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Successful Shade Gardening

Key is Proper Plant Choice, Care

Don Janssen
Extension Educator

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

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

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

Light is not the only major concern when gardening in shady areas. Frequently, inadequate moisture can be a problem. The thick canopy of a large tree or the overhang of a house, will act as an umbrella, deflecting rainfall away from the ground directly beneath it. Worse yet, trees and shrubs will compete with smaller plants for a drop of moisture that reaches the ground. It is vital that growing in the shade of large trees and shrubs, or sheltered by your home or garage, be watered regularly even during times of seemingly adequate rainfall.

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

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

Annuals

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

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

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

Bulbs

Spring flowering bulbs can be planted in deep shade provided you treat them as annuals, planting new bulbs each fall and then digging them up and discarding them once they’ve bloomed. The bulbs you buy already have miniature flowers inside. All that’s needed is a cold winter in the ground for these flower bulbs to emerge in spring. In order to repeat the performance the following year, though, the leaves must receive full sunlight for most of the day until they die back naturally. This builds up food stores for the next blooming cycle. Without enough sunlight, you’ll get leaves each year but no flowers. Some spring bulbs such as crocus, scillas, snowdrops and species tulips bloom and produce leaves early enough, before the trees leaf out, so that they receive adequate amounts of sun to bloom annually in a lightly shaded area. Daffodils naturalize beautifully in an open wooded area.

**Perennials**

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

Unlike the annuals, which tend to bloom throughout the see SHADE on page 5
Horticulture
May 2005

Why So Many Weeds?

Gardeners often ask why they have so many weeds. The answer is quite simple, we plant them! Weeds can blow in, wash in with surface water, or be introduced with the application of soils and organic matter, like manure. Birds and other wildlife also distribute weed seeds. However, the majority of weeds come from seed unsustainably planted by the gardener. In other words, weeds we allow to go to seed.

For example, a common pigweed plant, with its long reddish taproot, produces one hundred and seventeen thousand seeds per plant. That means just nine pigweed plants allowed to go to seed disseminate over one million seeds! And these seeds are viable for forty years. Purslane, with its pinkish, fleshy stems and leaves, produces fifty-two thousand seeds per plant. Purslane seeds are viable for twelve to twenty-five years. And how about the common dandelion? It typically produces only fifteen thousand seeds per plant. So weeds we allow to go to seed will have significantly fewer weeds each year.

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

Flowers That Tower

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

*tall perennial

Boltonia — Handsome, large flower heads of a fine texture. Prefers full sun to part shade. Clusters of carmine flowers in the fall. 6 to 20 feet tall. Provides a nice contrast to the lush, green foliage.

Buddleia 'Illumination' — Showy yellow flowers in late summer. 3 to 5 feet tall. Very adaptable, but prefers moist soil and full sun. The flowers are attractive to butterflies and hummingbirds.

Common sneezeweed or False sunflower 'Helenium autumnale' — Showy yellow flowers in late summer. 3 to 5 feet tall. Very adaptable, but prefers moist soil and full sun.

Plume poppy — Macleaya cordata — Handsome, large perennial that grows 5 to 10 feet tall. Does best in rich, well-drained soil and full sun. The flowers are attractive to butterflies and hummingbirds.

Queen-of-the-prairie — Tall perennial plant that produces creamy-white plumes of blossoms in early summer. Will grow in sun or part shade. Reaches heights of 4 to 6 feet. Joe-Pye weed — Eupatorium purpureum' — Very showy with purple flower clusters in the fall. 4 to 7 feet tall. Prefers moist soil and full sun to part shade.

Russian sage — Perovskia atriplicifolia — This shrub has aromatic gray-green leaves and pale blue flowers in summer. It prefers well-drained soil and full sun. Russian sage will grow to be 3 to 5 feet. White Mugwort — Artemisia lactiflora — Creamy-white flowers appear in late summer. Attractive foliage reaches 4 to 6 feet. Good in full sun or part shade. (MJF)

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

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

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

Visit the All-America Rose Selections Web site at www.rose.org.

Here are the winners for 2005.

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

2005 All-America Roses

Lady Elsie May — Stately perennial shrub rose reaching just 2 feet in height. Flowers are approximately 3 to 4 inches wide and has 12 to 14 petals. The fragrance is slight and the foliage is dark green and disease resistant. Lady Elsie May offers a vigorous, uniform growth habit and excellent disease resistance. The flower is coral pink and grows in clusters on strong 12 to 20 inch cutting stems. Each flower is approximately 3 to 4 inches wide and has 12 to 14 petals. The fragrance is slight and the foliage is dark green and disease resistant.

About Face is a grandiflora with a very novel "back- wards" bicolor whose light color of deep golden yellow is carried on the inside of the petals with a darker bronze orange-red backside. This winsome variety offers both flower and foliage interest. The blooms are approximately 4 inches across and the foliage is dark mahogany. (MJF)

Clippings, also helps suppress weed seed germination. (MJF)
Aristotle referred earthworms as “intestines of the earth” because they are important soil organisms that help decompose plant litter, (i.e., thatch and debris). Earthworms help break down and condition plant remnants in their tunnels. Their tunnels help oxygen and water enter the soil more easily and their castings (worm casts) enrich it.

Earthworms are the most numerous in the top six inches, but they can extend down to the subsoil, bringing mineral rich soil from below to the surface. Research shows in 100 square feet of garden soil, earthworms may bring four to eight pounds of soil to the surface each year. Earthworm castings have organic matter levels much higher than the surrounding soil and significant levels of nitrogen, phosphorous, potassium, and other nutrients in a form all plants can use. For example, a 200 square foot garden with a low worm population of only five worms per cubic foot will provide over 35 pounds (about 1/3 pound per ton) of top grade fertilizer each garden year. Not only do they produce this fertilizer, but spread it throughout within the top 12 inches of soil and incorporate it as far down as six feet. A soil that is well managed, rich in humus may support 25 worms per cubic foot, which translates into at least 175 pounds of fertilizer per year for the same 200 square foot garden.

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

Earthworms are beneficial, they make leaf mold into compost which helps moderate soil pH. Over time, earthworms can help change acid or alkaline soils to a more neutral soil.

Earthworm tunneling helps aerate and loosen the soil. This allows more oxygen in, which not only helps the plant directly, but also improves conditions for certain beneficial soil bacteria. Finally, the tunneling of the earthworms provide an access to deeper soil levels for the numerous smaller organisms that contribute to the health of the soil.

How can you encourage earthworm activity? First, use a mulching mower (one that leaves the grass on the lawn) or spread the lawn clippings in a garden area to “feed your worms.” Because earthworms are less active when the soil’s dry, watering may be necessary. Since earthworms are beneficial, control measures are not required and there are no treatments registered for earthworm control. If the mounds of soil on your lawn really bother you, than you can break them up with a rake. In summary, earthworm activity in your soil is good for your lawn and garden. Earthworm activity should be encouraged. They help incorporate organic material, improve the soil structure, improve water movement through the soil, improve plant root growth and minimize thatch build-up in lawns.

Control Options
We should not attempt to eliminate these ground squirrels, but rather, should manage their populations at levels where they can be appreciated. FENCING: 1/2-inch wire mesh can be used around gardens and flowerbeds. Should be at least 18 inches high and buried six inches into the ground.

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

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

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Soybean Rust is on the Horizon

Be Prepared to Scout, Assess and Plan for Management

Loren Geisler
Extension Plant Pathologist

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

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

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

Symptoms

Soybean rust symptoms start in the lower canopy and are most commonly observed on the leaves. Lesions also can develop on petioles, pods and stems. Symptom development occurs rapidly once pod set occurs and can result in significant levels of defoliation under favorable environmental conditions. Lesions first appear as small yellow and irregularly shaped spots. As the disease progresses, lesions enlarge to 1/16- to 1/12-inch in diameter and are tan to dark reddish brown. Within each lesion are a few to several volcano-shaped uredinia (spore-producing structures). These features can only be seen under magnification (20X recommended). As rust severity increases, plants prematurely lose their leaves and commonly overwinter early. Lesions from soybean rust can appear similar to other foliar diseases of soybean and can be confused with brown spot and bacterial pustule. See Identifying Soybean Rust (Cooperative Extension EC05-1928) for more information. This I.D. card is available from local Cooperative Extension offices or online at www.aphis.usda.gov/pla/issues/bth/SBR_IDcard_11-04.pdf (TD)

Pioneer Farm Award Nominations Due May 1

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

If your family has owned your farm in Lancaster County for 100 years or more, consecutively, you are eligible to apply for the Nebraska Pioneer Farm Family Award. Nomination forms can be obtained by calling Deanna Karmazin at Lancaster County Extension at 441-7183. Application materials are due by May 1. Winners will be notified no later than June 1 and the award will be presented during a special ceremony at the 2005 Lancaster County Fair.

Fuel consumption information is taken from 2 tables referred to as “Minnesota Farm Machinery Economic Cost Estimates” (1999-00). The University of Minnesota Cooperative Extension Service atWeb Site: lancaster.unl.edu May 2005

Table 1. Fuel costs per acre.\(^1\)

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Effect of Increasing Energy Prices on Farming Costs

To date, over 6,000 families in Lancaster County have been honored at various county fairs. If your family has owned your farm in Lancaster County for 100 years or more, consecutively, you are eligible to apply for the Nebraska Pioneer Farm Family Award. Nomination forms can be obtained by calling Deanna Karmazin at Lancaster County Extension at 441-7183 (by mail: Extension Center no later than May 1). Winners will be notified no later than June 1 and the award will be presented during a special ceremony at the 2005 Lancaster County Fair.

Table 2. Fuel costs per acre for field operations.\(^1\)

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For more information, please call Loren Geisler at 441-7183 or by e-mail at loren.geisler@unl.edu.

Soybean Rust Information on Lancaster Extension Web Site

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

Fuel consumption information in Tables 1 and 2 taken from “Minnesota Farm Machinery Economic Cost Estimates” (1999-00), by William Lacroute, University of MN and Roger Riley, University of Nebraska. Links to the 2000, 2001, 2003 and 2004 versions of this publication can be found on the Lancaster County Extension Web site - Machinery Page at lancaster.unl.edu/ag.html.

Editor’s Note: Geisler has been honored at various county fairs. If your family has owned your farm in Lancaster County for 100 years or more, consecutively, you are eligible to apply for the Nebraska Pioneer Farm Family Award. Nomination forms can be obtained by calling Deanna Karmazin at Lancaster County Extension at 441-7183 (by mail: Extension Center no later than May 1). Winners will be notified no later than June 1 and the award will be presented during a special ceremony at the 2005 Lancaster County Fair.

Table 2. Fuel costs per acre for field operations.\(^1\)

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<thead>
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</thead>
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<td>0.33</td>
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<td>$0.68</td>
<td>$0.69</td>
<td>$1.13</td>
<td>$0.37</td>
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</table>

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

Effect of Increasing Energy Prices on Farming Costs

Soil samples from the site will be sent to the University of Nebraska's Agronomy Research Station for analysis. The results will be presented at the Lancaster County Farm Improvement Day in August.
When you buy a high-quality tree, plant it correctly, treat it properly, and you and your tree will have many costly problems even if you take great care in planning and maintaining them.

What Determines Tree Quality?
A High-Quality Tree Has—
• An adequate-sized root ball. If possible, check to ensure there are enough sound roots to support healthy growth.
• A trunk of mechanical wounds and wounds from incorrect pruning.
• A trunk form with well-spaced, firmly-attached branches.
A Low-Quality Tree Has—
• Crushed or circling roots in a small root ball or small container.
• A trunk with wounds from mechanical impacts or incorrect pruning.
• A trunk form in which multiple stems squeeze against each other or where branches squeeze against the trunk.
• Any of these problems alone or in combination with the others will greatly reduce the tree’s chances for a long, attractive, healthy and productive life.

When buying a tree:
• Examine the tree carefully to make certain it does not have problems with roots, injuries or form. (Remember “R.I.F.” It will help you remember Roots, Injuries, Form.)
• Be sure the tree is healthy.
• Be aware of when you are buying a tree.

Root Problems
Roots on trees for sale are in three conditions:
1. Bare roots, no soil, usually on small trees.
2. Roots in a wire container or basket. The root ball may be in a wire basket.
3. Roots and soil in a container.

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

ROOT BALL STOCK—You should avoid buying trees with root balls that are flat on top. Roots in soil, in round bags, often have many major woody roots cut or torn during the bagging process.

The diameter of the root ball should be at least ten to twelve times the diameter of the trunk as measured 6 inches above the trunk flare. Roots should not be crushed or torn. If placing the root ball in the planting site, cut the corks and carefully pull away the burlap or other fabric. Keep the corks close to the trunk, but not pressed into the soil from the sides. Most roots are obviously crushed or torn if they have severe growth problems. If only a few roots are injured, cut away, only injured portions. Use a sharp tool. Care not to soil ball about the roots. The coughs or wire on baskets. Place the basket into the planting site. Cut away at the top two inches without disturbing the root ball. Inspect exposed roots for injuries. If many roots are injured, the tree may have serious growth problems.

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

Trunk flare should be obvious. Be aware if trees planted too deeply in containers or trees “buried” in fabric bags. As with root balled stock, you should be able to see the basal trunk flare with container grown plants.

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

Incorrect pruning cuts are major problems. Incorrect pruning cuts that remove or injure the slender collar at the base of branches can start many serious tree problems, cankers, decay and cracks. Incorrect pruning cuts that leave branch and leader stubs also start disease and defect problems. Do not leave stubs.

A correct pruning cut removes the branch just outside of the collar, or “ring of death”-nut”, of sound tissue then grows around the cut. Do not cut into the trunk. The closing tissues may form only to the sides of the flush cuts. Trunk tissues above and below flush cuts often die. When the heat of the sun or the cold of frost occurs cracks or long dead streaks may develop above and below the dead spot.

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

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Trees Have Dignity Too
Most nurseries produce high-quality trees. When you start with a high-quality tree, you have set the tree up for a chance to express its dignity for many years.

Annuals add seasonal color.

Competition would be a problem. If the tree is grown in full bright sunlight from early morning to dusk, many of the parts will be too hot in light or partial shade. These include plants grown for greens rather than for fruits or roots. Vegetables such as lettuce, spinach, Swiss chard, kale, mustard greens and beet greens will be thinner and less robust when grown in light shade rather than full sunlight, but they will be tasty even though their growth is not luxurious.

A final suggestion for making use of the shady parts concerns putting houseplants out for the summer. Nearly all indoor ornamental plants will benefit from outdoor growing conditions if they are protected from the heat of the sun. To use these locations as a spot under a tree or on the north side of a house. Putting houseplants will ensure to conserve moisture, but with frequent watering, they also cool and condition the soil surface, an ideal way to make use of those shade areas that are compacted with tree roots. Vegetables or flowers or a combination of different types of plants to create the effects you desire in the shady areas of your yard. Use your imagina- tion and create something others will envy.
Some of us grew up hearing, “If you don’t clean your plate, you can’t have any dessert.” Now we know if portions are too large, you can’t have any dessert. “When you come to a fork in the road, take it.” Three food groups encouraged by the new 2005 Dietary Guidelines are fruits, calcium-rich foods and grains (especially whole grains). The Guidelines also recommend preparing foods and beverages with little added sugars. If you’re at the fork in the road regarding desserts, grab your fork or spoon — and try some of these recipe ideas.

### Coca-Beanry Yogurt Tarts
*(Makes 6 servings • Prep time: 10 minutes)*

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

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

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

### Fruit Slush
*(Makes 4 servings)*

- 3 cups frozen fruit (such as frozen strawberries, blueberries, raspberries or melon)
- 1 teaspoon vanilla extract
- 1 cup fat-free milk or nonfat plain yogurt

Sweetener as needed: about 1 to 3 tablespoons sugar or the equivalent in artificial sweetener

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

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

### Mexican Beef Salad
*(Serves 4)*

- 1 pound lean ground beef (95% lean)
- 1 small onion, chopped
- 2 teaspoons chili powder
- 1/2 teaspoon ground cumin
- 1/4 teaspoon garlic powder
- 3 tablespoons canned chopped mild green chiles, rinsed and drained
- 1/2 cup drained, canned no-salt-added black beans, rinsed
- 3 tablespoons chopped canned chopped mild green chiles, rinsed and drained
- 1/3 cup shredded fat-free or low-fat Cheddar cheese
- 2 tablespoons snipped fresh cilantro

**DIRECTIONS:**
1. In a large nonstick skillet, brown the ground beef and drain off excessfat. Add the onion, chili powder, cumin and garlic powder. Cook for 2 to 3 minutes.
2. In a large salad bowl, combine the green chiles, beans, green chiles, and beef mixture, in that order. Sprinkle with the Cheddar cheese and cilantro. Serve with the dressing.

**AS THE WEATHER STARTS WARMING UP, I START THINKING OF COOLER, LIGHTER FOODS. CONSIDER A COOLING MAIN DISH SALAD TOPPED WITH LEAN PROTEIN AND ARTICULAR SWEETENED-CHICKEN BREAST (PER 3-OUNCE SERVING).**

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**As the weather starts warming up, I start thinking of cooler, lighter foods. Consider a cooling main dish salad topped with lean protein and articular sweetened chicken breast (per 3-ounce serving).**

**A TOTAL OF 19 CUTS OF BEEF QUALIFY AS ‘LEAN’ UNDER GOVERNMENT LABELING GUIDELINES, ACCORDING TO THE USDA’S NUTRITION DATABASE,** says Kaiti Roeder, courtesy of the Nebraska Beef Council.

### Beef Council to get you started.

**Here’s a salad idea from Jennifer Meyer, RD, LMNT, Program Director, Dairy Council of Nebraska.**

**Mexican Beef Salad**

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ACREAGES ON THE INCREASE

According to the 2025 Lincoln City/Lancaster County Comprehensive Plan, "Rural Lancaster County is in transition from an area of predominantly agricultural uses to an area which includes more residential uses." Acreages are generally single-family homes on lots of three to five acres, but can be on lots up to 20 acres. The population living on acreages in the year 2000 was calculated at about 16,700 and is estimated to grow to about 22,800 by the year 2025 and exceed 33,000 by the year 2050.

Rural Lancaster County is Unique Mix of Agriculture and Acreages

Gary C. Bergman
Extension Educator

Lancaster County’s rural population is a unique mix of commercial and residential farms engaged in various agricultural enterprises. Lancaster County leads the state in the number of farms with nearly 1,600 farm units (to be counted as a farm by the Census, the owner must report at least $1,000 in annual farm-related income). Interspersed amongst the commercial farms are approximately 4,000 acreages which are essentially residential in nature. There are over 440,000 acres of farmland in the county (making the average farm size about 280 acres). The 2002 Census of Agriculture reported total livestock sales of $22 million and estimated the market value of all agricultural production at over $71 million. Other farms produce specialty crops and animals, such as fruits and vegetables for farmers market and U-Pick trade, Christmas trees and nurseries stock, broom, llamas, emus and ostriches. Raising and boarding riding horses and other domestic animals also contribute to the animal industry in the county. The value of these enterprises are not reported.

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

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

Barb Ogg
Extension Educator

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

Why are Pest Problems Greater for Acreage Owners?

The quick answer is there’s more “habitat” in rural settings compared with city living. Habitat is defined as the physical location and conditions where a community of organisms live. A single habitat can support many species. Let’s look at this more closely. If you drive through a city neighborhood, you see rows of houses on relatively small patches of land (i.e., lots), each house surrounded by a mat of grass, typically bluegrass or fescue, nicely mowed to conform with city codes. Lawns are separated by driveways, sidewalks and streets. Urban areas are made up of isolated patches of habitat. Ecologists call this patchiness, habitat fragmentation, which can support relatively small populations of animals.

In contrast, in rural areas, you see a house on a much larger patch of land (3-20 acres), next to even larger patches of land (fields). This habitat is not nearly as fragmented as an urban setting. The greater amounts of vegetation and land creates more habitat for more pest animals, whether they be small arthropods (insects, ticks and spiders) or vertebrates (mice, deer, rabbits).

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

see PESTS on next page

Designing a Windbreak

Don Jassenh
Extension Educator

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

Windbreaks can be planted to enhance wildlife, provide snow protection for humans and livestock, and provide wind protection to dwellings in both winter and summer. Windbreaks also prevent soil erosion caused by wind and reduce water runoff from agricultural lands. Typical windbreaks consist of conifers, deciduous trees and shrubs. Conifers provide dense foliage to reduce wind speed. Tall deciduous trees extend the area of wind protection with their height. Shrubs trap snow, add beauty to the windbreak and provide wildlife habitat.

The area protected by a windbreak is determined by the windbreak’s average height. Generally, windbreaks protect an area 10 to 15 times the average height of the trees. Windward tree rows should be located approximately 150 to 250 feet upwind of the protected area in order to allow for snow deposition.

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

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

Tom Dorn
Extension Educator

The basics of building a wire fence for livestock are:
1) Close enough to trees and bushes that would interfere with building the fence.
2) Establish corner post/brace assembly at the corners of the property and where gates are wanted.

Posts should be made of wood or heavy or they can be made of steel. Corner posts are commonly spaced a rod (16.5 feet) apart. This allows the right spacing to support a wire fence and it also makes estimating the number of posts required easy since 80 rods equal a quarter mile.

The final step is to stretch and fasten the wire to the posts. The number of wires needed depends on the type and size of animals to be fenced in. Three to five, most commonly four, barbed wires are used for large animals. For hogs and sheep, a woven wire topped by one or two barbed wires, respectively, is needed. If building a combination fence to hold any type of livestock, woven wire topped by three or four barbed wires is sometimes used. When fastening the wires to the fence posts, it is easier if one works from the top down, stretching and fastening one wire at a time. Staples are used to hold wire to wooden posts. Always make sure at least 1 1/2 inch staples and leave the staple a little bit loose so you don’t pinch the wire. The heavy-duty wire fasteners are made for each specific type of steel post. These save considerable time in the field compared to using a spool of heavy gauge wire that one must cut and bend to fit.

For more information on constructing wire fences go to lanc.oe.edu/livestock/fencing.htm

Fencing for Appearance

Shawn Shooshe
Iowa State University Extension Ag Engineering Specialist

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

For small enclosures such as yards, picket fences or vertical board fences provide privacy and wind protection. For larger enclosures such as pastures or entire properties, horizontal board or rail fences are more practical and economical. The common horizontal wooden fence uses three or four boards (1" x 6" lumber) nailed or screwed to wooden posts every 8 to 10 feet. This fence adds striking contrast and definition, especially when painted white. The boards may be parallel horizontal or arranged in decorative “crossback” patterns.

Rail fences consist of heavy horizontal rails that generally have their ends chiseled down and inserted into holes in the posts. The rails may be spaced (16.5 feet) apart. On longer runs, a puller spools. One should not attempt to wind the wire onto the puller as it comes in 80 rod (quarter mile) spools. One should try to stretch the wire onto the fence as much as possible, so the wire is not pulled into the fence instead of being stretched between the posts. When fastening the wires to the fence posts, it is easier if one works from the top down, stretching and fastening one wire at a time. Staples are used to hold wire to wooden posts. Always make sure at least 1 1/2 inch staples and leave the staple a little bit loose so you don’t pinch the wire. The heavy-duty wire fasteners are made for each specific type of steel post. These save considerable time in the field compared to using a spool of heavy gauge wire that one must cut and bend to fit.

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Preventing Rabbit Damage in Your Yard

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

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

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

3. If you have young trees and shrubs in a backyard, consider low fences around clusters of plants, individual trees/wraps or tree wraps incorporated with chemical repellents. Be sure to plan ahead in the event we have a winter with deep snow cover — you may have to extend the height of your fences. Or, consider keeping rabbits out of your vegetable garden. A wood privacy fence or chain link fence will not keep rabbits out of your yard. However, one-inch hardware cloth or nail screen added to the bottom two feet of your existing fencing creates an effective permanent fence for your entire yard.

—By Soni Cochran, Extension Associate

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Preventing Rabbit Damage in Your Yard

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

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

3. If you have young trees and shrubs in a backyard, consider low fences around clusters of plants, individual trees/wraps or tree wraps incorporated with chemical repellents. Be sure to plan ahead in the event we have a winter with deep snow cover — you may have to extend the height of your fences. Or, consider keeping rabbits out of your vegetable garden. A wood privacy fence or chain link fence will not keep rabbits out of your yard. However, one-inch hardware cloth or nail screen added to the bottom two feet of your existing fencing creates an effective permanent fence for your entire yard.

—By Soni Cochran, Extension Associate
Hardy Plants for Acreage Landscapes

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

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

Septic Tanks Must Be Pumped By Certified Professionals

Sharon Skpton
Extension Water Quality Educator

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

The Private On-site Wastewater Treatment System Contractors Certification and System Registration Act requires anyone who works on a septic system to apply to NDEQ to become certified to perform the work. The requirement for certification includes pre-installation tasks such as doing a site evaluation, a soil evaluation, or a percolation test. It also covers all aspects of working on a system including designing, installing, inspecting, repairing, or altering. And, it includes pumping and disposal of the septage.

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

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

Staying Connected in the Country

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

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

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

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

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

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

—By Jim Wies, Extension Assistant
Acreages Can Offer 4-H Families “Room to Grow”

Henshaw Family — South of Lincoln

Emily Henshaw, 11 years old, is the oldest of the Henshaw kids. Her 4-H projects take up a lot of space: 10 dairy goats (including four kids born this spring and more on the way), 12 rabbits, 10 ducks, four geese and one horse. She gardens and helps care for the family fruit trees. Her family’s acreage south of Lincoln provides plenty of space — eight acres of it.

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

When the family moved to the acreage in 1986, they found expansive room for 4-H projects. Though they had a garden in Lincoln, the acreage has many more gardens. There is room to raise animals. Even roockey seems easier, because instead of having to go to a park to do launches, it could be done in their pasture. The Henshaws did find a few challenges they didn’t have in town: grasshoppers, the wind, and wildlife such as coyotes and hawks trying to go after their poultry. There were few trees on the land when the family moved, so they planted all kinds of fruit and windbreak trees.

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

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

Jim and Bonnie Henshaw raised goats on their 4-H projects for more than 20 years. Bonnie is Lancaster County 4-H Goat superintendent.

\[\text{Members of 4-HTeen Council, Will (chair) and Whitney Davis have helped with the past two 5th & 6th grade 4-H Livestock News.}\]

\[\text{Emily Henshaw raises goats and poultry on eight acres south of Lincoln. She also helps with the family's large garden and fruit trees.}\]

\[\text{Jim and Bonnie Henshaw lived in Lincoln with Emily’s three older siblings, Carrie, James and Erin.}\]

\[\text{Emily Henshaw helps care for the family fruit trees. Her family’s acreage south of Lincoln provides plenty of space — eight acres of it.}\]

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\[\text{\textbf{Davies Family — Northeast of Lincoln}}\]

Tim Davis grew up on a cattle ranch near Seward. He plans to迹上路 upset in a cattle ranch after graduation. Tim joined 4-H when he was nine and his parents let him choose a couple of goats to raise. Tim is now showing the granddaughters of those goats.

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

Between the ages of five and eight, Will and Whitney participated in a 4-H Clover Kids pilot club (now a part of 4-H) along with four to five other families. Club parents took turns teaching projects — Tim taught beef cattle.

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

The youth have total responsibility of their show cattle: feeding twice a day (7 a.m. and 5 p.m.), stacking hay, cleaning up manure, practicing showmanship skills, helping care for the family fruit trees and even giving 4-H talks.

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

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No- or Low-Cost Ways to Save Energy

- Replace incandescent bulbs with compact fluorescents.
- Turn off your computer and monitor when not in use.
- Plug home electronics, such as TVs and VCRs, into power strips.

Cut Cooling Costs

- Adjust the thermostat when you are not home or away from the house.
- Use a fan with your window air conditioner to spread the cool air through your home.
- Use a programmable thermostat with a 10% setback for eight hours (six or more temperature settings a day) that you can manually override without affecting the rest of the day’s or weekly program.
- When shopping for a programmable thermostat, you should look for features such as adjustable heating and cooling times.
Quality Assurance Training, May 4

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

Sheep Tagging Days, Week of May 16

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

CWF Reorganization Meeting, May 19

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

Pre-Fair Leader Training, May 24

New leaders, experienced leaders, 4-H members and parents of 4-H members will be required to attend training on Tuesday, May 24, 9:30 a.m. and 7 p.m. at the Lancaster Extension Education Center. Come and receive information on how to fill out the new entry form, the in’s and out’s of interviewing judges, Life Challenge information, the presentations Contest and other valuable fair county information. Pre-register by May 20 by calling 441-7180.

Senior Life Challenge Contest May 25

A county-level Senior Life Challenge (for ages 12 and up) will run from May 1 to June 30. The incentive program will run from May 1 to June 30. Participants need to call Tracy at 441-7180 to get certified. Contest questions will be based on the following 4-H materials: Financial Champions “Money Moves” Book 2, Clothing Level 1, The Sitter, Your Food Choices and Food Choices and Fat Foods. Books may be checked out prior to the contest for study purposes.

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

4-H Sewing Fun Class, June 22

The Bermina shop at Hancock Fabrics will teach a Crazy Quilt class. The class, 1 credit in Clothing Level 1, has been developed. Contact Tracy at 441-7180 for pattern brands and numbers.

Seeking Style Revue Superintendents

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

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

Because district horse shows follow a different format than “regular” horse shows, the Salt Creek Wranglers are providing a chance to practice for districts within their 4-H Silver Dollar Series. In the Sunday, April 24 show, all English Equitation and English Pleasure classes will follow the district format. The show being held on Sunday, June 12, will highlight the Western Pleasure and Horsemanship classes, using the district format. Registration for both shows start at 8 a.m. on the Wranglers grounds. For more information, call Tusha Dybdal at 76-2070. Shows for horse and other horse shows are online at lancaster.unl.edu/4h/news.htm.

4-H Stampede Results

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

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

Denise Farley

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

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

She is a member of the Nebraska 4-H state marketing committee, has assisted with Clover College (as co-presenter), Nebraska State Fair (as a 4-H judging assistant). A member of the Nebraska 4-H state marketing committee, Denise helped develop the 4-H/Library partnership.

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Denise is a strong believer in exposing youth to as many career experiences as possible. I think 4-H can really prepare youth for life by teaching life skills and leadership, as well as creating a desire for life-long learning.

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

Denise is organiza-
## Workshops

<table>
<thead>
<tr>
<th>Workshop Description</th>
<th>Age Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-H Volunteer Club: Ron Suing, woodworking skills and launch it? Come to this workshop and receive a rocket and one engine. TUE, JUN 21-24; 8-10AM</td>
<td>AGES: 8 &amp; FEES: $20</td>
<td></td>
</tr>
<tr>
<td>Advanced Leather Craft: Practice the eight steps of leathercraft: create your own sampler coaster, book mark, and coin purse. Need at least minimal prior leather work experience. TUE, JUN 21-24; 12:45-2:45PM</td>
<td>AGES: 12 &amp; FEES: $3</td>
<td></td>
</tr>
<tr>
<td>3-Day Workshop for 4-H Volunteers: Learning the three basics of tooling leather and making a leather project. No prior experience necessary. Tools provided. Bring your child to the workshop. TUE, JUN 21-24; 8-10AM</td>
<td>AGES: 9 &amp; FEES: $5</td>
<td></td>
</tr>
<tr>
<td>Community Service Projects: Paws Up! Most trained and certified Paws Up! therapy dogs and their handlers. Also available for natural dog treats and a craft. Lots of hands-on time with dogs. TUE, JUN 21-24; 2-3PM</td>
<td>AGES: 7-11 &amp; FEES: $4</td>
<td></td>
</tr>
<tr>
<td>Create Your Own Memory Boxes: Carve your own design into a printing block. This will then be used as a mold to form polymer clay into your own 3” quarter. TUE, JUN 22; 9-11AM</td>
<td>AGES: 10 &amp; FEES: $8</td>
<td></td>
</tr>
<tr>
<td>Money, Money, Money: Learn how to save and spend wisely. WED, JUN 22-24; 12:45-2:45PM</td>
<td>AGES: 10 &amp; FEES: $8</td>
<td></td>
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<td>AGES: 8 &amp; FEES: $5</td>
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<tr>
<td>Advanced Leather Craft: Practice the eight steps of leathercraft: create your own sampler coaster, book mark, and coin purse. Need at least minimal prior leather work experience. TUE, JUN 21-24; 12:45-2:45PM</td>
<td>AGES: 12 &amp; FEES: $3</td>
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<td>Tablesetting Fun: Make a wheatgrass centerpiece using table setting while you learn all you need to know to participate in the table setting contest. TUE, JUN 22; 8-10AM</td>
<td>AGES: 8 &amp; FEES: $3</td>
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<td>Crafting a Memory: What do you get when you combine a 3x5&quot; photo, a diamond, and a teddy bear? A special keepsake item. TUE, JUN 22; 9-11AM</td>
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<td>Fun in the Kitchen: Learn to mix, shape and bake breads and rolls. Learn mixing and shaping techniques through this hands-on workshop. TUE, JUN 22; 12-2PM</td>
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<td>Style Revue Workshop: Style Revue will be here soon! Come to this workshop and learn new styling techniques and practice your modeling technique. TUE, JUN 23; 8-10AM</td>
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## CLOVER COLLEGE REGISTRATION FORM

To register, complete the registration form (one person per form) and return with payment (make payable to Lancaster County 4-H) to the registration box at the entrance of the building. Registrations are handled on a “first come” basis and will only be accepted upon receipt of fees. Classes will fill up, early registration is recommended. Priority will be given to 4-H members. Fees are nonrefundable unless a class is filled to capacity or canceled. May photograph if need.

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**UNL Lancaster County Extension, 444 Cherry Creek Rd., Ste. A, Lincoln, NE 68528**
Communities have problems, just like people. Problems are part of our lives—they go together with being alive. Every human being, sooner or later, experiences various kinds of problems in their lives. And every community has problems, too. This is a fact of community life.

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

Defining Community Problems

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

There is no official definition of a community problem, but there are some criteria, which might be used to define a problem in some particular community/neighborhood.

Criteria for defining a community problem:

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

The last criterion, perception, is perhaps the most important one. A problem does not have to be based on statistical data or any other hard evidences. If people perceive the neighborhood streets as annoying, that is a problem; otherwise, they will not feel this way.

**Why Analyze a Community Problem?**

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

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

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

- **DEFINE THE PROBLEM IN TERMS OF NEEDS OR WHAT IS LACKING, NOT IN TERMS OF SOLUTIONS.** If you define the problem in terms of possible solutions, you will never get to the “root” of the problem, only to the “symptoms.” For example, kids gather on a street sometimes they get rowdy. The violence and vandalism in our neighborhood is unacceptable. High Without thinking, people immediately are jumping to the solution: “We need more police patrols on our streets.” What is the problem here? The drinking? The rowdy gathering itself? Attitudes toward vandalism? Or the possible fact teenagers have nowhere else to go and nothing else to do? Unless you are clear about the problem, it is hard to move forward.

- **DEFINE THE PROBLEM AS ONE EVERYONE SHARES; AVOID ASSIGNING BLAME FOR THE PROBLEM.** This is particularly important if different people (or groups) with a history of bad relations need to be working together to solve the problem. For example, teachers may be frustrated with low attendance rates, but blaming students uniquely for problems at school is sure to alienate students from helping to solve the problem.

**Gathering Information**

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

- **FACTS** (15 percent of the children in our community do not get enough to eat).
- **INFERENCE** (a significant perception of our community are probably malnourished; significantly shortened life span).
- **SPECULATION** (many of the children probably live in the poorer neighborhoods in town).

At Nebraska, this Lincoln Student Works Smarter, not Harder

Alexis Wismer, a junior industrial and management systems engineering major at the University of Nebraska-Lincoln and a Lincoln Christian alumn, knows there isn’t one solution for every problem. In her major, she uses her critical thinking skills to come up with new ways to make work safer, and working with Dr. Susan Halbeck in tools, “We went to the Medical and a couple of companies have great chance to be a part of the professors really well.”

**Training on Measuring Progress, May 17 & 18**

Everyone likes to see progress. Measuring progress helps you know where you now are and get to where you want to be. UNL Cooperative Extension in Lancaster County is sponsoring “You Get What You Measure,” a powerful evaluation and planning tool for organizations, agencies and businesses.

This training will be May 17 and 18 from 8:30 a.m. to 4:30 p.m. at the Lancaster Extension Education Center in Lincoln.

This two-day workshop allows staff of organizations, businesses, and government to learn the measurement process while applying it to issues central to their missions. Cost is $349 per participant. For more information, contact Helen Mitrofanova at 441-7180. Registration deadline is May 3.
Beef Clinic Focuses on Nutrition & Showing, May 5

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

The evening starts with a dinner buffet at 6 p.m. followed by a nutrition workshop featuring Cheryl Leonard, the beef specialist for Purina Land O’Lakes. The evening will conclude with a judging and showing demonstration by former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley and former 4-H members Greg Gana, Anthony Nisley.

Sewn Bags Needed by May 5 for Community Service Project

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

Painting Workshop for Youth, July 15

The “Let’s Paint Run-A-Ways” organization is presenting a workshop for youth ages 8–19 on Friday, July 15, from 9 a.m. to noon at the Lancaster Extension Center, 444 Cherry creek Road, Lincoln. Instructors use a step-by-step method of instruction. Acrylic paint, brushes and canvases are supplied. Registration is due by July 8, it is limited to the first 25 youth. Cost is $15 and due upon registration (checks payable to Lancaster County Extension). For more information, or to register, call 441-7180.

Lancaster County Fair Books Now Available

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

4-H Camps Open House, April 24 and May 1

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

There are more than 40 day and overnight camping programs and trips scheduled in May, June, July and August at the three 4-H camp locations in Nebraska. Camps are an opportunity to meet new friends and experience a wide variety of exciting activities such as canoeing, mountain biking, horseback riding, rappelling or climbing, volleyball, basketball, art, dancing, backpacking, shooting sports, water skiing and fishing! Brochures with camp descriptions, registration forms and more information are available online at 4h.unl.edu/camp or at the Lancaster County Extension office.
Nearly 2,500 fifth graders from Lincoln Public Schools and other Lancaster County classrooms attended the 11th annual earth wellness festival (ewf) held mid-March. Students rotated among 25-minute sessions to discover the relationships and interdependency of land, water, air and living resources. The ewf steering committee is comprised of ten local educational agencies, including University of Nebraska Cooperative Extension in Lancaster County. Hundreds of volunteers, area educators, environmentalists and donations from local businesses make this educational experience possible.

Can You Guess It?

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

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

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

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

Students Watch Eggs Hatch in the Classroom!

Embryology is a 4-H School Enrichment project sponsored by the UNL Cooperative Extension. Classrooms receive a dozen fertile eggs and students care for the eggs during the 21-day incubation period. In Lancaster County, nearly 3,000 third graders participate in Embryology each spring. This year, the University of Nebraska Poultry Division supplied some “mystery” eggs for the project. The students learned after the hatch these were White-Crested Black Polish chicks. Messiah Lutheran’s third grade classroom captured on video one of the little Polish hatching. A special thanks to university poultry specialists Lyle Robeson and Chad Zadina for gathering and donating the mystery eggs! The hatching video can be viewed on the 4-H Embryology Web site at lancaster.unl.edu/4h/Embryology. In the upcoming weeks, EGG Cam will feature a live view of chicks and guinea hatching.

4-H Speech/PSA Contest Winners

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

SENIOR PSA: Nicole Pedersen (1st), Amanda Peterson (2nd)
INTERMEDIATE PSA: Ryan Keys (1st), Hannah Spencer (2nd), Terra Garay (3rd)
JUNIOR PSA: Lisa Keys (1st), Jessica Stephenson (2nd), Spencer Farley (3rd)
NOVICE PSA: Jamie Stephenson (1st), Amy Keys (2nd), Matthew Grimes (3rd)

SENIOR SPEECH: Amanda Peterson (1st), Nicole Pedersen (2nd), Grace Farley (3rd)
INTERMEDIATE SPEECH: Carmen Claesson (1st), Ryan Keys (2nd), Kyle Pedersen (3rd)
JUNIOR SPEECH: Jessica Stephenson (1st), Erica Peterson (2nd), Lisa Keys (3rd)
NOVICE SPEECH: Abigail Swanson (1st), Jaime Stephenson (2nd), Sadie Hammond (3rd)