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The Crime Scene

Small reddish-brown insects crawl out of hiding places near the bed for a 10-min-
ute midnight feeding. It’s not just a snack. After becoming engorged, these night feed-
ers slip back into their hiding places. The sleeping victim never feels the bite. The human victim wakes to find bites on upper body, arms or neck. This scenario takes place night after night and finally, the small insects are seen. These insects are bed bugs.

We are starting to see increased num-
ber of bed bug reports here in Lancaster County. In a month’s time, I had three phone calls from people living in differ-
ent and unrelated households who had bed bug infestations. Compare this with my first 10 years in extension when I saw only one bed bug case. Are isolated incidents? Probably not. Entomologist and pest management professionals (PMPs) across the U.S. are seeing bed bug infesta-
tions in surprising numbers.

Background

Bed bugs are an old pest. Before WWII, bed bugs were pretty common in hotels, boarding houses and homes. With the advent of DDT and other insecticides after WWII, bed bugs seemed to disappear. Because bed bugs have been so rare, there has been a lack of industry-sup-
ported research on what currently available products work best. Another problem is many PMP’s don’t have much experience treating for bed bugs. One seasoned PMP told me, “I’ve been doing this for 20 years, and I’ve never even seen a bed bug infestation before.” Clearly, all of us are on a steep learning curve.

Investigations

Treating a bedroom for bed bugs is dicey because this is where people spend a lot of time. Treatments include vacuum-
ing, cleaning and treating hiding places. But, where do bed bugs hide? In the last 18 months, I’ve looked for bed bugs in three infested dwellings. Before my inspections, I knew that:
1. Bed bugs like to live in groups in tight places.
2. Most bed bugs will be found near their sleeping food source.
3. Classic telltale signs of bed bugs are dark fecal spots or smears

CASE #1. A newer apartment build-
ing had two infested units which shared a common wall. The fellow in one unit slept on a futon. This unit had many more bed bugs than the other and was probably the source of the infestation. Before we arrived, residents had discarded the futon mattress, but there were many signs of bed bugs near cracks of the futon frame (Figure 1), the area where carpet touches the baseboard and near electrical receptacles. Some bed bugs were found on hanging clothes in the closet. Where did the bed bugs come from? The fellow who slept in this bedroom moved in about five months earlier. While it can’t be proven, I suspected he brought the bed bugs with him.

Residents were asked to vacuum floors, beds and foundations thoroughly and repeatedly and to get rid of clutter in the bedrooms. In the second bedroom, I recommended encasing both the mat-
tress and foundation in zipperred mattress covers, to encase and starve any bed bugs inside.

A pest management company treated cracks and crevices, baseboards and car-
peting using professional-use insecticides and insect growth regulators. Sticky traps were used to monitor the infestation. After reports of bites two months later in nearby units, all the units in the building were treated, repeated for a couple months. A year later, there have been no reports of bed bugs in this apartment building.

CASE #2. In February 2006, a family brought bed bugs to an extension offi-
cce for identification and said everyone in the four-bedroom home was getting bitten at night. During my inspection, I flipped mattresses, but found no bed bugs, although one mattress did have bed bug spots on it (Figure 2). I turned over foun-
dations (box springs) and removed the dust cover. Turning back the fabric where it was stapled to the wood frame, I found many bed bugs and fecal spots (Figure 3). Most were found near the head of the bed, especially in void areas and cracks in the wood. Where did this infestation come from? About six months before they started noticing the bugs, a grown daugh-
ter moved back home with some furniture.

Prevention is Tough, but There are Some Things You Can Do

• When you travel, inspect your hotel room carefully. Concentrate on the head of the bed, but also inspect the area where you place your luggage. One researcher has found luggage racks infested with bed bugs, presumably brought into the hotel room with infested luggage. Launder clothing immediately when you return home.
• Inspect used furniture before bringing it into the home. Look for fecal spots and stains.
• At the first sign of bites, inspect the area around your bed. Early detec-
tion means early control.
Ornamental Grasses of the Great Plains

Bob Henrickson
Nebraska Statewide Arotectum

Ornamental grasses are key plants in the natural landscape — providing seasonal beauty with colors and textures only they can provide. Many gardeners are discovering the many benefits ornamental grasses bring to the garden while creating a more diverse and adaptable landscape for the Great Plains. There is an ornamental grass for any garden situation. They are very easy to grow when provided a well-drained soil and sunny conditions. Ornamental grasses are generally free of garden pests and require little, if any, irrigation once they’re established. Perhaps no other group of plants can cover a large, bare area with a huge array of textures, forms, sizes and colors as grasses. Make plans to include a few of the following ornamental grass selections in your garden and transform your landscape into a array of long linear leaves and fine stems.

Native Grasses of the Great Plains

Junegrass, Prairea (Koeleria pyramidalis) native, cool season bunch grass with gray-green leaves; blooms early with narrow, erect seed heads; needs well-drained, dry soils; can be short-lived in heavy soils; will reseed каждый год for naturalizing; 18 inches high.

Gramin, Blue (Bouteloua gracilis) native, blue-green with thin, wiry leaves to 8 inches; 1 inch eyelash-like seed heads held atop leaf in fall to 6 feet high; seed heads move with the slightest breeze; provide moisture intensive soils for best results; they will reseed.

Loregrass, Sand (Eragrostis tef) native to sandy soils with leafy upright flowering stems to 4 feet high; masses of airy, fine textured seed heads in August; self-sows annually in loose and nearly in sand but easily managed; early spring green appreciated; will be floppy in shady conditions or excess water.

Dropseed, Prairie (Sporobolus heterolepis) native bunch grass with thin; ribbon-like leaves form 2 foot mounds; delicate seed heads in late summer and remain attractive through fall; attractive when back lit; scented; foliage turns deep orange in light copper; likes it dry and never needs dividing.

Bluegrass, Little (Schizachyrium scoparium) dependable native bunch grass with fine-textured bright green or light blue leaves to 2 feet tall in summer; the late summer flowers dry in the fall; becoming silvery and remain attractive through winter; avoid highly fertile soils; excessive moisture or heavy mulching.

Switchgrass (Panicum virgatum) makes nice selections of this dependable native; 'Shenandoah' tights up to 4 feet with red in the fall; 'Dallas Blues' outstanding tall plumes in the fall; 'Heavy Metal' nice blue-gray foliage, leaves with nice orange-yellow fall color.

Easy to grow, silvery remains attractive through winter; avoid highly fertile soils; excessive moisture or heavy mulching.

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Hardy Exotic Grasses

Blue Fescue, O'warf (Festuca glauca) Lovely bunch grass with powdery blue foliage to 10 inches; 'Elijah Blue' is the most dependable; must have full sun and well-drained soils for longevity in the garden; native to Europe.

Coyote or Sedge (Carex) — many exciting and white variegated forms selected from plants native to Japan; China; many different grass-like plants with wide variety of color, form and size for wet or dry soils, sun or shade.

Hairgrass, Tufted (Deschampsia cespitosa) looks like tufts of grass; thin hair topped by masses of loose, airy seed heads in late spring; consistent moisture suits best; fall sun to part shade; 15 to 18 inches high and wide; native to Europe.

Miscanthus — showy grasses of many shapes and sizes, ranging from 3 to 12 feet tall; feathery plumes top plants in the fall; new cultivars providing colorful foliage and better flowers; cut back to the ground in spring; prefers full sun; will top if planted in too much shade. 'Autumn Red' to 3 to 4 feet; early bloomer with fall color; 'Mcletrip' showy heads; care 'Stricta' with yellow bands on the foliage.

Oatgrass, Blue (Avena strigosa) native; clump-forming grass with intense blue leaves to 2 feet; delicate flower stalks appearing in late spring; suffers in poorly drained soils.

Pennisetum, Chinese (Pennisetum glaucum) native; clump-forming bunch grass with foxtail-like silvery-white plumes in late summer; typically 2 to 3 feet tall; grows in groups or masses; native to China.

Raveno Grasses (Saccharum ravennae) native to the Mediterranean region; clumping grass forming 4 foot wide gray-green mounds of foliage by August; large plump flower heads are produced in late-August on stalks up to 12 feet tall; excess moisture or fertility encourages lax growth; cut to the ground in spring.

Red Grass, Feather (Calar/magrostis x acutiflora) deep green, lustrous foliage with red-tipped flowering stalks in early summer; they constrict to narrow buff-colored plumes by dry fall; good for dry fall; easy to grow in most soils, but best in well-drained fertile soils; native to Europe; bright red to purple selection for good reason; 'Overdam' foliage has cream-white stripes; 'Strica' earliest to bloom, very upright, very well-behaved grass.

Red Grass, Korean (Calamagrostis × acutiflora) native to wood-land edge in Asia; glossy green foliage and red tinted feathery flower heads in September create strong vertical plant; the showy flowers fade to silvery green through fall; prefers consistent moisture but is easy to grow in most soils; excels in a sun (in pentents) to 3 to 4 feet high.

Cannas in the Garden

Mary Jane Frogg
UNL Extension Associate

Cannas are quick growing, vigorous ornamental grasses with colorful foliage and large flowers. Flower colors range from dark red to light green. Leaf colors can be reddish-purple, bronze or green. They are used most effectively for bedding plants, in public parks and larger home gardens where they can be planted in blooming clusters for later show and viewed from a distance. Their vigor and size make them less desirable for planting in restricted areas.

Cannas require a warm, sunny location and under such conditions are capable of giving a subtropical effect, if used in quantity with cynicus or castor bean, caladium or elephant’s ear or other appropriate plants. They thrive best under conditions suitable for corn, that is, a warm, well drained soil, well enriched with decayed manure. The tubers should be planted after all danger of frost is past. A portion of an old tuber containing several strong buds is best. The old tubers may be divided to single eyes, but the weak eyes are likely to make weak plants. If very strong clumps are wanted, a whole tuber may be used. When separated to single eyes they are best started in 4 inches pots covered with glass. The tubers should be planted 5 inches deep. Can- nas should be planted 12 to 18 inches apart depending on the size of the varieties used and the effect desired. In dry weather a thorough soaking of the plants once a week will insure a stronger growth.

The blooms should be picked as soon as they are withered. After the tops have been killed by frost they should be cut off and the tubers dug up after a few days and stored in a cool (40–50 degrees F) moderately (35% humidity) cellar or storage area. The tubers can be stored in dry sphagnum moss, vermiculite or sand. They may also be placed on wire racks so air can circulate freely. No frost must reach the tubers and they must not be too warm or dry. A cellar suitable for potatoes is about right for cannas.

Source: Donald Stenger and Donald Jansen.
**Controlling Ticks**

Soni Cochran
UNL Extension Associate

Controlling ticks is difficult and usually takes a combination of cultural, preventative and pest control. Children and adults should avoid tick-infested areas in the spring and if uncomfortable, careful body examinations should be made after leaving the area to remove any ticks.

Reduce your exposure to ticks:

1. **Cultural.** Keep grassy and weedy areas trimmed to reduce harborage for tick hosts. The brown tail moth tick host that carries Lyme disease is the white-footed mouse (deer mouse).

2. **Avoidance.** Whenever possible, stay out of tick-infested areas, grassy pastures, prairies and woody areas. Restrict movements of your dog.

3. **Proper Clothing.** When entering tick-infested areas, wear long-sleeved shirts and long trousers with tight-fitting cuffs. Wear light-colored clothing. Ticks are easier to see on a lighter background.

4. **Repellents.** Use an insect repellent containing the active ingredient diethyltoluamide (DEET). Apply to clothing and areas of exposed skin such as hands, wrists, ankles and neck. Protect dogs with products recommended by your veterinarian. Be sure to read all product label directions.

5. **Insecticide Treatment.** Inspection and removal of ticks reduces the risk of disease transmission. After carefully examining a potential host, a tick may take up to a day to attach and feed, so you may be able to remove a tick before it has attached. In addition, the risk of disease transmission is related to the length of feeding so affected ticks should be removed promptly. Ticks tend to concentrate on the head, shoulders, neck and in ear canals. Remove embedded ticks with forceps, by gripping the tick carefully at the point of attachment and pulling upward in a slow but firm manner. Care should be taken when removing a tick from pets. Pet owners to insure that the entire tick is completely removed from the skin (the head often breaks off). After removal, wash the wound with soap and water and apply alcohol or some other disinfectant to help prevent infection.

**FOR MORE INFORMATION**
Go to UNL Extension in Lancaster County’s Web site at http://lancaster.unl.edu/pest/for-more-information.

**Building a Bat House**

Soni Cochran
UNL Extension Associate

Bats that live in Nebraska eat a wide variety of flying insects including mosquitoes, garden and crop pests like cucumber beetles, corn rootworm beetles, moths, stinkbugs, June bugs and more. By attracting bats, you can reduce the number of insect pests in an area. One way to attract bats is by adding a bat house.

Bat house construction and installation can be an environmentally friendly and rewarding activity for both youth and adults. By encouraging bats in an area, both humans and wildlife benefit.

Generally, bat houses should be placed in rural locations such as far from agricultural or urbanized areas. You’re also more likely to have success with your bat house if you place it where bats naturally roost. Even if bats don’t live in your area, you may still be able to attract them by installing a bat house.

For bat house design plans, house placement recommendations and bat house maintenance, visit http://lancaster.unl.edu/pest/wildlife. Select “Bat House Construction & Installation” (Nebraska Cooperative Extension) for more information.

**Spring Cleaning? Take Advantage of Household Hazardous Waste Collections**

These collections are for household only - not for businesses. Only residents of Lincoln and Lancaster County can bring items to these locations.

**Items You Can Bring for Disposal**

- Heavy metals: items containing mercury such as thermometers and thermostats.
- Solvents: items containing volatile organic compounds (VOCs), paint strippers and thinners, oil-based paints, varnishes, stains, polishes and waxes.
- Pesticides: weed killers, garden sprays, wood preservatives, roach powder, rat poisons. You may also bring EPA-banned products, like DDT, chlordane, 2,4,5-T, pentachlorophenol, silvex, PCP.
- Items containing PCBs: Ballasts from old fluorescent fixtures and capacitors from old appliances including radios, motors and televisions.

**Date & Location**

- Saturday, April 22, 9 a.m. to 1 p.m. State Fair Park, 4-H Youth Complex
- Saturday, May 20, 9 a.m. to 1 p.m. (includes latex paint exchange) Pfizer, 60 W. Harlan
- Friday, June 9, 3 to 7 p.m. Malcolm Fire & Rescue Station 10740 West 2, Malcolm
- Saturday, June 10, 9 a.m. to 1 p.m. NE Wesleyan University, parking lot 56 & Hamilton

Do not bring: latex paint (except May 20), medicines, fertilizers, explosives andammunition. Batteries, antifreeze and used oil will not be accepted because these items can be recycled. For more information, call the Lincoln-Lancaster County Health Department at 441-8040.
Fertilizing Grass Pastures and Hay Lands

TABLE I. NITROGEN RECOMMENDATIONS FOR PASTURES AND HAYLANDS IN NEBRASKA

<table>
<thead>
<tr>
<th>Zone</th>
<th>Cool-season grasses</th>
<th>Warm-season grasses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasture</td>
<td>Hayland</td>
</tr>
<tr>
<td>I</td>
<td>80–120</td>
<td>100–150</td>
</tr>
<tr>
<td>II</td>
<td>50–80</td>
<td>70–90</td>
</tr>
</tbody>
</table>

Zone I is southeast of a line running from Blair in Washington County, to Nebraska in Thayer County and includes all of Lancaster County except the Branched Oak Lake area. Zone II is southeast of a line running from Niobrara in Knox County, to Alma in Harlan county, down to a line running from Schuyler to Grand Island.

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

TABLE II. PHOSPHORUS RECOMMENDATIONS FOR GRASSLANDS IN NEBRASKA

<table>
<thead>
<tr>
<th>Relative Index Value</th>
<th>Soil Test Levels</th>
<th>Phosphorus Rate lbs P₂O₅/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low</td>
<td>Bray &amp; Kurtz #1</td>
<td>0–5</td>
</tr>
<tr>
<td></td>
<td>Olsen (Na HCO₃)</td>
<td>0–3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>6–15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4–7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>16–25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8–14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td>25+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Nitrogen Management on Grasslands

Apply nitrogen (N) fertilizer yearly to grass pastures and hay lands to maximize production. Nitrogen improves both grass yield and protein content. It also improves the vigor of grass plants, which can thicken stands and reduce weed invasion. When adequate soil moisture is present, economical rates of nitrogen can more than double forage production.

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

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

Fertilizing Cool-Season Grasses

For cool-season grasses, such as smooth bromegrass, fertilize in mid- to late-spring, Take advantage of cool-weather growth in early spring. Then, after the cool-weather growth has subsided, fertilize in late-May in southern Nebraska and delay until late-May in the northern portion of the state.

Fertilizing Warm-Season Grasses

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

Fertilizing Mixed Grass Pastures

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

Liquid and dry forms of nitrogen fertilizer are equally effective for increasing pasture production when certain precautions are taken. Do not apply urea nitrogen to pasture or hay lands on high pH calcareous soils when air temperatures are above 85 degrees F. Nitrogen losses from ammonia volatilization can be high under these conditions. Since urea supplies more than half the nitrogen in 28 percent liquid N (urea ammonium nitrate), be aware of the potential for volatilization losses from this nitrogen source as well.

Pasture production is highly dependent on rainfall, so nitrogen recommendations are adjusted accordingly. Suggested application rates for nitrogen are shown in Table I. The lower rates listed are the minimum amounts recommended for average conditions and management situations. Even in years when summer rainfall is below normal, the use of 40 pounds of nitrogen per acre usually will increase production economically on pastures and hay lands in the Nebraska Sandhills. Use the higher rates listed for each zone when there is a full profile of subsoil moisture at the start of the growing season.

Phosphorus Fertilizer on Pastures and Haylands

In addition to nitrogen, phosphorus fertilizer also is needed on many pastures in Nebraska. Research in eastern and north eastern Nebraska shows the combination of nitrogen and phosphorus frequently produces higher yields than the application of either nutrient alone.

Phosphorus recommendations are based on the availability of phosphorus in the soil as measured by a soil test. Phosphorus recommendations for grass lands are listed in Table II. If legumes make up one-fourth or more of the stand, apply 50 percent more phosphorus than for grass alone. Phosphate fertilizers can be applied with the nitrogen in either spring or fall.

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

Other Nutrients

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

What is an Acre?

Tom Dorn
UNL Extension Educator

The unit of land area in the United States is the acre. An acre contains 43,560 square feet. Have you ever wondered how an acre is 43,560 square feet instead of a round number like 40,000 or 30,000 square feet? The story goes like this. When plowing a furrow 1/8 mile (660 feet) long, an eighth of a mile became known as a furrow-long or furlong; (a furrow is a nearly forgotten term for distance, except at horse racing tracks where it is still used by horse race track personnel and horse racing fans). The usual practice after plowing a furlong was to turn the team around on a ‘tand’ to plow the other direction. Lands were laid out so the farmer would be able to finish a land every 10 rounds with a 10-inch plowshare (about 16.5 feet). One could imagine that perhaps farmers used a pole or rod that measured 16.5 feet when laying out lands because this measure of distance is still called a rod today.

By starting early in the morning, two lands could be finished before noon with a good yoke of oxen. At noon, the farmer stopped for his noon meal and to feed, water and rest his animals. After the noon break, another two lands could be finished before quitting time. Four lands, or 40 rounds (40 furrows) measured 16.5 x 4 x 66 feet across by 1/8 mile (660 feet) long and was considered a good days work with a walking plow. The area plowed was 43,560 square feet and became the standard unit of land area we call an acre.

By the way, a farmer who plowed 80 furrows an eighth of a mile long would have walked ten miles while plowing, with the hand-guided walking plow. Is it any wonder this measure of land area became known as an acre (ache-er)? Actually, the Webster’s New Collegiate Dictionary states the name comes from the Old English ‘acer’; akin to Old High German ‘ackar’ (field), Latin ‘agertum’ (field), Greek ‘agros’ (arch-er)! Actually, the Webster’s New Collegiate Dictionary states the name comes from the Old English ‘acer’; akin to Old High German ‘ackar’ (field), Latin ‘agertum’ (field), Greek ‘agros’ (arch-er) to drive.

HECTARE—In the metric system, the standard unit of land area is the hectare. A hectare is 10,000 square meters. Ten thousand square meters to a hectare is an intuitive quantity. It is easily remembered, measured and computed.

CONVERSIONS—To convert from hectares to acres, multiply hect- ares by 2.47. To convert from acres to hectares multiply acres by 0.4047.
Butterfly Gardens

A butterfly garden can quickly become the main attraction of your landscaping, as these colorfully decorated gardens are cherished for the beautiful butterflies they attract.

Besides the well-known monarch butterfly, there are over 150 different butterfly species that may be found in the Midwestern United States. Butterfly gardens will also attract other nectar-feeding animals. These include hummingbirds, honeybees, bumblebees and moths.

Select a sunny site for your butterfly garden. Make sure it is sheltered from harsh winds. Locate the garden in a place where you will be able to easily watch the butterflies.

The plants you select for the garden and surrounding home landscape will make the difference. You need to provide two types of food for butterflies: plant tissue for when they are caterpillars, and nectar sources for when they have matured into winged adults.

Butterfly Gardens

Landscape trees and shrubs may be used to provide food for the larvae of some butterfly species. Recommended plants include birch, cherry, Eastern redbud, oak, sweet gum, sweet mockorange, viburnum and willow.

Other good food sources for caterpillars include such perennials as clover, Kentucky bluegrass, little bluestem, switchgrass, asters, and aster and hollyhock.

For adult butterflies, plant several species of flowers to make nectar available throughout spring, summer and fall. Butterflies are attracted by colors of purple, orange, yellow or red flowers.

Recommended annual flowers include: daisy, cosmos, dianthus, nasturtium, petunia, verbena and zinnias.

Recommended perennial flowers include: blazing star, butterfly bush, candytuf, columbine, gladiolus, peony, phlox, purple coneflower, sedum, stiff goldenrod, violas, and yellow or red flowers.

Some herbs are attractive to butterflies. Dill, lavender, lemon balm, marjoram, parsley, peppermint, thyme and sage are good selections. Even some weeds, such as dandelions, milkweed and Queen Anne’s lace will attract butterflies.

Control of Perennial Weedy Grasses

Perennial grasses, such as quackgrass and nimblewill, are some of the most difficult to control weeds in the lawn. Control is difficult because there is no herbicide that will selectively destroy these weeds. Also, pulling or digging these perennial grasses is often unsuccessful. The best way to control quackgrass, nimblewill and other un- desirable, perennial grasses in the lawn is to spot treat the weed-infested areas with glyphosate (Roundup, Kleenup, etc.).

Glyphosate is a systemic, non-selective herbicide. Glyphosate is absorbed through the stems and is then translocated to all plant parts. It kills nearly all plants that are directly sprayed. Visible symptoms of glyphosate use are develop in 7 to 10 days of the application. Death occurs in 2 to 4 weeks.

Efforts to control undesirable perennial grasses in the lawn should begin in mid-summer. This allows adequate time to kill the weedy grasses and prepare the areas for seeding or sodding in late summer. Complete destruction of the weeds is necessary to prevent their reoccurrence. If the treated areas are not dead in 2 to 4 weeks, a second applica- tion is necessary. Treated areas can be seeded or sodded 7 days after application.

If you are using a low mow, it’s not necessary to dig up the destroyed areas. Vigorously rake these areas after the stiff tined rake get to remove some of the dead debris and to break the soil sur- face. After seeding, work the seed into the soil by lightly raking the area and keep the soil moist with frequent, light applications of water. The best time to seed bare spots is mid-August through September. If you plan to sod, remove the dead debris before laying the soil. The establishment of thin, healthy lawn and its proper mainte- nance will help prevent future weed infestations.

Cultural practices (mulching, watering, fertilizing and pruning) play an important role in maintaining and maintaining healthy birch trees. Mulching and proper watering are the most important considerations to creating the cool, moist conditions that birch trees need. The following information provides guidelines to help create optimum conditions for your tree.

Mulching—Aside from aesthetic benefits, mulching moderates soil tem- peratures (keeps soil cool during sum- mer heat), conserves water in the soil, reduces competition from other plants, adds organic matter to the soil as it de- composes and reduces soil compaction. Also, mulching helps to build new layers of soil with improved structure which aids in better water retention and oxygen exchange. Finally, placing mulch around the base of a tree reduces the likelihood of damaging the stem with a lawnmower or weed trim- mer. All these benefits create a healthy environment for tree roots and help promote tree growth and disease resistance.

The best materials for mulching are wood chips, shredded bark and leaf compost. Rock or stone mulch can also be used. While aiding in water reten- tion, rock or stone mulch will not add organic matter to the soil and will reduce weed growth. In addition, reflec- tive heat may be a problem with white marble chips and crushed limestone. Soil might become too hot and wash over river stone is probably the best ma- terial if rock or stone mulch is your desired choice. Do not place manure under any of the mulches since it can retard water movement and oxygen dif- fusion into the soil.

Watering—Sufficient water is probably the single most important factor in maintaining a healthy birch tree. If rainfall is insufficient, supple- mental watering may become necessary. During the growing season a slow (2-3 hours), deep (8-18 inches) watering once per week is a general rule for maintaining adequate soil moisture. In- creased temperatures and increased evaporation not recom- mended. Laying hose on the ground and allowing it to run slowly over the entire plant area is best for ensuring adequate watering. A soil that can be formed into a ball in your hand has sufficient moisture; loose, dry soil that crumbles in your hand indicates the need for additional watering. Watering can be accomplished by late August to allow for proper winteriza- tion of a tree.

Fertilizing—Fertilization is benefi- cial only when nutrients are lacking. A soil test should be completed to deter- mine the need for corrective measures. If a tree is showing stress symptoms that are not the result of insufficient nutrients, fertilization will not correct the problem.

The best time to fertilize trees is late fall or early spring. Do not apply fertilizers between mid-August and mid-September as that may force a late flush of growth that may not harden off before winter. Nutrients should be available to the tree during its peak growth period in the spring and early summer. Fertilizers should not be ap- plied when the ground is frozen.

Pruning—Comments on pruning in this section are very general. Excessive pruning (greater than 25 percent of the live canopy) should always be avoided. Heavy pruning increases light penetration to the root zone and can increase soil temperatures and reduce soil moisture levels. Pruning of birch should not be done be- tween May 1 and August 1. This is the flight period of the brown birch borer, and it has been shown that female birch borers are attracted to fresh pruning wounds. If pruning must be done during this time period, treat the wound with a registered insecticide. Wound dressings should not be used since they are not effective at repelling borers and do not promote closing of wounds.

Proper pruning techniques are im- portant and should be followed when pruning trees.

Maintaining Your Birch Tree

Cultural practices (mulching, watering, fertilizing and pruning) play an important role in maintaining and maintaining healthy birch trees. Mulching and proper watering are the most important considerations to creating the cool, moist conditions that birch trees need. The following information provides guidelines to help create optimum conditions for your tree.

Mulching—Aside from aesthetic benefits, mulching moderates soil tem- peratures (keeps soil cool during sum- mer heat), conserves water in the soil, reduces competition from other plants, adds organic matter to the soil as it de- composes and reduces soil compaction. Also, mulching helps to build new layers of soil with improved structure which aids in better water retention and oxygen exchange. Finally, placing mulch around the base of a tree reduces the likelihood of damaging the stem with a lawnmower or weed trim- mer. All these benefits create a healthy environment for tree roots and help promote tree growth and disease resistance.

The best materials for mulching are wood chips, shredded bark and leaf compost. Rock or stone mulch can also be used. While aiding in water reten- tion, rock or stone mulch will not add organic matter to the soil and will reduce weed growth. In addition, reflec- tive heat may be a problem with white marble chips and crushed limestone. Soil might become too hot and wash over river stone is probably the best ma- terial if rock or stone mulch is your desired choice. Do not place manure under any of the mulches since it can retard water movement and oxygen dif- fusion into the soil.

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Proper pruning techniques are im- portant and should be followed when pruning trees.
In 1 hour
590
460
330 165
295
220
220 110
295
220

In 30 minutes
90
330 165
230

visit the Nebraska Department of Agriculture Poultry & Egg Division’s Web site at www.nebraskapoultry.org or contact Mary Torell at mttorell2@unl.edu or call 472-0752.

Saucy Pasta & Veggie Frittata

• cooking spray
• 1 package (16 oz.) frozen pasta and vegetables in sauce
• water
• 4 eggs
• 1/4 cup skim milk
• sliced cherry tomatoes, optional

Everlot a 10-inch omelet pan or skillet with spray. Add pasta and vegetables in sauce along with water called for on package. Cover. Reduce heat to low. Cook, stirring occasionally, until pasta is tender, about 5 minutes. In a medium bowl, beat together eggs and milk until blended. Pour over pasta/vegetable mixture. Add tomatoes, if desired. Cover. Cook over medium heat until eggs are almost set, about 5 to 6 minutes. This can easily add up to 5 or more a day. We don’t always think of this spending as part of our food budget. If you invested $5 a day at 10 percent, you would have $1,885 after only one year; $16,166 in five years. Those nickels, dimes, and dollars add up.

2. Does our family have a “spending plan”?

If you manage your food dollars wisely, you need a plan. Think of this spending as part of your food budget. How can you plan your monthly budget by the number of weeks so your family can stay within the budget. The more trips we make to the store, the more we spend on both groceries and gas.

3. Does our family make a weekly menu plan?

There are many good reasons to make a meal plan, especially for the main meal of the day. Most important, your family will stay healthier by eating a greater variety of foods and saves you money.

Nutritional information per serving of (4 servings)

• Protein, 37 gm; Cholesterol, 222 mg; Sodium, 453 mg.

Calories Expended in Common Physical Activities

The new MyPyramid recommends we include at least 30 minutes of moderate to vigorous activity a day, 10 minutes or more at a time. Physical activity simply means movement of the body that uses energy. Walking, gardening, briskly pushing a baby stroller, climbing the stairs, playing soccer or dancing the night away are all good examples of being active.

How many calories does physical activity use?

A 154-pound man (5’10”) will use up as much of the calories used for normal body functioning. Those who weigh more will use more. The calorie values listed include both calories used by the activity and those who weigh less will use fewer. The calorie values listed include both calories used by the activity and the calories used for normal body functioning.

APPROXIMATE CALORIES USED BY A 154 POUND MAN

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>In 1 hour</th>
<th>In 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiking</td>
<td>370</td>
<td>185</td>
</tr>
<tr>
<td>Light gardening/yard work</td>
<td>330</td>
<td>165</td>
</tr>
<tr>
<td>Dancing</td>
<td>330</td>
<td>165</td>
</tr>
<tr>
<td>Golf (walking and carrying clubs)</td>
<td>330</td>
<td>165</td>
</tr>
<tr>
<td>Bicycling (less than 10 miles per hour)</td>
<td>230</td>
<td>145</td>
</tr>
<tr>
<td>Walking (3½ miles per hour)</td>
<td>280</td>
<td>140</td>
</tr>
<tr>
<td>Weight training (general light workout)</td>
<td>220</td>
<td>110</td>
</tr>
<tr>
<td>Stretching</td>
<td>180</td>
<td>90</td>
</tr>
</tbody>
</table>

Vigorous physical activities:

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>In 1 hour</th>
<th>In 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running/jogging (5 miles per hour)</td>
<td>590</td>
<td>295</td>
</tr>
<tr>
<td>Bicycling (more than 10 miles per hour)</td>
<td>590</td>
<td>295</td>
</tr>
<tr>
<td>Swimming (slow freestyle laps)</td>
<td>510</td>
<td>255</td>
</tr>
<tr>
<td>Aerobics</td>
<td>480</td>
<td>240</td>
</tr>
<tr>
<td>Walking (4½ miles per hour)</td>
<td>460</td>
<td>230</td>
</tr>
<tr>
<td>Heavy yard work (chopping wood)</td>
<td>440</td>
<td>220</td>
</tr>
<tr>
<td>Weight lifting (vigorous effort)</td>
<td>440</td>
<td>220</td>
</tr>
<tr>
<td>Basketball (vigorous)</td>
<td>440</td>
<td>220</td>
</tr>
</tbody>
</table>

May is National Egg Month! Eggs are a good source of the highest quality protein, as well as an excellent source of choline which is essential in memory and brain development. And eggs provide varying amounts of all the essential vitamins other than vitamin C. A staple in your refrigerator, they’re an unbeatable quick-and-easy meal solution. Turn a package of frozen pasta into a mouth watering frittata with this recipe.

Madelene Meinke
UNL Extension Associate

We have all asked, “Where does the money go?” Where do those nickels, dimes, quarters and dollars disappear? Answer these questions to discover ways you manage your food dollars wisely.

1. Does our family limit spending on the “little things”? Do we routinely buy a soda, cup of coffee or snack from the vending machine or the convenience shop? Do we routinely eat out? Do we buy just-substitute items that make money disappear? This can easily add up to $5 or more a day. We don’t always think of this spending as part of our food budget. If you invested $5 a day at 10 percent, you would have $1,885 after only one year; $16,166 in five years. Those nickels, dimes, quarters and dollars add up.

2. Does our family have a “spending plan”?

If you manage your food dollars wisely, you need a plan. Think of this spending as part of your food budget. How can you plan your monthly budget by the number of weeks so your family can stay within the budget. The more trips we make to the store, the more we spend on both groceries and gas.

3. Does our family make a weekly menu plan?

There are many good reasons to make a meal plan, especially for the main meal of the day. Most important, your family will stay healthier by eating a greater variety of foods and saves you money.

Look for specials, use coupons and buy store brands, if less expensive. Also buy in larger quantity if the unit cost is less, storage space is available and you will use the product before it is outdated.

Balance buying more expensive foods with low-cost versions. One woman who was on a limited budget chose to buy steak once a month with the money she saved by stretching her dollars with bulk foods.

“Planned leftovers” stretch your food budget, save time and taste good. Look through grocery sale ads and coupon specials to incorporate those foods into your menu plan.

Find local sale items by reading advertisements in the newspaper or on-line. Involve your family in suggesting their favorite foods. Include plenty of fruits and vegetables which are nutritious and add color to meals. Find a routine time each week to write down your family’s menu ideas.

4. Do we use a shopping list?

Keep a running list of foods to buy as items run low during the week. Keep this list in a handy spot so everyone may add to the list. Look in your cupboards, refrigerator and freezer for foods you need to use.

5. Do we read the Nutrition Facts Labels?

This information is the most accurate way to find out what we are actually purchasing. First look at how many servings are in the container. Recommendations are based on a 2,000 calorie diet, which is considered “average.” The Daily Values (DV) listed are for one serving. Look for low-fat, sugar and salt content. Below five percent of the DV is considered low. Twenty percent or higher DV is considered high.

6. Are we paying for the food, not the package?

We pay a lot for packaging of advertised brands, individually packaged foods, canned foods and convenience foods. In fact, 90 percent or more of the cost of a food item may be just for the package. Minimize packaging costs by purchasing more foods in bulk and fresh produce. Limit individual serving-size foods.

If you answer “yes” to five or six of these questions, congratulations! You are Spending Smart.
Hardscapes for a Sustainable Landscape

By Ann Marie VanDerZanden
Iowa State University

Most residential landscapes include a combination of hardscapes (patios, decks, walkways and driveways) and ornamental plants. As you think about the design, construction and maintenance of your overall landscape, consider how you could make each component more sustainable.

The principles of sustainability: reduce, reuse and recycle, apply to the hardscapes used in landscaping. Reduce the amount of virgin materials used in the landscape. Reuse existing materials when possible or select recycled products. A number of new recycled landscape products are available. Many of them are made from recycled plastics combined with wood by-products. These materials require no maintenance and have a longer life span than wood, can be used for decks, fences, benches and planters and come in a variety of textures and colors.

It is often easier to evaluate the initial cost of construction materials than it is their long-term maintenance costs. However, the long-term maintenance costs of some building materials can be significant. Before you choose a product, research the initial and long-term costs as well as its recommended uses.

The hardscape options listed below vary in their sustainability and short and long-term costs. For specific information on these materials, consult a landscape construction reference or a landscape contractor.

Concrete Pavers:

These pavers are easy to install and allow for water infiltration. They come in a wide range of colors and shapes and can be used for drives, walkways, patios and even sunrooms or porch floors. Because they come in uniform sizes and shapes, they are relatively easy for a homeowner to install.

Concrete Slabs: The set up for pouring a concrete slab can be labor intensive but the actual cost of the concrete is relatively inexpensive. However, the slabs are susceptible to cracking and are expensive to repair. For most homeowners, concrete pavers are a viable alternative to a concrete slab.

Wood: Decay-resistant species such as Redwood are in short supply, generally harvested from ecologically-sensitive forests and often expensive. Using redwood salvaged from other purposes is a sustainable choice. Treated landscape lumber is readily available, and if maintained properly, can last 15–20 years. The safety of wood preservatives has been a subject of much controversy, particularly as it relates to disposal, accidental burning of the wood and leaching of the products into the soil. The methods and chemicals used to treat landscape lumber vary and you should consider these before you purchase a product.

Composite Wood:

These products are relatively new for homeowners, but have been available commercially for more than 15 years. A number of manufacturers make these products, which results in variability in their composition. In general, they are treated and contain substitutes for preservative-treated wood. They can be used for decks, fences and even some outdoor structures such as a gazebo. If using this product for a structure, be sure to check that it is rated for such a use.

Thoughtful consideration of hardscapes can significantly increase the sustainability of your landscape. Remember, a landscape is a long-term investment and you must consider up-front and long-term costs, both financially and to the environment, when you design and construct your landscape.

Good Lawn Care Practices Reduce Need for Chemicals

A healthy, dense stand of turf reduces weeds and recovers quickly from insect or disease injury. Cultural practices play a big role in the health of the lawn and need for pesticides. Lawns requiring frequent pesticide use — in particular herbicides — may have an underlying problem causing the repeated invasions of pests, such as weeds. Correcting the problem leads to a healthier lawn that can resist weed invasions and reduce the need for chemical use.

Good lawn care practices can also save water and prepare turf for dry summer months. Tall mowing and proper fertilization result in a deep and efficient root system which reduces the need for additional water.

SOIL CONDITION

Many lawns are growing on soils high in clay, compacted and poorly drained. Aerial and topdressing with organic matter or screened compost may improve these conditions. Another option is starting over and amending clay soils with compost. Thoroughly preparing soils before seeding or sodding is critical.

GRASS SELECTION

Make sure the proper grass species is used on the site. Full sun and sun/shade environments call for different grasses. Kentucky bluegrass is the primary species for lawns in full sun; in some cases mixed with perennial ryegrass and/or fine fescues. For dry shade areas, shade-tolerant Kentucky bluegrass cultivars are commonly mixed with fine fescues.

WATERING

Proper watering includes irrigating as lawns need it and getting moisture down into the root zone.

FERTILIZING

Proper fertilizing includes supplying adequate nutrients and proper soil pH. In particular, avoid excess or lack of nitrogen, fertilize during cooler weather (especially early and late fall) and use controlled-release nitrogen fertilizers. Don't apply high rates of nitrogen in spring.

MOWING

Proper mowing has a major impact on lawn health. Many lawns are mowed too short, allowing weeds to invade and other problems to appear. Mow between 2- and 3-inches and mow often enough so no more than one-third of the leaf blade is removed in any one cutting.

CORE AERATING

Manage lawn stress factors such as thatch, shade and soil compaction. Core aeration on a regular basis is an excellent practice to consider, in particular for sodded lawns over clay soils. Spring and fall are good times to aerate. Topdressing the turf with screened compost after aeration will further help relieve these stress factors.

Occasionally, problems will still come up requiring special management. Start by identifying the problem, then look at control options — both cultural and chemical. When using pesticides read, understand and follow all label directions.
**Yard Smart Resources**

**City of Lincoln Recycling Office**
Phone: 441-8215
Web site: www.lincoln.ne.gov
— keyword “compost”

**UNL Extension in Lancaster County**
Web site: lancaster.unl.edu
Educational resources on backyard composting, grasscycling, lawn chemical use, and much more.

**Lincoln-Lancaster County Health Department**
Phone: 441-8040
Disposal Lawn Chemicals, Complaints on Backyard Composting

**Lincoln Solid Waste Management Association**
Phone: 475-8376
Yard Waste Collection

**Nebraska Department of Agriculture**
Phone: 471-2394
Information on certification for private and commercial pesticide applicators

**The Water Center**
472-3305
Water Conservation

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**Tips to Reduce Yard Waste**

Yard waste can account for 20 percent of the total waste stream. Nebraska regulations prohibit sending grass and leaves to landfills during the growing season, from April 1 to November 30. By reducing or removing this waste source, the Lancaster County landfill life will be extended by 3 to 5 years. Homeowners and grounds managers can reduce yard waste with these good landscape practices.

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**Take the “Waste” Out of Yard Waste**

Routine lawn and yard maintenance is usually on every homeowner’s to-do list. Keeping the lawn neat and green can become a neighborhood goal, with everyone competing for the title of “best-kept lawn.” Reducing resources and minimizing waste in a landscape should be another worthy goal.

Reducing yard “waste” is the route most people choose, but often, while finding more satisfaction in routine yard care at the same time. Here’s how you can reduce lawn “waste” and transform it into yard “wealth.”

**Use Organic Mulches** — Recycle leaves, wood chips, grass clippings and other yard trimmings as mulch to retain soil moisture, reduce weed growth, moderate daily and seasonal soil temperatures and reduce soil erosion.

**Plant Ground Covers** — Reduce impractical lawn areas (deep slopes, shady areas, low spots) and keep tree roots moist and cool. Less lawn means fewer grass clippings. It also can reduce the amount of pesticide and fertilizer use.

**Direct Down Spouts into Planting Beds or Lawns** — Reduce runoff from down spouts directed onto paved surfaces which can contribute pollutants to lakes and streams. Redirect this precious natural resource to your yard rather than the pavement.

**Try Maintenance Landscaping** — Naturalize at least a portion of your yard to reduce maintenance, grass clippings, pesticides and fertilizer usage. Enjoy the attractive alternatives as your property contributes to a richer ecosystem.

**Landscape the Border of Your Yard** — Perimeter plantings provide a convenient place to recycle tree trimmings, leaves and garden debris. Decomposition is speeded up by cutting twigs and other materials into smaller pieces.

Select Plants for Proper Size and Vigor — Reduce trimmings by selecting dwarf varieties and always plan for the natural height of trees and shrubs before planting. Pest-resistant varieties reduce both chemical usage and the dead wood from diseased plants. Match plants to proper climate, soil, light conditions and topography.

Manage Lawn Areas Wisely — Proper care lawsns growing vigorously, which greatly reduces disease and pesticide use.

Fertilize Conservatively and Carefully — Test the soil and reduce fertilizer use to avoid excessive plant growth which contributes to potential yard waste. Reuse fertilizer spilled on paved surfaces which will otherwise pollute lakes and streams via runoff water.

Use Leaves as a Resource — Small amounts of leaves, when shredded with a lawn mower, can be recycled as an organic nutrient source if left on the lawn. This reduces the frequency of raking. Leaves can be reused to mulch perimeter plantings or as an ingredient in compost.

**Plan and Evaluate Your Yard** — Reconsidering your routines may require a little time and discipline — as opposed to proceeding as usual. But good, environmentally-friendly ideas should emerge. The key is to lessen the waste problem in some way by first re-thinking, then reduce, reuse and recycle.

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Grasscycling Has Multiple Benefits

Grasscycling, or grass mulching, is the natural practice of leaving clippings on the lawn when mowing. It is obvious how this practice can use resources such as landfill space, but there are additional benefits as well. The clippings quickly decompose, returning nutrients to the soil. Grasscycling, in conjunction with the practice of reducing water and fertilizer inputs, can reduce mowing time in addition to disposal costs.

Grasscycling can be practiced on any healthy lawn as long as responsible turf management guidelines are followed. Proper mowing, watering, and fertilizing practices result in more moderate turf growth yet still produce a healthy, green lawn.

The nitrogen contained in grass clippings is 2-3 times that of fertilizer. Dr. Dave scrapes lawn almost equals the recommended application rate for healthy turf (about five pounds of nitrogen per year per 1,000 square feet). While some of this nitrogen is lost through the decomposition of the clippings, leaving the clippings on the lawn by grasscycling can have the overall impact of reducing fertilizer requirements by 15–25% or more. Similar savings on water use are possible.

Following clip- pings to the lawn usually means mowing more than once a week during the few weeks of rapid growth in spring and early summer. Grass clippings should be less than one inch, or no more than one-third of the total plant height, to ensure rapid decomposition. Mowing more frequently is not as much extra work as you might think, because lawns mowed at the proper height cut more easily and quickly. Mowing infrequently damages the lawn by removing too much of the plant at one time. When mowed regularly, clippings filter down through the grass, decompose rapidly and recycle nutrients back into the soil.

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Grasscycling Saves Lawn Care Costs

- **Fertilizer** — Grass clippings can supply up to one-third of a lawn’s nitrogen fertilizer needs.
- **Time** — Recent trials confirmed leaving grass clippings on the lawn saves one-third of the mowing time.
- **Water use** — Clippings shade grass roots, cool the soil, return moisture, add moisture holding organic matter, and thereby reduce lawn watering needs.
- **Soil health** — Clippings decompose rapidly, feeding soil organisms that keep soil healthy and help prevent turf diseases.
- **Thatch** — Studies prove grass clippings do not cause thatch build up.
Composting Turns Yard “Waste” Into Useful Material

Compost is a mixture of partially decomposed plant material and other organic wastes. It is used in the garden to amend soil and fertilize plants. Making and using compost recycles yard wastes and reduces the burden of organic trash on our landfills.

The City’s Composting Operation

The City of Lincoln maintains a 16-acre yard waste compost facility next to the Bluff Road Sanitary landfill (at Highway 77 and Bluff Road). This site receives about 20,000 tons of grass, leaves, and brush each year. This is equivalent to about 2,000 garbage trucks during an eight month period.

Grass is mixed with leaves and wood chips to form windrows six to fourteen feet high and 12 feet wide. It takes about 12 months to complete the composting process. The material is screened to remove any debris and wood chips are placed in a curing pile. This finished material is then made available to the public as LinGro Compost.

Since the program began in October 1992, the city has composted an estimated 183,260 tons of grass and leaves and wood chipped 180 tons of tree debris.

The diversion of grass, leaves

and brush by the city for 13 years has added almost 1-2/3 years to the life of the sanitary landfill. If the program was discontinued and the yard waste was buried in the landfill, it would close in 2027 instead of the current projection date of 2030.

Partial funding for the city’s composting program was provided by the Nebraska Department of Environmental Quality, Waste Reduction and Recycling Program.

TO GET LINGRO COMPOST

A list of locations to pick up or purchase LinGro Compost are listed on the next page.

Kitchen Waste Composting

Food scraps contain nutrients that can be used to improve garden soils. Waste fruit and vegetables, peels, coffee grounds, egg shells, bakery products and many other leftovers can be safely composted using proper methods. These food scraps can be composted with grass clipings and leaves to produce a rich soil additive.

Trench Composting

This is an anaerobic composting method that relies primarily on the activity of worms and other larger organisms to break down organic material. This can be a very easy way to increase worm populations in your garden. All you need is a patch of bare soil and follow these steps:

1. Dig a long trench to a depth of around 12 inches within the vegetable garden or any part of the garden you want to improve.
2. Fill the trench with kitchen scraps and soft garden clippings. Sprinkle with a little fertilizer like blood meal mixed in a bucket of water.
3. Cover the food wastes in the trench with the original soil and water again.

You need to wait at least six weeks or more before planting. Legumes such as peas or beans and leafy vegetables are best.

Make Your Own Compost

Almost all organic materials will decompose. Composting hastens this natural process by creating conditions conducive to decomposition.

Composting Materials

Yard wastes, such as leaves, grass clippings, straw and non-woody plant trimmings can be composted. The predominant organic waste in most backyard compost piles is leaves. Grass clippings can be composted; however, with proper lawn management, clippings do not need to be removed from the lawn (see article on opposite page). If clippings are used for compost, it is advisable to mix them with other yard wastes.

Branches, logs and twigs greater than 1/4 inch in diameter should be put through a shredder/chipper or cut up prior to placement in the compost pile. Kitchen wastes such as vegetable scraps, coffee grounds and egg shells may also be added.

Certain organic materials should not be used to make compost because they may pose a health hazard or create a nuisance. Do not add pet feces since they may transmit disease. Meat, bones, grease, whole eggs and dairy products should not be added because they can attract vermin. Large amounts of weeds with seeds or diseased plants may create problems.

Building the Compost Pile

A compost pile should be large enough to hold heat and small enough to admit air to its center. As a rule of thumb, the maximum diameter of a pile should be three feet by three feet by three feet (one cubic yard) to hold heat. The maximum to allow air to the center of the pile is five feet tall by five feet wide and as long as you wish.

The compost pile can initially be prepared in layers. This will facilitate decomposition by ensuring proper mixing. To build a compost pile, start with a four to six inch layer of chopped brush or other coarse material set on top of the soil. This will let air circulate under the base of the pile. Next, add a three to four inch layer of low carbon organic material such as grass clippings. This material should be damp when added to the pile. On top of this, add a four to six inch layer of high carbon organic material (leaves or garden waste) which should also be damp. On top of this, add a one-inch layer of garden soil or finished compost. This layer will introduce the microorganisms needed to break down the organic matter.

Mix the layers of high carbon organic matter, low carbon organic matter, and soil before adding another layer to the pile. This will ensure a speedy and even composting of the organic material. Repeat the “layering” process until the composting bin is filled.

Microorganisms can only use organic molecules dissolved in water. A moisture content of 40–60 percent provides adequate water without limiting aeration. The “squish” test is an easy way to gauge the moisture content of composting materials. The material should feel damp to the touch, with just a drop or two of liquid being released when the material is tightly squeezed in the hand.

Making a Compost Bin

To save space, hasten decomposition and keep the yard looking neat, contain the compost pile in some sort of structure. Composting structures can be made from a variety of materials. Yard wastes can be composted either in simple holding units, where they will sit undisturbed for slow decomposition, or in turning bins which speeds up decomposition.

HOLDING UNITS — Holding units are simple containers used to store garden waste in an organized way until these materials break down. It only requires placing wastes into a pile or bin as they are generated. Decomposition can take from six months to two years. Once yard and garden wastes will be added continuously, the stage of decomposition will vary from the top to the bottom of each compost pile. Generally, the more finished compost will be found near the bottom of a pile and partially decomposed materials near the top.

TURNING UNITS — Turning units are typically a series of bins used for building and turning active compost piles. A turning unit allows wastes to be conveniently mixed for aeration on a regular basis. Turning systems require frequent maintenance and preparation of the wastes to be composted. Composting in these units is most efficiently done in batches. Materials should be stockpiled until there is enough to fill the bin. These bins should be monitored and turned after temperatures have peaked (90°–140°F) and began to fall. This occurs four to seven days after pile construction. Turn a second time when the temperature peaks again, four to seven days later. Compost processed this way will be ready in six to eight weeks.

Location

The compost pile should be located close to where it will be used and yet not offered neighbors. The pile will be best where it is protected from drying winds.

Screening Compost

Composting may not break down all the larger materials, such as corn cobs or wood chips, in the first batch of compost that you make. When you screen your compost before use, any material larger than your screen size can be removed. These materials are called “overs” which can go back into the next compost pile you build. The overs provide bulk for aeration and microbes attached to these pieces will help jumpstart the new composting process.
Using Compost and Wood Chips

In addition, to the multiple benefits to using compost and wood chips, doing so recycles yard wastes and reduces the burden of organic trash on our landfills.

Adding Compost into Soil

The chief advantage of compost is its ability to improve soil structure. Good garden soil is loose and has a high water-holding capacity with adequate drainage. Adding compost to heavy clay soil improves drainage by improving soil structure. Compost also absorbs water and improves the water-holding capacity of sandy soils. To conserve moisture it is essential to have soil with good water-retention.

In addition to improving soil structure, compost can be applied to slowly release plant nutrients. Compost will not provide all the nitrogen that highly productive crops require. Organic gardeners can supplement compost applications with manure to produce a balanced nutrient input without the addition of other fertilizers.

Finished compost is dark brown, crumbly, and has an earthy smell. Small pieces of leaves or other ingredients may be visible. If the compost contains many materials that are not broken down, it is only partly decomposed. Allow partly decomposed compost particles to break down further or separate them out before using compost around growing plants.

Compost can be blended into soil mixes and is suitable for most outdoor planting projects. It is typically mixed with other ingredients such as peat moss, shredded bark, sand, or loamy topsoil when used as an outdoor planting mix. Mixing ratios vary; but 10 percent compost is considered to be a minimum, 30 percent optimum and 50 percent maximum in planting shrubs and trees.

Compost has its greatest value when rototilled directly into the soil. One cubic yard of compost covers 108 square feet at three inches, 216 at two inches, and 324 at one inch deep. The rule of thumb is to spread compost no more than one-third the depth of the rototiller. A one-inch layer of compost should be tilled in six inches. Making two or more passes with the tiller helps blend the compost with the topsoil and break up any clumps of material.

Wood Chips as Mulch

Wood chip mulch is made from the chipping of tree and landscape plants trimmings. Mulch is mate- rial placed on the soil surface for the purpose of protecting the soil and plant roots. Not only do organic mulches add a decorative natural appearance to the landscape, they also provide many landscape benefits:

- Helps retain soil moisture. Mulch helps soil moisture and reduces water evaporation caused by wind and hot sun.
- Reduces soil temperature extremes. An inch of mulch acts as an insulating blanket to help avoid extreme temperature fluctuations.
- Reduces weed growth. When the site has been properly prepped, mulching reduces weed growth.
- Saves time in landscape maintenance. Place mulch under and between plants in tree and shrub beds, border plantings, hedges, rose beds and fruit orchards. By replacing grass with mulch, mowing and watering time is cut dramatically.
- Prevents direct contact with soil. Mulch prevents vegetables from mak- ing soil contact, thus helps to reduce rot.
- Prevents heavy rain damage. Mulching prevents soil erosion. It per- mits water to seep slowly beneath the protective covering.
- Increases survival of new trees. Not only do mulches keep the soil cool and moist, they also keep the lawn mower and weed trimmer from dam- aging young bark and killing trees.
- Gives a natural look. A few fallen leaves in a planting bed with wood chip mulch gives your landscape the natural beauty of a forest floor.

A recent study demonstrated the most effective approach to reduce storm water runoff and sediment erosion on slopes is to use a compost blanket approx- imately two inches thick.

From April 2004 through June 2005, the City of Lincoln and the University of Nebraska-Lincoln (UNL) conducted an erosion study comparing compost to traditional approaches of straw blankets and silt fences.

About the Study

Six test plots were constructed on a slope of 3 to 1. This is a fairly steep slope that rises about 33 feet in a horizontal distance of one hundred feet. The amount of rainfall for this study was tracked as well as the amount of run-off from each test plot during the period of the study.

Each test plot was seeded with a fescue-blend grass seed typically used by city highways. The fescue and vigna or of the established turf was greater in the compost amended plots than those with straw mats. The organic material in compost amended turf was almost five times more than it was for straw mat plots. This healthier turf helps to filter storm water and pollutants and hold soil better preventing sediment erosion.

The Results

This study demonstrated the use of compost as an effective approach to minimize soil erosion and stormwater run-off. In fact, the study showed ap- plying a two-inch blanket of compost would reduce soil loss by 98.8% com- pared to bare soil. When compared to the traditional erosion control practice of using a straw mat and silt fence, the compost blanket decreased the amount of sediment run-off. A recent test plot by 81%. Use of the compost blanket in- creased water infiltration up by 99.3% compared to a straw mat. In other words, only one percent of the rainfall ran off the compost blanket as opposed to 24% for the straw mat.

Compost can also be incorporated into the soil. However, it is recom- mended a filter berm be established at the base of any slope to minimize soil erosion prior to grass seed germination. A silt fence can be used if incorporating the compost into the soil. To produce the healthiest soil possible, soil tests can be conducted to determine the optimum application of compost.

How Compost Blankets Work

When raindrops hit soil with the vegetation removed, they dislodge and detach soil particles. This is called “splash erosion.” If there is more rainfall than the groundwater absorbs, the result- ing run-off carries the detached soil par- ticles away. The compost blanket buffers the un-vegetated soil to help it receive moisture, increases water infiltration into the soil and prevents the run-off velocities that carry sediment away. After vegetation growth, the compost provides both nutrients and additional organic matter to hold moisture in the soil.

An economic analysis conducted by UNL suggests a compost blanket would cost about five percent more than the traditional approach of using straw mats and silt fences. The cost analysis does not include additional seeding likely to be required in subsequent years for non-compost amended soils.

For More Information

To obtain more information on the use of compost for erosion control projects, contact the Lower Platte South Natural Resources District, 479-7279; the City of Lincoln Watershed Manage- ment Division, 441-4959 or Solid Waste Operations, 441-7043.
FAMILY & COMMUNITY EDUCATION (FCE) CLUBS

President’s Notes — Alice’s Analysis

Alice Doane
FCE Council Chair

The end of March, Ted and I were involved in different activities. Ted was ending up the 10th year for Japanese boys studying Animal Science and Agri-Business. They have been at the University of Nebraska for three months. Wednesday, March 29, the closing ceremony and a dinner was held for 11 boys. In 1968, there were 73 boys at the closing ceremony. How times have changed.

On March 28, Irene and I went to Syracuse to attend the District FCE meeting. I came home knowing how lucky we are to have the support in Lancaster County. I had a visit with Lorene and Pam. I was surprised to hear in some counties, they have just one or two independent members and no club files. Donna Lopour, our state president for FCE, stressed the importance of filling out the volunteer sheets. These reports will help you verify FCE, a non-profit organization.

It was wonderful to hear the principal at Johnson-Brock talk about how the “Character Counts” program works as she observes youth from kindergarten through 12th grade. Mrs. Kelsey told some wonderful stories.

The $300 scholarship for students majoring in Family and Consumer Science or Health is due May 1. Please encourage students to apply for this worthy scholarship. Mark your calendar, July 11, for the Sizzling Summer Sampler. Hope you are working on your heritage entries, which are due at our June meeting. The winners will go on to the state meeting which will be held in October.

FCE News & Events

FCE Scholarship Applications Due

A $300 scholarship provided by the Lancaster County FCE Council is available for a graduate of a high school in Lancaster County or a permanent resident of Lancaster County majoring in Family and Consumer Science or a health occupation. This is open to full-time students beginning their sophomore, junior or senior year of college in the fall of 2006 or who have completed one or two independent school years in a vocational school. Applications are now due May 1 (note new date) in the extension office.

Clean Up, By Any Means Necessary

One of the biggest complaints parents have is their children don’t clean their rooms. It seems like kids and clean rooms are like oil and water—they just don’t mix. To get children to clean up their messes, you need to say only one word: “Clean.”

Rules for Setting Rules

The first rule for setting rules is to be a child as part of the total family. Giving up everything for your child is probably not a wise idea. As parents you have needs which also must be met. It has been suggested every child needs to have parents “who are really crazy about him.”

Rules need to be rules or consequences can’t live with you. Make the rules brief and clear. More the you repeat the same rule, the more your child will tune you out. As your child matures, rules need to change.

Present rules in impersonal terms. Then, if your child feels any conflict it is between themselves and the rules; not between you and your child. Instead of saying, “Don’t you eat in the living room,” remind them, “The rule is, food and drinks in the kitchen only, please.”

Rules need to be rules or consequences can’t live with you. Make the rules brief and clear. More the you repeat the same rule, the more your child will tune you out. As your child starts outside for playtime, you need to say only one word: “Coat!”

Set rules before a situation gets out of control. As a parent you need to stay in control. If you don’t approve of something your child does, act before the situation gets out of control — before you become angry, upset and before your child’s behavior becomes unreasonable. The rule for setting rules is to keep your cool.

Sources: Parenting Your Child Effectively, NebGuide G991; Effective Ways to Guide Children, NF154

Remember Mom — Mother’s Day, May 14

One day a year we set aside a day to honor Mothers. That’s pretty special but...how about some ideas to make Mother remembered and special throughout the year.

• Instead of a dozen roses, how about giving one each month of the year?

• Perhaps she’d like a series of tickets to plays or a coupon booklet for a local store.

• IOU’s for occasional “grown up only” lunch dates may be appreciated.

• For the mother with young children, make a promise to babysit one night a month and keep it. Promise to bring dinner in one night a month.

This can be a homemade promise cooked by Dad or he can bring home some “take out” food.

• Plan a family outing each month to the zoo, museum, etc.

• Be creative and show caring. That’s what is really important.

These ideas can be shared from adult children to parent, husband to wife, child to parent. It is the thought that counts!

Make Vacation Less Stressful

Vacation time will soon be here. Start planning for a fun and relaxing time with your family. As adults, few of us have the luxury of the leisurely three-month vacation we enjoyed as kids, but most of us manage at least a few days away from work and the routine of daily life. Unfortunately, vacation time is sometimes more hectic and frustrating than ever before.

Here are a few tips to keep in mind when planning this summer’s get-away.

• Discuss your goals ahead of time and plan a vacation keeping them in mind. If your vacation goal is to slow down an normally hectic existence, five cities in three days is not a wise plan.

• Allow everyone who will be going on the trip to say in the planning. Disagreements are less traumatic and more easily solved at home than at the entrance to the amusement park.

• Allow ample “unplanned” time, as well as plenty of travel time. Nothing frays nerves like a destination with many routes.

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Jane Dowd

Lancaster County 4-H is proud to announce Jane Dowd as winner of May’s “Heart of 4-H Award” in recognition of outstanding volunteer service.

Jane has volunteered for 4-H for 11 years. She was leader of the Douglas Woolies sheep club and co-leader of the Launch Pads rocket club with her husband Kevin. Currently, she is organizational leader of the Creative Kids 4-H club. Jane has taught leather craft at Clover College for several years and has helped with the county-level senior Life Challenge contest.

“4-H has a lot to offer,” said Jane. “The projects we work on in 4-H use skills that are useful for a lifetime. I enjoy watching youth build skills and grow in character for adulthood. My favorite experience is every time a 4-H’er grasps the idea or skill we are working on and you can see the light bulb turn on inside them with a big ‘I get it!’ look. This sometimes comes while making the project and sometimes the reward is the huge smile they wear when they see the ribbon earned.”

Jane and Kevin live in Lincoln with their seven children, whom she homeschools. Jane also volunteers as a Sunday School teacher and as a speaker on spinning wool and medival history lifestyles.

Congratulations to Jane! Volunteers like her are indeed the heart of 4-H!

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

Quality Assurance Training, May 9

New leaders, experienced leaders, 4-H members and parents are invited to this training on Tuesday, May 9, from 7:30 a.m. to 7 p.m. at the Lancaster Extension Education Center. You will receive information on how to fill out the entry tags, the in’s and out’s of the overview just for 4-H, Life Challenge, Presentations Contest and other important county fair information. Preregister by May 22 by calling 441-7180.

Pre-Fair Leader Training, May 23

New leaders, experienced leaders, 4-H members and parents are invited to this training on Tuesday, May 23, from 9:30 a.m. or 7 p.m. at the Lancaster Extension Education Center. You will receive information on how to fill out the entry tags, the in’s and out’s of the overview just for 4-H, Life Challenge, Presentations Contest and other important county fair information. Preregister by May 22 by calling 441-7180.

Jammie Jamboree, June 17

Join us at the Jammie Jamboree and make jammie bottoms on Saturday, June 17, 9 a.m. Bring the Simplicity pattern 5358, preshawled flannel or 100% cotton fabric for the bottoms only and matching sewing thread. Also bring your sewing machine, basic sewing equipment, pins, scissors, measuring tape, etc. and a snack lunch. Adults are welcome. Sign up by June 12 by calling 441-7180. Open to non-4-H youth, Jammie bottoms may be entered at the fair and styled in the Style Revue.

Photo Darkroom

If you are interested in learning how to use a darkroom, learn some 4-H volunteer Pat Heath at 786-2741. She has been the Lancaster County Fair Photography superenten- dent for several years and has valuable knowledge to share. Also, at this year’s Lancaster County Fair there is a special top award for darkroom photo enlargement.

District/State Entry Forms Due May 12

District and State forms are now available and can be found at http://lancaster.unl.edu under Horse News. You can also pick them up at the extension office. All district/state entries are due to the county office by May 12. No late entries will be accepted. (All checks must be made out to Lancaster County Extension)

Horse VIPS Committee will be presenting a Trail Clinic on Wednesday, May 25 at 9:00 a.m. at the Lancaster Extension Education Center. All district/state forms are now available and can be found at http://lancaster.unl.edu under Horse News. You can also pick them up at the extension office. All district/state entries are due to the county office by May 12. No late entries will be accepted. (All checks must be made out to Lancaster County Extension)

Youth must be 12 as of January 1 to enter. Junior age group is 12-14. Senior age group is 15+.

If you are going to districts:

You should have filled out a 4-H enrollment form for this year.

Your horse ID form(s) must be in the office by May 12.

You must have passed Level III to enter Roping, Hunter Hack, Elementary Dressage, Advanced Western Pleasure, Advanced Western Horsemanship, Advanced English Equitation, 2 year Old Steer, 3 year Old Western Pleasure, Trail and Working Ranch Horse.

You must have a Level IV to enter Western Riding.

In hand classes, no minimum level is required.

Any questions, call Marty at 441-7180 or e-mail mcruickshank2@unl.edu

Horse VIPS will be presenting a Trail Clinic on Thursday, May 26 at 9:00 a.m. at the Lancaster Extension Education Center. All district/state forms are now available and can be found at http://lancaster.unl.edu under Horse News. You can also pick them up at the extension office. All district/state entries are due to the county office by May 12. No late entries will be accepted. (All checks must be made out to Lancaster County Extension). You must have a Level II to enter this contest.

Any questions, call Marty at 441-7180 or e-mail mcruickshank2@unl.edu

Attention All 4-H Riders

All Riding Skills Level Tests Must be Done in Group Testings

As of March 18, 2006, all riding skills level tests must be done in group testings. Individual tests done by lead- ers will no longer be accepted. Test dates, location and times to be announced will be:

• Saturday, June 24
• Tuesday, June 27
• Saturday, July 1

Please RSVP at least one week in advance of the test to Marty at 441-7180 or mcruickshank2@unl.edu. If a rider absolutely cannot take one of these tests but must be made, they may notify the extension office by the end of April to be rescheduled. The test can then be made. After that date, no exceptions to the test dates will be made.

Bangor Wyoming 4-H Horse Expo

Horse VIPS will be presenting a Trail Clinic on Saturday, June 24 at 9:00 a.m. at the Lancaster Extension Education Center. All district/state forms are now available and can be found at http://lancaster.unl.edu under Horse News. You can also pick them up at the extension office. All district/state entries are due to the county office by May 12. No late entries will be accepted. (All checks must be made out to Lancaster County Extension)
**Clover College**

**Tues. June 20–Fri, June 23**

Lancaster Extension Education Center, 444 Cherry Creek Rd

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<td>2:45–4:00</td>
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<td>GREAT GOATS</td>
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**REGISTRATION FORM ON PAGE 11**

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**4-Day Workshops**

**Clover Kids 4-Day Day Camp**

Clover Kids will participate in several hands-on activities while learning about animals, food, science, the outdoors and more. Refreshments provided for this workshop. TUE-FRI, JUNE 20-23; 8AM-12PM;

- **AGES: 8 & up** • **FEE: $25**

**Rockets... Countdown to Takeoff!**

Tues. June 20; 3:00–4:30PM

- **AGES: 3–7** • **FEE: $5**

**1...2...3... Blast off!** Have you ever wanted to see a rocket launch and land? Come to this workshop and you will have a rocket kit and one engine.

**AGE: 8 & up** • **FEE: $8**

**THUR, JUNE 23; 8AM–9:30AM**

**Beginning Jewelry**

Learn the basics of jewelry making. Take home your own bracelet.

**AGE: 8 & up** • **FEE: $8**

**THUR, JUNE 23; 10AM–12PM**

**Learning Leather Craft**

Practice the steps of leather craft to make a sampler coaster and book mark. Materials will be minimal prior leather work experience. Tools provided, please bring if you have them.

**AGE: 8 & up** • **FEE: $8**

**TUE, JUNE 20; 10:15–12:15PM**

**3-Day Workshop**

**Theater Adventures**

Create puppets, make stage sets, stage props and more. Bring your family!

**AGE: 8 & up** • **FEE: $5**

**TUE, JUN 20-22; 10:15–12:15PM**

**2-Day Workshops**

**Checkmate**

Learn basic tactics of chess and how to master your positional play. For beginning and intermediate players.

**AGE: 8 & up** • **FEE: $5**

**TUE, JUN 20-22, 10:15–12:15PM**

**Terrific Totes**

Sew a tote bag and create a quilt block for your own personalized machine.

**AGE: 8 & up** • **FEE: $7.50**

**TUE, JUN 22-23, 12:45–2:45PM**

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**1-Day Workshops**

**Candy Bar Bouquet**

Create your own candy bar bouquet. Take home two bouquets.

**TUE, JUN 20, 3–5PM**

- **AGES: 8 & up** • **FEE: $10**

**INSTRUCTOR: Cathy Hurdle, 4-H Volunteer**

**Patricki Silk Screen**

Learn from a local artist how to create your own beautiful 4th of July silk flower and paint and take home a sample.

**TUE, JUN 20, 8–10AM**

- **AGES: 9 & up** • **FEE: $10**

**INSTRUCTOR: Eva Kurcena, 4-H Volunteer**

**New Age Face Painting**

Learn fun techniques of face and body painting. You’ll learn how to paint realistic animals. Lots of glitter will be used so plan to get a little messy when you leave.

**TUE, JUN 20, 8–10AM**

- **AGES: 9 & up** • **FEE: $5**

**INSTRUCTOR: Jhonni Kurcena, 4-H Volunteer**

**Art with a Purpose**

Make apple pie! Make this absolutely delicious pie you actually bake at a time.

**TUE, JUN 20, 10:15–12:15PM**

- **AGES: 9 & up** • **FEE: $10**

**INSTRUCTOR: Eva Kurcena, 4-H Volunteer**

**Nail Art**

Learn the history of how to create different designs on your nails using nail art pens and stamping paper tapes. You will take home a bottle.

**TUE, JUN 20, 10:15–12:15PM**

- **AGES: 9 & up** • **FEE: $10**

**INSTRUCTOR: Jhonni Kurcena, 4-H Volunteer**

**Martial Arts**

Learn the history of Taekwondo, basic Taekwondo and self-defense techniques. You will come home with a belt and a kick. Other kicks and punches will be taught.

**TUE, JUN 20, 10:15–12:15PM**

- **AGES: 9 & up** • **FEE: $15**

**INSTRUCTOR: Michael Catten, Extension Intern**

**INSTRUCTOR: Paws Up!**

**Fun in the Kitchen**

Learn about cooking with fall leaves and squash and bread rolls. Learn more about shaping cookies through this hands-on workshop.

**TUE, JUN 20, 12:45–2:45PM**

- **AGES: 9 & up** • **FEE: $3.50**

**INSTRUCTOR: Marty Cruckshank, Extension Assistant**

** Primitive Rope Making**

Learn rope making as it was done many years ago. This class includes simple wrap around clove hitches, barbarian knots using natural fibers found in the woods or parks.

**TUE, JUN 20, 12:45–2:45PM**

- **AGES: 9 & up** • **FEE: $15**

**INSTRUCTOR: BJ Spjut, owner of Nyalukwak, Primitive Rope Making**

**Horse of Course II**

Same description as #1 Horse of Course I.

**TUE, JUN 20, 3–5PM**

- **AGES: 9 & up** • **FEE: $3.50**

**INSTRUCTOR: Marty Cruckshank, Extension Assistant**

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**Great Events**

**4-Day Workshops**

**CLOVER KIDS ROCKETS BIRDHOUSE/FEEDER MAKING FOR KIDS 10:15–12:15PM**

**BIRDHOUSE/FEEDER MAKING FOR KIDS**

**AGES: 8 & up** • **FEE: $5**

**INSTRUCTOR: Ron Sumg, 4-H Volunteer**

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**To Register, Use Form on Page 11**

**Telephone registration not accepted.**
Firth Town Hall Meeting is First Step in Visioning

Yelena Mitrofanova UNL Extension Educator

About 20 residents living in and around the town of Firth attended a Town Hall Meeting on March 27 at the Firth Community Center to learn about Firth’s upcoming visioning process.

To help residents understand the process, the group learned how planning and visioning techniques have been used in the improvement of communities in Kansas City, Portland and Seattle.

Firth Extension Educators Yelena Mitrofanova and Phyllis Schoenholz explained the steps, commitment and time line in the Visioning Process for the community. As the process moves forward, all community members are invited to become involved.

Community volunteers serve as they do in most communities. Logistics committee will plan for upcoming dates, times and places for the Listening Sessions this spring. The Communications committee will help publicize and promote the Listening sessions and Town Hall report. The Research committee will search out the resources and assets of the community needed for future planning.

People are invited to help with the process or to get more information, contact one of the village board members or Extension Educators Yelena (441-6735) or Phyllis (402-450-6678).

Community CROPS Offers Weekly Delivery of Fresh Produce

What’s in Your Box?

You will be responsible for picking up your share at a central location in Lincoln. CROPS is available at various business locations in Lincoln. CROPS is for 15 weeks (mid-June to end of September). You will be able to pick up your box at a central location in Lincoln. CROPS is available at various business locations in Lincoln.

How many vegetables do you buy a share in the harvest? Is about right for a family of 4 persons or later. Application forms are available at various business locations in Lincoln.

How does it Work?

How do You Sign Up?

Applications will be accepted through mid-June or later. Application forms and additional information is available at http://www.communitycrops.org or by calling Ingrid at 730-2532.

Source: http://www.communitycrops.org

Community CROPS: Combining Resources Opportunities & People for Sustainability is a grassroots non-profit organization, working with area gardeners and farmers to grow and market agricultural products.

Community CROPS is about right for a family of 4 persons or later. Application forms are available at various business locations in Lincoln.

Everyone is welcome to attend!

A "Community Visioning Process Celebration" is planned for Saturday, April 29 beginning at 4 p.m. at the Bennett Park Gazebo. The event will feature an ice cream social, live music and announcement of the town slogans.

How is it Grown?

All of the crops will be organically grown at Sunset Community Farm located on the edge of Lincoln.

What’s Your Box?

CROPS also tries to use as much recycled packaging as possible and the everything is about right for a family of 4 persons or later. Application forms are available at various business locations in Lincoln.

The Sudanese women strengthen their language skills and are able to communicate in English.

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How do You Sign Up?

Applications will be accepted through mid-June or later. Application forms and additional information is available at http://www.communitycrops.org or by calling Ingrid at 730-2532.

Source: http://www.communitycrops.org

Community CROPS: Combining Resources Opportunities & People for Sustainability is a grassroots non-profit organization, working with area gardeners and farmers to grow and market agricultural products. Community CROPS will be selling fresh, organically-grown produce throughout the growing season. You know exactly where your vegetables come from and the people who grow them for you.

What’s in Your Box?

You will be responsible for picking up your share at a central location in Lincoln. CROPS is available at various business locations in Lincoln. CROPS is for 15 weeks (mid-June to end of September). You will be able to pick up your box at a central location in Lincoln. CROPS is available at various business locations in Lincoln.

How many vegetables do you buy a share in the harvest? Is about right for a family of 4 persons or later. Application forms are available at various business locations in Lincoln.

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Everyone is welcome to attend!
ABC’s for Good Health, June 1, 8 & 15
A 3-Part Series Which can Change Your Life

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

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

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

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

CLOVER COLLEGE REGISTRATION FORM

To register, complete the registration form (one person per form) and return with payment (make check payable to Lancaster County Extension). Registrations must be received by June 12. Registrations are handled on a “first come” basis and will only be accepted upon receipt of fees. Classes fill up quickly — early registration is recommended. Telephone registration not accepted. All fees are nonrefundable unless a class is filled to capacity or canceled. May photocopy form if needed.

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

Name ___________________________ Age __________
Parent’s Name(s) ___________________________
Address _______________________________________________________
City ___________________________ State ___________ Zip ___________

Daytime Phone ___________ Evening Phone ___________

Special Needs (allergies, etc.) ___________________________

Workshop(s)

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Workshop(s) Use additional sheet of paper if needed

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I give permission to use my child’s name/photograph in publications, news articles, advertisements or Web sites pertaining to 4-H. I do not give permission.

Parent/Guardian Signature ___________________________ Date ___________

Mail or bring registration form and payment to:

UNL Extension Lancaster County, 444 Cherry Creek Rd., Ste. A, Lincoln, NE 68528

THE NEBLINE

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

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Mail to: UNL Extension in Lancaster County
444 Cherry Creek Road, Suite A • Lincoln, Nebraska 68528-1507
Fifth Graders Learn About Water, Air and Land and Living Resources at Earth Wellness Festival

Nearly 3,000 Lancaster County fifth graders attended the Earth Wellness Festival on March 27. Students attended four 25-minute presentations on a variety of topics concerning air, land, water and living resources. Their experience culminated with a special presentation by the World Bird Sanctuary of St. Louis, Missouri. Festival Co-Chair McKenzie Barry said, “In all, it takes about 100 community volunteers, helping before, during and after the festival to make it work. The presenters provide students with great interactive natural resources presentations.”

Classrooms attending the festival received pre-festival learning kits in October. Now in its 12th year, the festival is organized by 10 local agencies, including University of Nebraska–Lincoln Extension in Lancaster County.

In a session entitled “Scoop on Poop,” Barb Ogg from UNL Extension in Lancaster and Brad Barber from the City of Lincoln Wastewater Operations explained what happens after Lincoln residents flush. Wastewater is treated and discharged into Salt Creek. Biosolids are applied to farm fields as fertilizer for crops.

In a session entitled “Urban Youth Learn Where Food Comes From,” students learned about food products from animals. They also learned about the importance of agriculture to Nebraska and the nation.”

The Ag Awareness Coalition, led by University of Nebraska–Lincoln Extension, organizes the festival with the help of agriculture businesses, commodity associations and food industry companies.

Fourth Graders Learn About Agriculture at Ag Awareness Festival

More than 400 fourth graders from Lincoln area schools attended the Ag Awareness Festival held on April 4 and 5 at the Lancaster Event Center. Students gained a greater understanding of agriculture and how it impacts their daily lives. Students rotated between 10 interactive stations: Farming Technology, Grain Products, Grain By-Products, Swine, Horse, Dairy Production, Dairy Calves, Ruminant Nutrition, Beef Products, Beef Production and Food Safety.

“Urban youth learned where food comes from and what by-products come from animals,” said Festival organizer Deanna Karmazin. “They also learned the importance of agriculture to Nebraska and the nation.”

The Ag Awareness Coalition, led by University of Nebraska–Lincoln Extension, organizes the festival with the help of agriculture businesses, commodity associations and food industry companies.

In the Farming Technology session, students compared farming methods from 100 years ago with current farm equipment.

Students tried their hand at grooming a horse.

Students learned basic food safety practices, such as always thaw frozen meat in a refrigerator, not at room temperature.

In Ruminant Nutrition, youth observed live microorganisms from a cow’s stomach under a microscope.

In the Grain Products station, students learned about grains and their by-products.

In Grain By-Products, students learned about the uses of grains other than food.

In Swine, students learned about raising pigs and their by-products.

In Horse, students learned about taking care of horses.

In Dairy Production, students learned about raising dairy cattle and their by-products.

In Dairy Calves, students learned about raising dairy calves.

In Ruminant Nutrition, youth observed live microorganisms from a cow’s stomach under a microscope.

In Beef Products, students learned about raising beef cattle and their by-products.

In Beef Production, students learned about raising beef cattle and their by-products.

In Food Safety, students learned about handling food safely.

In Urban Youth Learn Where Food Comes From, students learned about food products from animals. They also learned about the importance of agriculture to Nebraska and the nation.”

The Ag Awareness Coalition, led by University of Nebraska–Lincoln Extension, organizes the festival with the help of agriculture businesses, commodity associations and food industry companies.