

# EXTENSION IS ON THE MOVE

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## Home Invaders

What do crickets, millipedes, Asian lady beetles, box elder bugs, wolf spiders, and other creepy crawlies all have in common this time of the year? You have probably figured it out; they are looking for a cozy place to hold up for the winter.

Crickets are a critical part of our ecosystem. They feed on a lot of different plants, decaying organic matter, and even other dead insects. They also are a valuable food source for other animals such as spiders, birds, and snakes.

Millipedes are thin, hard shelled, worm-like arthropods with many legs. They feed on organic matter and are efficient recyclers of plant material. Millipedes are less annoying but still will enter your house and dry up into hard shells for you to clean up. The next most common invader is the Asian lady beetle, which is beneficial for much of the year since it feeds on soybean aphids and other harmful insects. At this time of the year, however, these critters begin to enter buildings.

Asian lady beetles will congregate in large numbers and will enter by the hundreds or even thousands if you have a nice overwintering site. They have a disagreeable odor and can stain areas when you crush them.

Any cool snap will begin to drive these creatures to looking for better quarters, so now is the time to prepare for these annoyances. Look for gaps in windows and doors, cracks in foundations, and any other openings which will give easy access. Fill the gaps with foam sealant or any other material that will prevent entry. Outside, heavy mulch, boards, and wood piles around the foundation make excellent hiding places where these critters can stage for a home invasion. Remove these hiding areas if you can.

Create an insecticide "barrier" by spraying the exterior of structures along the foundation with a wide band of about 4-5 feet. Spray about 2 feet up the foundation as well. Make sure you spray the product to the point where you can see the material running down the foundation to give you extra residual. Keep pets and children away from the area until the surface dries. You can purchase these barrier insecticides at your local hardware store. Many of the so-called "Home Defense" type products are good choices for a barrier spray. I don't normally like to single out a product, but Tempo is now available for homeowners and is an excellent barrier spray. If you have ornamental beds and lawns adjacent to the foundation, it may be advisable to treat those as well. These products don't last for one year like the advertisements may say. Depending on weather conditions, you may have to spray every 2 to 4 weeks until we get a hard freeze.

Extension is a Division of the Institute of Agriculture and Natural Resources at the University of Nebraska-Lincoln cooperating with the Counties and the United States Department of Agriculture.

# ON THE RANCH

## Cow-Calf Cost Breakdown – Feed Cost

A one page sample budget, Estimated Annual Cow Costs for Nebraska (<http://go.unl.edu/ft2w>) provides an example and a place to start to begin to calculate total costs for feed for the cow herd. Evaluating available feed resources, both grazed and harvested feed, in comparison to nutrition needs and demands of the cow herd throughout the year can indicate where opportunities are to make change. These changes might be as small as providing strategic protein supplement or as large as changing from a spring calving to a fall calving herd. More information can be found at: <http://newsroom.unl.edu/announce/beef/6901/39108>

## Weeds in Alfalfa May Suggest Reseeding

Bruce Anderson, Extension Professor, University of Nebraska-Lincoln



Did weeds take over your alfalfa this summer? Well, join the crowd. So, why were the weeds so vigorous and what might happen to your alfalfa?

Weeds seemed to show up everywhere in alfalfa fields during August. And I'm not exactly sure why. One thing is for sure, though. The weeds were worst in older fields, thinner stands, and in areas where rainfall was higher than normal.

Summer weeds that invade alfalfa when rain is heavy isn't unusual, especially if it is wet right after harvest. Alfalfa stubble just doesn't compete well with weeds, so weed growth gets a jump start on the alfalfa.

If the alfalfa plants are healthy and vigorous, though, this weed invasion should be just a temporary problem. After the next cutting, or maybe as late as next year, most weeds will disappear and the alfalfa will take over again.

What I'm more concerned about are your older fields, those fields starting to get a little thin. I've noticed this year that many alfalfa fields seemed to be getting weaker and weaker as the year went on, especially if they were harvested within a month of the previous cut.

What I think is happening is that alfalfa plants in many fields have slowly been weakened naturally by root and crown diseases, but they weren't killed. Then, as the summer went on, the weakened root systems eventually couldn't handle the stress caused by frequent harvesting. So plants slowly died. And weeds invaded the open areas.

If this scenario describes one or more of your alfalfa fields, check it closely this fall. It might be time to reseed.

Preparing to reseed now will help avoid bad surprises next spring.



Weaning is a major stress in a calf's life and on their immune system. Photo courtesy of Troy Walz.

## Nebraska BQA: Preconditioning and Weaning Preparation

By Rob Eirich, Nebraska Beef Quality Assurance,  
University of Nebraska-Lincoln Extension

Cow-calf producers are nearing weaning time of their 2017 calf crop, with current market and industry trends, producers should be considering and preparing for preconditioning or weaning programs. It is important to consider the best programs for the health of calves during these stressful periods and into the feeding phases.

Preconditioning is designed to mitigate stress that occurs during the transitional period between weaning and going on feed or moving into the next production cycle. The typical preconditioning program involves a health protocol of vaccinations administered 21-30 days prior to weaning. The basic concept of preconditioning programs is to boost the calf's health status or immune system prior to exposure to stressors and pathogens as the calves enter that next production cycle. Preconditioning has also been shown to improve efficiency, as well as, reduce the risk and cost of treatment for health diagnosis after weaning. Nebraska Extension NebGuide G2248, "Economic Considerations for Preconditioning Calves for Feedlots" (<http://extensionpublications.unl.edu/assets/pdf/g2248.pdf>), can assist producers that are considering preconditioning for their operations.

The first step in developing a preconditioning or weaning program should be to consult with your veterinarian under a Veterinarian-Client-Patient Relationship (VCPR). Working with your veterinarian will ensure a program designed specifically for your operation goals, and addressing the potential pathogens or parasites the animals might encounter. The recommended preconditioning or weaning protocol from the University of Nebraska Great Plains Veterinary Education Center includes a four-way BRD viral (IBR, BVD, PI3, and BRSV), BRD bacterial (at least Mannheimia Hemolytica), and clostridial (Blackleg) vaccinations. It is also important to follow Beef Quality Assurance (BQA) guidelines by reading product labels to ensure proper handling, storage, and administration of these products.

With the changes in feeding medicated feeds through the Veterinary Feed Directive (VFD), preparation before weaning is important. Producers should consult with their veterinarian to review not only vaccination protocols but also treatment protocols for health issues that may have a high risk of occurring in the coming months. Documented treatment protocols can ensure proper treatment of illness or lameness diagnosis. If the protocol calls for treatment with a feed grade antibiotic, producers must have a written order or VFD signed by their veterinarian with appropriate copies for the feed supplier and themselves, prior to administering these type of products. Some of these VFDs can be in place prior to actual health risk occurring for prevention or control, in addition to treatment. VFD information can be found online at: <http://bqa.unl.edu/veterinary-feed-directive> .

Weaning is a major stress in a calf's life and on their immune system. As producers, it is our responsibility to develop the best vaccination and treatment programs to ensure the health, care and wellbeing of these calves. Preparation can help in making this transition less stressful on livestock and producers.

# IN THE FIELD

## Nebraska Soybean & Corn Pocket Field Guide 2017 Edition

There is a limited supply of these free guides available in the Nebraska Extension Office in Knox County. Stop by and pick one up today.

## Grazing Cornstalks – Do you have a rental agreement?

By Mary Drewnoski, UNL Beef Systems Specialist and Jay Parsons, UNL Dept. of Agricultural Economics

Having a written agreement can help reduce miscommunication and frustration down the road.

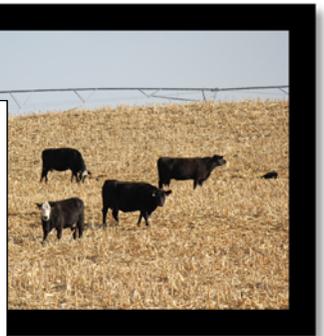
- It ensures a better understanding by both parties.
- It serves as a reminder of the terms originally agreed upon.
- It increases the likelihood that the relationship will continue in future years.

When it comes to rental agreements for grazing corn residue, a number of questions need to be asked and answered up front to avoid disagreements later.

### 1. What is the latest start date that residue will be available for grazing?

- Have a written start date with an agreed upon penalty (such as an extra fee) if the corn is harvested late.
- Having this agreement in writing can keep both parties feeling okay about the outcome if weather or equipment issues delay harvest and availability of the residue.

When it comes to rental agreements for grazing corn residue, a number of questions need to be asked and answered up front to avoid disagreements later.  
Photo courtesy of Troy Walz.



### 2. What is the latest end date for removing cattle?

- A common frustration that corn farmers voice when renting out corn residue for grazing is that the cattle are not removed in a timely fashion.
- Have a written removal date with an agreed upon penalty (such as an extra fee) if cattle remain longer can keep both parties feeling okay about the outcome even if an unexpected event (such as a snow storm) keeps cattle on the land longer than planned.
- Who is responsible for gathering and removal of the cattle?

### 3. How will the appropriate stocking rate be determined and how will grazing be priced?

- Using the corn stalk grazing calculator (<http://go.unl.edu/wgm9>) to determine stocking rates is a good way to ensure proper stocking rates are utilized. It is important to utilize proper stocking rates to ensure cattle have access to adequate amounts of leaf and husk and that performance is maintained.
- Get your pricing right- by the acre OR by the head:
  - ▶ Priced on a per acre basis. This type of arrangement is simple to administer but can have negative consequences if the start date, end date, stocking rate and adverse weather policy is not specifically spelled out. Without these items being outlined the crop producer can be exposed to the risk of over grazing and the cattle owner could be exposed to the risk of paying for something he/she can't use if adverse weather prevents grazing.
  - ▶ Priced on a per head per day or AUM basis. With this method the cattle owner only pays for actual use. Again the start date, end date, and stocking rate need to be laid out. The duration of grazing is important for the cattle producer when calculating transportation costs into the cost of feeding the cow. The crop producer is accepting the financial risk that the grazing resource may not produce the income they anticipated if the cattle are removed early.

- The plan for heavy snow or ice needs to be included in the pricing agreement, including the emergency feed source and who is responsible for providing it.
- The payment schedule and method should also be agreed upon.

#### 4. Other things that should be outlined:

- Is there a fence present? If not who is responsible for building the fence? Who is responsible for maintaining fences?
- Is there a reliable water source for the cattle? Who is responsible for providing water and maintaining water during grazing (including breaking ice)?
- Who is responsible for the daily care of the cattle? Inventory counts? Providing minerals and salt? Monitoring animal health? How will treating sick cattle be handled? Will the cattle be commingled with other cattle?
- Who is liable for the cattle getting out? Who is responsible for gathering the cattle if they get out?
- Is the cattle owner required to carry liability insurance for potential damage caused by the cattle? What, if any, indemnification responsibilities does the cattle owner have to the crop farmer for damage caused by the cattle?

This resource is meant to provide a list of questions and issues to consider in drafting a lease agreement for grazing corn residue. Obtaining legal advice from a licensed attorney is encouraged in developing the actual agreement.

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## Propane Availability Forecast

Are hurricanes Harvey or Irma likely to affect propane availability for farmers and rural Nebraska homeowners for winter 2017-18? Not in the long run as propane availability is good, said Gregg Walker, director of communications for the Propane Education and Research Council. Hurricane Harvey delayed exports from Texas ports for a few days and may have hampered processing at some facilities, but “we make more than enough propane to meet US supply,” Walker said.



Propane tanks ready for filling at a local facility. (Photo by John Nuckolls, FarmPropane.com)

He does encourage rural users to work with local suppliers to order propane early to guarantee they’ll have what they need when they need it this winter. “Nebraska is fairly close to a major distribution center at Conway, Kansas, which puts Nebraska markets in a good position,” Walker said; however, propane competes for space with other energy commodities in the transportation system and sometimes there just aren’t enough rail cars or trucks available to get it where it needs to go on a short deadline. Ordering early helps everyone in the supply chain better identify and plan for domestic need and respond to potential export sales.

“The US produces more propane than any other country in the world and is the world’s largest exporter,” he said. That means that even if the US were to have a mild winter, if Europe had an unusually long and bitterly cold winter, export needs would increase, affecting supplies. Growers may still remember 2013-14 when there was a high demand for grain drying, followed by a tough winter. As the “Polar Vortex” dipped down, the US sustained record lows over an extended time, increasing propane needs for many rural Americans, sometimes beyond normal expectations.

Rural users can take steps to help ensure they have a ready supply when they need it, just as they would with other farm inputs, Walker said. He recommends users establish a good relationship with their local supplier and make plans with them soon regarding winter propane needs and purchases.

While growers may take a risk that the price of propane moves higher or lower after the price is contracted, setting the price early can help with budgeting and provide peace of mind that the fuel will be available when needed, said Anthony Barrett, farm financial consultant at Nebraska Farm Business Inc. Growers purchasing inputs in the fall also may be able to lock in cash discounts.

Source: Cropwatch.unl.edu

## Equipment Adjustments for Harvesting Soybeans at 13%-15% Moisture

Everyone knows it is impossible to harvest all your soybeans at exactly 13%, but that should be your goal to optimize potential income. If you're harvesting soybeans at 14%-15% moisture and pods are mature and stems are still green, consider the following equipment recommendations to help assure a good harvest.

- 1. When harvesting tough or green stems, make combine adjustments and operate at slower ground speeds.** Make combine adjustments several times a day to match conditions as they change. The following combine adjustments are suggested when harvesting higher moisture soybeans or soybeans with green stems:
  - **To increase “grip” on the green stems** to pull them through the combine, replace rounded or worn parts in the thresher, especially worn feeder house chains and rasp bars.
  - **Increase cylinder/rotor speed** to make threshing more aggressive to break open green pods and pull the green material through. Do not close down concave clearance as that reduces room for the green materials to pass through the thresher.
  - **Insert filler plates or wires in the front portion of the concave** to keep the green pods in the cylinder/rotor chamber longer for better threshing. If not, the pods will fall through to the sieves unopened. Consider closing down the top sieve slightly to send the green pods out the back if you are not threshing them properly.
  - **Increase fan speed** as the green stems are heavier and need more airflow to keep them suspended above the sieves to allow for proper cleaning and to blow the green leaves out.
  - **Close down the lower sieve slightly** to keep green pods out of the grain tank and send them back to the cylinder/rotor for rethreshing.
  - **Install disrupter bars on rotary combines** to improve green stem flow through the rotor and to reduce “roping.” On some rotary combines, you can retard the material flow by adjusting the vanes on the rotor cage or by installing reverser rasp bars to keep the material in the rotor longer to allow more time for threshing and separating.
  - **Consider adding an air reel to the head** to have airflow help feed the soybeans into the combine and reduce bunch feeding. More uniform feeding will improve threshing.
- 2. Begin harvesting at 14% or 15% moisture.** What appears to be wet or green from the road may be dry enough to harvest. Try harvesting when some of the leaves are still on the plant as the beans may be drier than you think. Soybeans are fully mature when 95% of the pods are at their mature tan color. When storing the first harvested, wetter beans on-farm, running the aeration fan will help drive moisture from the wetter beans upward to help rehydrate any dry beans in the top of the bin.
- 3. Harvest under optimum conditions.** Moisture content can increase by several points with an overnight dew or it can decrease by several points during a day with low humidity and windy conditions. Avoid harvesting when beans are driest, such as on hot afternoons, to maintain moisture and reduce shattering losses. Harvesting immediately after a rain, if field conditions allow, will result in higher moisture contents. However, several wetting and drying cycles from rain events will make the soybeans more susceptible to shatter losses from pods splitting open.
- 4. Avoid harvest losses from shattering by harvesting before the beans become overly dry.** Four to five beans on the ground per square foot can add up to one bushel per acre loss. Many times, the dock for delivering beans over 13% moisture content may be less the shatter losses from harvesting overly dry soybeans.
- 5. If there are green leaves and green pods in the grain, they are considered foreign matter at the marketplace which can result in dockage.** If placed in on-farm storage, they can cause challenges in a grain bin at the edges. Avoid dockage and spoilage by doing the following:
  - **Reset the combine** as outlined above to provide a cleaner harvest.
  - **Use a grain cleaner** to remove the foreign matter before marketing or storage.
  - **Use a grain spreader** when putting beans into storage to better distribute any foreign matter.
  - **In storage, operate the aeration fan to dry the leaves and green pods** to a safe storage moisture content. The pods and green beans will dry quickly and help rehydrate any overly dry beans. The fans need to be operated for temperature management anyway.
- 6. Don't place “all of your eggs in one basket” when it comes to selecting the maturity of soybean seed at planting time.** Select your varieties and schedule your planting to spread out plant maturity and harvest. Plant your early maturing varieties first.

Source: Cropwatch.unl.edu

### 2017 Nebraska Irrigated Cropland Cash Rent Paid Per Acre

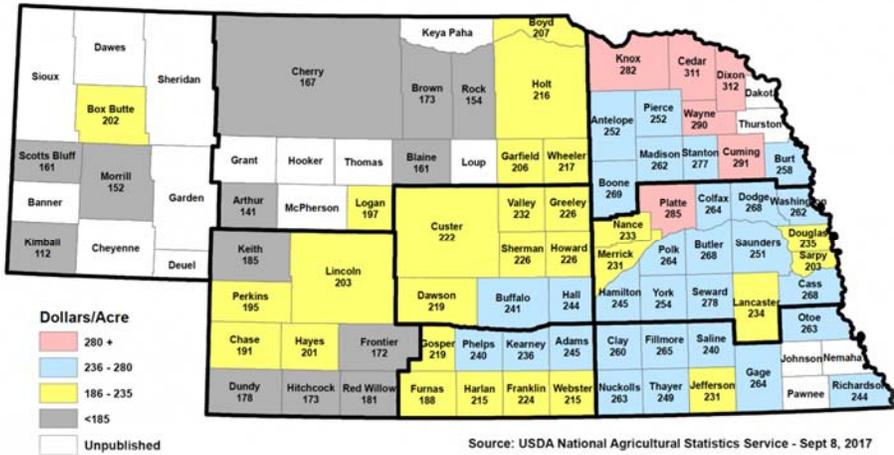


Figure 1. Nebraska irrigated cropland cash rent paid per acre in 2017.

### 2017 Nebraska Non-Irrigated Cropland Cash Rent Paid Per Acre

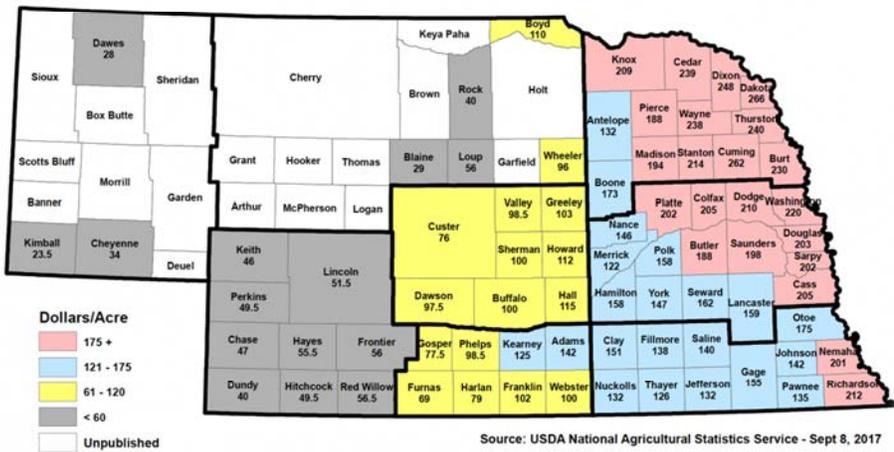


Figure 2. Nebraska non-irrigated cropland cash rent paid per acre in 2017.

### 2017 Nebraska Pasture Cash Rent Paid Per Acre

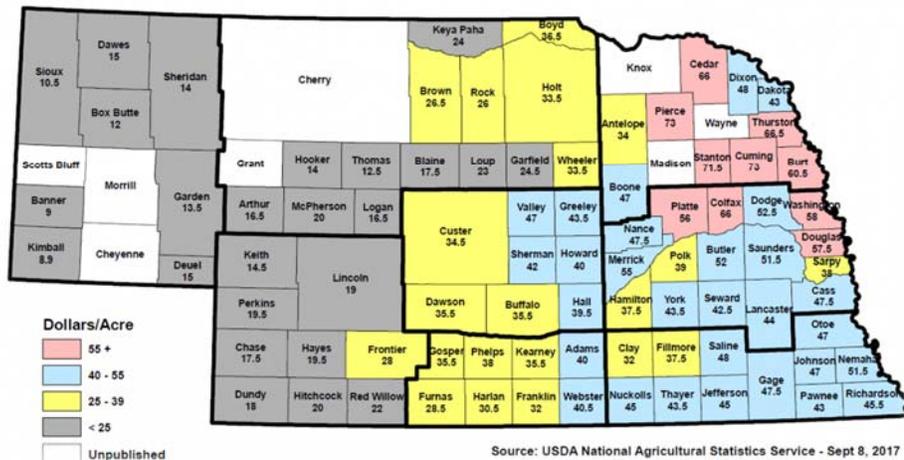


Figure 3. Nebraska pasture cash rent paid per acre in 2017.

## By the Numbers: Who's Paying How Much in Cash Rent?

This week the USDA National Agricultural Statistics Service released its county level statistics on cash rental rates for irrigated and non-irrigated cropland and pastureland.

Available in table and map form (Figures 1-3), the Nebraska rates are based on a random sample of nearly 16,000 producers who were surveyed from March through June.

In Nebraska the highest range of irrigated cash rental rates was from \$282 in Knox County to \$312 in Dixon County. The next highest range was from \$236 in Kearney County to \$278 in Seward County.

The highest level of non-irrigated cash rental rates—all in eastern Nebraska—ranged from \$188 in Pierce and Butler counties to \$266 in Dakota County.

The highest range of pasture cash rental rates was from \$56 in Platte County to \$73 in Pierce County.

The information is based on surveys conducted with Nebraska farmers and ranchers during the first half of 2017.

"These rents represent an average of all rates reported for a county, which means our data set included recently negotiated rents and those that may not have been updated for some time," notes Nick Streff, deputy regional director for the Northern Plains Regional Field Office in Lincoln. "These rental rates will not always represent the current market rate for a given county."

Jim Jansen, Nebraska Extension agricultural economist, noted that variability in crop and livestock prices appears to be influencing cash rental rates as well as ag land values. Counties where there are wide production swings from year to year are more apt to have lower cash rental rates due to inconsistent income potential.

The rate growers are willing to pay in rent appears to relate to the land's income-earning potential. If commodity or livestock prices drop, rental rates tend to follow suit, Jansen said.

The University of Nebraska-Lincoln Department of Agricultural Economics also tracks agland cash rental rates in Nebraska and released its most recent data earlier this year in the [2017 Nebraska Farm Real Estate Report](#). Its report is based on surveys made in early 2017. Rental rates published in 2017 declined an average of about 5% to 10% for the second consecutive year, with several rates dropping by more than 10%.

Source: <http://cropwatch.unl.edu/2017/usda-nass-numbers-whos-paying-how-much-cash-rents>

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## White Mold More Common This Year in Soybeans

Loren Giesler - Extension Plant Pathologist



Once again we are seeing a lot of white mold in soybeans. White mold or Sclerotinia Stem Rot is a disease that can be identified now, but management needs to have occurred previously, during bloom.

One of the main problems with white mold management is that the disease starts earlier in the season during flowering. The actual infection occurs on the senescing flower which the fungus uses as a food source. All infections in soybean typically start at a node. You can even tell when the infection occurred based on how high up the plant the stem lesions and fungal growth are. This year's cool wet conditions during flowering were favorable for infection. More cool temperatures after infection were favorable for more growth of the fungus.

Symptoms at this point in soybean development will be individual or small pockets of dead or dying plants. Upon close inspection you will see a white cottony fungal growth on the stems which may also include dark black bodies (sclerotia) of the fungus on the stems. Stems of dead plants will be very light (bleached) in color and when dead stems are split, you will often see the sclerotia of the fungus inside. The optimum temperature for growth of the fungus is 75°F. If temperatures move into the 90s, the disease will not spread much.

Some parameters to consider for your next soybean crop:

**Row spacing:** Narrow rows favor early canopy which creates an environment conducive for infection. In some areas more disease is being observed in narrow rows.

**Fungicides:** It's too late now for rescue treatments. Fungicide applications need to be applied during flowering to have any effect on this disease.

**Irrigation:** Altering your irrigation at this time will add more stress to the crop as most fields are at peak water use. Any change in irrigation should have been done during flowering, if at all possible.

**Diagnosis and Plant Disease Information:** As with any disease, correct diagnosis is critical to proper management. If you are uncertain of the cause of damage in your field, I encourage you to have it identified at the University of Nebraska Plant and Pest Diagnostic Clinic.

# HEALTHY EATING

Now is a great time for bike riding and impromptu picnics with your kids. Sandwiches are easy to make. Most kids are happy to eat the sandwich they made themselves. Fresh vegetables from the garden or farmer's market were used to create this "open face" sandwich (pun intended).

Save money with sandwich lunches by skipping the chips, fries and soda that go with most fast food lunches. Make your own sandwiches with low-cost ingredients. Just add fruit, cheese sticks, a glass of milk, or nuts to make a nutritious meal. You could follow your lunch with a fun read about picnics. There are lots of choices for books at your public library. Put the sandwiches in an insulated lunch bag and hop on your bikes to go have a picnic at the park!



## Heart Smarts: Cholesterol

By: Lisa Franzen-Castle, RD, PhD, Nutrition Specialist

More than 65 million Americans have high blood cholesterol, a serious condition that increases risk for heart disease. High blood cholesterol itself does not cause symptoms, so many are unaware their levels are too high. Lowering cholesterol levels that are too high lessens the risk of developing heart disease and reduces the chance of having a heart attack or dying of heart disease. Everyone age 20 and older should have their cholesterol measured at least once every 5 years.

### Tips to Stay Heart Smart about Cholesterol: Know your numbers.



- Knowing your total cholesterol and high-density lipoprotein (HDL) cholesterol can give you a general idea about cholesterol levels. For total cholesterol, a desirable number is less than 200 mg/dL.

- HDL (good) cholesterol protects against heart disease, so for HDL, higher numbers are better. A level less than 40 mg/dL is low and considered a major risk factor. HDL levels of 60 mg/dL or more help to lower your risk for heart disease.

### Nutrition matters.

- Soluble fiber helps reduce low-density lipoprotein (LDL), the "bad" cholesterol, and foods such as oatmeal, beans (such as kidney black, pinto and navy beans), apples, pears, barley and prunes contain soluble fiber.

- Eating fatty fish (such as mackerel, lake trout, herring, sardines, Albacore tuna, salmon, and halibut) can be heart-healthy because of omega-3 fatty acid content, which can reduce blood pressure and risk of developing blood clots. Doctors recommend getting at least two servings of fish a week.

- Walnuts, almonds and other nuts can also help reduce blood cholesterol.



### Choose healthier fats.

- A high intake of saturated fat is associated with high levels of total cholesterol and LDL cholesterol. Limit foods high in saturated fat and replace them with foods rich in monounsaturated and polyunsaturated fat.

- When making food at home, replace solid fats (e.g., butter and lard) with vegetable oils rich in monounsaturated fats (such as canola, olive, and safflower oils) and polyunsaturated fats (such as

soybean, corn, and cottonseed oils) and trim fat from meat. When purchasing food, buy fat-free or low-fat milk and cheese.

### Physical activity.

- Regular physical activity is recommended for everyone. Research shows exercise helps prevent heart disease and obesity, lowers blood pressure and LDL cholesterol, and raises HDL cholesterol.



- Aim for 30 to 60 minutes on most days. You can even spread it out over the course of your day. Adding physical activity, even in 10-minute intervals throughout the day, can help with weight loss and maintenance.
- Remember to try different activities and find something you enjoy. Finding a workout buddy or group may also be helpful and keep you accountable.
- Try taking a 10 minute walk over your lunch hour with a co-worker, riding your bike to work, swimming some laps, working in your garden, or playing your favorite sport. Take the stairs instead of the elevator or do some exercises during the commercial breaks of your favorite TV shows (there can be up to 20 minutes of commercials in an hour long program).

### Weight and cholesterol.

- Being overweight is a risk factor for heart disease. Losing weight can help lower your LDL, triglyceride, and total cholesterol levels, as well as raise your HDL levels. Losing as little as 5 to 10 pounds can help reduce cholesterol.
- Consider your barriers to losing weight and ways to overcome them. If you eat when you're bored or frustrated, do something physically active instead. If you eat fast food for lunch, pack something healthier from home.
- Consider bringing a smart snack bag to work or having a smart snack drawer to help you avoid the temptation of the vending machine or treats at the workplace. Examples of great snacks to have on hand are whole fruits such as apples, oranges and bananas, dried fruit (lots of variety available), whole grain cereal, graham crackers, peanut butter with apples or whole grain crackers, and a variety of nuts.

Many things can impact cholesterol levels. While age, gender, and heredity are things you cannot do anything about, nutrition, physical activity level, and weight status are things you can do something about. Take time get your levels checked if you never have or it has been longer than five years. Check out [food.unl.edu](http://food.unl.edu) for more food, nutrition, and health information.

### Breakfast – Don't Leave Home without It! Fruity Whole Wheat Pancakes

½ c. skim milk  
2 T. margarine, melted  
1 egg  
1 c. flour (1/2 c whole wheat and ½ cup all-purpose flour)

2 tsp. baking powder  
2 tsp. sugar  
½ c. blueberries



1. In a large bowl, combine milk, margarine, and egg. Mix well.
2. Add the flour, baking powder, and sugar to the milk mixture. Stir just enough to wet the flour. Add more milk, if necessary, to make the batter about as thick as heavy cream.
3. Gently mix in the blueberries. Cook pancakes on a lightly greased griddle or frying pan. Cook until the pancakes are full of bubbles and the under-surface is lightly browned. Lift with a spatula and flip over. Lightly brown the other side. Top with your favorite fruit!
4. Makes 4 servings. Each serving contains 220 Calories, 8 g Total Fat, 2 g Saturated Fat, 340 mg Sodium, 31 g Total Carbohydrate 3, 1 g Dietary Fiber, 6 g Sugar, 6 g Protein, 8% Vitamin A, 2 % Vitamin C, 20% Calcium, and 10% Iron.

## Planning for a Secure Retirement

Are you looking forward to the day you retire? Or, do you dread the thought? Being able to retire when you want and how you want is important to many people. Planning ahead can put you in a position to live comfortably during your retirement.

Check out [http://articles.extension.org/pages/9389/planning-for-a-secure-retirement-lesson-english-version#Retirement\\_Age\\_Answers](http://articles.extension.org/pages/9389/planning-for-a-secure-retirement-lesson-english-version#Retirement_Age_Answers) for some sources you may be interested in.

## Growth Mindset in Early Learners

Do you have children in your care that easily give up when learning a new skill? Have you noticed children who get overly frustrated if they don't see success come easy to them? What we are really asking here is if the children have a growth or a fixed mindset. A mind set is a self-belief or a self-thought that may either be positive or negative. Our mindsets are what guide our actions, reactions and behaviors, in particular to gaining knowledge and learning new skills. A fixed mindset equals fixed intelligence. People in this mindset perceive they have no way to improve themselves. A Growth mindset equals intelligence that can be developed. People with this mindset tend to work harder because they know they can improve.

Young children naturally lean toward the growth mindset as they are curious about their environment and explore and learn through all of their senses. They learn through trial and error, and incidentally as well as through modeling and teaching. I wonder at what point do people make the shift from growth to fixed mindsets?

Carol Dweck, Lewis and Virginia Eaton professor of psychology at Stanford University and the author of *Mindset: The New Psychology of Success* states, "If

*parents want to give their children a gift, the best thing they can do is to teach their children to love challenges, be intrigued by mistakes, enjoy effort, and keep on learning."*

At a childcare provider's workshop I attended recently, the presenter had studied some of Dweck's work and shared a few "trigger words" that parents and teachers can use with children.

Trigger words that stimulate mindset:

- Praising Effort
- Accepting Failures
- Ask for Explanations
- Express the Amount of work put in
- "Your Brain is Growing"
- Praise the PROCESS!

Words that discourage:

- Praising outcome
- Criticizing Failures
- Telling kids the answers
- Labeling or Judging student/work
- Telling them they "tried their best"
- Praising the PERSON

At the same workshop, I was introduced to the "Power of Yet"...

I can't do this...yet  
This doesn't work...yet  
I'm not good at the...yet  
I don't know how to...yet

### Key Rationale and Strategies Supporting Growth Mindset

#### Rationale:

1. Everyone makes mistakes.
2. Making mistakes give us an opportunity to do things differently and to learn.
3. Practice make better.

#### Strategies:

1. Model resilience and problem solving strategies
2. Give children opportunities to solve problems on their own when appropriate
3. Encourage children to ask a friend to help before seeking an adult's assistance

Parents and teachers can support young learners in the struggle with this encouraging little word and guided questions that can lead students beyond "I can't."

**By developing a "growth mindset"-an attitude that allows for possibilities and promotes progress and problem solving, children improve their skills for effectively solving problems every day and in more challenging scenarios (Dweck 2006).**

Source: LYNN DEVRIES, EXTENSION EDUCATOR | THE LEARNING CHILD

## 2018 Nebraska Grower and Brewer Conference and Trade Show

The two-day conference will be held Thursday and Friday, Jan. 18-19, 2018, at Embassy Suites Omaha – Downtown/Old Market, 555 S. 10th St., Omaha.

For more information and to register, visit <http://www.growbrewnebbraska.com/>.

Follow along on Facebook at <https://www.facebook.com/negrowerbrewerconference/>.

## Growing Hops in Nebraska

If you've driven north of Plattsmouth on Highway 75 recently you've probably wondered about the 18-foot trellises off on the east side of the road. Those are hop trellises. The hop plant (*Humulus lupulus*) is an herbaceous perennial, usually grown for its strobiles or cones. Hop cones contain different oils, such as lupulin, a yellowish, waxy substance, that provides flavor and aroma to food products like beer.



During the growing season, an individual hop plant can weigh 30 to 40 pounds. So at one thousand plants per acre that trellis has to be strong enough to support 30 to 40 thousand pounds of bines, leaves, and cones. In 2016 Nebraska had around 24 acres of hops harvested. There were additional acres not yet in production and there are plans for more acres to be planted in 2017 and 2018.

So why hops in Nebraska and why now? That has a lot to do with changing purchase habits of Americans – interest is shifting to craft beers over mass-produced beers and more and more folks are making an effort to

buy local. Nebraska has the appropriate climate and day length to produce quality hops and our growing conditions give the product a certain terroir (yes, just like with wine, the soils that produce hops have a huge impact on their character) that intrigues and excites brewers.



So there is demand for Nebraska-grown hops, especially from Nebraska craft breweries. This was evident at the inaugural Nebraska Grower and Brewer Conference held January 5-6, 2017, on the Nebraska Innovation Campus in Lincoln. More than 180 attendees came to hear from university specialists and experienced growers and brewers from Nebraska and other states in the Midwest. There is already buzz about next year's conference – stay tuned for details.

Are hops for you? Maybe you own or manage property and are thinking about growing hops. The first thing to consider is distance from a processor. Most hops are sold to brewers after they've been dried and pelletized, so you need to do your homework in that regard BEFORE you invest. If you work with a company like [Midwest Hop Producers](#) out of Plattsmouth they can share what they know about hop production and pest management, the varieties local brewers prefer, and quality parameters.

Not ready to plant, but you'd like to support the cause? The University of Nebraska-Lincoln has a hop breeding program. [Dr. Keenan Amundsen](#) is eager to produce a Nebraska hop and he needs our help. If you have wild hops growing on your property, please let him know so he can come out and collect plant material to potentially use in breeding projects. During the summer, when you can easily see the cones, is a great time to mark the locations of female hop plants.

# SPLASH INTO EXTENSION

## September is National SepticSmart Week

Take some time this month to think about how you are caring for your septic system and how you can “do your part, be septic smart.”

To find out more information about SepticSmart week and septic systems, visit: <http://epa.gov/septic> or [water.unl.edu](http://water.unl.edu)

## Water Trees in Late Summer and Early Fall

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In fall there is a critical need for water as fruit and shade trees are forming buds for next year's growth.

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In late summer, rainfall tends to be less abundant than in spring and early summer. Like all other plants in the landscape, whether edible, functional or ornamental, trees need water to grow well. At this point in the season, there is a critical need for water as fruit and shade trees are forming buds for next year's growth.

We often focus most of our attention on watering newer trees - and they are less tolerant of dry soils than established trees - but mid-size and larger trees still require adequate moisture. The advantage that larger trees have over small ones is simply the capacity to draw moisture from a larger volume of soil due to a larger, established root system. Using a probe, like a long bladed screwdriver, is a good way to measure your soil's current moisture level.

**Does My Tree Need Watering?** The question of whether watering is required can be quickly answered by probing the soil at various locations around the tree with a screwdriver or similar probe. During the probing, if the metal rod enters the soil with only a moderate push, it's a hint that moisture is adequate.

If it is resistant or hard to press into the soil, it's probably too dry; conversely, if it slides in with no resistance at all, the soil is already sufficiently wet. If the screwdriver blade has mud on it, then soil moisture is high and watering is not needed. Visually, once the probe is removed, taking a look at the screwdriver blade can be helpful. If mud is sticking to it, no water is required; if dust is covering it, watering is probably in order.



**How to Water?** If you check the soil and find it's dry, then it's time to water. Watering can be done in several ways – running the turf sprinkler system, laying a soaker hose on the soil surface, using a drip system and using a portable sprinkler attached to the outdoor hose spigot. All of these devices have advantages and disadvantages. The key overall is to supply moisture to the roots in a slow and deliberate manner.

### Where to Apply Water?

The big difference between watering woody plants such as trees and shrubs versus herbaceous plants like vegetables, groundcovers, annuals and perennials is that tree and shrub roots usually expand extensively beyond the periphery or “drip line” of the foliage, whereas most herbaceous plants develop roots directly below the crown and shoots. As watering of dry soils should be done over the entire root system of all plants, watering woody specimens should be targeted at the area twice to three times as wide as the spread of the leaves. No matter which device you choose to accomplish this goal, the idea to keep in mind is: moist; not soggy or dry.

<http://communityenvironment.unl.edu/water-trees-late-summer-and-early-fall>

# IN THE DIRT

## Mowing Your Lawn

Continue mowing as long as your lawn keeps growing, and return clippings to the lawn. Grass unmowed late in the season can become matted under snow, making the turf more prone to snow mold diseases.

Recommended mowing height for Kentucky bluegrass throughout the growing season, is 2.5-3.5 inches and 3-3.5 inches for tall fescue.

In the past, recommendations were common to raise and lower mower height settings during the growing season, however research has shown very little benefit from this practice, compared to mowing at a slight taller setting throughout the entire season. Plus, it certainly is easier for most homeowners to set their mower at one height in spring and leave it for the entire summer.

## Weed Control & Tree Safety

By: Kelly Feehan, Extension Educator

With September and early October being key times to control perennial, broadleaf weeds like dandelion and ground ivy, it's also time to remind people to be careful using herbicides near trees and shrubs, especially dicamba.

Weeds targeted at this time of year are perennial, meaning the plants survive from year to year; and broadleaf, meaning the weeds are not grasses or sedges. Trees and shrubs are also perennial broadleaf plants; hence herbicides applied to kill broadleaf weeds can damage woody plants.

Trees with symptoms of dicamba injury are being seen more often. Symptoms include dwarfed, distorted, and/or discolored foliage. On evergreens, like spruce, the symptoms might be droopy tips.

Dicamba is a broadleaf herbicide found in a number of different lawn herbicides. The issue with dicamba is not only drifting onto leaves but also absorption by tree and shrub roots. Dicamba is mobile in soil and will remain active in soil for an extended period so it can easily be taken up by tree roots.

Dicamba labels sometimes state the product should not be applied within the dripline of a tree, meaning beneath the canopy. However, tree and shrub roots extend much farther out than the dripline and a safer approach is to not apply dicamba within a distance equal to two times the tree or shrub height.

This would mean no dicamba applications within 40 feet of a 20-foot tall tree, within 60 feet of a 30-foot tall tree, and so on. And this recommendation reduces contact with tree roots in the soil, it does not reduce exposure to drifting if products are applied on a windy day.

This could be challenging in a lawn situation, especially on smaller properties. If the "2 times" recommendation cannot be followed; avoid using herbicides containing dicamba. Positively identify weeds and determine what the best herbicide or combination product is for control.

The most common broadleaf herbicides used on lawns include 2, 4-D, MCPP (mecoprop), dicamba, triclopyr, and fluroxypyr. There are many different commercial formulations and mixtures of these compounds with varying brand names. Read the label and know what you are buying.

And if herbicides are applied at the correct time and in the correct way, weed kill will be increased and the need to apply herbicides, which can damage trees and shrubs, reduced.

The most effective control of broadleaf weeds is obtained when postemergence herbicides are applied as sprays to foliage, and not washed off by irrigation or rainfall. Most products are rainfast within 4 to 7 hours, but this varies with herbicides and weather conditions.

Postemergence broadleaf herbicides are most effective when weeds are actively growing and air temperature is greater than 70 degrees Fahrenheit. And fall is an important time to control perennials weeds as the plant is moving stored food into roots and herbicides are also translocated into roots.

Herbicides are most effective when applied to actively growing weeds not stressed by extreme temperatures or drought. It is generally recommended that lawns not be mowed within 3 days before or after herbicide treatment.

Source: UNL Turf Info, South Dakota Pest Update, and Penn State Center for Turfgrass Science



## September Garden Guide



- \* Plant peonies now, but make sure the crowns are buried only one and a half to two inches below ground level. Planting them deeper than two inches may keep them from blooming.
- \* Root cuttings from annual bedding plants such as begonias, coleus, geraniums and impatiens. These plants can be overwintered in a sunny window and provide plants for next year's garden.
- \* Before the first frost dig up caladiums. Allow them to dry and store them in a dry place for the winter.
- \* Perennial phlox can be divided about every third or fourth year. Divide big clumps of perennial phlox into thirds. Early fall or early spring are the best times to plant or transplant them.
- \* Divide lily-of-the-valley.
- \* Allow plants to finish the summer growth cycle in a normal manner. Never encourage growth with heavy applications of fertilizer or excessive pruning at this time. Plants will delay their dormancy process that has already begun in anticipation of winter in the months ahead. New growth can be injured by an early freeze.
- \* Tree wound paints used after pruning are no longer recommended as they can slow healing and may promote decay.
- \* Rake up leaves, twigs and fruit from crabapple trees and dispose of them in the trash to help control apple scab disease.
- \* Water newly planted trees and shrubs to provide sufficient moisture and prevent winter damage. Add a three inch layer of organic mulch such as shredded bark around the base of plants to retain soil moisture and regulate soil temperature.
- \* Wood ashes contain phosphorous, potassium and calcium. It can be placed on vegetable gardens and flower beds.
- \* Hot peppers will keep best if stored after they are dry. Thread the peppers on a string to dry. Hang in a cool, dry place.
- \* Pot up chives, parsley and other herbs to extend the growing season in the house.
- \* Pears should be picked at the hard ripe stage and allowed to finish ripening off the tree. The base color of yellow pears should change from green to yellow as the fruit approaches maturity.
- \* Do not wait for frost warnings to move your plants indoors. Temperatures of 45 degrees Fahrenheit or lower can damage many tropical house plants.



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