Volume 3, Issue 2

Gardening Guru

ACROSS
3) The flowering shrub also known as meadow-sweet, which is generally characterized as one of the easiest to grow and maintain.

6) Improves soil, adds important nutrients for plants, and reduces the need for expensive commercial fertilizers.

8) These trees are literally used for art. Artists’ sketching charcoal is often made from it’s processed bark and trees.

10) A shade-loving annual, is called the wishbone flower. Look for tiny wishbone-shape stamens inside the purple, blue or burgundy petals.

11) Plant that is used in the treatment of Leukemia.

13) This flower means “rainbow” in Greek, and was goddess of the rainbow in Greek mythology.

14) Putting a twig in the ground alongside the stem of a tomato plant will prevent this pest from harming tomato plants.

15) Just a small amount of this fruit can cause irreversible kidney damage and failure quite quickly in dogs.

16) This carnivorous flower traps and digests the wasps that pollinate them.

17) Makes an excellent natural fungicide. Mix in your potting soil when planting seeds to prevent damping off of the seedlings.

19) Term used for the cutting and removal of debris in a lawn.

21) The average homeowner spends approximately how many hours per week caring for their lawn?

22) Often used in herbal medicine for cleaning the body and making the heart work better and are also packed full of Vitamin C and new shoots are often used to make tea.

DOWN
1) An easy way to improve the look of your flower beds while providing many benefits to the plants within them.

2) This flower bulb can be substituted for onions in recipes.

4) This flower is the favorite flower of 85% of Americans.

5) Disorder when fruits have round, sunken, water-soaked spots on the bottom of tomatoes, peppers, squash, and watermelon.

7) There are more of these in a handful of soil than there are people on Earth.

9) This type of gardening using the process of growing plants in sand, gravel, or liquid, with added nutrients but without soil.

12) Soil can be Acidic, Alkaline, or…?

18) Can reduce utility bills when planted properly.

20) Term used for a plant that spreads quickly, crowding out neighboring plants.

Answers on Back Page
Views with Van

First Hollow Stem

As wheat greens up and begins growing with warmer temperatures in the coming weeks, producers need to get a growth stage base line. Everything starts a time line when first hollow stem or jointing is started. After green-up is underway and before the wheat has reached jointing, it is important to scout fields closely for signs of the “first hollow stem” (FHS) stage.

This stage occurs as the wheat switches from the vegetative stage to the reproductive stage of growth. When the leaf sheaths become erect, the developing growing point, which is below the soil surface, will soon begin to form a tiny head. Although the head is quite small at this point, it has already established some important yield components. At this stage, the maximum potential number of spikelets is determined. Sufficient nitrogen (N) should already be available in the root zone at this growth stage in order to have the maximum effect on the potential number of seeds per head.

Once the embryo head has developed, the first internode will begin to elongate pushing the head up through the leaf sheaths. The first internode will be hollow. This will be visible before you can actually feel the first node (joint, located just above the first internode). Prior to this stage the nodes are all formed but tightly packed together and hard to see.

Hollow Stem is the point at which a 1/2 cm length of hollow stem can first be identified above the root system and below the developing head. This length is roughly equivalent to the diameter of a dime, which makes its identification in the field easier. FHS occurs when the developing head is still below the soil surface, which means that producers have to dig plants out of the ground to do the examination. To look for FHS, start by digging up some plants from fields that have not been grazed, such as field corners or just outside the electric fence. Date of FHS is variety and field-specific, so it is important to sample each individual field. Select the largest tillers to examine, and slice the stem open from the crown area up. Look for the developing head, which will be very small. Next, see if you can find any hollow stem between the developing head and the crown area. If there is any separation between the growing point and crown, the hollow stem is elongating. If that separation is 1.5 cm, the wheat plant is at FHS. FHS occurs between a few days to a week or more prior to jointing, depending on temperatures. Two things are observed when wheat is grazed too long: 1) fewer heads per acre because the primary tiller has been removed and 2) smaller and lighter heads than expected because leaf area has been removed. As cattle continue grazing, the wheat plant is stressed and begins to lose some of the tillers that would produce grain.

Cold Temperatures Coming

Wheat may look its worst 5 to 8 days after a severe cold snap—waiting for warmer growing weather and the wheat with new green growth will be a great sign.

What should producers expect now? If freeze-damaged wheat heads out, will that head be viable and produce grain? It depends on what stage the wheat was in when the freeze occurred. “Wheat that hasn’t started to joint yet will probably suffer damage to the existing foliage, but the growing points will be protected by the soil and should escape injury. Wheat in the jointing stage or stem elongation, can usually tolerate temperatures in the mid to upper 20s with no significant injury. But, if temperatures fall into the low 20s or even lower for several hours, the lower stems, leaves, or developing head can sustain injury.

Jointing to pre-boot: If the tillers are in this stage or earlier at the time of the freeze and the tillers are green and growing actively now, then the heads should be fine. If the head had been killed, the tiller would not be green and actively growing. If the leaves coming out of the whorl are green and white then the head on that tiller may be dead. Frosty white or brown leaves at the tip may not indicate lower stem damage. If the leaves of tillers are yellowish when they emerge from the whorl, this indicates those tillers have been damaged. Existing leaves may also be damaged so severely that they turn bluish-black and water-soaked in appearance, then bleach out.

Boot Stage: If tillers are in this stage at the time of the freeze, there are several possibilities. The head may be fine, it may be partially damaged, or it may have been completely killed. In any of those cases, the head may continue to emerge, but fail to develop if frozen. If the head is fine, it will turn from lime green in the boot to a darker green when it emerges. If the head is freeze-damaged, some or all of the spikelets will become yellow and/or water soaked in appearance as it emerges. Some of the dryland wheat in Northwest Kansas, especially early maturing varieties and wheat in low-lying areas also may lose some tillers—or have even more severe damage in some cases. Usually wet soaked soil can hold the heat in the soil. Be patient. Do not take any immediate actions as a result of the freeze, such as destroying the field for re-cropping. It will take several days of warm weather to accurately evaluate the extent of damage.

After several days, producers should split open some stems and check the developing head. If the head is green or light greenish in color and seems firm, it is probably fine. If the head is yellowish and mushy, it may have freeze injury. If the main tillers are injured, secondary tillers may begin growing normally from the crown. The wheat may look ragged because the main tillers are absent, but enough tillers may survive to produce good yields, if spring growing conditions are good. If both the main and secondary tillers are injured, the field may eventually have large areas that have a yellowish cast and reduced yield potential.

And finally, those slow emerging fields that were planted last fall and just emerge this spring will still head out but research over years and years give a typical average reduction of 40 to 60% yield loss, compared to wheat that fully tillers in the fall. More information on freeze damage to wheat is available in “Spring Freeze Injury to Kansas Wheat,” K-State Research and Extension publication C646, available at county and district Extension offices and online at: http://www.ksre.ksu.edu/library/crpsl2/c646.pdf or contact Keith VanSkike, Twin Creeks District Agent from Norton, Sheridan and Decatur in Norton, KS or call 785-877-5755.
Learn How to Fight Right

You may think that the perfect couple never has conflict. First of all, that is impossible. Secondly, healthy conflict and disagreement are crucial to a long-term marriage or relationship. It may sound crazy, but Dr. John Gottman, a University of Washington marriage counselor and researcher, says that arguments and disputes do not have to drive couples apart—it is how you argue that makes the difference.

Remember that extraordinary skills are not needed to settle conflicts that make both partners feel good.

**Styles** - Some couples may yell at each other when they have a disagreement. Other couples may avoid confrontations as much as possible. There are also couples who seem to have a keen ability to listen and understand each other—even in conflict.

According to Dr. Gottman, couples using these three styles of communication (yelling, avoiding or listening) all have equal chances of staying together. How could that be? It seems impossible that both the “yellers” and the “avoiders” could have stable relationships, yet all three types of couples have several things in common.

- They stop fights before the conflicts escalate out of control.
- They do not completely avoid dealing with a tough problem before it gets out of hand.
- They continue to respect each other despite troublesome issues.

**Limited Escalation** - When couples fight, they know when to stop, when to soften their voices, and when to change the course of the argument. Neither partner gets into a pattern of saying nasty things about the other partner that he or she later regrets. They may complain about an issue, but they do not engage in character insults intended to psychologically abuse each other. The couple stops the process of negatively responding back and forth before hurtful things are said.

One group of researchers discovered that out-of-control arguments resulted in partners saying things that threatened “the very lifeblood of their marriage.” The nasty remarks may not even truly reveal how they feel, but they are trying to hurt each other in a moment of intense emotion. This may come in the form of hostile name-calling, put-downs, hostile humor, mockery, or any other type of demeaning behavior. How can escalation be short-circuited? One of the partners must choose to back off by changing his or her tone of voice and saying something to break the negative cycle. The partner may start a sentence with “I feel.....,” not “You are.....”

This sudden change of behavior is powerful. It acknowledges personal feelings and opens the door to hearing the other partner’s point of view. This approach can often break the tension.

**No Hide and Seek** - Some couples may avoid dealing with certain troublesome issues. This is their style and they both feel comfortable with it. In other couple relationships, if one partner often brings up issues and the other partner withholds or avoids the situation, there is trouble. The more one partner pursues, the more the other partner withholds. In turn, the “pursuer” pushes harder and the “withdrawer” may leave or become quiet, or easily agree to stop the conversation.

Studies have shown that although “withdrawers” may not be involved verbally, their internal body reactions show increased pulse rates when troublesome issues surface. They are engaged on a non-verbal level.

How do you combat a hide-and-seek pattern? A couple needs to recognize that the actions of one partner impacts the actions of the other. They need to recognize their interdependency and think about more constructive approaches. The “withdrawer” could ask for time to think, but agrees to a specific time to talk about the issue later. The “pursuer” takes the hint and backs off.

**Willingness to Change** - Negative verbal and non-verbal patterns are hard on relationships. They can lead to feelings of frustrated loneliness and isolation, as real intimacy and a sense of connection fade away. But there is hope.

A couple can change these damaging patterns by taking the time and effort to explore new ways of interacting. If you are working on this course without your partner’s participation, remember that positive changes can occur when only one partner works on responding differently. This change can help trigger changes in the other partner’s reactions. It is impossible to not communicate. It is regular everyday conversation that sets the emotional climate between two persons.

Communication involves not only the actual words that are spoken, but how the message is said, when it is said, and what the speaker is doing as the message is spoken. Non-verbal messages such as vocal tone, pitch and loudness, facial expressions and body movements are also important to communication.

Source: Couple Talk: Enhancing Your Relationship by Charlotte Shoup Olsen, K-State Research & Extension
Health and Nutrition

Rhubarb Season!

Pies and sauces are the most common rhubarb recipes, but it can also be added to muffins or fruit crisps and made into jams or jellies. Alone, the stalks taste extremely tart so are generally combined with sugar or sweet fruits to cut down on the sugar needed.

To Can: (hot pack only) Select young, tender, deeply colored stalks from the spring or late fall crops. Trim off leaves. Wash stalks and cut into 1/2-to-1-inch pieces. In a large saucepan, add ½ cup sugar for each quart of rhubarb. Let stand until juice appears. Heat gently to boiling. Immediately pack mixture into hot jars, leaving ½-inch headspace. Remove air bubbles. Wipe jar rims and adjust lids. Process in a boiling water canner for 15 minutes (25 minutes if above 1,000 feet elevation) for pints and quarts. After processing, take canner off heat. Remove lid and wait 5 minutes before removing jars.

To Freeze: Choose firm, tender, well-colored stalks with few fibers. Wash, trim and cut into 1- or 2-inch pieces or in lengths to fit the package. Heating rhubarb in boiling water for 1 minute and cooling promptly in cold water helps retain color and flavor. Drain.

- Unsweetened pack: Pack either raw or preheated rhubarb tightly in containers without sugar. Leave headspace, seal and freeze.
- Syrup pack: Pack either raw or preheated rhubarb tightly into containers and cover with 40 percent syrup. Leave headspace, seal and freeze.
- Sugar pack: Mix either raw or preheated rhubarb with 1/2 cup sugar per quart of prepared fruit. Pack into containers, seal and freeze. Rhubarb can also be cooked into sauce, cooled and frozen.

To Dry: Wash, trim and slice into 1-inch slices. Steam for 1 to 2 minutes or until slightly tender, but not soft. Dry on dehydrator trays until tough to crisp. Store dried rhubarb in a cool, dry, dark place in airtight containers.

Note: Rhubarb leaves should NEVER be eaten as they contain oxalic acid, which is toxic when consumed.

Microwave Rhubarb Chutney

Yield: 5 pints
3 cups sliced rhubarb
1 cup cider vinegar (5%)
1 cup dark brown sugar
1/2 teaspoon ground ginger
1/2 teaspoon allspice
1/2 teaspoon dry mustard
1 teaspoon cinnamon
1/4 teaspoon garlic powder
1/2 cup chopped dates
1/2 cup raisins
2 medium apples

In a 2-quart glass bowl, combine rhubarb, vinegar, brown sugar, ginger, allspice, mustard, cinnamon and garlic powder. Microwave on high for 6 minutes or until boiling. Add dates, raisins and apples. Cover with a paper towel. Microwave on high for 5 minutes. Stir and microwave for 5 more minutes or until mixture thickens, while stirring occasionally. Remove from the microwave and let stand until cool. Spoon into jars or refrigerator containers. Keep the finished chutney refrigerated.

Sources: MU Extension’s GH1455 Fruitful Canning and GH1507 Freezing Unusual Fruit

Nutrition Differences in Colored Peppers

Bell peppers can add a variety of color to many recipes. But they also add different amounts of nutrition. Red, yellow and orange peppers are the ripe versions of the green pepper. Therefore, they cost more. They are all equal in the macronutrients of protein, fat, and carbohydrate.

The differences are found in the vitamin, mineral and phytonutrient content. In the case of vitamin C, green peppers contain 80mg per 3 ounce serving. Yellow peppers have 184mg per serving. The Recommended Daily Allowance is 75-90mg per day so either pepper is a good choice. Different colors of peppers have different amounts of carotenoids. Red peppers are bursting with beta-carotene. Yellow peppers have very little beta-carotene. Orange peppers have 10 times the amount of lutein and zeaxanthin. Carotenoids are beneficial for eye health.

Bottom line, don’t skimp on peppers and add color to your meals!

Tips for Feeding Picky Young Eaters

What can you do if your grandchild often says “no” to eating certain foods? A ‘new’ food may be rejected by your grandchild 10 or more times before he decides it’s okay. Try introducing the new food along with a familiar food, possibly even mixing the two foods together. For example, you might serve a new hot cereal topped with banana slices. Also, try preparing the new food in different ways. With broccoli, for example, you could offer it raw dipped in peanut butter one day, and offer it again later in the week cooked in a favorite casserole. Offer meals and snacks that include at least one food that your grandchild typically will eat.

Let your grandchild watch you eat, too. Suggest that she try a food, but don’t insist on it. Your grandchild may not even want to taste the foods you serve, and that’s okay. However, if she asks for a food that you’re not serving, assure her that she can choose from any foods on the table and that she’ll be able to eat again in a few hours. To help ensure that the dinner table doesn’t become a battle of the wills, don’t promise a dessert or some other reward in exchange for eating any foods served. Get kids to “help” you. Your grandchild will be more likely to try a new food if he or she is involved in growing it, looking for it at the market, or preparing it in the kitchen.

Roots and Chutes

Introducing the new Livestock & Horticulture Agent to our Twin Creeks District, Alyssa Rippe!!! Alyssa will be housed in the Decatur County Office. Alyssa is a native of Decatur County, where she was raised on a commercial cow/calf operation and farm. She attended Kansas State University, majoring in Animal Science. She had the opportunity to complete two livestock-based, research internships with the USDA and the University of Missouri. She graduated from Colorado State University in 2015 with a Masters in Integrated Resource Management with major focus on rangeland management. Please join us in welcoming her to the District and Community!

AI and Your Herd

Thinking about employing synchronization and artificial insemination for the first time on your herd this year? How do you know if your herd or part of your herd is ready to take that step? Sandy Johnson, K-State livestock specialist, and Jeff Stevenson, K-State Animal Science professor, have summarized the traits that best indicate success in a breeding system using synchronization of estrus and artificial insemination (AI).

First, how fertile are your cows now? If you currently employ a 60-day natural service breeding season and have 85 to 90% of your cows bred, your herd may be set up for success. This is particularly true if a larger portion of your cows calve in the first 21 days of the calving season. If you employ a longer breeding season (over 70 days) and have less than 60% of your cows calving in the first 42 days of the breeding season, you should expect AI success rates to be lower.

Second, cows must be receiving proper nutrition and must be in a positive energy balance to breed. As a rule of thumb, mature cows should have a body condition score, or BCS, of 5 or greater at breeding to increase chances for successful artificial insemination. For replacement heifers, a BCS of 5.5 is recommended. Replacement heifers should be bred three weeks prior to breeding the cows. As first-calf heifers, they will require more time between calving and breeding. Giving them an extra three weeks increases their chances of rebreeding at the same time as the rest of the herd.

Third, is your operation set up for AI? AI can be labor intensive, time-consuming, and require special facilities. Because synchronizing programs are time sensitive, make sure you have plenty of help when necessary. Try to swap help with your neighbors or friends, especially with those that are familiar with AI. For your first AI and synchronization experience, it may be best to start with a small group of cattle. This can help you figure out exactly what is needed to make AI in your herd successful. Replacement heifers are a good group to begin with because of their ease of working. K-State recommends not starting with first-calf heifers, as they are the most difficult to successfully breed.

When you believe part of your herd is ready to move to a synchronization and AI program for breeding, talk to an expert. They can help you find the protocol that best suits your operation.

For the 2016 protocols for synchronizing and AI, visit the K-State Research and Extension website or your local extension office. Information from: Sandy Johnson, Jeff Stevenson, Tips for a Successful Synchronization Program, Kansas State University, November 2003.

Beef Quality Assurance

Quality assurance has become kind of a buzzword in recent years with increased public interest in the food system and consumer focus on how livestock is raised. Farmers and ranchers, of course, have been focused on these issues for decades. It wasn’t until recently that certifications became available to show the public how committed beef producers are to producing safe and wholesome products.

Beef Quality Assurance (BQA) is a national program offering certification programs that provide information to beef producers about the science behind basic animal husbandry techniques. BQA focuses on practices surrounding herd health, record keeping, low-stress animal handling, and more. Recently, I attended an in-person BQA training at the Gateway in Oberlin where Dr. Dave Rethorst of the Beef Cattle Institute at K-State spoke to a large group of ranchers about many of these practices. His presentation included information on proper injection guidelines, antibiotic stewardship, euthanasia guidelines, and information on the Veterinary Feed Directive.

If you missed that opportunity but are still interested in becoming BQA certified, you can complete the training online too, using Animal Care Training available through the Beef Cattle Institute. To access the training or find more information about BQA, visit www.beefcattleinstitute.org.

The training is being offered free until April 15th by Boehringr Ingelheim Vetmedica, Inc.

February Blizzards

Bring March Flowers?

Adapted from “Plants Breaking Dormancy Early” by Ward Upham

It seems flowers on every corner have decided to bloom including the daffodils in my front yard, but it’s only the first of March! There are many more days of potential cold spells ahead. Well, according to Ward Upham, these blooms are not unusual, nor will it inevitably lead to the death of the plant. Mr. Upham states that for buds to begin growing in the spring, the plants must have a certain number of “chilling” hours in which temperatures are between 32 and 45 degrees F. That number of hours is different for each species. The flowers that I was admiring were part of a plant that has already passed its “chilling” hour requirement and has broken dormancy. If we were to get a cold snap, the flowers will be damaged, but the plant would most likely survive. However, if the cold snap is severe enough, it may not.

If you fear a cold snap is coming, make sure your plants are properly hydrated. Mr. Upham says that this helps to perk up the roots of your plant. A healthy root system will help the plant recover quicker, even if the buds are damaged from the cold.
K-State Research and Extension Agents follow “Action Plans” that address community needs with university resources. Knowledge for Life - this is a great motto for a land grant university. It means developing new knowledge and empowering people with that knowledge, whether they are our youth and 4-H clubs or our senior citizens.

One “action plan” of the Youth Development program focus team is Healthy Eating and Physical Activity in Kansas relating to youth in our communities.

Nutrition and physical activity are important for overall health and confer benefits throughout the lifespan. Poor dietary intake and physical inactivity have been linked to many health conditions – including obesity, diabetes, hypertension, stroke, heart disease, certain cancers, respiratory disorders, joint problems and osteoporosis – as well as to psychosocial problems.

Research shows obesity to be a major cause of preventable disability and death in the U.S. In the past three decades, childhood obesity rates have increased. The prevalence of obesity among children aged 6 to 11 years increased from 6.5% in 1980 to 19.6% in 2008, and the prevalence of obesity among adolescents aged 12 to 19 years increased from 5.0% to 18.1% during the same period (Centers for Disease Control and Prevention).

In 2010, 29.4% of adults in Kansas were obese. The New England Journal of Medicine published an article in March 2005 stating that the prevalence and severity of obesity is so great among children that the associated diseases and complications – type 2 diabetes, heart disease, kidney failure, cancer – are likely to strike people at younger and younger ages. Some researchers suggest that the current generation of children in the U.S. may have shorter life expectancies than their parents, if the childhood obesity rates continue at current levels.

Many factors have been linked to the increase in obesity rates. In Kansas in 2013, 40% of high school students and 41% of adults reported eating fruits and vegetables less than once daily. Also in Kansas, 55% of high school students did not participate in at least 60 minutes of physical activity per day, and 52% of adults did not meet the recommendation of at least 150 minutes of moderate-intensity physical activity/week or 75 minutes of vigorous-intensity activity/week.

In addition to low intake of fruits and vegetables and insufficient amounts of physical activity, the increase in obesity is also linked to increased portion sizes, eating out more often, poor nutrition choices (i.e., choosing foods low in nutrient density), increased consumption of sweetened drinks, increased screen time (e.g., television, computer, electronic games), changing labor markets, and fear of crime which prevents outdoor exercise.

Although body weight is the result of many factors, behavioral and environmental influences are large contributors to overweight and obesity and provide the greatest opportunity for actions and interventions designed for prevention and treatment. Consequently, there has been a greater recognition of the importance of education about healthy eating and physical activity for Kansans of all ages.

School-based physical activity and nutrition initiatives can reach a large and diverse number of Kansas children. Kansas Schools participating in the National School Meals Program have implemented Local Wellness policies focused on nutrition guidelines for food available to students in schools, nutrition education, and physical activity. KSRE was listed in the Kansas Department of Education Wellness Model Guidelines as an approved provider of nutrition education for schools. Additionally, the national 4-H Healthy Living Mission Mandate seeks to engage youth and families through opportunities that achieve optimal physical health and well-being. By supporting health-related programs for adolescents, 4-H Healthy Living encourages all youth to adopt healthy eating and physical fitness habits.

When you support K-State Research and Extension Healthy Eating and Physical Activity programs, participants learn healthy eating and physical activity habits and make healthier lifestyle choices. These choices lead to fewer weight-related chronic and acute diseases and improved quality of life. This benefits all community members by lowering the public cost of health care and health insurance, as well as increasing the number of productive contributing citizens.

Families are currently in the process of planning summer activities for their families. Keep in mind your local Extension office and youth activities offered throughout the summer months. Your child can participate in project related day camps, Breakfast 101, general day camps, and our Northwest area county camp held at Rock Springs 4-H Center.

These summer programs focus on life skills essential to leading confident, competent and independent future living. Youth who learn these life skills grow up to be leaders within our communities.

Get your family involved in positive youth development! Set aside a family game night, go for walks, cook healthy meals together as a family, sign up for summer recreation programs and don’t miss out on an awesome camping experience in June at Rock Spring 4-H Center.

Set an example - Limit time spent on electronic devices this summer and get active!!! Contact your local Twin Creeks Extension office to ask about programs offered that could get your child physically active as well as getting information on health and nutrition and a variety of other project areas. County fairs offer Open Class sections for youth not currently involved in our 4-H program to exhibit their talents and hobbies.
WALK KANSAS!
19th - Stay Strong Stay Healthy Classes Start in Hoxie
9:30 a.m. –11:30 a.m.
27th - Community Vitality Road Show (Norton)

WALK KANSAS!
8th - Happy Mother’s Day
21st - Armed Forces Day
28th - Walk Kansas Ends
30th - Memorial Day—All Offices Closed

14th - Flag Day
14th- Stay Strong Stay Healthy class ends
19th - Happy Father’s Day

Contact your local Twin Creeks Extension Office for the following:

| Farm and Personal Account Books | Neutroleum Alpha (Odor Neutralizer) |
| Soil Probe & Feed Probe for Check Out | Insect Identification |
| Soil Testing | Pressure Valve Checks for Canners |
| Private Pesticide Applicator Test | Smart Choice Health Insurance Workbook |
| Crop/Field Checks | New to Medicare Appointments |
| Horticulture Problem Diagnostics | Medicare Part D Prescription Appointments |
| Water Test Kits | 4-H Educational Resource Materials |
| Radon Test Kits |

Twin Creeks Extension District Information and Updates are available at the following:

Website:  www.twincreeks.ksu.edu
Like us on Facebook:  K-State Research and Extension Twin Creeks District
Norton County 4-H, Decatur County 4-H, Sheridan County 4-H
Radio Stations:  KFNF and KQNK
K-State Wheat Diagnostic School
A Hands-On Learning Field Day
May 17-18, 2016
May 17 from 9 am - 6 pm and May 18 from 8 am - 1 pm
Growth & Development, Soil Fertility, General Production Problems, Sprayer Calibration, Water Use, Diseases and Treatments, Entomology, Weed ID & Weed Control, New Technology in Wheat Breeding
K-State NW Research & Extension Center In Colby
Register online at www.northwest.ksu.edu/WheatSchool
K-State NW Area Extension Office at (785) 462-6281

Across: 3) Spirea; 6) Compost; 8) Willow; 10) Torenia; 11) Vinca; 13) Iris; 14) Cutworm; 15) Grapes; 16) Fir; 17) Cinnamon;
Down: 1) Mulch; 2) Tulip; 4) Rose; 5) Blossom end Rot; 7) Micro-organisms; 9) Hydroponics; 12) Neutral; 18) Trees; 20) Thug
19) Scarification; 21) Four Stinging Nettle
170 State Wheat Diagnostic School
A Hands-On Learning Field Day
May 17-18, 2016
May 17 from 9 am - 6 pm and May 18 from 8 am - 1 pm
Growth & Development, Soil Fertility, General Production Problems, Sprayer Calibration, Water Use, Diseases and Treatments, Entomology, Weed ID & Weed Control, New Technology in Wheat Breeding
K-State NW Research & Extension Center In Colby
Register online at www.northwest.ksu.edu/WheatSchool
K-State NW Area Extension Office at (785) 462-6281