

6-1996

The NEBLINE, June 1996

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The NEBLINE

University of Nebraska Cooperative Extension
Lancaster County

June 1996
Vol. IX, No. 6

Horticulture ■ Rural Sense ■ Family Living ■ 4-H and Youth ■ Environmental Focus ■ Community and Leadership Development

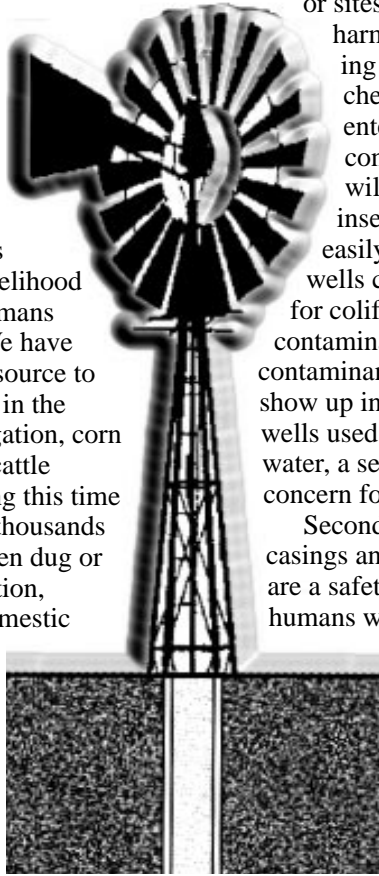
Plugging abandoned wells can save lives and groundwater

Dave Varner
Extension Educator

One hundred years ago windmills were a welcome sign to pioneers and livestock traveling on the prairie. Windmills were a precious sign of fresh water for nutrition, cooking and sometimes bathing.

Today, windmills still remind us of the precious water resources that lies beneath them. This water resource is critical to the livelihood and health of humans and livestock. We have also used this resource to become a leader in the center pivot irrigation, corn production and cattle industries. During this time period, literally thousands of wells have been dug or drilled for irrigation, livestock and domestic purposes.

The dilemma we have now is that over this period of time relatively few of these wells



were properly abandoned when their usefulness was exhausted. These abandoned wells are a direct pipeline to our groundwater supply and make it very prone to contamination.

Abandoned wells pose three primary threats. First, they are often located near gardens, fields or sites where the risk of harmful contaminating sediment, chemicals or wastes entering the well is a concern. Rodents, wildlife, pests and insects can all very easily fall into these wells causing potential for coliform bacteria contamination. These contaminants can eventually show up in public or private wells used for drinking water, a serious health concern for humans.

Second, large well casings and hand-dug wells are a safety hazard for humans who may accidentally step or fall into them. For example, take "Baby Jessica" who had this fate in Texas 4 years ago.

Third, open,

abandoned wells are a safety hazard to animals where they have the potential to become crippled or more seriously injured by stepping into an abandoned well.

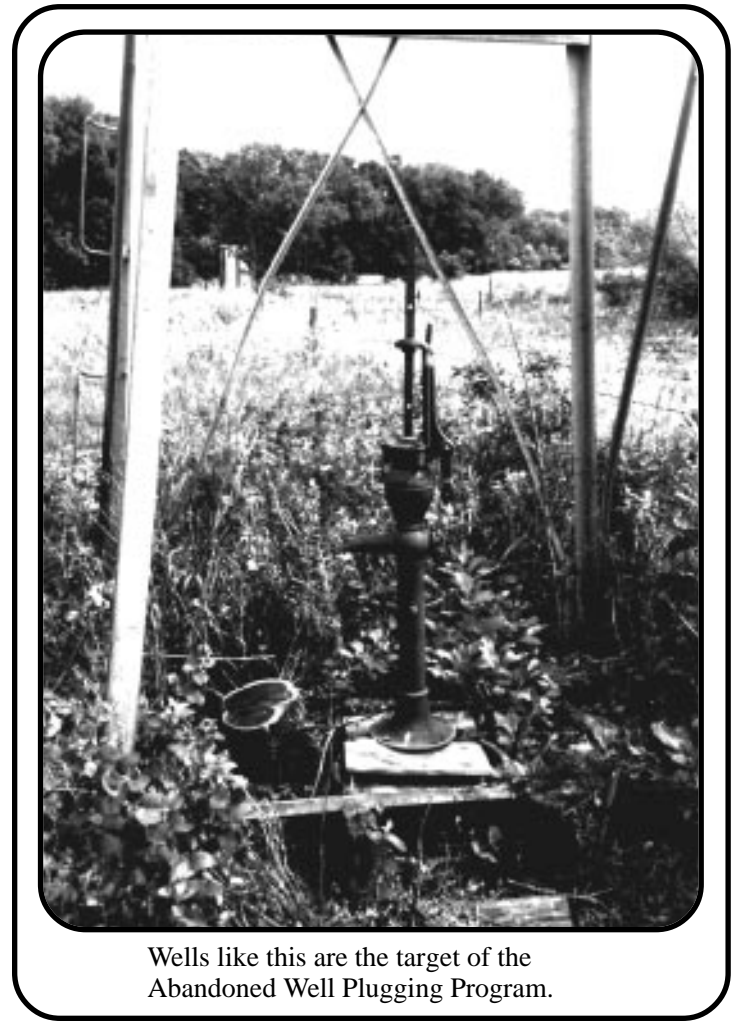
Properly plugging abandoned wells takes some time and costs money. However, it is time and money well spent when you consider the benefits that include protecting the quality of our groundwater supply and possibly saving a child's life. Plugging an abandoned well will benefit you now, but will also be appreciated by future generations. Remember, abandoned wells are an accident waiting to happen.

An abandoned well demonstration is scheduled Tuesday, June 4, 6:30 p.m. at the University of Nebraska Roger's Memorial Research Farm, 18500 East Adams Street. This demonstration will show participants how to properly plug an abandoned well. Information on cost-share assistance from the Lower Platte South Natural Resource District will also be available.

This demonstration is sponsored by University of Nebraska Cooperative Extension, Nebraska Well Drillers Association and Lower Platte South Natural Resources District.

Contact the University of Nebraska Cooperative Extension in Lancaster County to obtain NebFact sheet NF 92-81 *Plugging*

Abandoned Wells. Call the Lower Platte South Natural Resources District for cost-share programs and details.



Wells like this are the target of the Abandoned Well Plugging Program.

PRIORITY PROGRAM INDEX

The mission of the University of Nebraska Cooperative Extension in Lancaster County is to help people address issues and needs related to their economic, social and environmental well-being through educational programs based upon scientific knowledge.

Look in this box each month to spot articles addressing Extension priority initiatives. Specific program areas are highlighted with a corresponding icon.



Agricultural Competitiveness and Profitability

"Be prepared for drought"—page 3



Natural Resources and Environmental Management

"Yard and Garden Waste Management"—page 4



Youth and Family Initiative

"Ten alternatives to lashing out at your child"—page 7



Nutrition, Food Safety and Quality

"Youth learn about Five-A-Day Program"—page 6



Strengthening Neighborhoods and Communities

"Take your exercise program to work"—page 10

1996 Pesticide Container Recycling Program begins in June

Last year our Pesticide Container Recycling Program collected over 10,000 containers. Can these numbers possibly be beat? Only with *your* help!

Lancaster County area crop producers/pesticide users can bring their rinsed pesticide containers most Fridays to an area agricultural chemical dealer. You can also bring your clean containers to the Lancaster County Extension Office, 444 Cherrycreek Road between 8:00 a.m. and 4:30 p.m., Monday-Friday. Be sure to call ahead (441-7180) to make sure someone will be available to inspect your containers.

At each collection site, pesticide containers will be inspected by a trained individual to make sure they have been triple- or pressure-rinsed. Only white and yellow, 1- and 2 1/2-gallon pesticide containers will be accepted. Brown yard and garden pesticide containers cannot be recycled with the white and yellow containers. Oil bottles and antifreeze jugs are also unacceptable.

Prepare Containers Properly!

Containers should be *triple- or pressure-rinsed* so no visible residues remain inside the container. Rinse the threads around the container's opening and any product that may have run down the outside. *Drain the containers*; no water should remain inside the container. Some pesticides will stain or discolor containers. These will be accepted if no residues are detected when a container is rubbed with a neoprene glove. *Remove lids and plastic wrap labels*; they cannot be recycled.

Be sure to prepare the containers properly. Containers that have pesticide residues that can be rubbed off will not be accepted and will remain the property of the person bringing the containers to the site. (BPO/DV)

Turn to Page 11 for a complete list of collection sites and dates.



Lancaster County 4-H Council
University of Nebraska
Cooperative Extension in Lancaster County
444 Cherrycreek Road
Lincoln, Nebraska 68529-1507

Non-Profit Organization
U.S. Postage Paid
Permit No. 537
Lincoln, Nebraska





Horticulture

The garden fence



Q. My garden soil tends to be heavy and slow to drain. When I water, the water tends to stand on the surface for a long time. Applying water more slowly helps somewhat, but it makes watering seem to take forever. Is there anything else I can do?

A. A long-term solution is to add organic matter to the soil to lighten it and improve drainage. Another possibility is to construct raised beds for small areas or to garden in containers. If you are working with a large area, try shallow cultivation to loosen the soil surface and improve water absorption.

Q. I would like to avoid using chemical pesticides in my garden as much as possible. Are biological controls—ladybird beetles and other predators—the answer?

A. The main problem with predators is that they have minds of their own. They may fly away as soon as they are released in your garden. Or, they may stick around as long as the pickings are easy and then move on, leaving behind enough aphids or whatever to ensure you will soon have a problem again. Predators may then move back in and control it—or they may not.

Whether you can tolerate this kind of seesaw situation depends greatly on the type of pest and the damage it does. For instance, when the pest is the cucumber beetle, the physical damage it does by feeding on plants is minimal, but the disease organism it injects into the vines is always fatal. So, you just cannot afford to let cucumber beetles get established while you wait for predators to find them. Likewise, resorting to chemical insecticides after plants are infected is futile except for purposes of revenge. Ultimately, the control strategy you choose has to depend on your crop, the pest and the potential for damage.

Q. When are gourds ready for harvest?

A. Harvest gourds when the outer shell is so hard that you cannot easily dent it with a fingernail. Be sure to harvest before frost—frost or freezing damages the shells and increases the possibility that gourds will spoil rather than dry. (DJ)

A mulch for all seasons

Mulching encourages summer growth by conserving moisture, controlling weeds and keeping the soil cooler. Mulching is especially useful for vegetables that have long growing seasons—such as tomatoes. Straw, peat moss, crushed corn cobs, sawdust and compost are all good mulching materials.

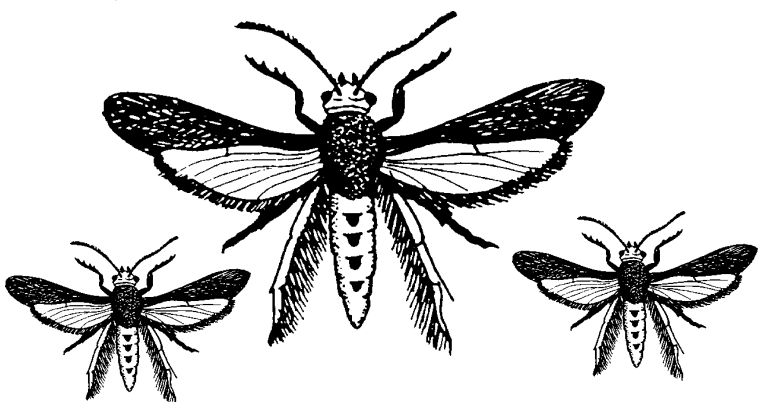
Mulch in early June after you clean up the weeds. Place the mulch material around plants and between rows. Use 4 inches of mulch if coarse material (like straw) is used or 2 inches for peat moss or other fine materials.

During a rainy season or in wet areas, any mulch may keep the soil too damp. (DJ)

Squelch squash vine borers

The squash vine borer is one of the most serious pests affecting squash and pumpkin vines. Injury is caused by the caterpillars boring into the tender, lower stems of the vines or bushes causing them to suddenly wilt a few weeks later.

Now is the time to begin spraying to prevent loss of this year's squash and pumpkin plants since the adults deposit eggs on the young stems and leaves. Apply malathion or dipel to the base of squash or pumpkin plants weekly when the vines begin to run or bush begins to grow. Follow all label directions and precautions when using insecticides. (MJM)



Growing indoor trees

Mary Jane McReynolds
Extension Assistant

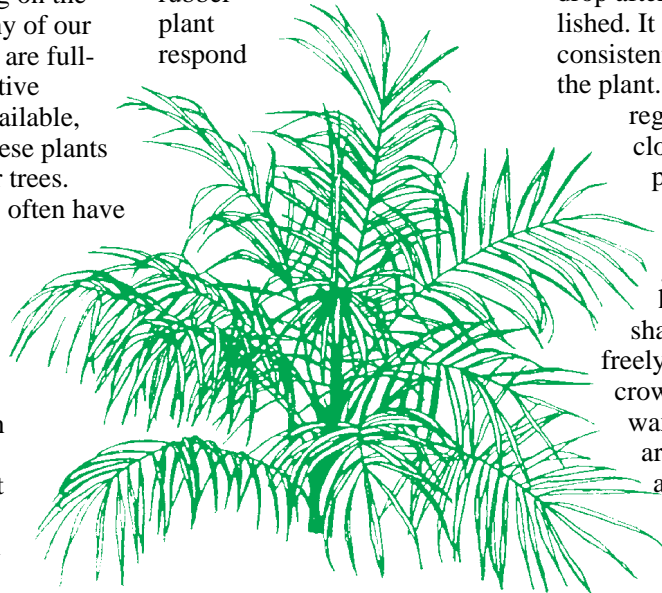
The houseplant is usually a small, well-kept foliage or flowering plant sitting on the window sill. But many of our common houseplants are full-scale trees in their native habitat. If space is available, large specimens of these plants can be used as indoor trees. Specialty plant stores often have access to large plants that can be used as effective room accents. Or, you might consider growing your own.

The date palm can grow up to 100 feet outdoors, but a 5-foot specimen is ideal for indoors. Plants set on a pedestal have a definite tree effect. For optimum growth, place them near any sunny east, south or west window, or add supplemental light. Room temperatures between 62 and 75 degrees F and moderate humidity are ideal. When old fronds turn yellow, remove them at the trunk with a sharp pruning tool to maintain an attractive stem.

There are several types of Ficus that can provide a wide variety of large specimen plants that quickly grow into tree form. The fiddleleaf fig produces leathery, deep green leaves about 15 inches long, with crinkled margins on stout stems. The common rubber tree produces slightly smaller, 6- to 11-inch leaves that are bright olive-green

with a touch of red along their straight margin. Well-branched specimens of either plant form trees with little effort.

Both the fiddleleaf fig and rubber plant respond



well to bright sunny locations, and often drop foliage if light levels drop. Supplemental artificial light will help maintain foliage quality, as will uniform soil moisture. As with the palms, temperatures of 62 to 75 degrees F and moderate humidity are helpful.

The weeping fig (another Ficus) probably has the greatest potential for becoming a satisfactory indoor tree. As the plant matures, it branches freely and develops a spreading, tree-like form similar to outdoor landscape trees.

Rapid changes in a weeping fig's environment often causes severe leaf drop. Some leaf drop is normal after the plant is brought home. The severity of

the drop can be reduced by making certain the plant receives plenty of bright, daytime light and adequate water. Rapid changes also may trigger leaf drop after the plant is established. It is important to be consistent in your treatment of the plant. Washing foliage regularly with a damp cloth will maintain good plant health.

Citrus plants (orange, lemon and grapefruit) 7 to 8 feet high create tree-like shapes as they branch freely to develop a full crown of foliage. Their waxy, bright green leaves are several inches long and remain on the plants all year. Under the right cultural conditions, these plants

may produce creamy white, sweet-scented flowers and colorful, edible fruit in season.

Like all flowering plants, citrus need plenty of sun, so putting them in an eastern or southern window works well. They need to be kept warm in the winter with temperatures between 62 and 72 degrees F.

If you have a vacant corner or bare wall, consider one of these large foliage plants to add color, variety and interest during the year. When summer arrives, these indoor trees can be moved to your outdoor living space, where they will benefit from the additional light and humidity while you enjoy their color and beauty.

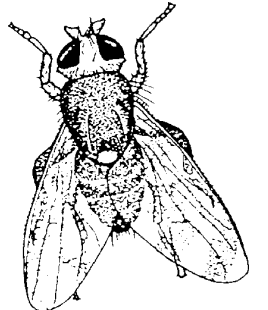
Think about apple maggot control now

The adult apple maggot is a fly similar to the housefly, but smaller. The larvae feed on the fruit and cause it to rot. They then drop to the soil to pupate during the winter months.

The control of the apple maggot must be directed at the adult fly. This control should occur between the time the adults emerge and the time they lay their eggs.

Sanitation helps reduce the number of flies. Pick up fallen apples and dispose of them. Weekly spraying with insecticides such as diazinon or malathion is an effective control. The spray schedule should begin mid- to late June and continue through August. To tell when the flies begin to emerge, coat a red, plastic ball with a sticky substance—such as Tanglefoot. Hang

this apple look-a-like in the tree and check it daily. (MJM)



The Herb Garden

Don Janssen
Extension Educator

Parsley

Once in the garden, parsley responds well to a weak fertilizer every two weeks or so. This is especially important if it is cut frequently.

Parsley is, of course, frequently used as a decorative addition to a plate of food; it is a tangy addition to salads. When destemmed leaves are chopped in a blender with a little water

(pack a 2 cup measuring cup with leaves, then fill with water), they can be frozen into ice cubes for later use. Parsley also makes a decorative hanging basket or pot, whether or not it is planned for eating. The green leaves can be dried quickly when spread on a cookie sheet and "baked" at 400 degrees F for 15 minutes. Stir every 5 minutes. Do not let it burn—just crisp. Crumble the crisp leaves, remove any limp bits, allow to cool and then store in a tight jar. Parsley does not dry well by hanging. (DJ)

Tips on harvesting lettuce

Seed stalk formation (bolting) occurs in lettuce as the days lengthen, temperatures increase and the plant ages. Harvest all your lettuce as soon as seed stalks appear and store in the refrigerator. Increased temperatures not only encourage bolting, but also promote bitterness. Store the leaves in a refrigerator for 2 days and much of the bitterness will disappear. (DJ)



Garden Gossip
Hotline
441-7179



Be prepared for drought

Barb Ogg
Extension Educator



According to Nebraska Climatologist Al Dutcher, soil moisture was not adequately replenished during the fall and winter of 1995-96 throughout Nebraska. This includes the 1- to 2-inch rainfall that many areas of southeastern Nebraska received April 27 and 28. In southeast Nebraska between September 1, 1995 and May 1, 1996, soil moisture replenishment was only 55 percent of normal—with less than 4 inches of liquid equivalent. Because the soil has less water going into the spring planting, there is a high likelihood of insufficient moisture for good crop growth and yields. Consider the following crop management suggestions:

Grow drought-tolerant crops instead of high water users. We have seen a trend toward planting corn the past few years when moisture was abundant. Sorghum generally is more tolerant to dry conditions and should be considered when conditions are already dry.

Grow drought-tolerant varieties. Check with seed companies and plant varieties that are more tolerant or adaptable to dry conditions. This is a year to plant several varieties of each crop. This strategy will spread your risk.

Reduce plant populations. Corn is highly susceptible to

drought at the time of silking so corn producers should reduce the plant population to 15,000 to 18,000 plants per acre on non-irrigated fields.

Reduce tillage operations. Each tillage operation permits valuable moisture to escape from the soil. Up to 1 inch of moisture can be lost per tillage operation. No-till crop production conserves the moisture in the soil.

Monitor your fields for poor weed control. Because the effectiveness of many herbicides depend on timely, adequate soil moisture, weed control may be poor. Monitor your fields and be prepared to use mechanical control or post-emergence herbicides to control weeds when they are small.

Monitor your fields for insects. Crops are not as tolerant of insect damage during a dry year and some insects thrive in dry conditions. The following insects tend to cause more severe damage during dry years.

Corn rootworm. During a dry year, root feeding reduces the growth rate of the above ground portion of the corn plant—including silk emergence. Delay in silk emergence causes poor pollination. Because corn rootworm eggs and larvae survive and even thrive in dry soil conditions, yield losses to corn rootworm can be especially severe when soil conditions are dry. Rotation with a nonsusceptible host like soybean or sorghum is still the best control option.

Chinch bugs. These insect thrive when conditions are dry because they are susceptible to a fungus that occurs when it is wet and humid. Chinch bugs affect small grains in the spring and sorghum and corn from mid- to late June. No varieties are resistant to early season seedling damage although there may be some varieties that are resistant to later season damage. The best method of control is to refrain from planting sorghum next to wheat that is infested. A new systemic insecticide on the market, Gaucho, is marketed as a seed treatment and has nearly the same effectiveness against chinch bugs as Furadan (now taken off the market). Gaucho seed treatment is also effective against greenbugs for several months.

Grasshoppers. These insects thrive when conditions are dry. Because we saw large number of grasshoppers last fall, we are likely to see serious infestations again this summer. Start monitoring wastelands, ditches and CRP acres for small grasshoppers in mid-June and examine these areas weekly. Small grasshoppers can be controlled with localized sprays in these areas when they are small. Late season controls are not effective.

Spider mites. Spider mite populations can explode in the summertime when conditions are dry. Spider mite outbreaks can significantly reduce the yields of corn and soybeans; spider mites require excellent spray coverage to effectively control them.

Weed resistance... going the distance

Ward Shires
Extension Educator

The North Central Weed Science Society Herbicide Resistance Committee has developed the following strategies to avoid problems with weed resistance.

Keep in mind that reliance on any one strategy is not likely to be effective. But, by using them in carefully selected combinations, weed-resistance problems may be avoided.

1. Use herbicides only when necessary. When possible, base herbicide applications on weed economic thresholds.

2. Rotate herbicide modes of action. Avoid consecutive applications of herbicides with the same mode of action to the same field unless other control practices are also included in the management system. Consecutive applications could be one annual application for 2 years or two split applications in 1 year.

3. Apply herbicides with multiple modes of action. Use tank-mixed, prepackaged, or sequential mixtures that include multiple modes of action. To be effective, both herbicides must have substantial activity against the potentially resistant weeds. Keep in mind, it may be expensive to apply herbicide combinations that duplicate a wide

spectrum of weed control activity. Many of the more economical herbicide combinations may not be adequate. Remember, in the past, weeds that were selected for herbicide resistance often were not the primary targeted species.

4. Rotate crops with different life cycles. For example, alternating between winter annuals (such as winter wheat), perennials (such as alfalfa) or summer annuals (such as corn) can help prevent weed-resistance development. At the same time, remember **not** to use herbicides with the same mode of action in these different crops unless other effective control practices are also included in the management system.

5. Use care with herbicide-resistant crops. Planting herbicide-resistant crops should not result in consecutive applications of herbicides with the same mode of action.

6. Consider mechanical weed control. Combine, where feasible, practices such as rotary hoeing and cultivation with herbicide treatments.

7. Use tillage. Include, where soil erosion potential is minimal, primary tillage as a component of your weed management program.

8. Scout fields. Monitor weeds regularly and identify

potential problems. Accurate weed identification allows you to select herbicides that are effective on your targeted weeds. Respond quickly to changes in weed populations to restrict the spread of resistant weeds.

9. Clean equipment between fields. Clean tillage and harvest equipment before moving from fields infested with resistant weeds to those that are not.

10. Monitor total vegetation control programs. Encourage railroads, public utilities and highway departments that use total vegetation control programs to use management systems that do not lead to weed resistance. Resistant weeds from total vegetation control areas frequently spread to cropland. (WS)

Preventing problems when grazing alfalfa

Does the fear of bloat keep you from grazing alfalfa? Alfalfa could become our number one pasture plant if only we could control bloat effectively and cheaply. Here are five techniques that help reduce bloat:

First, avoid large meals of alfalfa. Be sure animals are full of other feed before turning onto alfalfa the first couple of times. Also, make sure they never run low of



Rooting out pasture weeds

Normally, late June is the best time to treat broom snakeweed, vervain, goldenrod sagebrush, snow-on-the-mountain, western ironweed and western ragweed. There is a tendency to treat too late rather than too early.

A good guideline for most perennials is to mow or apply the herbicide when weeds are in the early flower bud stage. Biennial thistles should be treated in May before flower stalk elongation and annual weeds including sunflower should be treated by mid-June.

The most commonly used treatments are Ally; 2,4-D ester;

and a combination of 2,4-D and Banvel. Tordon is available for tough weeds and Crossbow is effective on woody plants. Grazing restrictions are minimal with the exception of milking dairy animals.

Uneven terrain often makes uniform herbicide application difficult on grazing land. A marking system helps eliminate missed strips. Use care when applying herbicides near sensitive crops, gardens, windbreaks and farmsteads. Injurious drift can occur for 1/2 mile or more. (DV)

Wiping out woody weeds

June is the best time for foliar applications of most herbicides for woody plant control. To achieve the best control, thoroughly cover foliage when plants are in full leaf and foliage is tender. Later in the summer, plants are often stressed due to dry conditions, resulting in lessened herbicide effect.

Several herbicides are available for woody plant control

in pastures. These include 2,4-D; 2,4-DP; Crossbow; Banvel; and some formulations of Tordon. In non-cropland situations, Garlon, Krenite, Spike and Velpar also can be used for woody plant control. With the exception of Krenite, June is the best month for foliar applications. Krenite should be applied in late summer or early fall. (DV)

Steps to calibrate your spray equipment

To avoid needless ag chemical waste and potential water contamination, calibrate your spray equipment at least once a year. Just follow these nine easy steps:

1. Fill your sprayer with water.
2. Measure the distance between the nozzles on your spray boom.
3. Choose the test course length (in feet) from this chart, measure and mark the course distance in the field.
4. Drive the test course at your normal spraying speed and record the number of seconds it takes to drive the measured distance. Be sure to operate all equipment.
5. Stop, set the brakes, but keep the engine rpm at the same setting used to drive the test course.
6. Set the desired pressure on your sprayer.
7. Using a container marked in ounces, collect the water sprayed from one nozzle during the same number of seconds it took to drive the test course.

8. Measure the flow of each nozzle. If the flow rate of any tip is 10 percent greater or less than the others, replace it.

9. The water collected in ounces per nozzle equals gallons per acre applied. Fine-tune sprayer pressure accordingly.

Contact the Extension office for additional information. (DV)

Nozzle Spacing (in.)	Test Course Length (ft.)
40	102
38	107
36	113
34	120
32	127
30	136
28	146
26	157
24	170
22	185
20	204
18	227
16	255
14	291
12	340
10	408

alfalfa that is moist with dew, rain or irrigation water. Also, the flush of new alfalfa growth after drought or hail is especially dangerous.

Fourth, allow alfalfa to begin to bloom before grazing; older, mature plants cause less bloat than young shoots.

Please turn to
"Alfalfa" on Page 11.

Second, dilute alfalfa with other feeds. Use a grass/alfalfa mixture instead of pure alfalfa for pasture, or feed some dry hay or grain while on alfalfa pasture.

Third, do not graze alfalfa under conditions likely to cause bloat. These include turning animals onto fresh



Environmental Focus

Horace the Hippo says...

Hi kids, I'm Horace the Hippo...Lincoln's number one volunteer. I want to remind everyone to be water wise.



The hot summer months are just around the corner. As the temperature starts to climb, the demand for water will also rise. During the summer months, over half of the water used is for lawns and gardens. Wise use of water is a good idea for many reasons. On a grand scale, it protects our environment and preserves this precious natural resource. On a personal level, it saves you money by reducing your water bill. As a community, water conservation will lengthen the life of Lincoln's water delivery system, because less stress is placed on the system.

Remember parents and kids! Use water wisely during the hot summer months.

Here are some water wise tips:

Water during the cool part of the day.

One inch of water per week is enough for your lawn. (For a fun activity, parents and kids can go shopping for a rain gauge.)

Find out how much water you need. Parents and kids can do the following step test together. Step on your lawn to see if the lawn springs back or stays flat. If it stays flat, give it some water. If it springs back, no water is needed. Limit water to 15 minutes, that is about all the

soil can absorb.

Know your plants and lawn. Some are drought resistant and will make it through the dry spells with little watering. Go to your favorite garden center and ask for help in selecting plants that are water wise.

Cement does not need watering. Avoid watering your driveway or sidewalk by checking the position of your sprinkler.

Teach kids how to mulch a garden to slow water evaporation (keeps moisture in and weeds out).

Use a bucket of soapy water to wash a car; use a hose only for rinsing.

Won't you join me and Lincoln's Water Department in making all of Lincoln water wise? Please watch for more water tips from me later this summer.

Ilene Reed, Mayor's Water Conservation Task Force

Woodlands make poor pastures

Ever since the early settlement of the United States, woodlands have been used as pasture land and rangeland.

Livestock cause rapid erosion of woodlots by clearing, cultivating and compacting the soil. They clear the land by eating the understory plants and pulverizing the leaf mold; cultivate or loosen the surface soil with sharp, hard hooves as they travel over and paw the soft topsoil; and compact the soil with the tons of beef carried on small, hard hooves. Compaction prevents the soil from absorbing rainwater. This forces rainfall to run off, carrying soil particles with it.

and timber production suffer when a woodland is grazed. Also, wildlife cover and food supply are reduced or eliminated, and the quantity of wildlife is diminished.

The simple solution to the woodland erosion problem is to fence livestock out of the woods. Convert marginal woodlands into productive pasture by fencing it to protect the remaining woodlands from pasturing. (DJ)



Almost completely useless facts

- * One kangaroo can eat up to 14 pounds of food a day!
- * An African elephant's trunk has about 100,000 muscles. It can be used for moves as delicate as plucking a single leaf or as powerful as knocking down a tree.

Yard and garden water management



Do you take water for granted? Do you carefully manage your water to benefit your yard and garden

plants as well as your pocket book? Improper water use and irrigation scheduling waste millions of gallons of water.

Water may be scarcest during the very time plants need it most—from April to September. Whenever hot, dry weather occurs, homeowners become concerned about the survival of their trees, ornamental shrubs, flowers, gardens and lawns. Not only does limited water threaten their survival, but water-stressed plants are more susceptible to insects, diseases and winterkill than healthy plants. Since landscape plants gain in value (both sentimental and monetary)

over the years, no one wants to risk losing them.

Efficient landscape water management tips

○ Use ground covers around trees, corners, curb areas and steep slopes.

○ When applying water, thoroughly wet soils to the depth of the root systems.

○ Soaker hoses and drip systems are more efficient than sprinklers.

○ Know your soils and their water holding capacity.

- Soils with slow water infiltration can only take brief watering without runoff occurring.

- Sandy soils dry out faster than clay soils.

- Do not apply water faster than the soil can absorb it.

- Fertilize sparingly, the more

fertilizer applied; the more water required.

○ Too much water can cause:

- Loss of nitrate fertilizer to plants.

- Root problems.

- Waterlogged soil.

- Increased costs.

○ Water at the correct time and correct amount.

- Watering in the heat of day can waste up to 65 percent of the water through evaporation.

- Water in the cool morning.

- Apply 1 to 1 1/2 inches per setting, no more than two times in 7 to 10 days on gardens and lawns.

- Brief watering does not allow water to saturate through the top grass mat layer and reach roots.

- Do not water just to be watering. If it rains, do not water.

(MJM)

Urban walnut trees—are they valuable?

Reports of black walnut trees being sold for hundreds or even thousands of dollars often cause homeowners to dream of huge profits from selling their backyard walnut trees. Unfortunately, while good quality walnut trees are often quite valuable, walnut trees grown in an urban setting usually are not. Only an exceptionally large, high quality, urban grown walnut or group of walnut trees would interest a timber or veneer buyer.

Black walnut (*Juglans nigra*) has long been used for fine furniture, gun stocks, bowls and novelties because of its beautiful grain, color and the ease with which it can be worked. Good quality walnut logs are cut into lumber; the best are sliced into veneer.

Several key characteristics determine the value of a black walnut tree for timber or veneer—including trunk diameter, merchantable height and how free the trunk is from defects. While walnut buyers will occasionally purchase small trees, particularly if they are part of a group of trees being sold, trees less than 15 inches in diameter are of comparatively

little value. Quality lumber and veneer trees generally have diameters of 18 inches or more.

A tree's diameter is measured 4 1/2 feet above the ground. It can be determined by measuring the circumference with a tape or string and dividing the circumference by 3.14.

The length of tree trunk that can be used for lumber or veneer is called its merchantable height. In black walnut and other hardwoods, merchantable height is usually the trunk height to major branches or forking.

Minimum merchantable height for lumber and veneer black walnut trees is 8 to 10 feet. Quality lumber and veneer trees will have merchantable heights several times this height.

The quality of a hardwood tree is measured by how free its trunk is from defects such as crookedness, limbs, scars, swellings, bumps, cracks, holes, insect or disease damage, and wounds. Other factors being equal, the fewer the defects, the more valuable the tree.

Unfortunately, most urban walnut trees do not display the characteristics of high quality marketable trees. Urban walnuts

often grow in open areas without surrounding trees. This results in trees with short trunks and numerous branches—little or no merchantable height. They are also more likely to have been struck by lightning or injured by human activities than trees grown in the woods. Even urban walnut trees that appear suitable as lumber or veneer trees usually are avoided by buyers because of the risk that they contain objects such as nails, wire, insulators, clothes line hooks, etc., which would damage saw blades or veneer knives.

The combination of poor quality, high risk of embedded objects and potentially difficult logging results in most urban walnut trees being of little interest to timber or veneer buyers. This does not mean that buyers would not be interested in an urban walnut that had a 30-inch diameter trunk, 32 feet of merchantable height in a straight trunk that was virtually free from visible defects, located in the middle of a large backyard away from any utilities or buildings. Unfortunately, there are very few such trees. (DJ)

Protect your family from carbon monoxide

Even with cold weather past, for the most part, carbon monoxide poisoning can still have a presence in your home.

For example, homes with gas clothes dryers should have the outside exhaust checked for lint that can block the vent and force carbon monoxide back inside.

Have a professional check the furnace and fuel burning appliances for leaks and proper venting once a year. Also, have your chimneys, flues and all other vents inspected for leaks and obstructions.

For added safety, install at least one carbon monoxide

detector in the home.

Carbon Monoxide, (Item 561C) is free and includes a checklist for identifying carbon monoxide sources in your home. It is available from Consumer Information Center, Department 561C, Pueblo, CO 81009. (WS)

Bat Bites



Bats are some of the most misunderstood mammals in the world. Here are a few things you might like to know about them.

* Most bats in North America eat insects such as mosquitoes. One bat may eat 500 insects an hour!

* The smallest mammal in the world is the bumblebee bat from Asia. It weighs less than a penny.

* There are more than 900 species (kinds) of bats.

* Bats are smart about staying away from people.

* Trees and shrubs are good hideouts for bats. They often find shelter behind window shutters. Rock piles or rock walls make great bat forts. Holes between the rocks are good spots for bats to roost during the day. (AH)

Lincoln-Lancaster County Health Department 1996 Hazardous Household Waste Collection

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

Date	Location	Time
Saturday, June 1	State Fair Park, parking lot northwest of Ag Hall	9:00 a.m.-3:00 p.m.
Saturday, July 27	Nebraska Wesleyan University, parking lot, 56th & Huntington Streets	9:00 a.m.-3:00 p.m.
Saturday, September 21	Lincoln-Lancaster County Health Department, 3140 N Street, south parking lot	9:00 a.m.-3:00 p.m.
Saturday, November 2	State Fair Park, 4-H Youth Complex	9:00 a.m.-3:00 p.m.

Household Hazardous Waste Collection will take:

Pesticides—Weed killers, garden sprays, wood preservatives, roach powder, pet flea and tick products, rat poisons, etc.

Items Containing PCBs—Ballasts from old fluorescent lamps and small capacitors from old appliances including radios, motors, and televisions.

Solvents—Mineral spirits, turpentine, paint strippers and thinners, varnishes, stains, polishes, and waxes.

Heavy Metals—Wastes containing mercury such as thermometers and fluorescent bulbs. (Most batteries can now be recycled locally.)

Keep products in the original container and keep the label intact. If the label is already destroyed or unreadable, label the products to the best of your knowledge. Open, leaking or rusted containers should be placed in a clear plastic bag during transport to a collection. Do not mix chemicals!

Do Not Bring

Latex Paint	Antifreeze
Medicines	Used Oil
Fertilizers	General Household Trash or Business Waste
Explosives and Ammunition	Alkaline, Carbon-zinc, Zinc-air and Vehicle Batteries

If you have questions on how to dispose of these items, call the Lincoln-Lancaster County Health Department, 441-8040. (LB)

Lead poses danger to children

One out of every 11 American children has high levels of lead in his or her bloodstream—levels that can cause lead poisoning.

In children, lead poisoning can result in hyperactivity, slowed growth, brain and nervous system damage, headaches, and hearing problems.

Although serious, the situation is not difficult to remedy.

A major cause of lead poisoning is lead-based paint. Although banned from housing in 1978, lead-based paint is present in older dwellings. People who think lead-based paint might be present in their homes may call the National

Lead Information Center (800-LEAD-FYI) or look under "lead" in the phone book for a qualified professional who can identify hazards and provide a risk assessment of any lead found. Well-maintained, lead-based paint probably is not a problem; however, it should be removed or contained if it is peeling, chipped or chalky.

To keep lead-based paint in good condition and reduce related health risks, clean surfaces weekly with a sponge or mop, warm water, and an all-purpose or specialized cleaner. Wash all sponges and mops thoroughly after using them on lead-based paint.

Finally, make sure children's hands are clean—especially at mealtimes and bedtime. Clean play areas, toys and pacifiers regularly to remove any lead dust. Feed children a low fat, high iron and high calcium diet; this will help their bodies absorb less lead.

The federal government offers a booklet to help identify lead hazards. "Protect Your Family from Lead in Your Home" (Item 338C—50 cents) may be obtained by sending a check or money order (payable to the Superintendent of Documents) to Consumer Information Center, Department 338C, Pueblo, CO 81009. (WS)

Turn to Page 11 for more Environmental Focus

U.S. solid waste trend

In 1993, 207 million tons (4.4 pounds per person per day) of municipal solid waste were generated. After materials were recovered for recycling and composting, discards were 3.4 pounds per person per day—virtually all of which was combusted or sent to landfills.

Recovered materials for recycling and composting were estimated to be 22 percent of municipal solid waste generated in 1993 (up from 17 percent in 1990) continuing the impressive growth of recent generation, and the remaining 62 percent of the municipal solid waste stream was sent to landfills or otherwise disposed.

Between 1990 and 1993, recovery of materials for

recycling and composting increased from 33 million tons to 45 million tons—an increase of 37 percent. Recovery of paper and paperboard accounted for over half of this increased tonnage. Yard trimmings for composting contributed the next largest increase in tonnage recovered.

The percentage of discarded waste continues to decline due to increased levels of recovery for recycling and composting. In 1985, 83 percent of the municipal solid waste was landfilled compared to 62 percent landfilled in 1993. Even with this reduction, landfilling continues to be the single most predominant waste management method into the year 2000. (DJ)



Environmental Focus

Water can be treated to remove contaminants

The U.S. environment seems so vast and unlimited that it is easy to take it for granted. In some places, groundwater has become contaminated from industrial operations, agricultural activities, municipal and household sources. Among the most frequently occurring contaminants in groundwater are pesticides, heavy metals, gasoline, nitrates and solvents. Some water has bacterial contaminants—like coliform bacteria and viruses.

When groundwater becomes contaminated, what can be done to restore it? Fortunately, groundwater often can be treated to remove contaminants. However, groundwater treatment depends on what contaminants you are trying to remove. A variety of groundwater treatments exist; they include aeration, filtration, granular activated carbon treatment, chlorination, softening and reverse osmosis.

Aeration is the process of exposing water to air to remove undesirable gases such as free carbon dioxide, hydrogen sulfide, volatile organics (VOCs) and methane. This method can also be used to remove iron or manganese. The two most common aeration methods are the introduction of air into water or the reverse, water into air.

Filtration is effective for removing suspended matter from water. There are two types of filters commonly used for this method—gravity and pressure filters. For filtration to be effective, it may require the addition of chemicals (such as alum) to coagulate silt and microbes into filterable size particles.

Granular Activated Carbon Treatment is effective for reducing or removing organic chemicals, taste and odor problems, and some pesticides. A carbon material is heated to high temperatures to make it more porous and increase its adsorbency. This effect causes contaminants to become affixed to the carbon. This treatment is very expensive.

Chlorination disinfects water that has been contaminated

by bacteria. It can also be used to control unpleasant tastes and odors.

Softening is a treatment that is used to soften hard water, that results when calcium and magnesium salts are present. Hardness causes soap to curdle and excessive scale deposits in plumbing and water heaters. Two types of hardness exist: carbonate and noncarbonate. Carbonate hardness occurs when water contains calcium or magnesium bicarbonate. This type of hardness is temporary because boiling the water removes the hardness.

Noncarbonate hardness is permanent and refers to calcium and magnesium associated with sulfates, chlorides and nitrates. Hard water can be softened by:

- a chemical precipitation with lime alone or lime and soda ash or
- sodium cycle ion exchange process. In this process, hardness ions are exchanged with the more soluble sodium ions, creating soft water. This method may also remove other dissolved ions like iron, manganese and zinc.

The Reverse Osmosis Process forces water through a semi-permeable membrane, that excludes most dissolved minerals. This process may also be effective for removing some pesticides. The effectiveness of this process depends on the membrane's ability to reject these ions. Whether ions are excluded depends on the molecular weight of a particular ion, the total dissolved solids and the pressure difference across the membrane. Pretreatment is necessary to prevent the membrane from clogging. An important thing to remember about this method is that it will remove most ions—but not all of them.

Other treatments include ultraviolet (UV) light disinfection and distillations. Exposing water to UV light kills disease-causing bacteria present in the water. Distillation works well for turbidity, taste, odor, lead and other heavy metals. Source: On Tap (BPO)

Waste reduction: A two-tiered effort

Waste reduction means cutting down on the amount of materials or energy used during the manufacture, distribution, purchase and use of the product. Waste reduction is an effort in which both manufacturers and consumers have important roles to play.

Cleaning product manufacturers are cutting down on waste before it starts with the following product and package innovations.

• **Concentrates:** Sometimes known as "ultras," they deliver the same cleaning performance

as traditional versions and use less product.

• **Refill containers:** Use less packaging material than primary containers. Usually do not include convenience features like trigger sprayers or measuring caps.

• **Recycled content:** By using 25-100 percent recycled plastic in product bottles, cleaning product manufacturers are providing an important market for the plastic containers that consumers are recycling. Boxes are also made of up to 100 percent recycled materials.

• **Recyclable materials:** Containers that can be recycled and made into other products. One can practice waste reduction by Shopping S.M.A.R.T. (Save Money and Reduce Trash) when you purchase cleaning supplies. Also, follow good waste reduction practices during and after use of products.

- Buy the right product for the job at hand.
- Buy only what you can use in a reasonable length of time.
- Follow label directions: more is not necessarily better. (LB)



Family Living



Alice's analysis

I am writing this analysis on April 30 and very thankful for the nice rain we have just had. I did not mind walking in the rain last Sunday. Ted came in this morning and said "there was some ice in a water bucket," so it makes me wonder when spring will be here.

I know May is a busy month for everyone. Farmers are planting, farmer's wives are running errands for their husband's, Mother's Day this month and graduations from preschool to colleges will take place. Here at Doane's Acres, we are getting ready for Ted's retirement "bash" May 11. This brings back memories of April 29, 1955, when we moved to Lexington, Nebraska so Ted could begin his career May 1 for University of Nebraska. It doesn't seem like 41 years ago. Today, I looked in the "Old Farmer's Almanac" to check the weather for last week. They were right for April 27 to 30, "rain and cold." I hope it is right for May 11 to 13 "sunny and warm."

June 11-13 is the State FCE Convention in Hastings. Carmelee Tuma reported that Lancaster County's cultural art entries are Donna DeShon's counted cross stitch and other stitches picture "Nova"—the design of the new quilt patterns is that each square is in one inch blocks. Donna must have very good eyes. She represents the 49'ers FCE Club. Margaret Blacketer's painting, "The Good Life," is a painting on wood. She represents Helpful Homemakers FCE Club. The delegates for the state meeting are Ann Meier, 49'ers FCE Club; Jean Wheelock, Emerald FCE Club; Margaret Blacketer, Helpful Homemakers; and myself from

Waverly Matronettes. I understand there is a large group of members from the Helpful Homemakers going. I hope we come back with some answers to the questions we have been asking.

I received my membership card April 30.

Mark your calendar for July 9, 6 p.m., for a light supper and an evening of "brain storming." I talked with Roberta Newburn and the tentative program is:

Bev Thurber will introduce us to "tole painting."

A representative from Sew Creative will instruct us about "sergers." If you do not have one of your own, you can see how they work.

A representative from Fabric Gallery will tell us what "new things are in sewing."

There will be a \$5.00 fee. More information in the next "A.A." (Alice's Analysis).

Helen McMahon is working on the Health Awareness and Safety Program at the County Fair on Friday, August 2. If you would like to help, call Helen at 466-2557.

The next council meeting will be Monday, June 24 (my birthday—no gifts smaller than the hope diamond or a new cadillac please), 7 p.m. at the Lancaster Extension Conference Center. The program will be "Literacy: Family, Reading and Refugee Tutoring" by Lois Poppe, director of the Literacy Center in Lincoln.

A.A.'s quote for the month—Oliver Wendell Holmes "Friendship is the breathing rose, with sweets in every fold."

Second Sizzling Summer Sampler scheduled

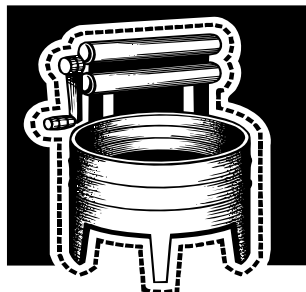
Mark this date on your calendar! Tuesday, July 9, 6 p.m. Our second Sizzling Summer Sampler will be held at the Lancaster Extension Conference Center. A light supper will be served first for \$5.00 per person. This event is open to the public and it will be necessary to make reservations for the evening. Please feel free to invite a friend or two. Send a check in the necessary amount (payable to Lancaster County FCE) to Roberta Newburn, Route 1 Box 82C, Martell, NE 68404 by July

5. We have planned four workshop-like programs for the evening, to be repeated four times throughout the evening. You will be able to attend all four events. Programs and presenters are: The Serger Search presented by Sew Creative; Sewing in the '90s by The Fabric Gallery; Tole Painting presented by Bev Thurber; and Table Settings Extraordinaire presented by Willow Hollow. Plan on attending this fun evening!! (LB)

Did you know?

Children in the United States spend four hours a day watching TV, more than any other activity except sleep. By the time the average child graduates from high school, he or she will have seen 18,000 murders while watching 15,000 hours of TV. Children's TV programs contain about 20 violent acts each hour. (LJ)

Washtub tips



Prewash soil and stain removers are effective in removing oil-based stains like animal fats, body soils, cooking oils, cosmetics and motor oils.

Liquid or aerosol products work best while they're still wet, so wash garments within a few minutes after they are applied.

Stick and gel prewash stain removers work best when left on the soiled area three to four days before washing.

Before using, check the garment care label. Be aware that prewash products can cause color loss in bright or fluorescent colors. (LB)

EFNEP youth learn the way of "Five-A-Day for better health"

Maureen Burson
Extension Educator



During this three-part program, students learned how to incorporate five fruits and vegetables into their daily diet. The students learned about new fruits and vegetables and were very excited when they were able to touch, smell, and see a variety of vegetables, they had not seen before. They made comments that they would like to try some of them. Lincoln Parks and Recreation coordinated the scheduling and provided financial support for the snacks of raisins and baby carrots.

Nutrition advisors presented 57 nutrition education programs to students at various before and after school childcare sites and community centers. The three-part series called "Five-A-Day



EFNEP/4-H members feel, smell and taste vegetables.

for Better Health" has been presented to 521 youth. Community centers included: Malone, Belmont, Belmont Recreation Center, Willard, Willard School's Out Program at Roper Elementary, and the Salvation Army.

The before and after school sites included: Arnold, Beattie, Eastridge, Everett, Fredstrom, Hill, Huntington, Lakeview, McPhee, Norwood Park, Riley, and West Lincoln.

Cooperative Extension ServSafe classes

The University of Nebraska, in cooperation with the Lancaster County Health Department and the Nebraska Restaurant Association, is offering the ServSafe Food Service Manager's Certification Workshop June 10-12

This National Restaurant Association program has been the industry leader for the past 15 years, certifying more than 300,000 food service employees.

Due to recent publicity regarding food safety concerns and food-borne illness outbreaks, the dining public (your customers) have become more aware of and concerned about these topics. As you are aware, the negative impact of food-borne illness on the restaurant industry and its profits can't be overlooked.

Don't miss this opportunity to obtain your National Certification and update your skills in food-borne illness prevention.

You will also receive the Applied Food Service Sanitation Course book which is an excellent reference for use at your establishment.

You will discover the eight critical areas of food safety and training.

You will learn to develop your own HACCP program.

You will be able to implement facility sanitation and employee training for your establishment.

You will meet Lancaster County Health Department Level 4 certification.

You may receive 1 hour

of UNL credit for your participation.

Since the course is a fast-paced overview of the book, it would be beneficial to read the book prior to the workshop. This will equip you with the information necessary to successfully complete the certification examination to be given the last hour of the workshop.

Time: 1:15 - 5:00 p.m.

Location: East Campus Union, University of Nebraska, Lincoln

Cost: \$95.00

To register, arrange for book pick up, or for more information, call Pauline at (402) 472-9751.

Registration deadline is Wednesday, June 5. (AH)

Fabric Embellishment Workshop

Take a simple garment and turn it into a piece of art by using fabric embellishment. Linda Tucker, a sewing and fabric decorating enthusiast, will demonstrate the latest techniques and notions in fabric embellishments.

Learn many new sewing techniques at a workshop scheduled for Wednesday, June 26, 9 a.m. to 3 p.m. Check-in will begin at 8:30 a.m. The class will be limited to 25 participants. The fee is \$25 and includes thread and supplies for decorating a vest or shirt. Participants

are asked to bring:

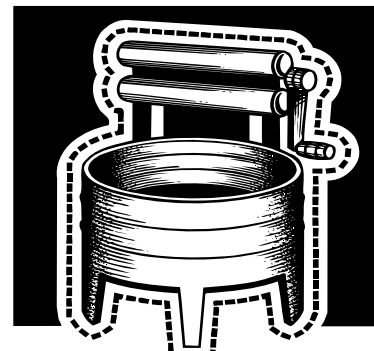
- sewing machine
- simple vest or simple cotton shirt without pockets
- four pieces (1/2 yard each) of cotton fabric (all from the same color family)
- three bobbins for their machine, one filled with thread to match their vest or shirt
- sack lunch

At the completion of this class everyone will have their own original design. Techniques that will be taught are couching, adding yarns, braids and cords, cable stitching, free hand

embroidery, scrunching and creative cut ups.

On Tuesday, June 25, 7-9 p.m. a demonstration only session will be held. This is open to anyone interested in learning decorating techniques. The cost is \$5.

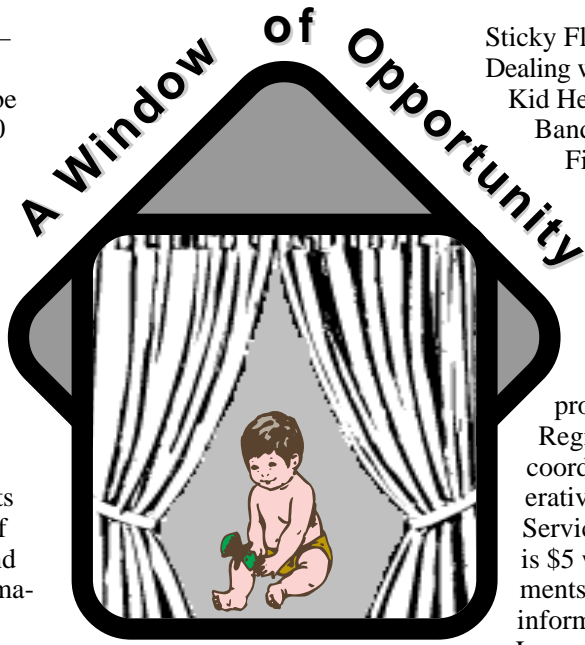
To register for either session, make a check payable to Lancaster County Extension and send to: Fabric Embellishment Workshop, 444 Cherrycreek Road, Lincoln, NE 68528-1507. For more information contact Lorene Bartos, Extension Educator, 441-7180. (LB)



A Window of Opportunity—Developing High Quality Childcare Conference will be held Saturday, June 22, 8:30 a.m. to 3 p.m. at the Lancaster Extension Conference Center.

This is the first childcare providers conference in the area focusing on infants and toddlers. Jesse Rasmussen, Deputy Director of the Nebraska Department of Social Services, will be the keynote speaker. Participants will be able to attend four of the six sessions available and will receive hands-on information that may be used in the care of infants and toddlers.

Sessions include: Stimulating Language Through Play; The



Sticky Floor Years: Stress Dealing with Infants and Toddlers; Kid Health—More Than A Band-Aid; Fun After Those First Steps; Family Centered Care—Adding Parenting Education and Support to Child Care; and Identifying At-Risk Behavior.

This conference is provided through a Regional Training Grant coordinated through Cooperative Extension and Family Services. The conference fee is \$5 which includes refreshments and lunch. For more information or a flier, call Lorene at 441-7180 or Ronna at 441-7949. Registration deadline is June 14. (LB)

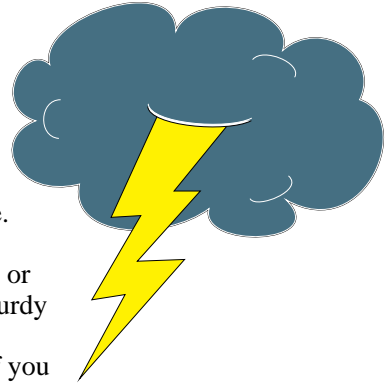


Ease your child's storm fears

Thunderstorms can be frightening, especially for young children. You can take the "scariness" away by teaching them what to expect during a storm and how to stay safe. For example, tell your child:

- If you see dark storm clouds or hear thunder coming, go inside a sturdy building.
- If you cannot get inside or if you feel your hair stand on end, which means lightning is about to strike, hurry to a low, open space. Crouch down and place your hands on your knees.
- Move away from trees, towers, telephone or power lines and other tall things, because they attract lightning. Never stand underneath a single large tree out in the open, because lightning will hit the highest point in an area.
- Stay away from metal things that lightning may strike, such as umbrellas, baseball bats and bicycles.
- If you are swimming or boating, get to land immediately.
- Turn off the air conditioner and television, and stay off of the telephone until the storm is over. Lightning can cause electric appliances to become dangerous during a thunderstorm.

Source: American Red Cross. (LB)



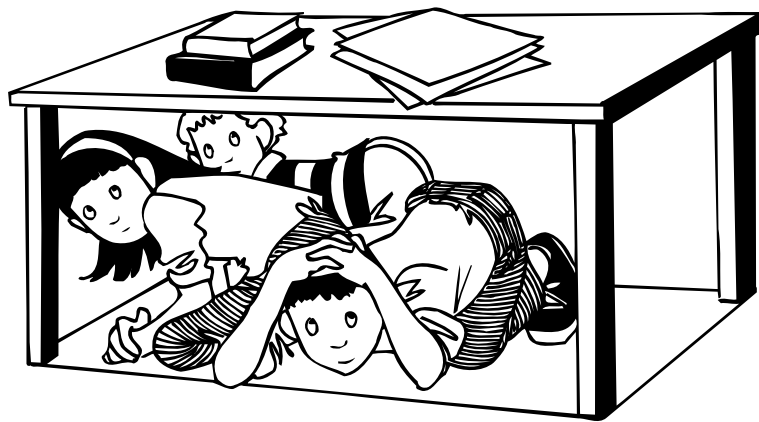
Ten alternatives to lashing out at your child

The emotional abuse of children is a problem of great concern to the American public. In fact, several years ago, a Louis Harris Survey found that 73% of the public believed that emotional maltreatment could lead to long-term emotional problems in children. The survey also showed that people, appropriately informed, can do something to prevent this abuse.

Children believe what their parents tell them. Words can hit as hard as a fist. The sad truth is, even the best of parents will let everyday pressures build up to such a pitch that they lash out at their kids. There are little things, however, we can do to stop ourselves before we hurt a child either physically or emotionally.

Alternatives include:

1. Take a deep breath and then another. Remember you are the adult.



2. Close your eyes and imagine you are hearing what your child is about to hear.
3. Press your lips together and count to 10—better yet, 20.
4. Put your child in a time-out chair. (Remember the rule: One time-out minute for each year of age.)
5. Put yourself in a time-out chair. Think about why you are angry. Is it your child, or is your child simply a convenient target for your anger?
6. Phone a friend.
7. If someone can watch the children, go outside and take a walk.
8. Take a hot bath or splash cold water on your face.
9. Pick up a pencil and write down your thoughts.
10. Turn on some music.

Stop verbal abuse. Take time-out. Don't take things out on your child. You'll both feel better.

From: Nebraska Department of Social Services. (LJ)

Visit our nutrition & food safety internet website

You may have read articles that refer you to their organization's internet website and give you a list of letters that start with "http." We're pleased to announce that we now have a website for your use also.

Stop by and learn about Extension programs. Access Extension publications that you can read online or copy for later use. We also connect you to other reliable sources of nutrition and food safety information on the internet.

We want to be your link to getting nutrition and food safety information that you can use and rely on. You can send an e-mail message directly from our website to Alice Henneman with your comments and suggestions. Let us know how we can best help you. We're looking forward to hearing from you. (AH)



You can visit our county Nutrition and Food Safety website at the following internet address:
<http://ianrwww.unl.edu/ianr/lanco/family/safety.htm>

Deep breathing brings relief

Here is one of the best techniques for releasing tension and reducing stress:

- Sit quietly in a comfortable position and close your eyes.
- Alternate tensing and relaxing each set of muscles—progressing from your feet to your face.

- Breathe through your nose, inhaling and exhaling slowly as you relax. As you exhale, say the word "one" silently to yourself.
- Keep your eyes closed for 10-20 minutes, opening them only to check the time.
- Keep your mind passive and clear, allowing your body to

relax at its own pace. Don't try to force deep relaxation.

- Continue to say the word "one" silently as you exhale. Try hard to ignore any disruptions.
- Source: Balance Newsletter, May 1996, Herbert Lingren, Ph.D. Extension Family Life Scientist. (LJ)

E-MAIL FOODTALK GROUP

If you would like to participate in our computer FOODTALK discussion group, send an e-mail message to: LISTSERV@UNLVM.UNL.EDU. In the message (not the subject) portion put: **SUBSCRIBE FOODTALK.** **DO NOT INCLUDE SIGNATURE WHEN SUBSCRIBING!**



Healthy Eating



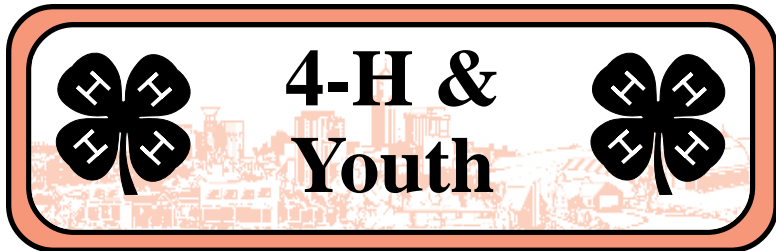
- Each month for the next year, I'll be sharing a fruit or vegetable recipe from the 5-A-Day program.* **LOOK AT THE END OF THE RECIPE FOR HOW TO OBTAIN 12 NEW RECIPES EACH MONTH**
- Potato-Tomato Luncheon Salad** - Makes 4 servings
- 2 (8 to 10 ounces each) russet potatoes
 - 1/2 cup bottled reduced-calorie Italian dressing, divided
 - 1 can (6 1/2 ounce) light tuna, packed in water, drained and rinsed
 - 2 tablespoons chopped parsley
 - 2 tablespoons chopped celery
 - 1 tablespoon minced onion
 - Pepper to taste
 - 3 medium tomatoes, sliced 1/2 inch thick
 - Lettuce leaves
 - 4 parsley springs (garnish)
 - 4 lemon wedges (garnish)

Pierce potatoes several times with fork and microwave at high 7 to 9 minutes until tender. Turn potatoes and rotate one-quarter turn halfway through cooking time. Let stand, covered, 5 minutes. Peel and dice potatoes. Pour 1/4 cup dressing over potatoes; toss gently and refrigerate until cold. Add remaining ingredients except tomatoes, lettuce and garnish. Add 1/4 cup remaining dressing; toss gently. Arrange 2 slices tomatoes on each lettuce-lined salad plate. Mound potato salad on tomatoes. Garnish with parsley and lemon wedges. This is an official 5-A-Day recipe. Recipe provided by the Washington State Potato Commission.

Nutrient analysis per serving: Calories, 248; fat, 4 g; cholesterol, 9 mg; fiber, 4 g; sodium, 280 mg; percent calories from fat, 13%.

For 12 more 5-A-Day recipes (new and different recipes offered each month), send a self-addressed, stamped envelope to: 5-A-Day Recipes, #7; % Alice Henneman; UN-L Cooperative Extension in Lancaster County; 444 Cherrycreek Road; Lincoln, NE 68528-1507.

* Eating lots of fruits and vegetables as part of a low fat, high-fiber diet may help reduce your risk of cancer. The goal of the National 5-A-Day Program, a collaborative effort between the National Cancer Institute and the Produce for Better Health Foundation, is to increase the per capita consumption of fruits and vegetables in the U.S. from the current average of 2.5-3.5 servings to five servings a day by the year 2000.



HORSE BITS

Cindy Blome
Youth Extension Aide

Each 4-H family should have received their 1996 Lancaster County Fair 4-H Fair Book by now. There are several changes that may affect how you exhibit your horse at the county fair. The changes are important, but they are too lengthy to list. You should carefully read the following sections by page number for changes in this year's fair book:

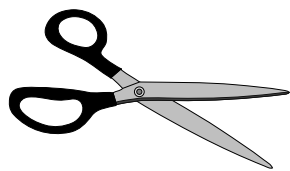
- Horse Judging Contest (Page 14)
- Groom and Care Class (Page 59)
- Tack and Attire (Page 59)
- Safety Considerations (Page 59)
- Working Pleasure Class (Page 60)
- Open Dressage (Page 61)
- Reining Class (Page 62)
- General Breeds (Page 64)
- Pinto/Paint Horse Type (Page 65)
- Aged Horse Class (Page 65)
- Horse Game Show (Page 66)
- Western Horse Show (Page 66)

There are also several changes made by the horse VIPS committee not included in the 1996 edition. Please note the following corrections by writing them in your copy of the fair book:

Corrections in Fair Book
Page 58

"Age of Exhibitors"—the below listed age divisions are **not** consistent with Nebraska district and state shows and are **for the sole purpose of the Lancaster County Fair**. Delete "junior and senior age divisions" from the first line.

"Walk-Trot Classes"—delete the word "or" and add the word "and" in the third line (English and Western).



Clip this out!

These upcoming dates are very important.

Tuesday, June 4	Table Setting Workshop 6:00-8:00 p.m. East Campus Union
Thursday, June 27	Practice Lifetime Skills Judging 1:00-2:30 p.m.
Thursday, June 27	Practice Demonstration Workshop 2:30-4:00 p.m.
Monday, July 15	County Fair Contest Deadline 4:30 p.m.
Monday, July 15	Lifetime Skills Judging Contest 1:00-3:00 p.m.
Monday, July 15	Practice Style Revue 3:00-4:30 p.m.
Thursday, July 18	Demonstration Contest TBA (p.m. only)
Wednesday, July 24	Style Revue Judging TBA (a.m.) First Lutheran Church
Tuesday, July 30	Entry Day at County Fair 4:00-8:00 p.m.
Wednesday, July 31	Judging Day at County Fair
August 1-4 1996	Lancaster County Fair (AMM)

Page 59-60

"Presentation of Ribbons and Trophies"—delete "during the evening on the first Tuesday" from the second line AND change the last line to read "and the Confer Top Trail Award(s) will be awarded at this activity."

"Early Releases"—rules for early release from the county fair are listed on page 49. **Written permission must be obtained from the 4-H horse superintendent, 4-H horse VIPS grievance committee or authorized representative, and authorized representatives from the 4-H Council.**

Page 62

"Hunter Hack"—add last line following word, "Sunday."
Note: Not open to English walk-trot riders.

Page 63

"Horse Trail Show"—the class explanation should read, **Refer to 4-H Trail Horse Class, pages 48-50, the green book. Elementary and junior age divisions will be scored on a minimum of six obstacles, not to exceed 10 obstacles in the senior division.**

Page 67

"Horse Competitive Trail Show"—scratch this show from your schedule; it will not be held in 1996.

If you have further questions after reviewing the fair book, please contact Cindy Blome or the designated superintendent listed for each event. Note: the deadline to enter the Lancaster County Fair 4-H Horse Show is Monday, July 8. (CB)

I pledge my hands

Cheryl Goehring
4-H Key Leader

Community service projects can be fun as well as serve to make our communities more beautiful. They can be both inspirational and learning experiences. One idea can be used over again in different ways. There are so many varied projects your club can do; from the very simple to the very complex and time consuming. Here are a few ideas from our club.

"It's disgusting" are words our members uttered during a

clean-up session at a local park. Will these members litter like that? Surely not after having picked up after people who did.

"When can you come again?" we were asked after an evening of playing games and socializing at a local senior housing center. The residents really enjoyed having young children come and visit. Remember, don't visit just around the holidays! It's an enjoyable activity all year long.

We found a craft that involved recycling 6-pack pop rings into snowflakes. What started as a simple club craft turned into a two-year project.



The idea was shared with many people, a tree was decorated for a local holiday show to promote 4-H and raise money for Mad Dads, and a local hospital's cafeteria was decorated.

Painting the kitchen of a local city mission, mulching trees and hiking paths at a park, and helping at food banks and with food drives are all wonderful ideas that were shared with me.

Use your imagination and our communities will be better because 4-H members have pledged their "hands to larger service."

4-H food booths are full of fun!

LaDeane Jha
Extension Educator

"Our club can't wait to work in the 4-H food booths at the fair—in fact, they want to work two shifts," said a club leader during a recent phone call. Her club has discovered just how much fun it is to be involved in the 4-H Council's major fundraising activity. Not only do 4-H members and their parents have fun, they learn skills that can be translated into that first job. Satisfying hungry, hot custom-

ers, counting change, following safe food handling guidelines, and keeping cool when it seems like everyone wants a huge order at the same time are just a few of the ways youth stretch and learn.

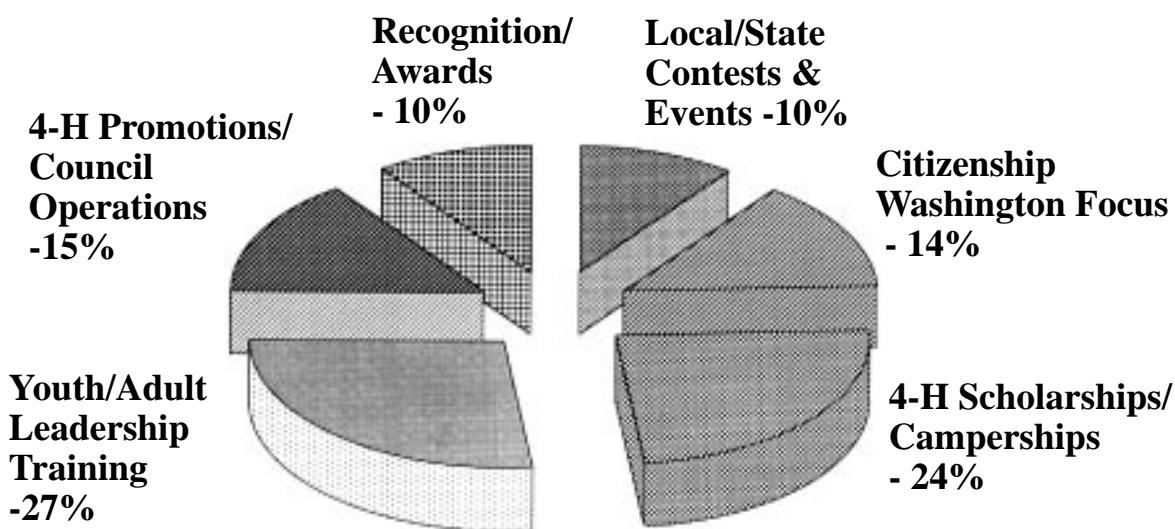
All club leaders will receive a letter during the second week of June assigning them to a time slot during the fair. Parents and other adults often lend a hand and are encouraged to do so. Clubs will then return a postcard to the 4-H Council indicating how many people they will

have available to work their shift. Independent members will also be asked to join in the fun.

Profits from the food booth are used as shown in the pie chart below:

A training for those planning to work in the food booths will be held on Thursday, July 25 from 6:00 to 8:00 p.m.. Put the date on your calendar and plan to walk away with new skills and confidence as you approach "your job" at the county fair. If you have questions, contact LaDeane. (LJ)

Use of Food Booth Profits



A pet in the house comes with responsibilities

Shirley Condon
4-H Key Leader

Are you considering adding a pet to your household? Whether it swims, crawls, walks or flies, a pet is a living creature solely dependent on its human caregiver for its health and well-being. Careful study and preparation will help you decide if the pet you are considering will be compatible with your household; will it get along with other pets, with other family members and with the habitat you can provide?

Careful research of the animal's requirements, by reading books and magazines dedicated to the care of the animal you have selected, and visiting with pet store experts, your veterinarian and local pet enthusiasts, will help you to answer the following questions. How closely can you duplicate its preferred habitat? Tropical animals, for instance, may

require special lighting, frequent misting to provide the proper humidity level and heavily planted, but escape-proof terrarium so the animals can hide. Is the food it requires readily available? A snake may require live or freshly killed "food" such as pinky mice, frogs or lizards, or even small rabbits. Sometimes your pet's food requirement may lead to another pet care project—raising feeder animals! Is veterinary care available? Many small animal clinics do not routinely provide care for birds or reptiles, and some may restrict their practice to cats and dogs only.

What time commitment is required for its care? A small goldfish bowl will require frequent cleaning, while a properly balanced 30 gallon tropical fish aquarium may need a complete cleaning once a year or less. Is there someone who can care for your pet or respond to an emergency in your absence? What about long-term care? The cage you have in mind for a 12-inch

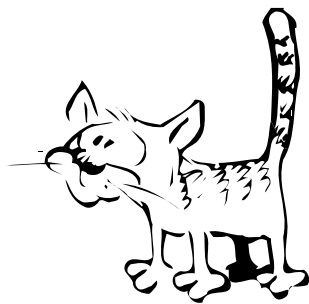
iguana may not be suitable when the iguana reaches a length of six feet! Small mammals such as mice, gerbils and hamsters may live only 2 to 4 years, while a parrot may have a lifetime that spans many human generations. A box turtle is quiet and undemanding, but with proper care it can live 75 to 140 years. Have you considered the cost of the animal's care? Veterinary care alone for a healthy kitten will cost \$100 to \$140 in the first year. Careful preparation and planning will help prevent surprises later.

While this responsibility should not be taken lightly, a pet can provide a wonderful learning experience and be a source of entertainment and companionship for the whole family. For more information, manuals are available for the following 4-H small animal projects: rabbit, cat, dog, guinea pig, hamster, pocket pets, caged birds and tropical fish.

Pets, People and Professions Camp

June 16-18, 1996 are the dates of the first Pets, People and Professions Camp at the University of Nebraska-Lincoln East Campus. The camp is designed for youth ages 13-18 who don't have to be 4-H members to attend. Cost for the three-day camp is \$40 which

includes food, lodging and a t-shirt. The camp is sponsored by a grant from the Nebraska Commission on National and Community Service. June 3 is the registration deadline. If you have questions or need a registration form, contact LaDeane. (LJ)



Will you be going to D.C. in 1999?

If the answer is YES to this question, then call Ann Marie to sign up now! The triennial Lancaster County 4-H Citizenship Washington Focus (CWF) trip will be taken in 1999. Youth ages 14 and older (at the time of the trip) are welcome to attend.

The purpose of CWF is to take youth to our nation's capital, provide them with hands-on opportunities to learn about government and good citizenship. Twenty-three youth from Lancaster County will be going this June on a 12-day trip. The places they will encounter

are Chicago, Detroit, Niagara Falls, New York City, Philadelphia, Gettysburg and Washington, D.C. All of the most wonderful sights and attractions will be taken in by the group. It makes you want to go too...doesn't it?

Then call and sign up to begin fundraising with the 1999 group. Fundraisers are done throughout the three-year period to help defray out-of-pocket costs. Fundraisers, which are done each year, are the first cleaning of the food booths before the county fair and

cleaning the booths each night of the county fair. Plus, sponsoring the food booth for the open class horse show before the county fair.

These opportunities not only help you raise money to take the CWF trip, but they also build friendships with other youth going on the trip. Many of the youth going in June have raised a great percentage of their funds through these fundraisers. Why don't you make it a point to visit with your parent/child and take advantage of the CWF experience? (AMM)

North Central Regional 4-H Forum

Bridging Our Heritage to Our Horizons: 4-H in the Next Millennium is the theme of the 1996 North Central Regional Forum to be held in Columbus, Ohio, September 26-29, 1996. This is a great opportunity to interact with over 700 other volunteers from throughout the North Central Region. Seminars, tours and speakers provide opportunities for new ideas, networking and training.

Scholarships from the 4-H Council for registration fees are available for a limited number of 4-H leaders. Applications are available from the Extension office and must be submitted to

4-H Council 30 days prior to the event. The Regional Volunteer Forum registration fee is \$190 if returned with the registration form to the Nebraska State 4-H Office by July 1, 1996. Fees cover program costs and meals. The Nebraska delegation will be staying at the forum site in the Hyatt Regency, Columbus, Ohio. The hotel rates are \$96 single; \$106 double; \$116 triple and \$126 quad, plus 15.75% tax. Travel help will be available on a per delegate basis to reduce travel costs.

HOW TO REGISTER:

Pick up a registration form from the Extension office.

Complete the registration and return it to the Nebraska State 4-H Office by July 1, 1996.

Make the check for registration payable to the State 4-H Fund—North Central Regional 4-H Forum.

Indicate on a note how many roommates you want and include with the registration.

Do not send the registration directly to Ohio. Please realize the July 1, 1996 deadline is for the Nebraska delegation to make plans.

Registration materials are available from the county Extension office. Please contact LaDeane if you have questions. (LJ)

Share some quiet time with your kid

Arlene Hanna
Extension Assistant

Quiet time is a necessity, especially in a society where our time is structured from morning until night. All people need time alone to rest, think, plan, discover and dream; children are no exception. These days, children with time alone usually spend it in front of the television, their minds filled with someone else's thoughts. As parents and educators, we need to make sure that we leave enough time free for our children to reflect about the

world around them. Here are some ideas to consider.

Occasionally, take a rest period outdoors. Allow children to take a mat or blanket and find a space for themselves. Tell them that this is a time for thinking and exploring with their eyes, and later they can share their experiences with you or their friends.

For children who need a focal point, try lying in a fragrant and soft patch of clover. Ask them to quietly search for four-leaf clovers.

Another exciting focal point is an anthill. Children are

fascinated by the flurry of ants traveling to and from the mound.

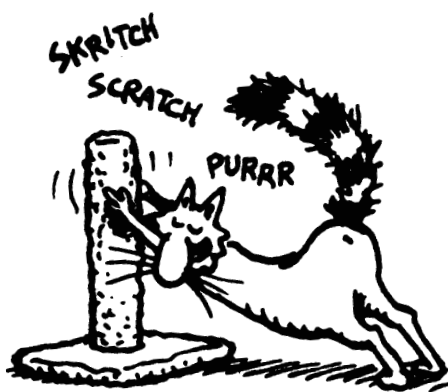
Read the story *Quiet* by Peter Parnall. Allow your children to find a special spot in a natural setting and actually become a part of it! Have them lie down and cover their bodies with leaves, fallen twigs, or pine needles, leaving only their faces visible. Take a moment to identify the smells around them.

Set aside an indoor location that belongs to your child and encourages quiet reflection. It might be the corner of an attic, a screened-off area, even a walk-in closet decorated by your child.

Participation in State Fair Cat Show

A 4-H member must be 12 years but not past 19 years of age by January 1 of the current year to participate in the Nebraska State Fair Cat Show.

Information in 1996 Lancaster County Fair Book (page 7) is incorrect.



4-H & Youth



BULLETIN BOARD

Remember to attend the table setting workshop at Designs for Dining, UNL East Campus Union, Tuesday, June 4, 6:00-8:00 p.m. There is a cost of \$5 for adults and \$2.50 for 4-H members to help support this event. Come see creative and fabulous table settings by Lincoln's best! (AMM)

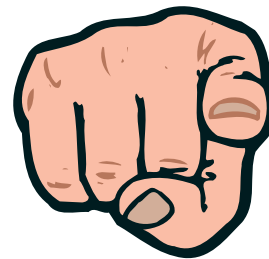
Teen Council is Sunday, June 9, 3:00-5:00 p.m. We will be planning the Ice Cream Social. See you there! (AMM)

Ambassador meeting is Thursday, June 27, 7:00 p.m. The VIP Luncheon will be planned and other fun too! (AMM)

Fair books came out before May 1. Please make sure you have yours and that you refer to it for any questions about the county fair. (AMM)

See the ad for Practice Lifetime Skills Judging and Practice Demonstration! (AMM)

We need YOU...



at the 1996 Lancaster County Fair!

Volunteer helpers (ages 12 and over) are needed to:
 help in information booth
 assist judges by writing comments
 putting up project displays
 check in exhibits on entry day
 make the fair the best it can be!!
 Call the Extension office to sign up at 441-7180.
 Thanks in advance for all your help!

Fair Book corrections!

The fair books are out, and there are a few mistakes. The following are the changes we wish to correct at this time.

Bucket Calves:

Calves must be born between January 1 and June 1 to qualify for bucket calf competition.

Herdsmanship:

Horses end 9:00 a.m., Friday, August 2. All other animals will end 4:00 p.m. Sunday, August 4.

Please note these changes and watch the July NEBLINE for any further corrections. (LB)

Host families needed for summer LABO exchange

This summer, several Nebraska families will have the opportunity to host 38 Japanese youth from July 22 to August 20, 1996. The program is open to families with children close to the Japanese delegates ages, 12 to 17. Families without children in this age range will be considered as hosts for the adult chaperons.



For more information, call Doug Swanson at the State 4-H Office,



Community & Leadership Development

Take your exercise program to work



After spending an hour or two in one position—whether at a computer terminal, your desk or an assembly line—it's common to feel stiff and tired. The following exercise will loosen your muscles, improve your circulation and help you feel refreshed. Just remember to take it easy the first few times, so that you become familiar with the exercises. Don't do any exercise that causes you to feel discomfort or pain.

Warm-up

Breathe deeply six times, in through the nose and out through the mouth. Let your stomach expand and contract with each breath. Then, reach as high as you can while sitting in your chair. Let your arms drop, then reach again



Lower Back

Scoot back from the desk and bend over while seated, extending your arms and trying to touch your shoulders to your knees. Hold this bent-over position for 10 seconds, then return to an upright position.



Shoulders

Stick your arms out straight from your shoulders and rotate them in small circles, first forward and then back. Let your arms drop, then stick them out and rotate again. Do it three times.



Wrists

Put one elbow on the table and hold your arm up with hand raised. Grab your raised fingers with the other hand and gently bend the raised hand backward. Hold it five seconds, then do the other arm and hand.



Shoulders and Upper Back

Raise your hands to the sides of your shoulders and push your shoulders back. Keep your elbows down. Hold your shoulders back for 15 seconds. Repeat three times



Fingers

Fan your hands out in front of you, palms down. Hold for five seconds. Make fists as tight as you can, then fan the fingers out again. Repeats three times.



Source: Perspectives, Winter 1995. Reprinted with permission from the National Safety Council. (LB)

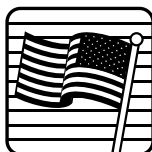
Moneymaking ideas that violate copyright laws

1. Do not copy for purposes of resale either as a design or a finished product, the designs on handcrafted products or commercial gift items. It is not okay to "change one thing" on a design or pattern. Things do not have to be identical to the original to be a copy.
2. Do not make for sale any reproductions of copyrighted characters like Snoopy, Raggedy Ann and Andy, the Sesame Street Gang or Walt Disney characters unless you have written permission from the copyright holders to do so.
3. Do not make reproductions of pictures, photographs, paintings or other pieces of artwork you have purchased. The creator of the object owns the copyright and that can be conveyed to another person only in writing, or by other transfers that occur by law.
4. Do not photocopy for sale or trade any pattern, article or other printed material from any book, magazine, newsletter, etc. Doing so denies the creator the profit from a copy that might have been sold.
5. Do not reprint or offer for sale any previously published material still protected by copyright law even though the material may no longer be available from the original publisher.
6. Do not duplicate records or tape recordings, videotaped television shows or computer software for sale or trade. Sound recordings, audiovisual works and software are fully protected by copyright laws.
7. Do not copy or republish recipes from books or magazines exactly as they have appeared.
8. Do not use poems or poetry written by other people without their written permission.

Source: Made in Missouri, Vol.5, No.4. Excerpted from *HomeMade Money—How to Select, Start, Manage, Market and Multiply the Profits of a Business at Home* (Betterway Books) by Barbara Brabec. (LJ)



Celebrate Flag Day!
June 14
Fly your flag!



Small business loan program

The Lancaster County Economic Development Loan Program may be of interest to small businesses. By working with local banks, the goal of the loan program is to increase the number of small businesses financed by banks. This is accomplished by bringing more projects within the bank's

lending guidelines with the help of an Economic Development Loan. As a result, more businesses are established and grow, and more jobs are created.

The fund has assisted in the development of several Lancaster County businesses. Due to the excellent repayment record of existing loans, the loan

fund has sufficient funds to make new loans. Anyone interested is encouraged to contact: Lancaster County Economic Development Loan Program c/o Jim Otto 555 South 10 Street, Room 312 Lincoln, NE 68508 Phone: 441-7862 (LJ)

Neighborhood associations allow citizens to take part in government

LaDeane Jha
Extension Educator

Neighborhood associations usually consist of a group of neighbors who get together to work on common goals. Members are often closely knit and feelings of belonging are fostered as they interact on issues of interest. How to get more people involved, however, is often a key issue. Effective decision making cannot be confined to a board of directors. Boards have no monopoly on creative ideas and people of a neighborhood are more likely to support programs if they have had a part in planning and implementation.

Dr. Otto Hoiberg in his "Handbook for Neighborhood Organizations" gives some excellent suggestions on how to get people involved as fully participating citizens of their neighborhood.

Effective Publicity: Publicity must be timely, attractive and

informative. People must know of activities and be attracted to programs.

Programs of Interest: Every meeting should be stimulating, relevant and challenging. People must have a reason to give up favorite television programs, chores around the home and recreational activities.

Periodic Special Attractions: Special issues or occasions add spice for regular attendees and often attract people who otherwise do not attend.

Neighborhood Discussion Groups: Adhoc groups can often be highly beneficial, especially as they attack specific issues. They are an excellent opportunity for sharing opinions and formulating action.

Surveys: Fact-finding surveys offer opportunities for citizen participation when local input is needed for formulation, distribution, collection, analysis and evaluation of surveys.

Personal Contact: "Getting through" to potential neighbor-

hood participants is enhanced by personal contacts that supplement mailings and telephone reminders. The average person receives so much junk mail that formal written announcements can be lost in the mail.

Practical Considerations: Physical arrangements at meetings can make a huge difference in citizen participation in the decision making of a neighborhood association. Meetings should begin promptly, keep on task, and adjourn before things begin to drag.

Dr. Hoiberg also suggests that neighborhoods solicit information and feedback from clubs and organizations in the area. New ideas are often a result and input is broadened to include even more neighborhood residents.

Participation in association activities helps all area residents realize that the time and effort devoted to association programs benefits them as well as the neighborhood.

Highlights from a 1995 survey on families in America's cities

Nearly every city responding to a recent survey by the National League of Cities is involved with issues, programs, or policies affecting children and families.

Childcare tops the list of identified needs for city children.

Attention to delinquency and other risky behaviors is seen as the most pressing need for 14 to 18 year olds.

Family stability is consistently listed as a top need.

57 percent of the responding municipalities indicate they spent more or much more in 1995 on issues affecting children and families, than five years ago.

More than half the respondents believe that meeting the needs of children and families in their cities will be harder, eligibility rules will be stricter, available funds will decrease, mandates on the city will increase and training needs for the municipal work force will increase as the result of changes in federal and state roles, policies or actions.

At least 73 percent of cities participate in collaborative activities with schools, neighborhood groups, non-profit organizations, businesses and/or individual citizens and parents,

focusing on the needs of children and families.

Declining municipal revenues and citizen resistance to new spending are the most frequently cited barriers to municipal involvement in addressing the needs of children and families.

32 percent of families have a written policy concerning broad, overall issues affecting children and families, an increase of 28 percent over 1988 survey findings.

Source: National League of Cities, from *What's New in Human Services?*, April 15, 1996. (LJ)

Assistive technology—what is it?

The Nebraska Assistive Technology Project helps people with disabilities achieve and/or keep their independence and maintain a sense of productivity. Their services are located in Lincoln, Kearney and Scottsbluff. The project provides information and direction for discovering technology solutions that help individuals with disabilities to live more independently, maintain employment and become productive. Nebraska Assistive Technology locates funding (money) resources and provides help to consumers by providing

books, videos, peer volunteers, education to the community, barrier free assessments and resource centers where people can try different technologies.

An "assistive technology device" is anything that helps people who have a disability be able to live and work with ease. An "assistive technology device" may be bought at a store or it may be an item found normally in your home that has been modified for people with disabilities. Examples include: magnifying glasses, toys modified for a child with limited hand

movement or a voice activated computer.

As part of a Nebraska Assistive Technology Grant, Lincoln Action Program will be doing a series of educational workshops on assistive technology devices. Additionally, LAP will serve as a contact point for more information and for funding of these devices, if they are needed. Call Jane Pickel at 471-4515, extension 254, 1-5 p.m., for more information, to sign up for a workshop or to ask questions. (LJ)

Rural Sense



"ALFALFA"

Continued from Page 3.

Finally, feed supplements that reduce bloat—especially when first turning onto alfalfa. This can include poloxalene, which is very effective but expensive. You can also feed antibiotics like oxytetracycline and penicillin as well as ionophores like rumensin that are moderately effective at reducing bloat.

These grazing methods—along with culling animals with a strong genetic tendency to bloat—can help turn bloat into somebody else's problem. (WS)

New UNL Chancellor visits Lancaster County Extension

Extension staff recently hosted UNL's new Chancellor James Moeser at the Lancaster County Extension Office. Extension Educator Gary C. Bergman outlined the demographics of the Metro Extension Programming Unit and Lancaster County. Interesting highlights about the Metro EPU is the fact that over one-half of our state's population lives within the four county area of Lancaster, Douglas, Sarpy and Saunders. In addition, the four county area represents 40,000 4-H/youth which is over one-half of the state's overall membership. For Lancaster County, it was noted that the county has over 1,400 farms and quite likely has the most farm numbers of all 93 Nebraska counties. Popular for Lancaster County is rural living with over 3,600 acreages of 20 acres or less.

During the afternoon visit, Lancaster Extension staff spoke to the chancellor about educational program focus areas in 4-H, horticulture, urban pest management, nutrition and food safety, family life, home environment, biosolids program, the Salt Valley Clean Lakes project, agricultural Extension education, and new technology. Program displays were showcased to communicate the unique and diverse programming within Lancaster County Extension.

Joining Chancellor Moeser during his visit were University of Nebraska Cooperative Extension Dean and Director Dr. Ken Bolen; Southeast District Director Dr. Randy Cantrell; Lancaster County Commissioner Larry Hudkins; and Extension Board President Ed Woepfel. (GB)



Extension Assistant Arlene Hanna engaged in a dialogue with Chancellor James Moeser.



Environmental Focus

Controlling insect pests with germ warfare

Some soil bacteria—pathogens specific to certain insect species but non-toxic to vertebrates—are "ideal" insecticides. The most common bacteria being used as an insecticide is known by the scientific name *Bacillus thuringiensis* (*Bt*). After being applied in many outdoor situations, these bacterial insecticides cannot reproduce and persist in the environment because they are inactivated in a few days by ultraviolet light.

All these *Bt* insecticides are stomach poison—they must be eaten by the target insects to be effective. The lethal process begins when the bacterial toxin is activated by the alkalinity and enzymes of the insect's gut. The cells of the gut wall are paralyzed and destroyed allowing the gut contents to enter the insect's body cavity. Poisoned insects either die quickly from the activity of the toxin or they stop feeding and die within a few days from blood poisoning. These *Bt* insecticides do not kill insects on contact.

There are several strains of the *Bt*. Some strains are active against an entire order of insects, or they are effective against only one or a few closely related species. For example, products containing *Bacillus thuringiensis kurstaki* kill the caterpillar stage of a wide array of butterflies and moths. In contrast, a closely related bacteria *Bacillus popilliae popilliae* (milky disease) kills Japanese beetle larvae, but it is not effective against butterfly or moth caterpillars or even closely related annual white grubs (masked chafers) that infest lawns in much of the Midwest.

Until recently, commercial *Bt* products were effective only against caterpillars, but newly discovered strains that kill other types of pests have been identified and developed. *Bt* formulations that are now commercially available fall into the following broad categories.

Caterpillar Control: the best-known and most widely used *Bt*

insecticides are formulated from *Bacillus thuringiensis kurstaki* (*Btk*), a strain that is toxic only to butterfly and moth larvae (Lepidoptera). The most common trade names for commercially available products include Biobit, Condor, Cutlass, Dipel, Full-Bac, Javelin, M-Peril, MVP and other trade names. They are used to control many common leaf-feeding caterpillars. These include pests on vegetables (especially the "worms" that attack cabbage, broccoli, cauliflower and brussels sprouts); bag worms and tent caterpillars on trees and shrubs; larvae of the gypsy moth and other forest caterpillars; and European corn borer larvae in field corn. Some products are used to control Indian meal moth larvae in stored grain. *Bacillus thuringiensis* var *aizawai* is another strain of *Bt* that kills caterpillars. It produces slightly different toxins and is the active ingredient in the products Certan, Agree and Xentari.

Some caterpillars are not controlled by *Btk* products—especially those that live in the soil or bore into plant tissues without consuming a significant amount of the *Bt* applied to plant surfaces. Be sure to read the label to make sure your pest is listed.

Mosquito, Black Fly Control: *Bacillus thuringiensis israelensis* (*Bti*) kills the larvae of certain black flies, fungus gnats and mosquitoes. It will not kill larval stages of "higher" flies such as the house fly, stable fly or blow flies. *Bti* products available commercially include Vectobac, Teknar, Bactimos, Skeetal and Mosquito Attack. For most homeowners or farmers, eliminating sites that periodically serve as sources of standing water (such as tires, birdbaths and empty containers) and controlling weeds around stagnant ponds or drainage lagoons is more effective than applying *Bti*. With ponds that cannot be drained, *Bti* is effective and safe to wildlife that

drink the pond water.

Beetle Control: Another strain of *Bt* is toxic to certain beetles although there are great differences in susceptibility to these isolates. This *Bt* (*Bacillus thuringiensis san diego*), sold under the trade names M-Trak, Foil and Novodor, is registered for use against Colorado potato beetle larvae. This product also kills adults and larvae of the elm leaf beetle and willow leaf beetle. It is not pathogenic or toxic to some other key beetle pests—such as corn rootworms and other related species. Considerable research effort is now directed to identifying and developing additional *Bt* isolates that are active against more or different beetle species.

Using *Bt* Insecticides: Insecticides containing *Bt* can be very effective for insect control in a variety of situations, but there are limitations to the use of *Bt*

products. To use *Bt* products effectively:

- Identify the target pest correctly.
- Make sure that the target pest is specifically listed on the insecticide label.
- Direct the treatment to the plant parts your target pest will eat. Poisoned insects normally remain on plants for a day or two after treatment; they do not continue feeding and will soon die.
- Thoroughly cover all plant surfaces, including the underside of leaves.
- Treating in the late afternoon or evening can be helpful as the insecticide remains on the foliage overnight before being inactivated by exposure to intense sunlight the following day.

Treating on cloudy days (not rainy) provides a similar result. Users are advised to handle all microbial insecticides cautiously. While not highly toxic,

bacterial spores (like mold spores and virus particles) become foreign proteins if they are inhaled or rubbed into the skin; they can cause allergic reactions. Dusts or liquids used to dilute and carry these microorganisms also can act as allergens or irritants. These problems do not prevent the safe use of microbial insecticides; however, users should not breathe dusts or mists of microbial insecticides. As with other insecticides, users should wear gloves, long sleeves and trousers during application. Be sure to wash thoroughly afterwards. These are common sense precautions that will help prevent unexpected reactions and minimize any effects from unknown toxicity. (BPO)

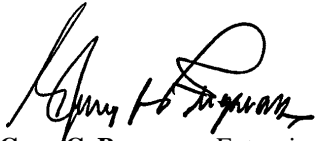
1996 Pesticide Container Recycling Program Fridays 9:00 a.m. to 3:00 p.m.

Collection Site	Date	Location
Farmer's Co-op Co.— Waverly Branch	June 7	Waverly
Greenwood Farmer's Co-op	June 14	Greenwood
Farmer's Union Co-op	June 21	Gretna
Countryside Cooperative	June 28	Raymond
Countryside Cooperative	July 12	Milford
Blue Valley Co-op	July 19	Tamora
Dorchester Farmer's Co-op —Exeter Branch	July 26	Exeter
Lancaster County Fair	August 2	Agricultural Hall— State Fair Park, Lincoln
Dorchester Farmer's Co-op— Dorchester Branch	August 9	Dorchester
Farmer's Co-op Elevator— Wilber Branch	August 16	Wilber
Farmer's Co-op Elevator— Plymouth Branch	August 23	Plymouth
Southeast Nebraska Co-op	August 30	Beatrice
Firth Cooperative Company	September 6	Firth
Farmer's Co-op Co.— Bennet Branch	September 13	Bennet
Otte Oil and Propane	September 20	Wahoo

The NEBLINE

Nebraska Cooperative Extension Newsletter
Lancaster County

THE NEBLINE is produced and edited by Scott Kolb, publication & resource assistant. It is published monthly by the University of Nebraska Cooperative Extension in Lancaster County, 444 Cherrycreek Rd., Lincoln, Nebraska, 68528-1507. Contact Scott Kolb, (402) 441-7180 for more information.



Gary C. Bergman, Extension Educator—Unit Leader

NOTICE

All programs and events listed in this newsletter will be held at the Lancaster Extension Conference Center unless noted otherwise. Use of commercial and trade names does not imply approval or constitute endorsement by the University of Nebraska Cooperative Extension in Lancaster County. Articles written by the staff of the University of Nebraska Cooperative Extension in Lancaster County may be reprinted without special permission if the source is acknowledged. For reprint information about other articles in THE NEBLINE, contact the source listed in the article.

CONTRIBUTING STAFF

- Lorene Bartos, Extension Educator
- Gary C. Bergman, Extension Educator
- Cindy Blome, Youth Extension Aide
- Corey Brubaker, Extension Educator
- Maureen Burson, Extension Educator
- Soni Ericksen, Extension Assistant
- John Gonzalez, Extension Assistant
- Arlene Hanna, Extension Assistant
- Alice Henneman, Extension Educator
- Don Janssen, Extension Educator
- LaDeane Jha, Extension Educator
- Scott Kolb, Publication & Resource Assistant
- Mary Jane McReynolds, Extension Assistant
- Ann Marie Moravec, Extension Assistant
- Barb Ogg, Extension Educator
- Warder Shires, Extension Educator
- Lark Trammell, Extension Assistant
- Dave Varner, Extension Educator



Extension Calendar

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

June 1	Lamb Tagging Day.....	9:00 a.m.-noon
	4-H Horse ID's Due	
June 1-3	Camp Counselor Training—4-H Camp, Gretna	
June 4	4-H Council Meeting.....	3:00-5:00 p.m.
	Horse Judging Clinic—Gretna	
	Designs for Dining Table Setting Show and Workshop —East Campus Union.....	6:00- 8:00 p.m.
	Abandoned Well Plugging Demonstration— University of Nebraska Roger's Memorial Research Farm, 18500 East Adams Street, Lincoln.....	6:30 p.m.
June 4-6	Fish Camp—4-H Camp, Gretna	
June 7	Cloverbuds VIPS Meeting—Farabee's, Lincoln.....	1:15 p.m.
	Pesticide Container Recycling — Farmer's Co-op Co., Waverly.....	9:00 a.m.-3:00 p.m.
June 7-10	Outdoor Adventure I Camp—4-H Camp, Gretna	
June 8	Angora Goat Seminar—North Barn, State Fair Park.....	9:00 a.m.-noon
June 9	Teen Council Meeting.....	3:00-5:00 p.m.
June 10	4-H Council Scholarships Due	
	High Adventure Camp Applications Due	
	Extension Board Meeting.....	7:30 p.m.
June 10-12	ServSafe—East Campus Union.....	1:15 p.m.-5:00 p.m.
June 10-13	Clover College	
June 11-13	FCE State Convention—Hastings	
June 11-14	Niobrara Camp—4-H Camp, Gretna	
	Summer Safari I Camp—4-H Camp, Gretna	
June 11-25	CWF	
June 12	4-H Horse VIPS Meeting.....	7:00 p.m.
June 13	4-H Poultry VIPS Meeting.....	7:00-8:30 p.m.
June 14	4-H Beef Breeding Heifers, Bucket Calves, Dairy Cattle, Goats, Sheep, Llama and Swine ID's Due	
	Pesticide Container Recycling — Greenwood Farmer's Co-op — Greenwood.....	9:00 a.m.-3:00 p.m.
June 14-16	Dismal River Canoe Trip	
June 15-19	Boldly Bound Camp—4-H Camp, Gretna	
June 17	District Horse Show—Beatrice	
June 18	District Horse Show—York	
	Star City Rabbit Raisers 4-H Club Meeting.....	7:00 p.m.
June 19	District Horse Show—Elkhorn	
June 20	District Horse Show—Columbus	
	Fair Board Meeting.....	7:30 p.m.
	4-H Rabbit VIPS Committee Meeting.....	7:00 p.m.
	4-H Sheep VIPS Committee Meeting.....	7:00 p.m.
June 20-23	Outdoor Adventure II Camp—4-H Camp, Gretna	
	Natural Resources Camp—4-H Camp, Gretna	
June 21	Pesticide Container Recycling Farmer's Union Co-op, Gretna.....	9:00 a.m.-3:00 p.m.
June 22	A Window of Opportunity— Developing High Quality Childcare Conference.....	8:30 a.m.-3:00 p.m.
June 24	FCE Council Meeting.....	7:00 p.m.
June 24-26	Wet-n-Wild I Camp—4-H Camp, Gretna	
June 25	4-H Production Livestock Booster Club Meeting.....	8:00 p.m.
	4-H Dairy VIPS Committee Meeting.....	6:30 p.m.
	Fabric Embellishment Demonstration.....	7:00-9:00 p.m.
	4-H Food Booth Training.....	6:00-8:00 p.m.
June 25-28	Niobrara II Camp—4-H Camp, Gretna	
June 26	Fabric Embellishment Hands-On Workshop.....	9:00 a.m.-3:00 p.m.
June 26-28	Leadership Camp—Halsey	
June 27	Practice Lifetime Skills Judging and Demonstration.....	1:00 p.m.
	4-H Ambassador Meeting.....	7:00 p.m.
June 27-20	Backstage Camp—4-H Camp, Gretna	
June 28	ExpoVisions Registration Due	
	Ak-Sar-Ben Broiler Entries Due	
	Pesticide Container Recycling Countryside Co-op, Raymond.....	9:00 a.m.-3:00 p.m.
June 29	Dairy Goat Workshop—Dale and Marilyn Sterns, near Hickman	
July 1-3	Wet-n-Wild II Camp—4-H Camp, Gretna	
July 2	4-H Council Meeting.....	7:00 p.m.

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