

UNL Extension: Acreage Insights

Acreage eNews-April 2013

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Nepal and Tibet: International Trip An Eye-Opening Experience

By [Sharon Skipton](#), UNL Water Quality Educator



My husband and I were two of 12 people who participated in an expedition to the Himalayan Mountains of Nepal and Tibet last September. The trip was not work-related; it was a very special, once-in-a-lifetime anniversary celebration. However, it proved to be an eye-opening experience as it related to my work at UNL.

My areas of focus at UNL include drinking water systems and wastewater treatment systems. As related to those focus areas, this trip was very educational. The World Health Organization reports that approximately 3 million people die each year from water borne disease. According to the United Nations, 2.5 billion people do not have access to basic sanitation or toilets. The Bill and Melinda Gates Foundation sponsored a competition to discover a new toilet design that could be used in developing nations. When I teach, I often share this information. Now I've seen it in person.



Limited Electricity

Our group of 12 met in Kathmandu, the capital of Nepal. Upon checking in to our Kathmandu hotel, we were given an “electricity schedule.” Electrical power was limited to a few hours each day. Consequently, lights, hot water, etc. were also limited to those few hours each day. The water was not safe to drink – even in the hotel. We did have “western toilets” in our rooms, and they did flush sometimes.

In Kathmandu for two days, we anxiously waited to see if we would be granted Visas to travel through Tibet. Until the 20th century, Tibet was a closed country, inaccessible to outsiders.



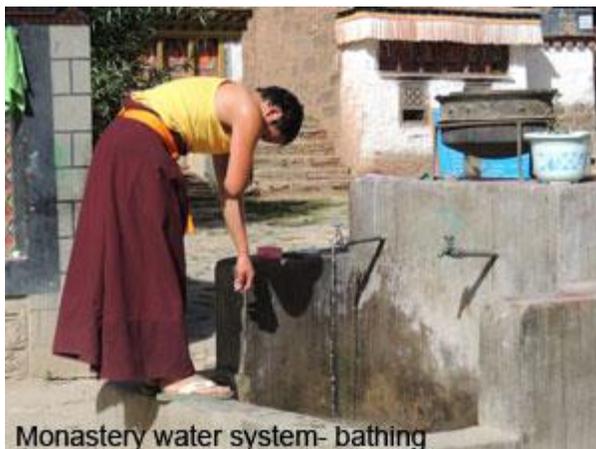
Clean Toilet

Tibet continues to be closed to foreign travelers, on occasion with no notice, with this being the norm rather than the exception in 2012. We were fortunate to get one of the few group Visas granted this year. With Visas in hand, we flew to Lhasa, the capital of Tibet.

The hotel in Lhasa did not restrict electricity, but they did limit hot water to a few hours a day. However, actually receiving hot water in your room was never a guarantee. Again, the water was not safe to drink. The “western toilets” usually flushed. As soon as we left our hotel rooms, the toilets were simply holes in concrete or stone floors. Many were filthy, as people often “missed” the hole.

I’ve just described the best accommodations we encountered. Once we left the capital cities and headed toward the Himalayas, conditions deteriorated rapidly.

Water was supplied to monasteries and villages via mountain-fed streams. A single water source might be used to meet all water needs.



Monastery water system- bathing



Monastery water system- washing laundry



Solar water heaters were common at mountain locations. It is a technique I covered when teaching National Guard Agribusiness Development Teams (ADT) groups preparing to go to Afghanistan. I tried it in my back yard prior to teaching the concept, but I had never seen the technique being used on this scale. The solar heaters are very effective. We hauled bottled water for drinking purposes and used “wet wipes” to wash up. Thanks to my husband’s humor, group members started bartering assistance (such as taking someone’s picture for them) for bottles of water. While it was fun and tabs added up, no water actually changed hands. It did, however, emphasize how rare and valuable drinking water was.

Public Toilet Facilities

Public hole-in-the-floor toilets were available at most stopping points like mountain villages or monasteries. However, our Sherpa advised us not to use them. He encouraged us to use “nature” instead. Once in the mountains, there were no trees or bushes to hide behind. There were rocks, but often they were not large enough to provide privacy. So, we all tried the public toilet option when one was available.



Public toilets in remote mountain villages don’t seem to be maintained or cleaned on a regular basis. They were so unsanitary that we all resorted to the “nature” option regardless of the fact that we were traveling with other people and had little or no privacy.

Personal Cleanliness

Our Sherpa also advised us not to bathe, even when water was available. And he suggested we not change our clothes. He believed it was healthier.

Since we were severely limited in the volume and weight we could take, we had very few clothes with us. We didn't quite have to wear the same thing for 20 days, but we did wear the three-or so pair of pants, t-shirts, fleece tops, etc over and over and over and over again. Yes, even underwear and socks were worn multiple times. And, when I stepped in human waste left when someone missed, and then smeared it on my pant leg, I was left with only two pair of hiking pants for the rest of the trip. Following our Sherpa's advice didn't seem to help.

Everyone in our group of 12 got sick at some point. Nearly all developed diarrhea with some, including me, needing antibiotics. Our Sherpa remained healthy!

Water-borne disease results from unsafe drinking water supplies and a lack of sanitation. I've now experienced both conditions. I can understand now how 3 million people might die as a result of living with those conditions. I can understand why the very young and the very old are at greatest risk. The trip was certainly an eye-opening experience.

I have to spend some time talking about the mountains, the reason we went on the trip. The Himalayan range is home to the planet's highest peaks, including Everest. But the entire range is massive! There are over a hundred mountains exceeding 23,600 feet in height.

The highest peaks in the lower 48 states are just over 14,000 feet.

Our goal was to reach 17,000 feet. We slept at over 15,000 feet at our highest camp and we did make it to over 17,000 feet.

The very old and very young are at greatest risk of water-borne illness.



I've included two photos in this article taken of Everest. The photo below was taken from the air as we flew from Nepal to Tibet.

The one at the top of this article was taken from camp.



Bush Cherries

By [Vaughn Hammond](#), UNL Extension Horticulture Educator



Bush Cherries

The most common and adapted cherry that Nebraskans and people from the Midwest are familiar with are tart cherries. Of these cherries the 'Montmorency' has been the long time standard in the Midwest. The 'Montmorency' is a medium sized tree that has been in cultivation for over 400 years. Other varieties of tart cherry includes 'Evan', 'Rose' and a recent release named 'Balaton'. There is also a naturally dwarf variety 'North Star' available, which is extremely hardy and thrives in the harsh Midwest environment.

History of Shrub Cherries

A less known form of tart cherries is the bush cherries. Bush cherries are extremely hardy (Zone 2), suffer from relatively few insect and disease problems and actually have a higher sugar content than tree types of tart cherries. Development of bush cherries began in Canada in the 1940's and resulted in a type that was market as the Mongolian cherry. During the 1980's

crosses were made with the naturally dwarf tree form 'North Star'. The result of crosses between these tree shrub forms, was a shrub form of tart cherry that is very hardy and has the high quality fruit characteristics of 'North Star' with increased sugar content.

Recent Releases

The first of these crosses released was named 'Carmine Jewel'. It reaches a height of 6 foot and a width of 5-6 foot. Spacing between plants should be 6 foot. 'Carmine Jewel' is self-pollinating, meaning the flowers from the bush will pollinate each other although a second pollinating type of bush cherry could result in increased fruit set. Fruit yields for established plants can approach 30 pounds.

The newest developments out of Canada include five varieties that were released as the Romance Series in 2005. These include 'Juliet', 'Valentine', 'Cupid', 'Romeo' and 'Crimson Passion'. All five varieties have larger fruit with a higher sugar content than 'Montmorency' and other tree forms of tart cherries. These varieties are not yet readily available in the United States but can be found with some diligence.

Site Selection, Planting & Care of Bush Cherries

When planting bush cherries and other long term crops it is always important to begin with a soil test and correct any deficiencies prior to planting. Bush cherries require much less space than the tree types. Row spacing of 6 to 7 feet from center of plant to center of plant will allow easy access for harvest, and promote good air movement to help reduce disease incidence.

Bush cherries have relatively low fertility requirements and most Midwestern soils have adequate fertility levels unless the soil test indicates otherwise. If fertilization is warranted it is important to fertilize early in the growing season during the period of rapid growth. Later season fertilization may promote growth too late in the season, and possibly result in winter injury to the plant.

Watering is extremely important early in the development of the plant. The most common plant size available is rooted cuttings that are one year old with a limited root system. It is important to make sure the plant has adequate soil moisture available for growth. Conserving soil moisture through the use of mulch can reduce the need for irrigation and help in the control of weeds which will sap soil moisture away from the cherries.



Fruit Production

Bush forms of cherries begin producing fruit sooner than the tree forms. Fruit production begins at the third year. Full production is achieved during the fifth year if the plants have experienced normal growing conditions. Twenty to 30 pounds of fruit can be expected per plant once the cherries are established. Depending on the variety, harvest can be as early as late July or as late as September.

Pest Problems

Bush cherries have few disease and insect pests. The primary disease issue to watch out for is cherry leaf spot. Cherry leaf spot is a fungal disease which will turn the leaves yellow. These yellow leaves will be covered with black spots that contain the fungal spores. Heavy infestations can result in total defoliation of the tree soon after harvest. It is important not to let this happen as it is extremely stressful on the tree, can reduce winter hardiness, and greatly affect the following year's crop. Fungicide application beginning early in the season will easily control this disease.

Cherry maggots can be an issue many years and are the larval form of a small fly. These small larva are found inside the fruit itself. Spraying to control this pest needs to begin early in the season to insure worm free fruit. Consult the [Midwest Tree Fruit Spray Guide](#) for recommendation on all you insect and disease problems.

Bush cherries can be a highly productive addition to your acreage landscape. Their versatility allows them to be planted in a variety of settings. They can be an integral part of your formal or edible landscape because of their beautiful flowers and fruit. You can plant them in a windbreak enhancing the structure while supplying delicious cherries to you and wildlife. They are well worth the effort.

Choose Your Level of Maintenance

By [John Fech](#), UNL Extension Horticulture Educator



Once the locations for lawn are identified, you need to determine the overall maintenance level for your lawn. Most folks want a high maintenance look, but are only willing to invest a low or medium level of time and money in it. Be honest with yourself. Identify how many hours and dollars you and your family are willing to spend on the lawn in a typical week, and base your design and planting decisions accordingly.

Consider designing your landscape with lawn areas that differ in maintenance level. The very visible front yard might be high maintenance, the back medium, and the sides low. This is somewhat like combining the best of both worlds, because it still allows you to the freedom to concentrate on that which is most important in your life, such as Bible study or volunteer service.

A high maintenance lawn is generally mowed two or three times per week, receives 4 to 5 pounds of nitrogen per 1,000 sq. ft. per year, and is regularly aerified and dethatched with power equipment. Nitrogen is a key element in encouraging turf growth, and high levels of nitrogen fertilizer make it necessary to mow more often. Pest control is given lots of attention, with regular inspections and both preventative and curative treatments. The lawn is watered as needed to keep the soil moist. In all, a high maintenance lawn will require an average of 4 or 5 hours a week. Kentucky bluegrass, creeping bentgrass, colonial bentgrass, and turf type tall fescues are species best adapted to this high input regime. They will provide a beautiful emerald green color, with a thick, luxurious appearance, and they are especially durable under hard use.



A medium maintenance lawn receives the same

types of care as one on a more ambitious regimen, but at a reduced level. These lawns are mowed one or two times per week, receive 2 to 3 pounds of nitrogen per year, and are aerified and dethatched as necessary. Pest control is provided on an as needed basis, if and when problems arise. The lawn is watered to keep the soil moist, except when cutting back to save money or conserve water. On the average, expect to spend 2 or 3 hours per week. This middle of the road approach works well with Kentucky bluegrass, tall fescue, rough bluegrass and zoysiagrass. The result should be a lawn that is green and healthy and very functional, with a moderate level of aesthetic appeal.

A low maintenance lawn is mowed two or three times per month, is treated with about 1 pound of nitrogen per year, and receives soil aeration only if severe problems with drainage arise. In most cases, pest control is nonexistent; if high levels of pests build up, the homeowner simply hopes that the grass will eventually regrow and spread into the affected areas. On the average, you'll invest just an hour or two per week. Choose from such species as common unimproved types of rough bluegrass, Kentucky bluegrass, tall fescue and buffalograss. Because these lawns require minimum amounts of time, cost, and effort to maintain, they are appropriate for large yards and are good choices for people who travel regularly or have little time or interest in yard work.

Landscape Drought Damage- Repair and Replace

By [Sarah Browning](#), UNL Extension Horticulture Educator



Turf and shrubs damaged by drought.

Last summer's hot, dry conditions were brutal to many of our landscapes, leaving us with dead patches in the lawn, dead shrubs, and dead trees. So far, a dry winter has continued the trend, and predictions for Summer 2013 are more of the same.

So, what can we do to repair last summer's damage, and prevent additional problems this summer?

Assessing the Damage

We expect plants that are not well-adapted to Nebraska's dry, windy conditions to develop

damage during drought. This includes plants such arborvitae, poorly sited yews, and broadleaf evergreens like holly. Arborvitae can become tolerant to average dry conditions 1) if they are planted in shade, and 2) once they are well established. Yews can tolerate normal dry conditions if they are located in afternoon shade. But last summer's drought was way beyond normal dryness, and many plants that did not receive supplemental irrigation have died.

Some plants with reputations as tough, drought tolerant plants suffered much more damage last summer than was expected. Specifically burning bush, *Euonymus alatus*, and Colorado spruce, *Picea pungens*. These plants are known for their tolerance of difficult conditions, but by mid-summer last year many landscapes had completely brown burning bushes. And by fall, many Colorado spruce were exhibiting browning needles and branches, and that browning has continued to worsen during winter.

As spring progresses, homeowners should carefully observe plants that turned brown last year, or those that have brown branches. Check plants and branches in several locations for signs of life. Try to snap the branches, and look for those that are still pliable. Look for green, dormant buds, which would indicate the branches are still alive. Gently scrape the outer bark away, looking for green cambium underneath. If any of these life signs are present, give the plant plenty of time to begin new growth in spring. Once new growth begins, the dead branches can be pruned away.

If, however, branches are brittle, dry, and show no signs of green live buds or living green cambium, then remove the dead plants, or prune out the dead branches.

Designing Drought Resistance Landscapes



Arborvitae killed by drought.

Before automatically replacing dead plants, stop to consider why these particular plants died. Many factors contribute to plant health, and many factors play a part in plant death, too. Address these issues before replanting, to improve the overall health of your landscape.

- Were these plants a poor selection for the site? Did they receive too much sun for their growing preference, or not enough water?
- What are the soil conditions? If soil is heavy, compacted, or poor quality amend the soil with compost and alleviate compaction before replanting.
- Were the plants placed in the middle of the lawn, and surrounded by turf grass instead of placed in a planting bed? Turf grass can be very competitive for soil moisture, and make it difficult for trees & shrubs to grow well. Put tree, shrubs and ornamentals in planting beds, grouping plants with similar water and sun requirements. This creates the best

growing environment, and allows you to optimize irrigation for both ornamentals and turf.

- Were they growing in rock mulch? Did they have plastic covering their roots? Lack of oxygen in soil covered by plastic can limit root development, and reduce a plant's ability to tolerate drought. Remove plastic and replace rock mulch with organic products, such as wood chips or bark chips. Or install a drip irrigation system in planting beds with rock mulch to make irrigation easier and more efficient. Replant with very tough plants that can tolerate reflected heat from the mulch.
- Did the plants receive reflected heat from a building, or other hard scape feature? Choose plants carefully that can tolerate these difficult conditions.

Whenever possible, consider using landscape plants that are well-adapted to Nebraska's challenging growing environment, and place plants in the landscape according to their site preferences. "Right plant, right place" is a very important concept when creating a drought resistant landscape.

Plants that are native to the Midwest often exhibit good drought adaptability. But many non-native plants are also highly drought-tolerant, and as long as they are well-adapted to local conditions and are non-invasive, they can also make a good addition to a drought resistant landscape.

Regardless of source, plants adapted to drought often have the following characteristics.

- Deep and extensive rooting (some native prairie plants can develop roots to depths of 15-20 feet).
- Smaller leaves which lose less water to transpiration.
- Shading of leaf surfaces by hairs, which is often the reason that leaves of drought-tolerant plants appear gray or fuzzy.
- Waxy leaf surfaces (typically appear white or blue) that help restrict water loss.
- Drought avoidance; they choose to go dormant during the hottest periods of the summer and resume growth in the fall when temperatures cool and moisture may be more available.

For more suggestions on drought tolerant plants for your landscape, refer to "[Perennials in Water-Wise Landscapes](#)".

Consider Soil Quality

In addition to focusing on plant selection, the most important thing that a homeowner can do to enhance drought tolerance is to provide plants with the best soil conditions possible. Healthy soils that balance water storage and drainage, contain ample organic matter, and are not compacted, will help plants maximize rooting and water uptake. Growing plants with vigorous root systems increase their drought tolerance.

Amending soil with organic matter, breaking up compaction through tilling or spading. Work 1-2 inches of compost into the soil at a depth of 6 inches. Minimize traffic in planting areas, and never work with wet soil.



Seed certified by the Nebraska Crop Improvement Association is usually identified with a blue tag.

Lawn Repair

Many lawns also sustained damage last year, and now is the time to repair it before hot summer conditions are upon us again. If your lawn has 50 percent or more desirable, living grass, then overseeding is a good choice. If you have less than 50 percent desirable, living grass, then it might be worthwhile to renovate the entire lawn.

Choose a high quality seed blend with 3-4 different cultivars of Kentucky bluegrass or tall fescue. A blend of Kentucky bluegrass and tall fescue together can also make a nice lawn.

Remember, scrimping on seed quality will soon be evident in lawn quality. Seed that is certified by the Nebraska Crop Improvement Association is usually identified with a blue tag on the seed bag. Check the seed label and avoid seed blends that include 1) coarse textured, pasture grasses like K-31 tall fescue, or 2) annual grasses like annual bluegrass or annual ryegrass.

Overseeding

Spring overseeding of Kentucky bluegrass should be done from April 1st to April 30th; tall fescue- between April 15th and June 15th. The amount, or rate, of seed applied in an overseeding operation differs compared to that used for a new seeding.

If you decide to renovate your entire lawn, then use a full seeding rate. For Kentucky bluegrass, apply 3-4 lb. of seed per 1,000 sq.ft., and tall fescue apply 8-10 lbs. of seed per 1,000 sq.ft.

When overseeding into a partial turf, Kentucky bluegrass should be applied at 1-2 lbs. of seed per 1,000 sq.ft. and tall fescue at 4-6 lbs. of seed per 1,000 sq.ft. When working with small amounts of seed, mix sawdust, dry sand, organic fertilizer, or any other suitable material with the seed to aid in obtaining uniform coverage.

Site Preparation

Before spreading the seed, prepare the soil to create a good seedbed. Small areas can be prepared by hand raking to remove excess dead top growth and loosen the soil surface. Larger areas can be prepared by aerating or power raking. Aerating opens up the soil and provides a good surface for seed germination. Seeds that fall into the aeration holes will germinate and grow well; there is no need to topdress or fill in the holes before seeding. Power raking should be used only if a thatch layer in excess of 1/2" is present.

Applying a pre-emergent herbicide for weed control is especially important with spring seedings since weed pressure is so much greater early in the year. The only pre-emergent herbicide that can be used with new seedings is Siduron, commonly sold as Tupersan. This herbicide will provide good control of annual grassy weeds like crabgrass and foxtail, yet still allow the grass seed to germinate. For new seedings, use the lower recommended rate and repeat the application one month later.

Finally, keep the new seeding moist until germination has occurred, then gradually decrease the amount of water applied. Kentucky bluegrass should receive 1" of water per week, from rain or irrigation, during spring and fall, and 1.5" of water per week in mid-summer. Tall fescue is drought tolerant and once established can be grown in most years without irrigation. No matter what type of grass is used in the turf, apply water deeply and infrequently to encourage deep rooting.

Begin mowing as soon as possible. Mowing encourages the lawn to become thick and dense. Sharpen the mower blade before cutting the new stand of grass to avoid tearing out the new plants and reduce the probability of disease infection.

In The Spring Garden...

By [Nicole Stoner](#), UNL Extension Horticulture Educator

Spring is officially here! There are many things we can do now that it is spring, but don't do too much too early. We can still have some cold weather, so we need to be careful not to do damage to our plants by pruning or planting too early.

Vegetable & Flower Gardens

If you don't plant any new seeds this year, you can apply Preen once it warms up a little more, to reduce the weeds that might come up from seed in your garden. If you plan to plant anything from seeds, wait until those seeds germinate before applying a preemergent, otherwise you will stop the germination of your desired plants.

If you have any weeds already greening up in your garden, you can pull them out or do a spot spray with a product containing glyphosate, such as Roundup. Be very careful not to spray your desired plants; you can damage or even kill them with the glyphosate.



After taking care of the weeds a new layer of mulch should be applied to help control weeds throughout the year, and to help hold moisture into the soil. Mulch should only be applied 2-3 inches deep during the spring and summer. The best mulch choice for a landscape are shredded hardwood, wood chips, or bark chips. Inorganic mulches, such as river rock or mulched tires, are not appropriate for a vegetable or flower garden.

They're Back!

We are also beginning to see insects emerging from overwinter in, or around, our homes. Boxelder bugs, or Democrats as some people call them, are starting to be noticed in our homes again. These insects do not bite us, do not spread diseases, and do not reproduce in our homes.

You might also see Asian multicolored ladybeetles. Vacuum them up, squash them, or release them outside. Spraying around your foundation a few times a year with the indoor/outdoor barrier spray should reduce the population of these insects in your home next fall and spring.

Control Musk Thistle in Spring

By [Brent Meyer](#), Lancaster County Weed Superintendent



Finally it's spring! At least that's what the calendar says. Noxious weeds are still dormant for the most part, except for the persistent musk thistle.

Musk thistle, classified as a biennial, is already springing up in the rosette stage. Rosettes range in size from quite small (a few inches) to three feet in diameter. They hug the ground and can be difficult to see until they're under foot.

The larger rosettes are usually the seedlings that germinated last fall and over-wintered as a rosette. As a biennial, this second year growth will produce flowers and seeds during this season. As the seeds germinate, the process begins again.

Musk thistle reproduces only by seed; however a single musk thistle plant can produce thousands of seeds, which can lie dormant in the soil for years. Plants that are chopped and left in the field may have enough energy to produce viable seed, so proper disposal of the seed head is important.

Large infestations of musk thistle may require herbicide control. Musk thistle plants are quite easy to control with herbicides when treated in the rosette stage of growth. Herbicides should be applied in the spring before the flower stalks begin to form and elongate. Repeated applications may be necessary to eliminate the musk thistle infestation.

The UNL Extension EC-130, [Guide for Weed Management](#), has products recommended for the control of musk thistle. Always read and follow the label of every product you use, as the label is the law.

Contact Information

We need everyone's help, so if you would like more information on thistles or would like to report an infestation contact the Lancaster County Weed Control Office. Email: weeds@lancaster.ne.gov or phone 402-441-7817.

Webinars Explore Today's Broadband Issues and Ideas

By [Connie Hancock](#), UNL Extension Educator and Nebraska Broadband Project Leader

New technology can help improve efficient operations, reduce costs and attract new customers. But first...you need to understand what the latest tools are and how they can impact your business. Learn through this series of Broadband Webinars, "Don't Know ...What I Don't Know." A team of University of Nebraska - Lincoln experts, along with industry leaders, share the news you need. As a bonus, the Webinar Summary sheet shares the highlights.

- Series introduction: [Don't Know...What I Don't Know](#)
- [Cloud Computing Technology- Summary](#)
- [Making Security a Priority- Summary](#)
- [Taking Advantage of Mobile- Summary](#)

Don't Know What I Don't Know. Experts provide tips on how to use technology including cloud-based computing, security concepts, e-commerce solutions and security to operate more efficiently, reduce costs, increase market share and attract new customers.

Cloud Computing Technology. Lincoln technical experts and successful small business leaders explain the advantages of cloud technology, including information storage and access.

Making Security a Priority. Security of systems, information and data are all critical to the success of small businesses -- and safety of individuals. New devices and applications mean more focus and options on your information security. University of Nebraska-Lincoln experts and industry leaders discuss the impact of information security for individuals and small businesses.

Taking Advantage of Mobile. A new way of accessing information has emerged with mobile devices. Learn how to effectively promote and support your business operations with mobile access and applications.

These webinars, and many more, are now available on the [Nebraska Broadband Library website](#). The Nebraska Broadband Project also is available on Facebook at <https://www.facebook.com/broadbandnebraska> or on Twitter, @BroadbandNEBR.

For more information, contact Connie Hancock, Project Lead, 308-254-4455.

This webinar series is part of a project funded by a grant to the Nebraska Public Service Commission by the U.S. Department of Commerce's National Telecommunications and Information Administration. The Broadband Mapping and Planning Initiative has been conducted by a coalition of Nebraska partners, including the PSC, University of Nebraska-Lincoln Extension, the UNL Center for Applied Rural Innovation, the Nebraska Information Technology Commission's Communication Council, the AIM Institute and the Nebraska Department of Economic Development.

Beginning Farmer and Rancher Workshops Scheduled for April
By [Gary Lesoing](#), UNL Extension Agriculture Educator and Nebraska SARE Coordinator

With funding from the USDA Beginning Farmer and Rancher Grant Program, the Center for Rural Affairs, the University of Nebraska-Lincoln Extension and the Nebraska Sustainable Agriculture Society are sponsoring four beginning farmer and rancher workshops in southeast Nebraska.

Mob Grazing and Grass-fed Beef

April 4th, 9:00 -3:00 – UNL Agricultural Research and Development Center, 1071 County Road G Ithaca, NE 68033

In the first workshop, Ralph Tate will discuss how mob grazing is incorporated into his farm near Fairbury and Paul Rohrbaugh, from Pawnee Pride Meats in Pawnee County will explain production and marketing strategies with his grass-fed beef operation. Angie Miller, attorney with LegalAid of Nebraska, will discuss leasing pastures to conclude the morning program. After lunch Dave Welsch will lead the session on beginning business planning on the farm.

Participants will learn about basic business principles, i.e. net worth, cash flow, income profit

and loss statements and how these can be important business tools in a mob grazing and grass-fed beef operation.

Vegetable/Fruit Production

There will also be three workshops that focus on the beginning farmer and vegetable/fruit production. At these workshops successful produce growers will discuss their operations and the various production and marketing strategies they use on their farms. Similar to the previously mentioned workshops, beginning business planning principles will be discussed and explained how they can be used in a vegetable/fruit farm.

April 8th, 10:00 -3:00 – UNL Extension in Lancaster County, 444 Cherrycreek Road Suite A Lincoln, NE 68528

Alex McKiernan from Robinette Farms will describe their vegetable production farm and how they market through a CSA, off their farm and at farmers markets. After lunch Dave Welsch will conduct a program on beginning business planning for a produce farm.

April 12th, 10:00 – 3:00 - UNL Agricultural Research and Development Center, 1071 County Road G Ithaca, NE 68033

Kevin and Charuth Loth will discuss their organic vegetable/flower operation at Shadowbrook Farm and how they produce both in high tunnels and in the field. They will describe their different marketing strategies of selling off the farm, through a CSA, at several farmers markets, and wholesale to different outlets. After lunch, Dave Welsch will conduct his program on beginning business planning for a produce farm.

April 16th, 10:00 – 3:00 - UNL Extension in Douglas Sarpy Counties 8015 W. Center Road Omaha, NE 68124-3175

Ryan Pekarek from Pekarek Produce will explain his family's vegetable operation and the marketing options they practice. Ryan and his wife Katie produce a variety of vegetables on their farm. They also utilize a high tunnel and grow much of their produce in the field. They market their produce off the farm, at farmers markets, wholesale to grocery stores and to the University of Nebraska-Lincoln through the Buy-Fresh-Local Program. Following lunch Dave Welsch will lead a session in beginning business planning for the produce farmer.

All of these workshops are free and include: refreshments, lunch, some resources as part of the workshops and an opportunity to purchase resources at a reduced rate. Pre-registration at least 3 days before each workshop is required so we can plan accordingly for lunch and handouts.

To register call Gary Lesoing at University of Nebraska-Lincoln Extension in Nemaha County at (402) 274-4755.

UNL Extension Tractor Safety Courses Offered Across Nebraska
By [Sharry Nielsen](#), UNL Extension Educator

University of Nebraska-Lincoln Extension Tractor Safety/Hazardous Occupations Courses will be offered at seven locations in Nebraska during May and June. Any 14 or 15-year-old teen who plans to work on a farm other than their parents' should plan to attend.

Federal law prohibits youth under 16 years of age from working on a farm for anyone other than their parents. Certification through the course grants an exemption to the law allowing 14- and 15-year-olds to drive a tractor and to do field work with mechanized equipment.

The most common cause of death in agriculture accidents in Nebraska is overturn from tractors and all-terrain-vehicles (ATVs), said Sharry Nielsen, UNL Extension Educator. Tractor and ATV overturn prevention are featured in the class work.

"Instilling an attitude of 'safety first' is a primary goal of the course," Nielsen said. "where youth have the chance to learn respect for agricultural jobs and the tools involved."

Classes consist of two days of instruction plus homework assignments. Classes are from 8 a.m.-5 p.m. each day. Dates and locations include:

- May 23-24, Fairgrounds, Kearney
- May 29-30, Haskell Ag Lab, Concord
- June 3-4, Farm and Ranch Museum, Gering
- June 6-7, Fairgrounds, Valentine
- June 10-11, Fairgrounds, Osceola
- June 13-14, West Central Research and Extension Center, North Platte
- June 17-18, College Park, Grand Island

Pre-registration is strongly encouraged at least one week before a location's start date to the Extension Office at the course site. Cost is \$60, which includes educational materials, testing, supplies, lunches and breaks. For more information, contact the Extension Office or Sharry Nielsen at (308) 832-0645, sn Nielsen1@unl.edu.

The first day of class will consist of intensive classroom instruction with hands-on demonstrations, concluding with a written test that must be completed satisfactorily before students may continue driving tests the next day. Classroom instruction will cover the required elements of the National Safe Tractor and Machinery Operation Program. Homework will be assigned to turn in the next day.

The second day will include testing, driving and operating machinery. Students must demonstrate competence in hitching equipment and driving a tractor and trailer through a standardized course as well as hitching PTO and hydraulic systems.

Take Precautions To Avoid Serious Injury When Operating ATVs
Contact [Bob Meduna](#), UNL Southeast District 4-H Program Coordinator



All-Terrain Vehicle accidents are a major cause of Nebraska acreage and farm fatalities. From 1982-2010, 107 deaths from ATV accidents have occurred in Nebraska, with 26 of those deaths to children 16 or under. However, these tragedies can be avoided if appropriate precautions are taken.

Safety Training

All ATV operators, both adults and children, should take an ATV safety course. Whenever anyone operates a new piece of machinery, he or she should have training about the characteristics of the machinery, how it operates normally and how it operates in unusual situations. No one is immune to accidents, but the increased awareness a safety course provides will help ATV operators navigate the unexpected situations that often cause them. Many ATV manufacturers offer a tuition rebate program to cover the cost of a safety course.

UNL offers two different ATV safety training courses. First, *Nebraska 4-H ATV Safety Program*, in collaboration with the American Safety Institute, offers three age-specific e-learning courses to address basic ATV safety principles. Adults, teens and children will learn how to apply the “golden rules” of ATV riding in an interactive setting. The course includes videos, pictures, and interactive games to make it a fun and effective learning experience for all age groups. After taking the course, users can take an ATV Safety exam and receive a certificate of completion.

The entire course take approximately 2-2.5 hours to complete. You can stop at any point and your progress will be saved so that you can return and pick up right where you left off. It’s free, fun and a great learning experience for ATV riders of all ages. More information is available at: <http://southease.unl.edu/atvsafety>.

Secondly, the *ATV RiderCourse*® is a fast-paced, half-day hands-on training that is exciting and fun. Sessions include 1) pre-ride inspection, 2) starting & stopping, 3) quick turns, 4) hill riding,

5) emergency stopping and swerving, and 6) riding over obstacles. Whatever your experience, you will come away a better rider.

All Terrain Vehicle (ATV) Safety Training is conducted by certified RiderCourse® instructors.

For more information about training sessions across Nebraska, contact [Robert Meduna](#), UNL Southeast District 4-H Youth Program Coordinator at 1-402-624-8064.

ATV Safety Tips

Use extra caution when operating an ATV in risky situations. Many accidents occur when the driver is unfamiliar with the area and doesn't know about unpredictable conditions such as sudden drop offs or cattle trails hidden by overgrowth. Slow down when riding in unfamiliar areas. Consider walking a proposed route before riding in rugged terrain to identify potential hazards.

Carrying equipment also can pose a risk. In particular, spray tanks and other liquid-filled containers can cause balance problems for ATVs when they're going up hills, sometimes tipping them over backward or sideways. Never exceed the capacity posted on luggage and equipment racks. Current ATVs are heavy enough that if they roll on top of someone, they will cause very serious or fatal injuries.

Always wear safety gear when using an ATV. It's essential to have an ATV helmet and vented goggles. Also wear full-length pants and boots and consider wearing long-sleeve shirts and gloves, which will protect the operator when riding in tall, heavy vegetation or brushy areas.

Finally, never allow passengers to ride the ATV along with the driver. Most ATVs are designed to carry only one person, and the driver must be free to shift their weight in all directions to effectively steer the vehicle. Carrying passengers makes this difficult. Parents should not allow children to ride along on the ATV, and children under the age of 16, who have not completed an ATV safety training course, should not be allowed to drive by themselves.

Follow all warning labels on the ATV.

Evaluate Drought-Stressed Cool Season Pastures This Spring
By [Steve Tonn](#), UNL Extension Agriculture Educator



Summer 2012 brought us the most extreme drought conditions in recent memory, and many of our pastures are still in poor condition. Evaluating their condition is important, and early April is a good time to take a close look.

All pasture evaluation methods are subjective and their usefulness depends on the judgment of the evaluator. The best evaluator is the pasture manager. The manager of the pasture has the best sense of 1) a particular pasture's conditions compared to normal, 2) what has changed due to the extended drought, and 3) what issues can be addressed immediately.

Dr. Stephen Barnhart, Iowa State University Extension forage agronomist, suggests that for the best estimate of plant recovery and vigor, wait until 2 to 3 inches of spring regrowth is visible. Then walk through your pastures and consider:

1. Have there been any changes in plant species since the last season?
2. Has pasture density decreased since last season?
3. Is there evidence that weeds will be more of a problem?
4. Is there active erosion or localized damage due to supplemental hay feeding?

Pastures with little or no drought damage should have an 80% or greater stand density, or sod cover. These pastures should recover with good growing conditions. Even if new growth appears “normal”, your pasture plants have suffered some drought and use stress, and they may require deferred grazing for a couple weeks longer than usual for complete recovery.

Pastures with greater drought damage may have some stand loss, with less than 80 percent sod cover. These pastures will benefit from deferred spring grazing and early spring fertilization. Interseeding legumes may also be an option to thicken up the stand. Even with deferred grazing, fertilization, overseeding and weed management, these pastures may require good growing conditions and two to three months of careful grazing management for complete recovery.

Severely damage stands, with less than 40 percent sod cover, are going to require good growing conditions, weed management, aggressive overseeding efforts (or even complete renovation), and patience for adequate recovery opportunities.

March snows have provided some moisture for our cool season grass pastures to start growing. But don't let that first growth fool you. Below ground, many plants are still suffering from last year's drought.

Delay turn out a couple of weeks so plants develop enough leaf area to begin repairing injured roots. Also reduce stocking rates by 20 percent on improved pastures to account for weakened root systems. Don't risk long-term pasture injury for short-term feed gains. Manage grazing to help pastures recover from last year's stress.