family finance, health, foods, clothing, and home environment. If you would like to participate in the challenge on Wednesday, June 2 at 10 a.m. at the Lancaster Extension Education Center, contact Tracy at 441-7180 by May 14.

4-H/FFA Animal Id’s and DNA Due June 15

FFA sheep, goats, swine, breeding beef, bucket calves, feeder calves, dairy cattle, and rabbits which will be entered in the 4-H or FFA this year are due to extension by June 15. Animal ID forms are available online at http://lancaster.unl.edu/4h/Fair and the extension office. If you plan on showing market hogs, feeder pigs or feeder calves at state fair or Ak-Sar-Ben, you will need to have DNA collected by this deadline also.

4-H Bicycle Safety Contest, June 26

This year’s 4-H Bicycle Safety Contest will be held BEFORE the county fair on Saturday, June 26, 9 a.m. at the Lancaster Extension Education Center. MUST preregister by June 22 by calling 441-7180 (there is no entry form). Late registrations will not be accepted. See Fair Book p. 12.
Four days of "hands-on" workshops full of fun and learning! You'll learn all sorts of things you can do with your own hands. Youth attending workshops that overlap the lunch period should bring a sack lunch. Food will not be available (unless otherwise stated in the workshop description). If you have questions, contact Troy Kulm at 441-7160.

WORKSHOP DESCRIPTIONS

4-Day Workshops
All four-day workshops will be held Tuesday, June 15 through Friday, June 18.

Clover Kids 4-Day Day Camp
Clover Kids will participate in several hands-on activities while learning about the world of animals, cooking, nutrition, the outdoors and more. Refreshments provided for both lunch and snack. TUE-FRI, JUNE 15-18, 8AM-3:00PM AGES 6 & + • FEE $25 4-H Volunteer

2-Day Workshops

Rags to Rug

PrIMITIVE ROPE MAKING

Outdoor Cooking
Everything tastes better when cooked over an open flame! First-timers get first crack at this fun cooking. TUE, JUNE 15, 10:15-12:15PM AGES 6 & + • FEE $5 INSTRUCTOR: Darla Richardson, Extension Educator

Style Revue
Style Revue at county fair will be held here. Explore runway modeling and learn how to walk the catwalk. TUE, JUNE 15, 12:45-2:45PM AGES 6 & + • FEE $5 INSTRUCTOR: Marty Cruickshank, Extension Educator

Crafts, Crafts, Crafts
Celebrate crafts as you create your own handmade hands-on workshop. TUE, JUNE 15, 12:45-2:45PM AGES 6 & + • FEE $5 INSTRUCTOR: Dick Turpin, 4-H Volunteer

Call of the Wild
Lend a little towards the wild side as you learn how to make wildlife calls from common household products. TUE, JUNE 15, 10:15-12:15PM AGES 6 & + • FEE $5 INSTRUCTOR: Dick Turpin, 4-H Volunteer

You Can Draw
See sample drawing. As described. TUE, JUNE 15, 3:00-5:00PM AGES 10 & + • FEE $5 INSTRUCTOR: Marty Cruickshank, Extension Educator

Garbage Getters
Learn about garbage recycling and how they turn garbage into healthy food (called vermiculture) or beautiful plants and flowers. Create a worm habitat and take home several of your own worms. TUE, JUNE 15, 3:30PM AGES 8 & + • FEE $8 INSTRUCTOR: Roberta Sandorsh, Master Gardener

Candyland Cottage
Create a super cute cupcake house and add it with the candy of your choice for a Sugar Daddy candy to add to the supplies. TUE, JUNE 15, 12:45-2:45PM AGES 6 & + • FEE $4 INSTRUCTOR: Karol Swotek, 4-H Volunteer

Terrific Table Setting
Create an awesome centerpiece and learn all you need to know to participate in the table setting competition. TUE, JUNE 15, 3:30PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, Extension Educator

Savvy Showmanship
Learn hands-on what it takes to be a top showman with live animals. WED, JUNE 16, 8:00AM-12:00PM AGES 8 & + • FEE $5 INSTRUCTOR: Sarah Lanik-Frain, 4-H Volunteer

You Can Bake
Have fun frosting as you learn basic skills to frost everything from cookies to cupcakes! WED, JUNE 16, 8:00AM-12:00PM AGES 6 & + • FEE $5 INSTRUCTOR: Sarah Lanik-Frain, 4-H Volunteer

Fishing Fun
Bring your fishing pole, line, hook and bobber for fishing fun at a nearby lake. Extra tackle is optional. Bait provided. Class is for youth who have NOT previously taken "Fishing Fun." WED, JUNE 16, 10:00AM-12:00PM AGES 8 & + • FEE $5 INSTRUCTOR: Soni Cochran, Extension Educator

YOU CAN DRAW
DRAW STYLE REVUE, CRAFTS, CRAFTS CALL OF THE WILD

Decoupageing Details
Decorate your own storage box by recycling magazines. Bring old magazines and your imagination! THU, JUNE 17, 10:15-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Cole Meador, Extension Intern

Archery
Learn the basic skills needed to be a successful archer. All equipment provided. THU, JUNE 17, 12:45-2:45PM AGES 10 & + • FEE $3 INSTRUCTOR: Jeff Rawlins, Nebraska Game and Parks

Awesome Aprons
Learn how to cut out a pattern, sew an apron and tie a bow. Bring yard mid-weight cotton, matching thread, fabric scissors, pins, and a sewing machine (if available). THU, JUNE 17, 12:45-2:45PM AGES 10 & + • FEE $5 INSTRUCTOR: Kathy Hansen, 4-H Volunteer

Recreational Rocketry
Learn how to make simple rockets and how to launch them. THU, JUNE 17, 12:45-2:45PM AGES 8 & + • FEE $5 INSTRUCTOR: Joel Lynn Brown, 4-H Volunteer

Floral Fun
Learn to work with fresh flowers and design elements. THU, JUNE 17, 12:45-2:45PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, Extension Educator

Tour de 4-H
Learn about bicycle safety, proper equipment, and bicycle 4-H entries. Bring your bike and helmet! WED, JUNE 17, 12:45-2:45PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, Extension Intern

Perfect Purse
Learn how you can make your own purse from scratch. Bring 1/2-yd fabric (nostrips or matching plaids), 5/8 yd coordinating basic sewing supplies, and sewing machine. FRIDAY, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, Extension Intern

Awesome Aprons
Learn how to create your own personalized apron with fun designs. THU, JUNE 17, 3:00PM-5:00PM AGES 8 & + • FEE $5 INSTRUCTOR: Kathy Hansen, 4-H Volunteer

Can’t Resist Fabric
Bring squares or scraps of fabric (no stripes or T-shirt and create your own unique purse created by you! Finished projects available Fri., June 18. WED, JUNE 17, 1:00-3:00PM AGES 10 & + • FEE $5 INSTRUCTOR: Karen Clinch, 4-H Volunteer

Nail Art
Have fun learning how to create different designs on your nails using decals, rhinestones, and beautiful nail paints. Please come with clean finger and toe nails. FRI, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Wendy O’Brien, Aquarius Beads & Gifts, Inc.

Mini Scrapbook
Make a cute lil’ cardbinder. Bring fabric, matching scoring tool, and 2 pictures. THU, JUNE 17, 12:45-2:45PM AGES 8 & + • FEE $5 INSTRUCTOR: Jo Lynn Brown, 4-H Volunteer

Perilous Parachutes
Learn how to make a parachute using a plastic bag from a pop soda can. Bring a bottle of water to fill it. FRIDAY, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, 4-H Volunteer

DIY Nail Art
Come test your way to the sweetest TV show you ever didn’t believe it isn’t the real thing. FRI, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Karen Clinch, 4-H Volunteer

Stunning Stamping
Learn to stamp, emboss, and layer stamps in order to create your own! FRI, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $5 INSTRUCTOR: Janet Anderson, 4-H Volunteer

Fabulous Face Painting
Learn how to paint awesome designs on faces for kids and adults. FRI, JUNE 18, 10:15AM-12:15PM AGES 8 & + • FEE $10 INSTRUCTOR: Jori Kuca, 4-H Volunteer

Clover Kids Summer Camp
Are you ready to take an animal adventure? This class is your ticket to a great adventure learning about animals. FRI, JUNE 18, 9:30AM-3:30PM AGES 8 & + • FEE $5 INSTRUCTOR: Cole Meador, Extension Intern
Community Focus

The Lancaster County 4-H Horse VIPS Committee was awarded a $1,500 matching funds grant from the Nebraska Horse Council. Funds are to be used for educational materials, reimbursement of clinicians, and similar expenses. Accepting the grant from the Horse Council were Kate Rawlinson and Elizabeth Frobish, members of the 4-H Horse program, and UNL Extension Associate Marty Cruickshank.

**Applying deadline is June 15.** For application or re-application materials and/or further information, contact the Nebraska 4-H Program at 478-6810 or email Shana Gerdes at sgerdes2@unl.edu. More information is located at http://lead.unl.edu.

**Knowing Facts About Severe Weather Can Prevent Harm**

Many myths surround spring severe weather, but knowing all of the facts about safety and preparation can save lives.

**Prepared**

The first thing a family can do to prevent harm is buy a weather radio. Weather radio costs roughly the same as a family of four going to see a movie. Instead of using a phone or looking outside, find out about severe weather through a weather radio.

When traveling in a car during severe weather, make sure to listen to the radio. Take out the CD, the MP3 player or turn on an FM station to a local AM station covering the weather going on in the area.

Make a photocopy of everything on paper of value in a home or business. This may be during a natural disaster. Keep those copies stored in a safe location, preferably away from home. Surviving severe weather is important, but returning to normal life will be much easier with backup copies.

Families should also have a communication plan set in place. Relatives or friends could overload authorities’ phone lines trying to find out if their loved ones are safe. Designate a relative or a member of a "communication tree." That person can find out information about family in the disaster and let relatives and friends know about their condition.

Families need to have plans in place for safety areas and meeting places during a storm. Kids home alone on school days need to know a meeting place and designated tornado shelter in their home. Children have died from panicking during a storm and not knowing a safe place to take cover.

**Watch vs. Warning**

People should know the difference between a warning and a watch. A watch is telling citizens to just watch out for the hazard, to be more aware of the weather. A warning means something is happening now and everyone near should seek shelter and safety.

Many myths surround spring severe weather, but knowing all of the facts about safety and preparation can save lives.

**Lightening**

Many myths surround lightening from severe thunderstorms. Many people believe no phones are safe during an electrical storm. Phones on land lines are not safe because charges can travel through them. However, cell phones are safe.

Get inside immediately after hearing thunder during a storm. A house, car, or well-enclosed picnic area in parks are good options. If caught outside, crouch to the ground, don’t lie on it. Lying on the ground puts the heart closer to the ground, which increases the chance of an electrical charge reaching the heart and stopping it.

Don’t hide under a tree. Trees stand high from the ground and a charge can run through them. If a person’s head begins standing up, it means static electricity is in the air and he or she should find cover immediately. However, don’t run. Running in a storm increases static electricity that attracts lightening.

Another huge myth is visibly seeing the sun or being outside rainfall means lightening won’t strike close. Lightening can strike more than 15 miles away from the storm. A "bolt in the blue" occurs when lightening strikes out the side of a storm system. These are some of the most common lightening fatalities. In fact, lightening is more dangerous than tornadoes. Lightening is the number one severe weather killer.

Many people think a human body will hold the charge from a lightening strike, but that is not true. The person struck needs CPR immediately. He or she may just have a small electric shock to get the heart going again, but if you don’t, the person could be dead by the time paramedics arrive. Paramedics can talk a person through CPR over the phone.

**Tornadoes**

Tornadoes have their share of myths as well, though many are disappearing. Bathrooms aren’t safe to stay in if they are connected to an exterior wall. Also, it doesn’t matter if a window is opened or closed during a tornado. Windows will be damaged either way, though if closed, they could prevent debris from coming inside.

Staying safe under passes is a common misconception as well. They are not safe from storms and traffic safety would be a concern as well. Many people believe if a tornado approached from the southwest, it would be safer to stay in the southwest corner of the home. They think it would blow the house over to the northeast, so the southwest side is the safer choice. The center of the home, preferably in a basement, is the safest point.

**ADDITIONAL RESOURCES**

- Extension Disaster Education Network (EDEN) provides disaster education resources to reduce the impact of natural and man-made disasters; online at http://eden.lsu.edu.
- Lancaster County Emergency Management provides information or presentations. Contact 441-7441 or go to http://www.lincoln.ne.gov/Cnty/civil/index.htm

**From Recipe to Reality Seminar, June 4**

The University of Nebraska–Lincoln Food Processing Center offers one-day seminars for individuals interested in exploring the idea of starting a food manufacturing business. The one-day From Recipe to Reality seminar is the first in developing a food business. It is specifically designed to provide entrepreneurs with an understanding of the key issues they will need to consider when starting a food business.

From Recipe to Reality provides an overview of all the issues involved in developing a food manufacturing business. Seminar topics address important questions every entrepreneur should consider:

- Market research and selection
- Product and process development
- Food regulatory issues and agencies
- Packaging and labeling
- Pricing and cost analysis
- Product introduction and sales
- Promotional material package
- Food safety and sanitation
- Business structure

Upcoming seminars held in Lincoln at UNL East Campuses are: Friday, June 4, Friday, July 29, and Saturday, Aug. 20, and Saturday, Sept. 17. A registration fee is required and space is limited. There is a fee. To register, contact Jill Gifford at 472-2819 or jgifford1@unl.edu.
Wildlife Habitat Evaluation Program

The Wildlife Habitat Evaluation Program is a fun and challenging outdoor adventure where youth age 8–18 learn about wildlife, conservation, and management. The statewide contest will be held June 20–22 at Fort Robinson State Park, Crawford. Junior (age 12–15) and senior (age 14–18) division teams (individual participation possible) compete in the contest. The novice group (ages 8–11) does not compete, but learns about wildlife through fun educational activities and games. Please indicate intention to participate by May 28. June 10 is the last day to register by mail. Cost is $17.50 for participants and $42.50 for non-participants. For more information, go to http://4h.unl.edu/whp or contact Garry at 441-7180.

Meet 4-H Teen Council

The Lancaster County 4-H Teen Council is a leadership organization for youth in grades 7–12. Members are involved in several leadership activities such as organizing the annual 4H and 5th Grade Lock-In and the Cookie Decorating Contest and Ice Cream Social at the Lancaster County Fair. Teens also participate in community service projects. Twenty-eight Lancaster County 4-H youth are part of 4-H Teen Council this year.

Officers are:
- President — Ellen Muelling
- Vice President — Jeff Cassel
- Secretary — Jessica Stephenson
- Treasurer — Spencer Farley
- Historians — Sadie Hammond and Britni Waller
- Adult Advisor — Marilyn Schepers

Meetings are held the second Sunday of each month at 3 p.m. at the Lancaster Extension Education Center. New members are always welcome! For more information or to join, contact Tracy Kuhl at tkuhl1@unl.edu or 441-7180.

UNL Lancaster County Extension, 444 Cherrycreek Rd., Ste. A, Lincoln, NE 68528-1507

Mail to: UNL Extension in Lancaster County

Mail or bring registration form and payment to:

UNL Lancaster County Extension, 444 Cherrycreek Rd., Ste. A, Lincoln, NE 68528-1507

EARLY REGISTRATION NOT ACCEPTED!
Spring Rabbit Show Gives Youth Jump Start on Rabbit Project

Many Lancaster County 4-H’ers enrolled in the rabbit project entered a total 104 rabbits and one cavy in the recent 4-H Spring Rabbit Show. The Lancaster County 4-H Rabbit VIPS Committee helped organized the show. This was a good opportunity for youth to learn and practice their showmanship. Showmanship winners were: Cassie Meyers, Ivy Dearmont, and Kaiya Green. Sam Schuster and Hopper won the first ever Rabbit Race. A Rabbit Quiz was also held. The clinic raised $184 which will go toward educational shows/clinics and trophies for the Lancaster County Super Fair 4-H Rabbit Show. More photos are online at http://lancaster.unl.edu/4h/.

Can You Guess It?

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

Did you guess it from the April N ebliNe? The answer was: Calibrating a Hand-held Sprayer!

Watch Chicks Hatch Online with EGG Cam!
http://lancaster.unl.edu/eggcam

Now with streaming video in near real time!

EGG Cam will feature poultry hatching through the end of May!

Become a Facebook Fan!

3,000 5th Graders Attend 15th Annual earth wellness festival

Approximately 3,000 Lancaster County fifth graders from 45 schools attended the 15th anniversary earth wellness festival (ewf) on March 29 and 30 at Southeast Community College. Students discovered and explored the relationships and interdependency of land, water, air, and living resources through hands-on activities. Classrooms attending the festival received pre-festival learning kits in October.

More than 200 volunteers, area educators, environmentalists, and government representatives make this educational experience possible. The festival is organized by 10 local agencies, including University of Nebraska–Lincoln Extension in Lancaster County. More photos from this year’s festival are online at http://lancaster.unl.edu/ewf.

(Above right) Extension Technologist and ewf steering committee member Dave Smith leads a “How Many Bears” session. In the background is Ima Whale of the “Whale of a Tale” session.

(At right) AmeriCorps Member Sarah Bailey presents “Every Tree for Itself.”

Ag Awareness Festival Teaches 4th Graders About Agriculture

Nearly 400 fourth graders from Lincoln area schools attended the Ag Awareness Festival held on April 7 and 8 at the Lancaster Event Center. Students gained a greater understanding of agriculture and how it impacts their daily lives. Students rotate between the following 10 interactive stations: Nebraska Ag Production Across the State, Grain Products, Farming Technology, Swine, Horse, Dairy Production, Ruminant Nutrition, Dairy Calves, Beef Production, and Hay & Forages.

The Ag Awareness Coalition, led by University of Nebraska–Lincoln Extension, organizes the festival with the help of agriculture businesses, commodity associations and food industry companies. This is the 10th year the festival has been held in Lincoln.

(Above) At the Dairy Calves session, Extension Associate Deanna Karmazin shows students dairy calves don’t have upper front teeth.

(Above) Fourth graders get a close up view of a horse at the Horse session.

(Left) At the Ruminant Nutrition station, students learn about the digestive system of ruminant animals such as cows (pictured is a preserved cow stomach).