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## The NEBLINE, September 2011

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# 4-H Helps Build Successful Scientists

**Maureen Burson**  
*UNL Extension Educator*

The Lancaster County community has a rich history of benefitting from the scientific contributions of 4-H alumni and members. 4-H has always been strong in teaching plant, animal, and consumer sciences through land grant, research-based universities such as University of Nebraska–Lincoln. National 4-H has now set a goal to educate one million new scientists by 2013 in science, engineering, and technology.

Beth Birnstihl, associate dean and associate director of University of Nebraska-Lincoln Extension and Nebraska State 4-H administrator says, "Development of youth over the next five to 10 years could be paramount to how society is able to handle global issues. The solution to issues like water conservation and finding renewable fuels start with inspiring youth to explore the science world."

"We don't know what jobs are going to be created in the next five years, we don't even know what jobs are going to be created in the next two or three, but we are confident technology and all the basics around Science, Technology, Engineering, or Math (STEM) are going to be key for those jobs," she says.

According to the National 4-H Council Web site, America faces a future of intense global competition with a startling shortage of scientists. In fact, only 18% of U.S. high school seniors are proficient in science (NAEP 2005) and a mere 5% of current U.S. college graduates earn science, engineering, or technology degrees compared to 66% in Japan and 59% in China.

The 4-H program emphasizes higher education and currently, 96% of Nebraska 4-H members go on to post-secondary education. Birnstihl attributes the success of the Nebraska 4-H program to three things: getting kids excited, having a good curriculum, and having volunteers that nurture members' interests.

Here are the stories of a few 4-H alumni, whose career paths mirror thousands of current successful scientists. These alumni attribute 4-H experiences as creating a foundation of scientific discovery and problem solving.



JNL Institute of Agriculture and Natural Resources news photo



In 1963, Don Weeks (above, far right) helped present the "4-H Report to the Nation" to President John F. Kennedy. Presently, Dr. Don Weeks, a UNL biochemist, makes scientific discoveries which increase soybean production.

**Dr. Don Weeks**  
Maxcy Professor  
of Agriculture

**and Natural Resources in the  
Biochemistry Department at UNL**

In 1963 Don Weeks, a national 4-H horticulture and leadership award winner, helped present the “4-H Report to the Nation” to President Kennedy and business leaders from across the country. In 2005, UNL and Monsanto Company signed an exclusive licensing agreement to develop crops tolerant to the broadleaf herbicide dicamba. This agreement is based on discoveries by UNL biochemist Don Weeks and colleagues. They have identified a gene that can make dicamba-sensitive crops such as soybeans tolerant to the widely used herbicide. Today, UNL has several U. S. and foreign patents on this discovery. The technology has been licensed to Monsanto and should be available to farmers in the near future.

Don, an Indiana 4-H member for 12 years, says, "Without the first-hand

exposure to plants, animals, and the environment afforded by my 4-H projects, I may not have become intrigued by biology and the sciences underlying biology. If it had not been for monetary awards and scholarships available to me through 4-H, it is likely I would not have been able to attend a first-class university like Purdue.

Don says, "Gardening was one of my prime projects along with beef, electricity, and several

wildlife related projects. Junior Leader activities were among my most valuable experiences in 4-H."

“My local 4-H leader, John D. Turner, was a great influence in my life. He urged all the members of our club to not only do well with their individual 4-H projects, but, more importantly, strongly encouraged all of us to assume leadership roles. As a result, many of our club members have gone on to successful careers that they could not have imagined growing up in a poor area of rural America in the mid-20th century. Without the guidance and encouragement of John Turner and other county and state 4-H leaders, I would not have developed the degree of confidence and successful goal-oriented attitude I have today.”

Dr. Weeks says "Helping to discover the molecular mechanisms by which life is made possible is one of the most fascinating and enjoyable efforts I can imagine."

*see SCIENTISTS on page 10*



**Dr. Gail (Thurber) Rohlfsing** says the communication skills she learned through 4-H (above: practicing for a demonstration) help her as a dentist (left).

## Nebraska 4-H Offers Many Science-Related Opportunities

Choose a curriculum area and explore the endless 4-H project opportunities!

- **Animal Science** (includes Beef, Horse, Companion Animals, Veterinary Science)
- **Family and Consumer Science** (includes Human Development, Clothing and Textiles, Consumer Management)
- **Environmental Education and Earth Sciences** (includes Conservation, Entomology, Forestry, Wildlife)
- **Healthy Lifestyles Education** (includes Food and Nutrition, Physical Fitness)
- **Plant Science** (includes Crop Production, Horticulture)
- **Science, Engineering, and Technology** (includes Aerospace, Computers, Electricity, 4-Wheelin', Robotics, Small Engines, Woodworking, Welding, Wind Energy)

Find out more about 4-H projects and curriculum at <http://4h.unl.edu>.

## 4-H National Youth Science Day, Oct. 5

On Oct. 5, millions of young people across the nation will become scientists for the day during the fourth annual 4-H National Youth Science Day (NYSD). NYSD brings together youth, volunteers, and educators from the nation's 109 land-grant colleges and universities to simultaneously complete the National Science Experiment.

4-H National Headquarters and National 4-H Council are pleased to reveal

the 2011 National Science Experiment is **Wired for Wind**, an in-depth look at renewable energy technologies in the form of wind-power.

Developed by the University of Nebraska-Lincoln and the UNL Extension program, this three-tiered experiment will help 4-H young people to enhance their science, engineering, technology, and applied math skills.

For more information, go to <http://www.4-h.org/4-h-national-youth-science-day/registration>.



## IN THIS ISSUE

- Horticulture ..... 2
- Urban Agriculture ..... 3
- Food & Fitness ..... 4
- Home & Family Living..... 5
- Farm Views..... 6
- Environmental Focus ..... 7
- 4-H ..... 8-9
- Community Focus..... 10

**Super Fair  
4-H results,  
summary,  
and photos.**  
—see page 9 & 12





## Fall Landscape Webinar Series in September

University of Nebraska–Lincoln Extension will present a webinar series in September, “Autumn Leaves Lunch & Learn.” Each Wednesday from 12:05–12:55 p.m., right from your desk at work or home, you can learn how to manage your fall landscape.

- Sept. 7 — Fall Planting & Overseeding
- Sept. 14 — Overwintering Summer Blooming Bulbs
- Sept. 21 — Fall Bulb Planting
- Sept. 28 — Putting the Garden to Bed

You must pre-register for each program, and will need a computer with Internet access and sound to participate. During each program, you can view, listen, and chat with the speakers. Once you have registered, you will receive the program handout and login information via email.

Program fee: is \$10 per program or \$30 for the entire program series. Register online at <http://marketplace.unl.edu/extension>.



## Garden Guide

THINGS TO DO THIS MONTH

By Mary Jane Frogge, UNL Extension Associate

Select accent plants for your landscape that will provide autumn colors. Trees with red, fall color are flowering dogwood, red maple, sugar maple, Norway maple, red oak, and scarlet oak. Shrubs with red, fall foliage include sumac, viburnum, winged euonymus, and barberry.

Allow plants to finish the summer growth cycle in a normal manner. Never encourage growth with heavy applications of fertilizer or excessive pruning at this time. Plants will delay their dormancy process that has already begun in anticipation of winter in the months ahead. New growth can be injured by an early freeze.

Do not wait for frost warnings to move your plants indoors. Temperatures of 45°F or lower can damage many tropical house plants.

Collect okra seed pods, gourds, sumac seed heads, rose hips, and other suitable materials for dried arrangements. Air dry these materials in a dark, cool location.

Before the first frost, dig up caladiums. Allow them to dry and store them in a dry place for the winter.

Perennial phlox can be divided about every third or fourth year. Divide big clumps of perennial phlox into thirds. Early fall or early spring are the best times to plant or transplant them.

Divide lily-of-the-valley.

Pot up chives, parsley, and other herbs to extend the growing season in the house.

Tree wound paints used after pruning are no longer recommended as they can slow healing and may promote decay.

If pesky seedlings of woody plants, such as elm, mulberry, hackberry, or maple are found growing in your yard, remove them as soon as possible. If left too long, they will take over gardens and other landscape plantings.

Fall is a good time for improving your garden soil. Add manure, compost and leaves to increase the organic matter content.

Plant peonies now, but make sure the crowns are buried only 1 1/2 - 2 inches below ground level. Planting them deeper than two inches may keep them from blooming.

Root cuttings from annual bedding plants such as begonias, coleus, geraniums, and impatiens. These plants can be overwintered in a sunny window and provide plants for next year's garden.

Pears should be picked at the hard ripe stage and allowed to finish ripening off the tree. The base color of yellow pears should change from green to yellow as the fruit approaches maturity.

Be sure to keep strawberry beds weed free. Every weed you pull now will help make weeding much easier next spring.

Rake up leaves, twigs, and fruit from crabapple trees and dispose of them in the trash to help control apple scab disease.

Water newly planted trees and shrubs to provide sufficient moisture and prevent winter damage. Add a two-inch layer of an organic mulch such as shredded bark around the base of plants to retain soil moisture and regulate soil temperature.

Wood ashes contain phosphorous, potassium, and calcium. It can be placed on vegetable gardens and flower beds.

Save seeds from favorite flowers such as marigolds by allowing the flower heads to mature. Lay seeds on newspaper and turn them often to dry. Store the dry seeds in glass jars or envelopes in a cool, dry, dark place.

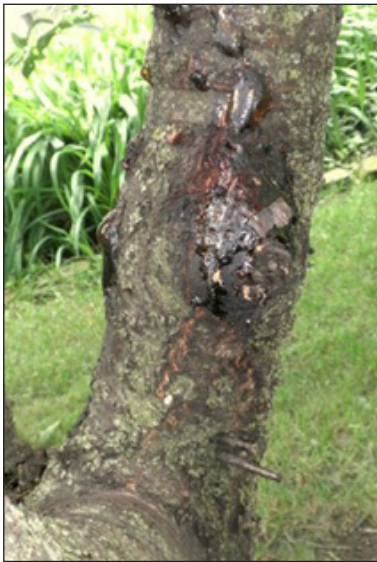
Hot peppers will keep best if stored after they are dry. Thread the peppers on a string to dry. Hang in a cool, dry place.

## Stressed Fruit Trees Get Sticky

Have you noticed any gum oozing from cherry tree branches and trunks? It's called gummosis, a sign your cherry tree is under some sort of stress. That's right, trees can get stressed! Gummosis is not a disease but can be associated with disease or insect damage to the tree. Gummosis is most common on stone fruit trees such as plums, peaches, nectarines, and cherries.

Gummosis is often associated with cankers, which are sunken lesions on trunks, branches, or twigs. Cankers may be caused by mechanical injuries (such as lawnmowers or pruning), insects, winter damage, sunscald, herbicide injury, and various fungal or bacterial infections. In response to these stresses or injuries, a sticky amber ooze or gum is exuded from these lesions. With time, cankers may become more obvious, as branches swell or form corky growths on the margins. Severe damage or infections may cause wilting of leaves and eventual death of fruit-bearing wood.

Insects, such as peach tree borers, feed under the bark, creating wounds and tunnels on the inner bark. As a result, branches exude gum through



Courtesy Iowa State University Horticulture & Home Pest News

Gummosis is a sticky amber ooze or “gum” exuded from lesions on stone fruit tree bark.

wounds. Fungal pathogens may also infect cherry trees and cause cankers between the trunk and scaffold limbs. These fungi are usually opportunistic and colonize plants when their defenses are low. On the other hand, bacterial cankers can sometimes become a serious disease in orchards. Bacteria colonize leaf surfaces and enter the tree via wounds, creating oozing cankers and girdled limbs. Sometimes entire limbs may wilt, and leaves and fruit may show spots.

In summary, cherry

gummosis is the plant's reaction to stress. Pathogens or insects may be involved, but the best way to prevent gummosis is by taking an integrated management approach. Avoid unnecessary mechanical injuries to your tree and prune under dry weather conditions. Provide a good growing site (well-drained soils) for your tree and a balanced fertilization program to promote vigorous growth. Also, practice good sanitation by pruning and destroying cankered limbs.

Source: Iowa State University

## September is Important for Fertilizing Cool-Season Turfs

With the slightly cooler temperatures, we are approaching the most important time to fertilize all cool season grasses in north central United States. Of the total annual nitrogen (N) applied to a cool season turf, 60–75% (or more) of it should be applied between Labor Day and the last mowing. The September fertilization is crucial on all turf areas regardless if it is a lawn, athletic field, or golf course green, tee, or fairway. Fertilization in mid-September encourages the production of new tillers and/or rhizomes and stolons that will increase turf density. Fertilization in September also encourages

rooting and production of storage products that will help the plant survive the stresses of winter and next year's growing season. This is especially true for areas thinned by this summer's weather. Almost all turf areas should be fertilized with 1 pound N/1,000 square feet, using a fertilizer with 25–50% of the nitrogen as slow release (sulfur or polymer-coated urea, urea formaldehyde, or natural organics).

Some recent research suggests higher N rates can be used with fertilizers containing even more slow release nitrogen, which may minimize the need for typical late-October or

November applications (the N in this September application may release over 6–8 weeks or more). This would be very useful on low-maintenance areas where labor is limiting. The next most important fertilization is near the last mowing later in the fall.

Source: University of Nebraska–Lincoln, Agronomy and Horticulture Department.

### FOR MORE INFORMATION

UNL Extension NebGuide “Fertilizer Use in Home Landscapes” (G1941) available at the extension office or online at <http://go.unl.edu/kxu>.

## Fall Composting Workshops and Demonstrations

Learn how to be successful with composting by attending a composting workshop or demonstration sponsored by University of Nebraska–Lincoln Extension in Lancaster County and the City of Lincoln Recycling Office.

**Composting Workshops** are held at various locations:

- Tuesday, Oct. 4, 6:30 p.m. — Charles H. Gere Library, 2400 S. 56th St., Lincoln
- Tuesday, Oct. 11, 6:30 p.m. — Anderson Library, 3635 Touzalin Ave., Lincoln

**Composting Demonstrations** are presented at the Pioneers Park Nature Center's backyard composting demonstration area. These demonstrations will show you how to be successful with backyard composting. You will see three types of composting bins and how to use them. At each composting demonstration two lucky participants will win either a composting thermometer or bin. Demonstrations will be held:

- Saturday, Sept. 24, 10–11:30 a.m.
- Saturday, Oct. 22, 10–11:30 a.m.





# Growing Garlic: Plant in Early to Mid- October

Laurie Hodges  
UNL Extension Vegetable Specialist

Garlic is a popular vegetable, and is very easy to grow in Nebraska. Without garlic, many dishes would lack the flavor and character that make them favorites. Fortunately, garlic is relatively easy to grow in the home garden. The most difficult decision may be deciding what kind of garlic to plant since there are over 100 cultivars available from specialty suppliers!

According to University of Minnesota Extension, in their publication “Growing Garlic in Minnesota,” garlic can be a profitable crop for vegetable growers with average yields of 8,000-10,000 pounds per acre, and prices ranging from \$5–\$10 per pound at farmer’s markets.

Garlic produces well in Nebraska when planted in October or very early spring, using individual cloves or the small bulbils found on topsetting types. Fall or very early spring planting is required because dormant cloves and young garlic plants must be exposed to cold temperatures of 32–50°F for one to two months to induce bulb formation.

## Kinds of Garlic

Choosing which type of garlic to grow many be your most difficult decision! But the most important thing to keep in mind, is not to plant garlic you purchased at the grocery store.

There are two main types of garlic — soft neck and hardneck. Each has several distinct sub-groups and cultivars. Hardneck garlic, *Allium sativum* subsp. *ophioscorodon*, produces a woody flower stalk and also is known as “top-setting” garlic because it produces clusters of bulbils after the mostly sterile flowers bloom. Many hardneck types tend to produce large underground bulbs made up of

a few large cloves and yield best when planted in the fall.

Research has shown yields will increase if the flower heads are removed before the bulbils form. When removed, the young, tender flowerstems can be harvested and used for stir-frying or other dishes. If left to grow, the bulbils, which are about the size of a popcorn kernel, can be eaten or planted. If bulbils are used for propagation, it will take 2–3 years to produce a full-sized bulb. Bulbils can also be planted for garlic greens.

Softneck garlic, *A. s.* subsp. *sativum*, does not form a woody stalk but has flexible leaves that can be braided. Bulbs of softneck types usually have more individual cloves and yield higher than hardneck types. Softneck types are generally better adapted to a wide range of climates. They can be spring-planted with more success than spring-planted hardneck cultivars. However, garlic connoisseurs say softneck cultivars lack the subtle flavor differences found in hardneck cultivars.

Elephant garlic, *Allium ampeloprasum*, is not a true garlic, but is actually a bulbing leek.

## Garden Preparation

Garlic grows best in well-drained, friable loam soils that are fertile and high in organic matter. If your soil is high in clay, add organic matter to break up clay particles for better drainage. Organic matter will help sandy soil hold more water. Like onions, garlic needs a steady and fairly high level of nutrients in the soil while actively growing, but they have shallow, coarse roots that are not as efficient at nutrient uptake as other crops.

When preparing the soil for planting, apply 3–4 pounds of 10-10-10 fertilizer per 100 square feet (or follow soil test recommendations) and spread



The outer, papery layer on these Silverskins prevents the bulb from shattering, reduces moisture loss, and minimizes mechanical damage.

Sarah Browning, UNL Extension in Lancaster County

1”–3” of organic matter such as chopped leaves, dry grass clippings, compost or sphagnum peat over the soil surface. Use a spading fork to turn over and break up the soil and begin mixing in the organic matter. A rototiller can also be used to prepare the soil, but remember over-tilling can destroy the soil structure.

When incorporating organic matter that must be decayed, such as dry leaves and grass clippings, it is best to do it a few weeks before planting so soil microbes will have a chance to start breaking it down.

## Planting

Just before planting, separate bulbs into individual cloves and sort by size. Do not divide the bulbs more than a few days before planting because early separation results in decreased yields. Reserve the largest cloves for planting and use the smaller cloves for cooking.

For best yields, garlic should be planted in early- to mid- October. Planting before mid-September is not recommended. Garlic cloves should begin growing and then go dormant when cold weather arrives.

Plant the cloves 3”–5” apart in an upright position (pointed end up) to ensure good emergence and straight necks. Cover cloves to a depth of about 2”–3”. Allow 12”–24” between rows. Garlic also lends itself well to wide-row planting; space cloves 5” apart in all directions in foot-wide rows or raised beds. This requires considerably less garden space for the same yield, but weeding must be done by hand.

Water thoroughly after planting to stimulate growth. The soil must be kept evenly moist during active growth. Garlic is quite drought-sensitive, so a weekly application of 1” of water will increase yields if rainfall is lacking. Dry soil will result in irregularly shaped bulbs.

A light application of mulch (1”–2”) after the ground freezes will help prevent frost heaving throughout the winter.

## Harvesting

Fall-planted garlic is ready to harvest from late-June to mid-July so reduce watering and let plants dry down a week or so before harvest. The outer bulb covering disintegrates fairly quickly and the bulbs will shatter if they are not harvested at their peak, so carefully monitor their development. When the lower 1/3 of the leaves are yellow, dig or pull a few plants to check the development of the bulbs. If the bulbs have segmented into cloves that can be separated, it is time to harvest. If the bulbs haven’t yet segmented, leave the remaining plants for a week or two and then check them again. When mature, each bulb should be fully segmented and covered by a tight outer skin.

After pulling, lay the bulbs on screens in the shade or in a well-ventilated room to cure, protecting them from moisture. Bulbs should be cured for 2–4 weeks at 75–90°F and low humidity. If you want to braid your softneck crop, allow the tops to wilt for 2–3 days and then braid them tightly and allow them to finish curing. Tight braids are necessary since the stems will continue to shrink as they dry.

If not braided, trim the tops to about 1/2” long and roots to 1/4” after the bulbs have cured. If there is moisture in the stem when you trim the tops, continue to cure the bulbs for a few more days, then check again. Softneck garlic usually takes longer to cure because there are more layers of cloves in each bulb. Leave the outer covering on to reduce moisture loss and mechanical damage. Store garlic in mesh bags so there is good air circulation around the bulbs.

Additional information on growing garlic:

- Garlic Production in the Home Garden, <http://digitalcommons.unl.edu/extensionhist/90/>
- Growing Garlic in Minnesota, <http://www.extension.umn.edu/distribution/cropsystems/dc7317.html>

# Trees for Nebraska Towns

Kendall Weyers  
Nebraska Forest Service

Trees for Nebraska Towns (TNT) makes funding and technical assistance available to improve species diversity and to foster better planting and maintenance practices for trees and associated landscapes. Projects must include the planting of large-maturing trees and must demonstrate high-quality and sustainable tree planting and care practices. Projects should also help conserve water and improve stormwater.

The TNT program is not available to fund trees on individual homeowner’s property or street tree. If you are interested in coordinating a neighborhood wide tree-planting project we suggest working through your neighborhood association or local government to apply for a TNT grant. Private properties that qualify for TNT funding include properties such as nature centers, non-profits, parochial schools, etc. if they demonstrate clear public benefit.

- Projects should emphasize the planting of large-maturing trees (those exceeding 40’ in height or spread). Other landscape plantings that benefit trees can be included in the project.
- Projects can be on public or private property, but all projects must provide clear public benefit.
- Approximately \$75,000 in grant funds is available. The maximum funding request is \$10,000.
- A minimum 50% match is required for all projects (grant funds will not pay for more than 50% of the total project value). Any other funding source is eligible for matching funds. Donated and in-kind goods and services ARE allowed toward the required match.
- TNT is funded by the Nebraska Environmental Trust (NET), a beneficiary of the Nebraska Lottery.
- Application deadline: October 1, 2011.

Contact Kendall Weyers at [kweyers2@unl.edu](mailto:kweyers2@unl.edu) or (402) 472-6693.

Download the grant application and instructions at <http://nfs.unl.edu/ReTree/retreenebraskafunding.asp>



## Garlic Types & Descriptions

- **Rocambole — hardneck.** Off white bulbs with purple stripes. Brown clove skins, and easy to peel. Stores about 4–5 months. Cultivars include Kilarney Red, German Red, Spanish Roja, and Capathian.
- **Porcelian — hardneck.** Smooth white skins. Cloves more difficult to peel than rocamboles. Stores about 5–7 months. Cultivars include German Extra Hardy, Georgian Crystal and Music.
- **Purple stripe — hardneck.** Bulbs white with purple streaks. Clove skins brown and more difficult to peel than rocamboles. Stores 5–7 months. Cultivars include Persian Star and Metechi.
- **Silverskins — softneck.** White bulbs and clove skins. Best adapted to warm climates with mild winters. Stores up to one year. Cultivars include Silver White, Idaho Silverskin, and California Select.
- **Artichoke — usually a softneck,** but may flower following a cold winter. Bulbs white or purple blushed. Named for their layers of overlapping cloves. Difficult to peel. Stores 6–9 months. Cultivars include Inchelium Red, Kettle River Giant, and Early Red Italian.





Alice Henneman, MS, RD, UNL Extension Educator

### Foil-Baked Veggies



These are so easy to fix! Prepare them on the grill or in the oven.

1. Toss together such veggies as sliced peppers, onions, carrots, sugar snap peas, mushrooms, zucchini, and broccoli/cauliflower florets with a little olive oil, salt, and pepper. Add a few springs of fresh herbs, such as rosemary and thyme, if desired.

**TIP: Choose veggies for which a range of textures from tender-crisp to almost roasted are acceptable to you.** This is easier than trying to open the foil packet and check their degree of tenderness.

2. Transfer veggies to individual pieces of heavy-duty aluminum foil, large enough to fold the ends and sides together tightly to seal.
3. Grill over medium high heat about 15–20 minutes; or grill about 8–10 minutes on high heat. Turn once.
4. OR ... place packets on a cookie sheet and bake in a preheated 400°F oven. Bake for about 20–30 minutes. Place packet just above the middle of the oven on a cookie sheet. Turn once.
5. Open carefully as steam will come out. Cut open foil packets with a sharp knife and carefully fold back the foil so the steam can escape. Serve directly from packet.

## “Can” You Pass This Canning Quiz?

Compiled by Alice Henneman,  
MS, RD  
UNL Extension Educator

As home food preservation, especially canning, climbs in popularity, the number of Web sites and online chats on the topic have increased. The advice is sometimes based on what grandmother did or personal opinion. Thanks to the Internet, there is the potential for misinformation to go viral! Canning might be considered an art as well as a science. As such, people often want to let their creative side take over! They create their own recipes, they improvise regarding equipment and supplies, and they may make decisions based on half-truths.

If you’re a beginning canner or even an advanced canner, see how up-to-date you are on canning before you get out the boiling water canner or pressure canner.

**Question: Is it safe to can green beans in a boiling water canner?** (a) Yes (b) No

**Answer: (b) No.** The canning method approved for a food depends on the type of food. Foods are divided into two main categories: those that contain acid (called “acid foods”) and those that have very little or no acid (called “low acid” foods).

Acid foods are foods that contain enough acid to prevent the growth of the bacteria that cause botulism poisoning. Low acid foods contain very little or no acid.

**Acid foods (pH less than 4.6) include:** generally all fruits (tomatoes, figs, and Asian pears are borderline — specific amounts of citric acid or lemon juice must be added before canning to acidify); sauerkraut (preserved by natural acids formed during fermentation); jams, jellies, marmalades, and fruit butters; and foods to which large amounts of acid are added (for example, pickles).



National Center for Home Food Preservation

Boiling water canning is used for acid foods.



Kirsty S. www.flickr.com

Pressure canning is used for low acid foods (and mixtures of acid and low acid foods)

**Low acid foods (pH greater than 4.6) include:** generally all vegetables, meats, poultry, seafood, soups, and mixtures of acid and low acid foods (for example, spaghetti sauce — meat, vegetables, and tomatoes).

There are two approved methods of canning foods at home:

- Boiling Water Canning (212°F at sea level) is used for acid foods
- Pressure Canning (at least 240°F) is used for low acid foods (and mixtures of acid and low acid foods)

**As green beans are a vegetable and a low-acid food, they must be canned with a pressure canner. When vegetables are pickled by the addition of vinegar, according to an up-to-date, tested canning recipe from a reliable source, they can be canned in a boiling water canner.**

Pressure canning is the ONLY safe method for canning low acid canned foods. When canned under pressure, temperatures higher than the boiling point of water can be reached. These higher temperatures like 240°F are necessary to destroy spores of bacteria that cause botulism, a very deadly type of food poisoning. Temperatures this high can only be reached in a pressure canner.

**Question: Which of the following should be added to acidify tomatoes during the canning process?** (a) Freshly squeezed lemon juice (b) Vinegar, 5% acidity (c) Commercially bottled lemon juice (d) Citric acid (e) All of the above (f) b, c, d

**Answer: (f).** To ensure safe acidity in whole, crushed, or juiced tomatoes, add two tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes. For pints, use one tablespoon bottled lemon juice or 1/4 teaspoon citric acid. Acid can be added directly to the jars before filling with product. Add sugar to offset acid taste, if desired. Four tablespoons of a 5 percent acidity vinegar per quart may be used instead of lemon juice or citric acid. However, vinegar may cause undesirable flavor changes.

These same directions apply to green tomatoes.

The acidity in fresh lemon juice is variable, depending on the variety and harvest conditions. Bottled lemon juice is produced to consistent acidity standards and is recommended for acidifying home-canned tomatoes.

**NOTE:** When a procedure in a recipe from USDA for canning tomatoes offers both boiling water and pressure canning options, all steps in the preparation or procedure are still required even if the pressure processing option is chosen. This includes acidification.

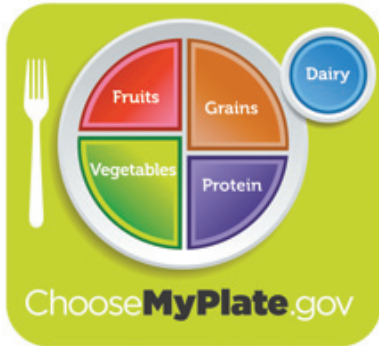
see CANNING QUIZ on next page

## Plant Sources of Food Provide Many Benefits



Helping limited-resource families learn to prepare nutritious and safe foods while stretching their food dollars.

Lisa (Connot) Kowalski  
UNL Extension Assistant  
Natalie Group  
UNL Dietetic Intern



short in fruits, vegetables, and whole grains.

Many plant foods are good sources of protein, fiber, carbohydrates, fat, vitamins, and minerals. Colorful plant foods, such as fruits and vegetables, are also good sources of *phytochemicals*. Phytochemicals are naturally present in plant foods, and they can help protect our body’s cells from damage by cancer-causing agents. They also help support overall health.

Eating a plant-based diet does not mean you have to become a vegetarian; it simply means you should try to select many of your foods from plant

sources. A diet that emphasizes plant-based foods is generally low in saturated fat and total calories, and high in fiber, potassium, and vitamin C.

Adding more plant sources of food to your meals may seem overwhelming, at first. Take small steps to incorporate these foods. Try altering your favorite recipes by adding fruits and vegetables. Substitute whole grains for refined grains (try brown rice instead of white rice). Try having a meal or two a week where your source of protein is some type of bean or pea (legume) such as a bean burrito or taco or a hearty lentil soup. They are low in cost, cholesterol, and saturated fat.

Eating a plant-based diet does not have to be detrimental to your food budget. Buy foods in season as they will be less expensive. Look in your local grocery ads to view plant foods on sale for the week. Purchase those items and work them into at least two meals each day.

Adding fruits and vegetables to your meals can also stretch

your meals, leaving leftovers for another day. For example, adding vegetables to a noodle casserole portion for one person can turn it into two portions. Frozen and canned plant foods are great options, especially in the winter when fresh foods are not often readily available. Look for “no

salt added” canned goods or drain and rinse them to reduce the sodium.

No matter how you decide to incorporate plant-based foods in your meals, you will benefit from the nutrients they provide in your diet, and decrease your risk for certain diseases.

### Vegetable Rice Skillet

- 1 can (15 oz.) kidney, black or garbanzo beans, drained and rinsed
- 1 can (14.5 oz.) stewed tomatoes
- 2 cups mixed vegetables, frozen
- 1 cup water
- 3/4 cup brown rice, uncooked
- 1/2 teaspoon dried thyme or dried dill weed
- 1 can (10-3/4 oz.) tomato soup
- Hot sauce (optional)
- Shredded cheese (optional)

In a large pot, stir together beans, tomatoes, vegetables, water, rice, and thyme or dill weed. Bring to a boil. Reduce heat, cover, and simmer for 20–25 minutes or until the rice is tender. Stir a few times while cooking. Add more water if mixture becomes too dry. Stir in tomato soup. Bring to a boil. Let simmer for 2–3 minutes more. Serve with hot sauce and cheese, if desired.

Source: University of Nebraska–Lincoln Extension Nutrition Education Program Cookbook: The Cook’s Helper.



FAMILY & COMMUNITY EDUCATION (FCE) CLUBS

President's View — Irene's Items

Irene Colborn  
FCE Council Chair

Whew!! It has been a hot, humid summer and I am really looking forward to fall weather. Am fortunate I don't have to get out every day, so I spend my time doing some sewing and reading. The trouble with reading is I can't



lay a book down until I get to the end. This year Labor Day is my daughter's birthday. She was born the day after Labor Day in 1961. Bob, my husband, had taken the two older children out to the fair and I was glad when he got home because I had the feeling

the time would be near. I hope you will have received the FCE Speaks with the state convention information. Joy Kruse is chair for this event and has been lining up workers, etc. "Friends are angels who lift us to our feet when our wings have trouble remembering how to fly."



FCE News & Events

FCE Leader Training Canceled

The Sept. 28 leader training, "Legally Secure Your Financial Future — Organize, Communicate, Prepare" has been CANCELLED.

FCE Council Meeting

Change in date: The September FCE Council meeting will be Monday, Oct. 3, 1 p.m. at the Lancaster Extension Education Center. Red Cross will present the program. Salt Creek Circle Club will host the meeting.

Join the State FCE Leadership Conference "Galaxy of Stars"

What: State FCE Leadership Conference  
When: Thursday, Sept. 22–Saturday, Sept. 24, 2011  
Where: Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln  
Who: FCE members  
For more info: registration information is in "Your FCE Speaks."

CANNING QUIZ

continued from preceding page

**Question: Can a food be canned at the same pressure (pressure canner) or same time (boiling water canner) at all altitude levels.** (a) Yes (b) No (c) It depends on the food

**Answer: (b) No.** Using the processing time for canning food at sea level may result in spoilage if you live at higher altitudes. Water boils at lower temperatures as altitude increases. Lower boiling temperatures are less effective for killing bacteria.

**For a pressure canner, the amount of PRESSURE used to process a food is increased as altitude increases.** General guidelines are for the PSI or Pounds Square Inch – to be used at different altitudes are:

**Dial Gauge Pressure Canner:** 0–2,000 feet: 11 lb.; 2,001–4,000 feet: 12 lb.; 4,001–6,000 feet: 13 lb; 6,001–8,000 feet: 14 lb.; 8,001–10,000 feet: 15 lb.

**Weighted Gauge Pressure Canner:** 0–1000 feet: 10 lb.; Above 1,000 feet: 15 lb.

The single disadvantage of weighted-gauge canners is they cannot correct precisely for higher altitudes. At altitudes above 1,000 feet, they must be operated at canner pressures of 10 instead of 5, or 15 instead of 10.

Every pound of pressure is very important to the temperature needed inside the canner for producing safe food, so accurate gauges and adjustments are essential when a gauge reads higher than it should.

Gauges may be checked at many county Extension offices or contact the pressure canner manufacturer for other options.

It is advisable to have a dial gauge canner tested yearly. Weighted gauge types of pressure

canners do not require testing for accuracy, but if the weighted gauge is damaged in any way, it must be replaced.

**IMPORTANT:** A pressure canner is not the same as a pressure cooker and should not be used for canning.

**For a boiling water canner, the amount of TIME used to process a food is increased as altitude increases.** In general, for every additional 1,000 feet of elevation, one minute is added to the boiling time.

**The altitude for Lancaster County, Nebraska ranges from 1,200 to 1,700 feet above sea level.**

**Question: Which of these ingredients may be safely adjusted in amount when canning salsa?**

(a) Tomatoes (b) Peppers (c) Vinegar (d) Cumin (e) Onions

**Answer: (d) Cumin.** Changing the proportions of ingredients in a tested salsa recipe can be unsafe. Salsas are usually mixtures of acid and low-acid ingredients; they are an example of an acidified food. The specific recipe, and sometimes preparation method, will determine if a salsa can be processed in a boiling water canner or a pressure canner. A process must be scientifically determined for each recipe.

The acid ingredients in the foods used in salsa, such as peppers, tomatoes, and onions, help preserve it. However, you also must add acid to canned salsas because the natural acidity may not be high enough. Commonly used acids in home canning are vinegar and commercially bottled lemon juice.

Spices add flavoring to salsas. The amounts of spices and herbs typically may be altered in recipes.

If you don't have a tested recipe or a boiling water canner, try freezing your salsa.

**Question: When did the U.S. Department of Agriculture (USDA) last revise its recommendations for home canning?** (a) 1994 (b) 2006 (c) 2009

**Answer: (c) 2009.** The latest canning recommendations (as of July 2011) from the U.S. Department of Agriculture (USDA) are in the *USDA Complete Guide to Home Canning*, 2009 revision.

**Follow only current, research-tested canning recipes, such as those from USDA/Extension or Ball.**

FOR MORE INFORMATION

For research-based information on home food preservation (canning, freezing, and drying), go to **University of Nebraska–Lincoln Extension's Web site** at <http://food.unl.edu/preservation>.

Information in this article is adapted or reprinted (with permission) from:

- *University of Georgia. Andress, E.L. 2008. Pressure canning & canning low-acid foods at home (slides).* Athens, GA: The University of Georgia, Cooperative Extension.
- *University of Georgia. National Center for Home Food Preservation and Simmons, H. 2008. Step-By-Step Canning of Tomato Salsa Using Slicing Tomatoes.* Athens, GA: The University of Georgia, Cooperative Extension.
- *University of Georgia. Harrison, J.A. 2008. Canning Foods at Home — The Basics (slides).* Athens, GA: The University of Georgia, Cooperative Extension.
- *University of Georgia, National Center for Home Food Preservation and Simmons, accessed July 27, 2011 at <http://www.uga.edu/nchfp/index.html>.*
- *USDA Complete Guide to Home Canning, 2009 revision, accessed from the University of Georgia, National Center for Home Food Preservation website, July 27, 2011 at [http://www.uga.edu/nchfp/publications/publications\\_usda.html](http://www.uga.edu/nchfp/publications/publications_usda.html).*



Lorene Bartos, UNL Extension Educator

Fall Home Maintenance Tips

Be prepared for fall and winter by checking these items.

- Check and clean gutters.
- Inspect siding for cracks.
- Check caulking and weatherstripping.
- Service your heating system.
- Replace furnace filters.
- Check fireplace and wood burning stoves.
- Check chimney.

The time you take to check your home will save time, energy, and money in the future.

Parenting for School Success

In many ways, parents are the most important teachers children will ever have. Your children are learning the most from you — by watching you, talking to you and interacting with you.

Research conducted by the University of Minnesota shows there are six factors that are important in helping child learn.

These are...  
**Expectations** — Children learn better when parents have clear and reasonable expectations.

**Structure** — Children

learn better when parents provide a regular routine.  
**Learning** — Children learn better when they have opportunities outside of school.  
**Support** — Children learn better when parents regularly give them support and praise.

**Relationships** — Children learn better when they feel safe and accepted at home and at school.

**Modeling** — Children learn better when parents and other adults set a good example.

Source: University of Minnesota Extension

Subscribe to a FREE Parenting E-Newsletter!

[www.extension.org/parenting](http://www.extension.org/parenting)



Just in Time  
Parenting

Household Hazardous Waste Collections

These collections are for households only. 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). You can dispose of compact fluorescent light bulbs at these waste collections.

**DO NOT** latex paint, electronics, TVs, propane cylinders, tires, used oil, batteries, antifreeze, or ammunition.

For more information, call the Lincoln-Lancaster County Health Department at 402-441-8021.

**Saturday, August 27 • 9 a.m.–1 p.m.**  
Veyance Tech, 4021 North 56 Street

**Saturday, September 24 • 9 a.m.–1 p.m.**  
Lincoln Industries, 600 West E Street

**Saturday October 15 • 9 a.m.–1 p.m.**  
Woods Park (31 and J Streets)

**Friday, November 18 • 9 a.m.–1 p.m.**  
Appointment Only. Call (402) 441-8084

Usable Latex Paint Exchanges

Two usable latex paint exchanges will be held at the EcoStores Nebraska at 530 West P Street. Call (402) 477-3606 for details.

**Saturday, Sept. 24 • 9 a.m.–2 p.m.**  
**Saturday, Nov. 12 • 9 a.m.–2 p.m.**



# Prepare Bins and Equipment Before Harvest

Tom Dorn  
UNL Extension Educator

As we approach harvest, grain bin preparation is a timely subject. Remember, grain harvested in Nebraska is essentially insect-free, but can become infested by storage insects, which originate in or around the bin or in contaminated equipment such as combines and grain augers. Following are some tips on how to prepare bins and equipment to ensure insect problems are minimized.

First, be sure to store sound, clean, dry grain. It may be advisable to screen out broken grains, trash, and fines to increase the quality of the final storage product. Also, the elimination of trash will enhance fumigation, should this procedure be required later.

Since stored-grain insects can invade new grain from infested harvesting and handling equipment (combines, augers, etc.), cleanup is essential. Carefully remove all traces of old grain from combines, truck beds, grain carts, augers, and any other equipment used for harvesting, transporting, and handling grain. Even small amounts of moldy or insect-infested grain left in equipment can contaminate a bin of new grain. Then clean grain bins thoroughly, disposing of spilled, cracked, and broken grain and grain flour, along with the insects feeding on such material. A simple broom and a vacuum cleaner are essential pieces of equipment in cleaning grain bins.

“How clean is clean enough?” is a question many producers ask. A good rule of thumb to follow when cleaning bins and equipment is: If you can tell what was

stored or handled last season by looking in the auger, bin, or combine, it is not clean enough to prevent re-contamination of the new crop.

Around the bins, be sure to remove old equipment, junk, and clutter to reduce attractiveness to insects and rodents. Make sure the bin is insect and rodent-proofed by plugging holes, sealing bins, caulking, and making general repairs. Grain spilled near the bin attracts insects and draws mice and rats. Clean up and dispose of any spilled grain several weeks prior to harvest. If rats have tunneled under foundations, use baits or traps to reduce or eliminate them. Tall weeds can harbor insects and provide cover for rodents. Mow around the bin site to remove tall grass and weeds to reduce the potential for insect and rodent infestation. If necessary, re-grade the site so water readily drains away from bin foundations. You cannot always wait for the soil to dry before loading or unloading grain from bin sites. Make certain travel lanes have enough rock or gravel to bear the weight of heavy trucks and grain carts.

Landscaping should be maintained away from grain storage facilities. Leave a four-foot-wide strip of bare gravel around the perimeter of storage bins. If purchasing old crop grain for storage with newly harvested grain, be sure to watch for insects in the incoming grain. If infested grain is purchased for livestock feed, store it away from the new crop, and feed it as soon as possible. Grain stocks may be rotated, or moved and a grain protectant applied at the time of turning.

Stored grain insects cannot live on extremely dry grain (less than 10%), however it is impractical to reduce

grain moisture much below minimum moisture levels necessary for long-term storage. Insect activity and reproduction are favored, however, by high grain moisture (14% or more), especially when condensation and molds occur, and fermentation raises temperature in the grain mass. Spoilage and internal heating allow insects to remain active even in the winter. Through proper management of aeration, you can manipulate grain temperature. Since insects are “cold-blooded,” they are not active much below 50°F, and grain cooling can be particularly important in reducing insect reproduction. Condensation of moisture in the grain mass is prevented by slow cooling and gradual reduction of the gradient between the grain mass temperature and the outside (ambient) temperature.

A bin of 19% moisture corn with a starting temperature of 75°F can lose a full market grade in about five days if the aeration system shuts down, allowing the grain to heat and deteriorate. Electrical system maintenance before harvest can prevent costly downtime. Wiring for fans and other electrical components should be inspected for corrosion and cracked, frayed, or broken insulation. Exposed wiring should be run through waterproof, dust-tight conduit. Avoid kinking the conduit, and make sure all connections are secure.

Mice often nest in control boxes where they are protected from predators. They can strip insulation from wires for nest material and their urine sometimes causes corrosion on relays and other electrical components. If rodent damage is found, clean and repair or replace damaged wiring, relays, and other elec-

trical equipment. Then seal over knock-outs and other openings that may permit rodent entry.

Fans, heaters, transitions, and ducts should be checked for corrosion and other damage. Remove any accumulated dust and dirt that may reduce operating efficiency and be sure all connections are tight to prevent air leaks that can reduce operating efficiency.

Once empty bins have been thoroughly cleaned, a residual treatment may be applied to bin surfaces to protect incoming grain from insect infestation. Follow label instructions carefully. The following materials are listed for empty grain bin surface treatments: **silicon dioxide** a.k.a **diatomaceous earth** (many brand names). Butylcarityl + Pyrethrins (many brand names). Some related chemicals include Binfenthrin (Capture), Pybuthryn (Butacide, Pyrenone Crop Spray)

For bins with false floors, which are inaccessible for cleaning, **chloropicrin**, a bin “clean-out” fumigant, is legal to use, prior to binning the grain. Other fumigants that could be used on empty bins would be **magnesium phosphide** and **methyl bromide**. Caution! Fumigants are dangerous, restricted-use pesticides, and may require gas monitoring devices and respirator protection for the applicator. It is highly recommended fumigation be done by a commercial pesticide applicator who has been trained and EPA/NDA-certified in safe fumigant handling and application techniques. Refer to current labels for specific details and instructions.

## Controlling Winter Annual Broadleaf Weeds in Cropland



Henbit plant



Field pennycress plant



Shepherd's-purse flowers

Tom Dorn  
UNL Extension Educator

Winter annual broadleaf weeds such as Henbit and the mustards (Field pennycress, Shepherds purse, Tansy mustard, etc.) germinate in the fall, overwinter as a green plant, begin growing again in early spring, then complete their life cycle and go to seed in the spring or early summer. The best time to apply post-emergent control measures to winter annuals is in the fall when the seedling plants are small and the plant has not had time to store much energy in the root system. Timing is not critical, so there is an extended window to apply herbicides after harvest in most years. Best control will be achieved if daytime temperatures are above 60°F, but good control can be obtained even when temps are in the 50s most years.

Too often, producers wait until spring to attempt control of winter annual weeds. Unfortunately, several factors are working against you in the spring. In the

early spring, the weather is more unpredictable. It can be warm one day, and cold the next. Second is the growth stage of winter annual weeds. In the spring, winter annuals are in the reproductive mode. They bolt quickly, flower, and before you know it, they are setting seed. The plant is larger, with a more developed root system and is flowering, so is less likely to receive a lethal dose of herbicide from your application.

In the fall, however, the weather is usually more cooperative and weeds are in the rosette (vegetative) stage and more susceptible to herbicides. Winter annuals can typically be sprayed from late September to early December, weather permitting. As far as rates are concerned, fall applications typically require less herbicide and less expense.

The common winter annuals can be readily controlled with just 1.5–2 pints of 2,4-D ester or 1 pint 2,4-D plus 4 ounces dicamba, 24 ounces of glyphosate, or 1 pint 2,4-D + 16 ounces glyphosate. Note: Atrazine is not labeled for fall application in Nebraska.

## Estate Tax Portability Election

### Congress Expands the Federal Estate and Gift Tax Exemptions for Two Years

In 2010, there was no federal estate tax. However, we were limited in the amount of available step-up in the basis of inherited assets. An estate was limited to a \$1.3 million step-up unless the assets went to the spouse, then a \$3 million step-up was available. The other assets were inherited with a carry-over basis. For example, assume the decedent paid \$19,000 for land in 1920, but it is worth \$800,000 at the time of death. The heir to the property would only receive a \$19,000 basis. Consequently, if they sell the property for \$800,000, they will recognize a \$781,000 taxable gain.

The president signed the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 on December 17, 2010. One part of this major tax bill was the reinstatement of the estate tax exemption. While estates for 2010 decedents were not subject to the estate tax, this bill allows them to elect to use a \$5 million exemption and have a stepped-up basis. For many estates, this is superior to no estate tax and a carry-over basis. The bill also allows the \$5 million exemption for deaths in 2011 and 2013 and caps the top tax rate at 35%. The exemption is scheduled to be reduced to \$1 million for deaths in 2013 and later years, with a top rate of 55%.

A major change was made in estate tax planning due to the bill. This is the inclusion of a “portability election” in

the bill. This will allow a married couple to exclude up to \$10 million of total assets from federal estate and still have a stepped-up basis. The way it works is:

- 1) If the first spouse dies in 2011 or 2012, they have a \$5 million exemption. If, however, their estate is less than \$5 million, the unused portion of their exemption can be given to the surviving spouse. Assume John dies in 2011 and has a \$2 million estate. The unused \$3 million exemption can transfer to his wife Jane.
- 2) If the surviving spouse dies in 2011 or 2012, they will have a \$5 million exemption plus the unused amount from the first to die. This means Jane can have an \$8 million estate and no federal estate tax and the assets will receive a stepped-up basis.

The portable exemption amount only applies to the unused exemption from the last spouse. Consequently, if there have been multiple marriages, only the most recent spouse's amount is available. In addition, an election must be made in the estate of the first spouse to die to preserve the unused exemption and allow for its use by the last deceased spouse.

Source: Gary Hoff, Department of Agricultural and Consumer Economics, University of Illinois  
Reference this article at the Permalink URL  
[http://www.farmdocdaily.illinois.edu/2011/04/estate\\_tax\\_portability\\_electio.html](http://www.farmdocdaily.illinois.edu/2011/04/estate_tax_portability_electio.html)



# What’s Eating You?

**Barb Ogg**  
UNL Extension Educator

Those of us who grew up in Nebraska and other northern states look forward to changing seasons and cooler temperatures of fall and winter (although I must admit, winters today seem much longer than when I was a youth). After a summer of struggling with ticks, mosquitoes, and chiggers, it seems unfair to have to deal with insects which feed on us during the rest of the year.

We humans have a natural aversion to insects that feed on us. Insect bites can be itchy and make us uncomfortable, but a better reason to dislike biting insects is, some of them transmit disease organisms when they feed. The most important disease vectors worldwide are mosquitoes; we are fortunate malaria, yellow fever, or dengue fever are not a problem in the U.S. And, despite the concern about West Nile encephalitis, relatively few people in Nebraska have been adversely affected the last few years.

Ticks, mosquitoes, and chiggers live outdoors and people are exposed to these biters when they spend time outside. People can avoid most outdoor biting arthropods by using insect repellents, staying away from infested locations, or staying indoors during times when biters are active.

But, some biting insects, like head lice and bed bugs, are so closely connected with humans, they live on our bodies or in our

Barb Ogg, UNL Extension in Lancaster County



**Adult head lice (highly magnified view above) are 1/10 to 1/8 inches long and tan to gray. (At right, approximate size) an adult louse in an electronic comb.**

houses. Others, like fleas, are associated with domesticated pets. Because these biters live where temperatures are warm, they are not affected by changing seasons or outdoor temperatures. Yes, there are some insects which are year-round blood suckers.

## Head Lice vs. Bed Bugs

Many people confuse head lice and bed bugs. Both of these species are ectoparasites (which means they live on the outside of our body, rather than inside) and feed on blood. Both of these species are resistant to pyrethroid insecticides and can be challenging to control. But head lice and bed bugs live in different circumstances, which means the methods of control are different as well.

### Head Lice

Head lice are found on the head, usually close to the scalp. They must feed frequently (every hour or two). Female head lice lay eggs on individual hairs

about 1/4-inch from the scalp, where temperatures are optimal for hatching. Head lice do not survive well off the head. If they fall off the host, researchers have found they begin to dehydrate quickly, usually within 12 hours. Many experts believe head lice move to another person primarily through head-to-head contact and only infrequently through intermediate objects.

Because head-to-head contact is the primary method of transmission, few head lice will be found on bedding, clothing, carpets, or furniture. This is why activities like laundering of bedding or clothing, vacuuming, or insecticidal treatments in the home environment, are of little value. We don’t recommend parents spending a lot of time doing these time-consuming activities.

Instead, parents should focus on removing lice and eggs from the child’s head. Because head lice are resistant to Nix, Rid, and other over-the-counter (OTC) pyrethroid products, these products are not going to do a very good job of treating head lice. Parents who do not understand this may buy these products, treat their child, and erroneously believe the treatment will kill all the head lice. A few weeks later, parents will find head lice still there in even greater numbers.

Instead of OTC products, we recommend combing oil-saturated hair with a louse comb three times a week to eradicate the lice. An electronic comb will detect live lice in dry hair and can be used to check to see if live



**Adult bed bugs are 3/8–1/4 inches long and reddish brown (highly magnified view above). (At right, approximate size).**

lice are still present.

It is relatively inexpensive to use a nit comb and oil to remove lice. The cost of an electronic comb is around \$30.

### Bed Bugs

Bed bugs do not live on the human body, although they can hide and be transported on clothing and other personal items. Bed bugs are a *nest parasite* which means they live in the area around where people spend time, especially near where they sleep. Scientists have shown most bed bugs live within 5–10 feet of the bed, although a few bed bugs will live farther away. Those distant bugs can make infestations hard to eradicate.

Because bed bugs live in cracks and crevices around where people sleep, treatments must focus in these hiding places. The most common location for bed bugs is the box springs.

Because bed bugs are resistant to pyrethroid insecticides, a do-it-yourself approach is unlikely to work very well. This

is why I generally recommend working with a pest control professional who has successfully eradicated bed bugs. The cost of bed bug eradication can be considerable. Most bed bug infestations require at least two or three treatments and some may need more if the infestation is severe or there are clutter problems.

## Would it be Better to Have Head Lice or Bed Bugs?

Yes, I have actually been asked this question. Neither one of these insects has been shown to be a disease vector so that isn’t a consideration.

My answer is ... it would be much better to have head lice. Because head lice live on the head, it is easier to control them than it is to control bed bugs found in many places around the bed.

A nit comb is very inexpensive, is reusable, and combing can be done by family members. No chemical treatments are needed. *Getting rid of head lice with a nit comb is not complicated, but takes time and persistence.*

### FOR MORE INFORMATION

For research-based information about head lice, bed bugs, or other insect problems in and around the home, go to UNL Extension in Lancaster County’s Web site at <http://lancaster.unl.edu/pest/>.

# The Beetles are Coming...the Beetles are Coming!

**Barb Ogg**  
UNL Extension Educator

The multicolored Asian lady beetle (MALB), *Harmonia axyridis*, is a well-established predatory insect in many parts of the United States, including Nebraska. By outcompeting native lady beetle populations, the MALB successfully controls aphids, scale insects, and other soft-bodied insect pests in garden and field crops. Despite its beneficial status during the summer, this insect becomes a serious nuisance pest to homeowners during the fall, winter, and early spring.

Problems with MALB begin during late summer when they aggregate in large numbers around homes in search of an overwintering site. In their native lands, the Asian lady beetle would normally overwinter in cracks and crevices of tall cliffs and rock outcroppings. In the U.S., the preferred overwintering site has become individual homes. Studies have shown Asian lady beetles are attracted to sunny, southwest sides of buildings. Homes or buildings

Vicki Jedlicka, UNL Extension in Lancaster County



**Multicolored Asian lady beetles are about 1/3-inch long and have tremendous color variations within the species (above, approximate size). They are winged (at left, magnified)**

shaded from afternoon sun are less likely to attract beetles. Dwellings near woods or fields are especially prone to infestation.

Beetles are most active on warm, sunny days following a period of near freezing temperatures. They seek out crevices and protected places

to spend the winter, often congregating in large numbers in attics, inside wall cavities, and other protected locations. Buildings in poor condition with many cracks and openings are most vulnerable to infestation.

When temperatures warm in the late winter and early spring, the beetles become active and often come inside the structure. Because the beetles are coming

into the home from wall voids, little can be done to prevent this wintertime invasion.

The easiest way to eliminate beetles indoors is to remove them with a vacuum cleaner. Place a knee-high nylon stocking into an extension hose or wand and secure it with a rubber band. As soon as the vacuum cleaner is turned off, be sure to remove the stocking so that the captured beetles cannot escape. As you remove it, the rubber band closes around the stocking, effectively “bagging” the lady beetles.

## Sealing Cracks and Crevices

Sealing cracks and openings is the most permanent way of preventing lady beetles from entering buildings. The time to do this is *now*, before beetles begin flying. Check around windows, doors, soffits, fascia boards, utility pipes, and wires, etc. and make sure they are sealed with caulk or other suitable sealant.



## Tips for Non-Toxic Cricket and Spider Control

Current indications show we will have large numbers of crickets and spiders invading homes this fall. The best way to prevent entry into homes is to seal entry points, like cracks and crevices, with caulk. However, it is difficult to seal all entry points.



To eliminate crickets and spiders that have found their way into the house, use sticky traps (mouse glue boards work great) in the corners of rooms. To catch a “singing” cricket, put a very small amount of cornmeal in the middle of a glue board and place the glue board near where the cricket is hiding. The cricket will be attracted to the cornmeal and get caught in the glue board.

—Barb Ogg, UNL Extension Educator



September

Carol Wolf



Lancaster County 4-H is proud to announce Carol Wolf as winner of September's "Heart of 4-H Award" in recognition of outstanding volunteer service.


Carol has volunteered with 4-H for 11 years in many capacities:

- leader of the Pacesetters 4-H club (a Nebraska 4-H Club of Excellence)
- superintendent of the 4-H Western Horse Show 1 at Lancaster County Super Fair
- member of Horse VIPS (Volunteers in Program Service) Committee
- helps run horse shows, including pre-districts, and has judged horse shows
- helps bring horses to judging contests

"Lancaster County has an awesome program," she says. "The leadership and extension agents have improved the programs and expanded to so many disciplines. The parents, children, and families are fun — positive relationships that last a lifetime! My favorite experience as a 4-H volunteer was watching my children embrace the 4-H experience that I enjoyed in my youth, making 4-H a family tradition!"

Lancaster County 4-H thanks Carol for donating her time and talents. Volunteers like her are indeed the heart of 4-H!





State Fair  
4-H Tickets

Get ready for fun at the 2011 Nebraska State Fair, Friday, Aug. 26 through Monday, Sept. 5 at Fonner Park in Grand Island! For a schedule of 4-H at the state fair, results, and more, go to <http://4h.unl.edu/nebraskastatefairbook>.

The Lancaster County extension office is selling \$4 exhibitor tickets on a first come, first served basis. These can be purchased at the office at 444 Cherrycreek Road (cash or check only, no credit cards). Exhibitor tickets are for 4-H'ers and their immediate family only.

Public gate admission will be \$8, with \$5 days Aug. 29–31. Children 6–12 will be \$3 every day and children 5 and under will be free every day.

General parking on the fairgrounds is free this year.

Ak-Sar-Ben 4-H Horse Show, Sept. 17–18

The Ak-Sar-Ben 4-H Horse Show will be held on Sept. 17–18 at the Lancaster Event Center in Lincoln. A veterinarian health check is required within 15 days of the exhibition date. For more information, go to [www.rivercityrodeo.com](http://www.rivercityrodeo.com).

Ak-Sar-Ben 4-H Stock Show, Sept. 22–25

The 84th Ak-Sar-Ben 4-H Stock Show will be held Sept. 22–25 at the CenturyLink Center in Omaha. More than 2,000 4-H families from an eight state area participate in this all 4-H Expo. Categories of this 4-H only competition are dairy, feeder calf, breeding heifers, market beef, market broilers, meat goats, market lambs, market swine, and rabbits. For more information, go to [www.rivercityrodeo.com](http://www.rivercityrodeo.com).

Schedule of Events

SATURDAY SEPT. 17

Reining, Pole Bending, Barrel Racing: 3:30 p.m.

SUNDAY SEPT. 18

English classes: 8:30 a.m.  
Western classes: 2 p.m.

THURSDAY, SEPT. 22

Market Dairy Steer Show: 5 p.m.  
Ak-Sar-Ben Rodeo: 7 p.m.

FRIDAY, SEPT. 23

Dairy Show: 7:30 a.m.  
1st Round Fitting Contest: 11 a.m.  
Feeder Calf Show: 2 p.m.  
Meat Goat Show: 3 p.m.  
Ak-Sar-Ben Rodeo: 7 p.m.

SATURDAY, SEPT. 24

Market Lamb show: 7:30 a.m.  
Market Beef show: 7:30 a.m.  
Final Round Fitting Contest:  
Following Market Beef show  
Rabbits: 1 p.m.  
Market Broiler show: 1 p.m.  
Market Swine Showmanship: 7 p.m.  
Ak-Sar-Ben Rodeo: 7 p.m.

SUNDAY, SEPT. 25

Market Swine Show: 7:30 a.m.  
Breeding Beef Show: 7:30 a.m.  
Purple Ribbon Auction: 6 p.m.

## HORSE BITS

### State 4-H Horse Expo Results

The 2011 Fonner Park State 4-H Horse Exposition was held July 17–21 at Grand Island. Here are the Lancaster County 4-H'er purple ribbon placings. Complete results are at <http://4h.unl.edu/4hhorseresults>. There were 1,094 entries in the show, with 375 youth showing 650 head of horses representing 60 counties. Congratulations to all who participated!



<b>HORSE JUDGING RESULTS</b>	
Team (Res Ch): Vanessa Butterfield, Sierra Nelson, Bailee Sobotka, Heather Welch	
<b>HIPPOLOGY TEAM RESULTS</b>	
Junior Hippology Team (Res Ch): Ivy Dearthmont, Lexi Wolfe	
Sr. Hippology Team (3rd): Elizabeth Frobish, Reagan Myers, Kate Rawlinson, Brooke Bennet	
<b>INDIVIDUAL TOP PLACINGS (Ch = Champion; Res = Reserve)</b>	
Ashley Anderson.....	Jr. Showmanship (Ch); Trail Horse (Res Ch)
Josie Ang .....	Jr. Western Pleasure Horses 12-14
Chelsea Beach .....	Trail Horse (5th place); Sr. Western Horsemanship 15 & Up (6th place); Sr. English Pleasure 15 & Up;
McKenzie Beach .....	Trail Horse (5th place); Jr. Showmanship; Jr. Western Horsemanship 12-14;
Chloe Brinson.....	Sr. Showmanship
Morgan Chipps.....	Jr. Showmanship; Jr. Western Horsemanship 12-14; Jr. Western Pleasure Horses 12-14
Elli Dearthmont .....	Advanced English Horsemanship (Res Ch); Sr. English Pleasure 15 & Up
Courtney Goering .....	Sr. Western Pleasure Horses 15 & Up
Anna Hershberger .....	Hunter Hack (Res Ch)
Abbie Heusinger.....	4 & 5 Year Old Geldings (Ch); Sr. Showmanship (10th place); Sr. Western Pleasure Horses 15 & Up
Alyssa Heusinger.....	Sr. Showmanship (5th place); Sr. English Pleasure 15 & Up
Anna Heusinger.....	Jr. English Pleasure 12-14; Jr. Pole Bending 12-14
Audrey Heusinger .....	Jr. Showmanship
Becky Hutchins .....	Sr. Western Horsemanship 15 & Up; Sr. Western Pleasure Horses 15 & Up
Josh Krueger .....	Calf Roping (Res Ch)
Candice Lahners.....	Advanced English Horsemanship; Advanced English Pleasure
Rhonda Lewis.....	Sr. Western Pleasure Horses 15 & Up (3rd place); 3 Year Old Western Pleasure; 4 & 5 Year Old Geldings
McKenzie Merritt ....	Trail Horse (Ch); Jr. Western Pleasure Horses 12-14 (Res Ch); Jr. Western Horsemanship 12-14 (3rd place); Jr. Showmanship (4th place); Hunter Hack
Bailee Peters.....	Sr. English Pleasure 15 & Up; Sr. Showmanship
Bailey Peterson .....	Jr. Western Horsemanship 12-14 (Res Ch); Jr. Showmanship (3rd place); Jr. Western Pleasure Horses 12-14
Blake Preston .....	Sr. Western Pleasure Horses 15 & Up (Ch); Sr. Showmanship (Res Ch); Sr. Western Horsemanship 15 & Up (4th place); Sr. Reining 15 & Up
Camille Sass.....	Sr. Western Pleasure Horse 15 & Up
Sydney Scow.....	Jr. Showmanship; Jr. Western Pleasure Horses 12-14
Jessica Smith.....	Elementary Dressage
Bailee Sobotka .....	Jr. English Equitation 12-14 (Ch); Elementary Dressage (Res Ch); Jr. English Pleasure 12-14
Rhea Steffen.....	Sr. Showmanship
Bailey Vogler .....	Jr. Reining 12-14 (Res Ch)
Alexis Wolfe.....	Jr. Barrel Racing 12-14
Mackenzie Wolfe.....	Jr. Barrel Racing 12-14 (4th place)

### Level Testing, Oct. 1

The final 2011 4-H group level testing will be held Saturday, Oct. 1 beginning at 9 a.m. at the Lancaster Event Center - Amy Countryman Arena. Please RSVP at least by Sept. 23 with Marty at [mcruickshank2@unl.edu](mailto:mcruickshank2@unl.edu) or (402) 441-7180.

### Horse Awards Night, Oct. 6

Mark your calendars! The annual Lancaster County 4-H Horse Awards Night will be Thursday, Oct. 6, 7 p.m. at the Lancaster Extension Education Center, 444 Cherrycreek Rd, Lincoln. Awards presentation includes Incentive Awards, Horsemanship Levels, Horse Course Challenge, All-Around Awards, Herdsmanship, Top County Fair Judging buckles and ribbons, and a few surprise awards! Come help celebrate the outstanding accomplishments of the 2011 Lancaster County 4-H horsemen! More details to follow.





4-H/FFA complete results  
and photos are online at  
<http://lancaster.unl.edu/4h>

Ch = Champion; Res = Reserve

## Top Static Exhibits

### GENERAL AREAS

Poster: McKenzie Kapperman  
Club Banner: All American Kids  
Quilt Quest: Sheridan Swotek

### SCIENCE, ENGINEERING & TECHNOLOGY

Rocket: Thaddeus Fonck II  
Woodworking: James Griess  
Safety: Nathan Becker

### FOOD & NUTRITION

Yeast: Brooke Kreikemeier  
Quick Bread: Jared Nielsen  
Food Preservation: Molly Noel  
Cake/Pie: Brandon Sieck  
Cookie: Nathan Gabel

### HOME ENVIRONMENT

Home Environment: Carlie Reineke  
Home Environment: Tyler Hattan  
Home Environment: Carol Nabity

### CHILD DEVELOPMENT

Child Development: Molly Kasperek

### PHOTOGRAPHY

Unit 1: Ashlynn Devall  
Unit 2: Dylan Nordstrom  
Unit 3: Nicki Everding  
Nebraska Theme: Ben Harms

### CLOTHING

Clothing Level 1: Chloe Hammond  
Decorate Your Duds: Ellen Friesen  
Knitting: Nicki Everding  
Crochet: Abigail Babcock  
Clothing Level 2: Renae Sieck  
Clothing Level 3: Sadie Hammond

### HORTICULTURE

Vegetable Exhibit: Valerie Gabel  
Herb Exhibit: Hannah Rohda  
Annual Flower Exhibit: Jared Nielsen  
Perennial Flower Exhibit: Abigail Haszard  
Rose Exhibit: Koral Gunnerson  
Specimen Plant: Kyle Hurt

### CONSERVATION & WILDLIFE AND FORESTRY

Conservation and Wildlife Exhibit:  
Thori Nelson  
Forestry Exhibit: Abigail Babcock

## Top Contest Awards

### BICYCLE

Senior Ch: James Griess  
Senior Res Ch: Jessica Stephenson  
Junior Ch: Thomas Casburn  
Junior Res Ch: Hayden Loll

### LIFE CHALLENGE

Senior Ch: Sheridan Swotek  
Senior Res Ch: Abbie Spencer  
Junior Ch: Emma Lanik  
Junior Res Ch: Valerie Griess & Lucy Polk



### PLANT SCIENCE

Horticulture Contest: Anne Greff  
Tree Identification Contest: Mary Dowd

### PRESENTATION

Senior Presenter & Premier Presenter:  
Jacob Rushman  
Junior Presenter: Addison Wanser

### STYLE REVUE

Grand Ch Style Revue: Sadie Hammond  
Res Grand Ch Style Revue: Renae Sieck  
Grand Ch Shopping in Style: Renae Sieck  
Clothing 1: Lannie Elstun  
Decorate Your Duds: Addison Wanser  
Clothing 1 - Make One/Buy One: Sarah Albin  
Make One/Buy One: Jessica Albin  
Attention Shoppers: Chloe Hammond  
Recycled Garment: Miranda Gunnerson

### TABLE SETTING

Junior Picnic: Valerie Gabel  
Junior Casual: Eric Vander Woude Jr  
Junior Birthday: Sophia Swanson  
Junior Formal: McKenzie Kapperman  
Senior Picnic: Emily Steinbach  
Senior Casual: Liza Christensen  
Senior Birthday: Victoria Garza  
Senior Formal: Madeline Gabel

## Top Animal Exhibits

### BEEF

Ch Supreme Breeding Heifer: Renae Sieck  
Res Ch Supreme Breeding Heifer: Kylie Gana  
Ch Supreme Feeder: Renae Sieck  
Res Ch Supreme Feeder: Caitlyn Walbrecht  
Grand Ch Market Heifer: Caitlyn Walbrecht  
Grand Ch Market Steer: Brett Heinrich  
Res Grand Ch Market Steer: Brandon Sieck  
Ch Senior Showmanship: Brandon Sieck  
Ch Intermediate Showmanship:  
Taylon Lieneman  
Ch Junior Showmanship: Kylie Gana

### DAIRY CATTLE

Grand Ch & Senior Holstein Ch -  
3 Year Old: Liza Christensen  
Grand Ch & Res Senior Jersey Ch - Dry  
Cow: Liza Christensen  
Ch Senior Showmanship: Ben Rice  
Ch Intermediate Showmanship:  
Liza Christensen  
Ch Junior Senior Showmanship:  
Kaleb Kempkes

### BUCKET CALF

Ch Bucket Calf Junior Division:  
Jordan Nielsen  
Res Ch Bucket Calf Junior Division:  
Rachael Lange

Ch Bucket Calf Intermediate Division:

Brody Zabel

Res Ch Bucket Calf Intermediate Division:

Gus Woeppel

### SHEEP

Grand Ch Market Lamb: Riley Scott  
Res Grand Ch Market Lamb: Madelyn Scott  
Supreme Ch Breeding Ewe: Alexis Spath  
Ch Senior Showmanship: Kasie Bruss  
Ch Intermediate Showmanship:  
Logan Sieck  
Ch Junior Showmanship: Riley Scott

### SWINE

Ch Overall Market Swine: Brett Heinrich  
Res Ch Overall Market Swine: Brett Heinrich  
Ch Senior Showmanship: Nicolette Larsen  
Ch Intermediate Showmanship: Trevor Spath  
Ch Junior Showmanship: Caitlyn Walbrecht

### DAIRY GOAT

Ch Senior Showmanship: William Keech  
Ch Overall Oberhashi Goat: Tyler Henshaw  
Ch Overall Saanen Goat: Joshua Henshaw  
Ch Overall Recorded Grade Goat: Adam Hill  
Ch Junior Showmanship: Corianna Kubicek  
Ch Mini Goat Showmanship: Susana Moyer

### MEAT GOAT

Grand Ch Meat Goat: Logan Sieck  
Res Ch Meat Goat: Bayne Sieck  
Ch Meat Goat Showmanship: Bayne Sieck  
Res Ch Meat Goat Showmanship: Logan Sieck

### LLAMA/ALPACA

Ch Senior Showmanship: Samantha Steward  
Ch Intermediate Showmanship: Alyssa Jensen  
Ch Junior Showmanship: Olivia Waters

### POULTRY

Best of 4-H Poultry Show: Jake Aberg  
Ch Overall Poultry Pet Class: Carol Nabity  
Ch Senior Showmanship: Spencer Peters  
Ch Junior Showmanship: Bayne Sieck

### RABBIT

Best Fancy Breed: Kaiya Green  
Best Commercial Breed: Hannah Bellinghausen  
Rabbit All-Around Showman Award Ch:  
Kaiya Green

Rabbit All-Around Showman Award Res

Ch: Hannah Bellinghausen

Ch Senior Showmanship: Jessica Stephenson

Ch Intermediate Showmanship: Jaime Stephenson

Ch Junior Showmanship: Sam Schuster

### DOG

Ch Obedience: Beginning A: Mason Franke

Ch Obedience: Beginning B: Logan Kosta

Ch Obedience: Novice: HopeEllen Wehling

Ch Beginning Showmanship: Elli Dearmont

Ch Intermediate Showmanship: Cassie Meyer

Ch Advanced Showmanship: Paige Roach

Ch Trophy Showmanship: HopeEllen Wehling

Ch Level 1 Pre-beginning Agility A: Ivy Dearmont

Ch Level 2 Beginning Agility A: Cassie Meyer

Ch Level 3 intermediate Agility: HopeEllen Wehling

### CAT

Best in Show: Samantha Duffy

### HOUSEHOLD PETS

Ch Mammal: Addison Wanser  
Ch Fish, Reptiles/Amphibians: Holly Hillebran

### HORSE

Ch Western Senior Showmanship: Bailee Peters  
Ch Western Junior Showmanship: Bailey Peterson  
Ch Western Elementary Showmanship:  
Olivia Wennstedt  
Ch English Senior Showmanship: Chelsea Beach  
Ch English Junior Showmanship: Morgan Chipp  
Ch English Elementary Showmanship:  
Olivia Wennstedt  
Ch Groom & Care: Kenzy Hayes  
Res Ch Groom & Care: Aubrey Hayes  
Grand Ch Halter Pony: Ashley Colburn  
Res Grand Ch Halter Pony: Katelyn Wolf  
Grand Ch Stock Horse ages 4 & up: Bailey Peterson  
Res Grand Ch Stock Horse ages 4 & up:  
Ivy Dearmont  
Grand Ch Aged Horse Ages 15 & up:  
Blake Preston  
Res Grand Ch Aged Horse Ages 15 & up:  
Blake Preston  
Grand Ch 2 & 3 year old Horse: Brittany Albers  
Res Grand Ch 2 & 3 year old Horse: Alex Scheideler  
Grand Ch Hunter/Saddleseat Horse ages  
4 & up: Sydney Scow  
Res Grand Ch Hunter/Saddleseat Horse  
ages 4 & up: Ashley Bradbury  
Grand Ch Hunter/Saddleseat Aged Horse  
Ages 15 & up: Alyssa Fisbeck  
Res Grand Ch Aged Hunter/Saddleseat  
Horse Ages 15 & up: Anna Heusinger  
Grand Ch 2 & 3 year old Hunter/  
Saddleseat Horse: Brittany Albers

Other top horse awards will be announced at  
4-H Horse Awards Night.





SCIENTISTS

continued from page 1

Dr. Gail (Thurber) Rohlfling  
Board Certified Pediatric  
Dentist and Co-owner  
of Spangler & Rohlfling  
Pediatric Dentistry

Dr. Gail (Thurber) Rohlfling, a Lancaster County 4-H member from 1974–1984, enjoys working with children to make what some people think of as a scary experience into a fun and exciting trip to the dentist. Rohlfling’s practice is located in Greensboro, NC.

Her favorite 4-H project, 4-H clothing construction, led to a BS degree from UNL in Textile Science degree, followed by a DDS from the University of Nebraska, and a MS in Pediatric Dentistry from North Carolina Chapel Hill.

Rohlfling says, “Leadership, communication, public speaking, and self-confidence are skills acquired through 4-H which help my career. My parents taught me a strong work ethic and I was able to achieve anything I wanted to achieve. Extension professionals Twyla Lidolph and Lorene Bartos encouraged me to stretch my abilities and try new things.”

“I enjoyed my participation as the 1983 State Leadership winner to National 4-H Congress in Chicago and National 4-H Convention in Washington DC. The opportunity to see the United States and meet other 4-H’ers from around the country inspired me to see the world.”

Rohlfling says, “My career in dentistry came from my interest in the math and science field but also incorporates my artistic side.”

Jill Jank, MS, RD,  
LMNT  
Registered Dietitian in  
Private Practice (24 years)

Jill Jank, a Lincoln County Nebraska 4-H alumni, finds it most rewarding to see the health of clients improve and see they are feeling better.

Jank says “4-H foods gave me a solid foundation. At UNL, one of my favorite classes was food science. Although I realize the need for standardized recipes, I adapt nearly every recipe I personally use. I help my clients adapt them when they have special needs.”



Jill Jank advocates for sound public policy related to Food and Nutrition through the Nebraska Dietetics Association.



Veterinarians Dr. Pat McInteer (left) and Dr. Kelly Stich (right) routinely give their time and expertise to Lancaster County 4-H families.



“4-H leadership taught me about taking on responsibility, planning, seeing a project through, record keeping, organizing my thoughts, handling money, and getting along with others. I’ve used my parliamentary procedure skills while serving as President of Nebraska Dietetic Association. I’ve done a lot of work in public policy for my professional association and 4-H served as a foundation required to speak to lawmakers and rally other RD’s to get involved in advocating for sound public policy in food and nutrition.”

Jank credits her mother, Eleanor Grabouski, for her patience while four children were baking at the same time prior to fair, and her dad’s support of purchasing added ingredients when money was short. He liked eating the “do-overs.”

Dr. Pat McInteer  
and Dr. Kelly Stich  
Doctors of Veterinary  
Medicine and owners of  
Hillcrest Animal Clinic

“Dr. Pat McInteer and Dr. Kelly Stich give their time and expertise to Lancaster County 4-H members in so many way,” says Marty Cruickshank, Extension Associate. “They help 4-H’ers prepare for national demonstration contests by sharing accurate and current medical information. Routinely, they provide discounted equine health checks so members are eligible to show their horses.”

Dr. Pat McInteer enjoys the variety of being a veterinarian. He says “Every day is different and there is always something new to learn and stimulate me.” He and his wife Dr. Kelly Stich focus on equine and small animal medicine and surgery.

As a 4-H member in Richardson County, equine events were Pat’s favorites. He credits 4-H for his work ethic. “Not every part of 4-H was all fun and games. It involved work and sweat, but in the end it was worth it. The same has proven true with my education and career. My parents provided me with everything necessary to participate as well as encouraging me to work hard and do my best.” Pat earned his BS in Animal Science

from UNL and his DVM from Kansas State University.

Kelly, a 4-H member from Dorchester and UNL graduate, earned a DVM from Kansas State. She completed a two year residency at Texas A&M and is board certified in veterinary reproduction. Kelly is also a veterinary chiropractor offering adjustments for horses and dogs.

Joshua Olson  
Technology Architect,  
ADVANCE Perspective  
(Medical Software)

Lancaster County 4-H alum and graduate of the UNL Jeff Raikes, School of Computer Science and Management, Josh Olson says “I have a passion for new technologies because we are fortunate to live in a world where the stuff of science fiction becomes reality. The best part of my job is taking what was previously a fantastical idea and making it real and tangible — something trans-formative for healthcare, but becomes routine for clinician’s and patients.”

Josh enjoyed 4-H demonstrations, speeches, and model rocketry projects. “I gained the ability and confidence to speak publicly. I learned the basics of planning a project and completing them in time for competitions,” says Josh. “I learned making a baking demonstration entertaining requires excellent timing and a good sense of humor. I use those same skills today when I present



Joshua Olson credits 4-H public speaking experiences (above: during a 4-H speech) as a stepping stone to providing business presentations.

at conferences, meet with clients, or organize a business meeting.”

Now 26 years old, he says, “The relationships I built with my 4-H club peers are important. Even though many of those friends are spread out all over the country, and in some cases the world, we stay in touch.”



Marcela Lopez’s 4-H accomplishments included meeting with Senator Mike Johanns in Washington D.C. (above). She now teaches 4-H members (below).



Marcela Lopez  
UNL, Sophomore, Fashion  
Merchandising

Ten year Dawson County 4-H member, Marcela Lopez says, “If it weren’t for 4-H, I would not be going to UNL. Andrea Nisley [extension educator] has been there for me since she taught me how to sew when I was eight. I was very shy before 4-H helped me open up at a young age. Spanish was my first language so I didn’t feel



Spencer Farley, who created stilts in 4-H woodworking (above), is now creating software as a Nebraska Global apprentice (left).

comfortable speaking. I gained confidence by modeling my 4-H projects in front of public at a young age. Competing in the state fair was so exciting.”

In high school, Marcela participated in the UNL Big Red Textile Design Camp and lived on campus for a week. She was a National Make It With Wool winner and also represented Nebraska at the National 4-H Conference in Washington D.C. this past spring. “We had a chance to share how 4-H has impacted our lives. For Nebraska Congressmen to listen to us was amazing,” she says.

Marcela’s major, UNL Fashion Merchandising, integrates the application of management principles, the science of chemistry, and the perspective of history in a rich, challenging learning environment. State-of-the-industry software including inventory control information systems, spread-sheet analysis, and 3D Visual Merchant prepare students for a career in a technology-dominated workplace.

Spencer Farley  
UNL Freshman, Honors  
Program & Computer  
Science Major; Software  
Developer Apprentice,  
Nebraska Global

Spencer Farley sees software as a puzzle with near infinite possibilities. “As an apprentice at Nebraska Global, I get to solve puzzles that make people’s lives easier. Nebraska Global has a wealth of people who are willing to take time to teach me new things and walk me through problems to help me understand them.” Nebraska Global is a venture capital fund that invests in startup software companies in order to build a vibrant, competitive technology environment in Nebraska.

As a 12 year Lancaster County 4-H member, Spencer says “Having interview and speaking skills from 4-H gave me confidence in obtaining my apprenticeship with Nebraska Global. Working on a team and pitching products and product ideas requires the ability to

see SCIENTISTS on next page





# EXTENSION CALENDAR

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

## August

**Aug. 26–Sept. 5 Nebraska State Fair, Fonner Park, Grand Island**

## September

- 7 Webinar: Fall Planting & Overseeding, online only ..... 12:05–12:55 p.m.**  
**9 Extension Board Meeting ..... 8 a.m.**  
**11 4-H Teen Council Meeting ..... 3 p.m.**  
**13 4-H Council Meeting ..... 7 p.m.**  
**14 Webinar: Overwintering Summer Blooming Bulbs, online only ..... 12:05–12:55 p.m.**  
**15 Parents Forever Class ..... 9 a.m.–12:30 / 5:30–9 p.m.**  
**17–18 Ak-Sar-Ben 4-H Horse Show, Lancaster Event Center**  
**20 Guardian/Conservator Training ..... 1:30–4:30 p.m.**  
**21 Webinar: Fall Bulb Planting, online only ..... 12:05–12:55 p.m.**  
**22–24 State Family & Community Education (FCE) Leadership Conference “Galaxy of Stars”**  
**22–25 Ak-Sar-Ben 4-H Stock Show, Qwest Center, Omaha**  
**24 Composting Demonstration, Pioneers Park Nature Center’s backyard composting demonstration area ..... 10–11:30 a.m.**  
**26 Sign-Up Deadline for Oct. 1st 4-H Horse Level Testing**  
**28 Webinar: Putting the Garden to Bed, online only ..... 12:05–12:55 p.m.**

## 4-H Teen Council Invites New Members!

The Lancaster 4-H Teen Council is a leadership organization for youth in grades 7–12. Meetings are held the second Sunday of each month at 3 p.m. at the Lancaster Extension Education Center, 444 Cherrycreek Road, Lincoln. 4-H Teen Council members:

- participate in several community service activities
- plan, set up, and facilitate the annual 4th & 5th grade Lock-In
- are involved in other leadership activities

The next meeting will be Sunday, Sept. 11 at 3 p.m. For more information or to join, call Tracy at (402) 441-7180.

## Make It With Wool Deadline Oct. 29

The Make It With Wool contest offers youth and adults the opportunity to promote the beauty and versatility of wool fabric and yarn. Personal creations in sewing, knitting, crocheting, spinning and weaving of wool fabric, yarn is encouraged. Categories are: Preteen, Junior, Senior, Adult, and Made for Other Home Accessories. The District III contest will be held in Lincoln on Saturday, Nov. 19. Entry deadline is Oct. 29. For more information, call Tracy at (402) 441-7180.

## Experience the Power of Red

**An open house for high school students and their families**

Sponsored by the College of Agricultural Sciences and Natural Resources

**Saturday, Nov. 12**

**9 a.m.–2 p.m. • Nebraska East Union**

- Learn more about how we prepare students for careers in everything from animals to plants, soil to climate, golf to business, mechanization to leadership, food to forensic science
- Meet current students, faculty and staff
- Experience East Campus
- Register for a scholarship and other cool prizes

**To register or more information, (800) 742-8800, ext. 2541 or go to <http://casnr.unl.edu/openhouse>**

Registration deadline: Nov. 4

UNIVERSITY OF  
**Nebraska**  
Lincoln



- **Sep. 18 – Plants, Feeding the World**
- **Oct. 16 – Fossils**
- **Nov. 20 – Viruses**
- **Dec. 18 – Minerals & Gemstones**

University of Nebraska State Museum’s Sunday with a Scientist is a series of presentations highlighting the work of museum scientists and those from other institutions. Presenters share scientific information in a fun and informal way through demonstrations and activities or by conducting their science on site. Hours are 1:30–4:30 p.m. every third Sunday of the month. Location is Morrill Hall which is south of 14 and Vine street on UNL campus. There is a cost to enter the museum. For more information, go to [www.museum.unl.edu](http://www.museum.unl.edu) or call (402) 472-3779.



Dr. David Holding examining corn seedlings.

Craig Chandler, University Communications

UNIVERSITY OF  
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**EXTENSION**

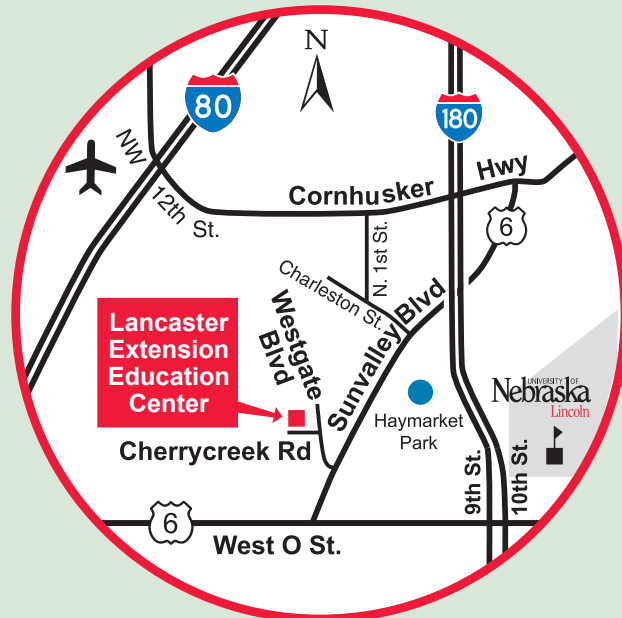
**University of Nebraska–Lincoln Extension  
in Lancaster County**  
**444 Cherrycreek Rd., Ste. A, Lincoln, NE 68528-1507**  
**(402) 441-7180**

**<http://lancaster.unl.edu>**

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**Join us on YouTube, Twitter, and Facebook**  
**<http://lancaster.unl.edu/media>**

**Lancaster Extension Education Center Conference Facilities**  
**444 Cherrycreek Road, Lincoln**



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We assure reasonable accommodation under the Americans with Disabilities Act; for assistance contact UNL Extension in Lancaster County at (402) 441-7180.

### EXTENSION EDUCATOR & UNIT LEADER

Gary C. Bergman

### EXTENSION EDUCATORS

Lorene Bartos, Sarah Browning, Maureen Burson, Tom Dorn, Alice Henneman, Barb Ogg, Karen Wobig

### EXTENSION ASSOCIATES

Mary Abbott, Tracy (Kulm) Anderson, Soni Cochran, Marty Cruickshank, Mary Jane Frogge, Mardel Meinke, Julie Rasmussen

### EXTENSION TECHNOLOGIST

David Smith

### EXTENSION ASSISTANTS

Teri Hlava, Vicki Jedlicka, Lisa (Connot) Kowalski, Cole Meador, Kristen Neth, Jim Wies, Dana Willeford

### SUPPORT STAFF

Pam Branson, Kay Coffey, Deanna Covault, Karen Evasco, Virginia Piening, Chris Rosenthal, Karen Wedding

## THE NEBLINE

**THE NEBLINE is published monthly (except December). Mailed to more than 12,000 households in Lancaster County and can be read online at <http://lancaster.unl.edu/nebline>.**

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## Email Notifications

Sign up at <http://lancaster.unl.edu/nebline> to be notified by email when THE NEBLINE is posted online.

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Phone \_\_\_\_\_

*We will only use your phone number in case there is a problem with your mailing address.*

**Mail to: UNL Extension in Lancaster County**  
**444 Cherrycreek Road, Suite A • Lincoln, Nebraska 68528-1507**



# Celebrating 4-H Youth Achievement at Super Fair

Many 4-H youth choose to exhibit their project(s) and participate in contests at county and state fairs. The 2011 Lancaster County Super Fair was held Aug. 4–13 at the Lancaster Event Center. This was the second year the Lancaster County Fair was ten days. 4-H & FFA exhibits and events were held Aug. 4–7. Nearly 700 exhibitors showcased more than 5,400 4-H/FFA exhibits (includes static exhibits, Clover Kids, animals, and contest entries). New this year was the 4-H Meat Goat Show. Complete 4-H/FFA ribbon results, more photographs, and some videos are at <http://lancaster.unl.edu/4h>. See top exhibits on page 9 of this issue.



During interview judging, 4-H’ers talk to judges about their static exhibits. 4-H’ers also learn what the judge looks for and how to improve skills.



The 4-H horse shows included 33 events over six days.



The 4-H “Corner Stop” food booth at the fair is 4-H Council’s primary fundraiser. Funds support 4-H youth programs, activities, and scholarships. This year, more than 110 youth and adults volunteered at the food booth! The “walking taco” (pictured above) is very popular.



Twenty three 4-H’ers participated in the Pick-a-Pig Project which give urban youth an opportunity to help raise and show a pig. The project is now in its third year. In June, the program received a Governor’s Agriculture Excellence Award.



Twenty-seven summer sites participated in 4-H county fair exploration activities using a curriculum developed by UNL Extension in Lancaster County, and many toured the fair. Youth at some afterschool/summer sites exhibited projects at the fair. Campbell Family Service Program youth sewed quilted articles such as hot pads, purses, and quilt blocks (pictured).



Three \$1,000 college scholarships were presented at the Youth Livestock Premium Auction. The Lancaster County 4-H/FFA Livestock Booster Club presented scholarships to Erica Peterson and Alexis Spath. The Husker Auto Group (Lance Koll, at right) presented a scholarship to Maci Lienemann. This is the first year the Livestock Booster Club has presented college scholarships, using proceeds from the Youth Livestock Premium Auction, now in its second year.

## Nebraska 4-H Foundation Looking for 4-H Alumni to “Tell Us Your 4-H Story”

The Nebraska 4-H Foundation has a campaign this summer, “Tell Us Your 4-H Story.” They are looking for 4-H Alumni to tell about their experiences in 4-H. How has 4-H made an impact on your life? It is very easy for alumni to tell their stories by going to the Web site [www.ne4hfoundation.org](http://www.ne4hfoundation.org) or by stopping at the Nebraska 4-H Foundation booth at the Nebraska State Fair. Once you have told your story, you are entered into a drawing to win \$1,000 for the county 4-H program of your choice! Stories may be used in a future 4-H publication or online. Winner will be drawn at the Nebraska State Fair on Sept. 5.

## Can You Guess It?



Soni Cochran, UNL Extension in Lancaster County

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

Did you guess it from the July NEBLINE?  
The answer was: Flooded Road Near Pickrel, Nebraska

University of Nebraska–Lincoln Extension 4-H Youth Development program is open to all youth ages 5–18

Nebraska  
Lincoln EXTENSION

Learn  
about 4-H!



# 4-H Kick Off

Tuesday, Oct. 4

Q & A!

6 p.m.

Prizes!

Lancaster Extension Education Center  
444 Cherrycreek Road, Lincoln

### Come Find Out How to Join 4-H!

- ◆ Help form a new 4-H club
- ◆ Be an independent member
- ◆ Join an existing 4-H club (limited availability)
- ◆ Participate in 4-H activities such as camps



4-H’ers will share  
completed projects!

4-H is a community of young people across America who are learning leadership, citizenship and life skills.

(402) 441-7180 • [lancaster.unl.edu/4h](http://lancaster.unl.edu/4h)

