



Cover Crop Meeting



December 2015
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Check us out on the Web at:
www.rivervalley.ksu.edu

December 7, 2015

Blair Theatre

1310 19th Street, Belleville, KS

6:30-9:00 PM, Meeting begins at 7:00 PM

Topics:

Grazing Cover Crops

Dr. Jaymelynn Farney, K-State Extension Specialist

Cover Crops in Cropping Systems

Dr. Kraig Roozeboom, K-State Professor of Agronomy

Producer Panel

Ask local producers about their experiences using cover crops for soil health and grazing!

Free Event

Pre-register by Dec. 4th

For **Registration** Contact

River Valley Extension District

Concordia Office 785-243-8185

Kim Larson, Katelyn Brockus - Agents

Refreshments will be served from 6:30 to 7:00 in the Blair Theatre foyer.

Sign up for a drawing for the *Midwest Cover Crops Field Guide* and other cover crop books!

Meeting sponsored by:



ANAPLASMOSIS

Anaplasmosis...That is a pretty big word to wrap your head around. It is a disease that has officially struck many areas of Kansas. River Valley has confirmed cases in Washington, Clay, and Cloud counties. As of right now, there has yet to be a confirmed case in Republic County. With that said, what do we have to do to keep it that way and how do we attack those counties that already have the disease? There are many questions surrounding Anaplasmosis, and I hope that by writing this article it will clear up some of those unanswered questions.

First things first...What is Anaplasmosis, anyway?

It is a blood disease caused by a bacteria called *Anaplasma marginale*. The bacteria will get into the blood stream and enter the red blood cells. The abnormal red blood cells are recognized by the spleen as foreign and scavenge them out of the system. This results in a lower red blood cell count and as a result the cattle essentially become anemic.

What causes Anaplasmosis?

The cause or transfer of Anaplasmosis can be from anything that is known as a "blood feeder". The most common way animals become infected is by the male dog tick (otherwise known as the wood tick). The tick will infect multiple animals while feeding and goes on to pass the disease from one animal to another. The percentage of ticks that carry this disease across the state is over 33%. Anything that is a blood feeder that goes from one animal to another can transfer this disease. This also includes horse flies, deer flies, stable flies, and mosquitoes. One of the most common management mistakes that can cause Anaplasmosis is through multiple-use needles. Injecting an animal during vaccination and continuing to vaccinate with that same needle can pass enough blood to infect the second animal. Be sure to use the necessary precautions for eliminating these management mistakes as much as possible to prevent the spread of Anaplasmosis in the herd.

What can happen if I get Anaplasmosis in my herd?

This disease will most likely be found in 3 years of age and older cattle. Another sign of this disease is by finding one or more dead cows or bulls. This disease can also cause abortions (reported 4 last year). If cattle have Anaplasmosis once, they will have it the rest of their life and become a carrier. If they are a carrier and contract the disease again, they will not show the clinical signs again. However, they can introduce this disease to their offspring. Research shows approximately 16% of cattle transfer the disease to their offspring. The number at this time is not too alarming, but definitely a number that needs to continue to be monitored.

What are the symptoms of Anaplasmosis?

Some of the most frequent symptoms of this disease are open mouth breathing, staggering, yellow tinge in the whites of the eyes, and abortions. The MOST common symptom is aggression. Cattle can become aggressive with this disease as the brain can be starved for oxygen from a lack of blood flow.

Is there a treatment for Anaplasmosis?

Most animals that have the disease are going to survive it even if they are not treated for it. There are some good injectables that can help reduce the signs of the disease. Any oxytetracycline will reduce the clinical signs but does NOT prevent infection. Vaccines should only be used in herds that are already positive for Anaplasmosis. The best advice I can give my producers is to contact your veterinarian for an official diagnosis. If you believe that Anaplasmosis has occurred in your herd and choose to treat these animals, then you must handle these animals with extreme care. If these animals become too stressed on the way to the chute, it could result in death as the cattle are so fragile at this stage. Even the most docile animals that have Anaplasmosis have the ability to turn on you. With that said, take extreme caution when moving these animals.

Antibiotics in mineral is another good option during the pasture season. Remember, using antibiotics in feed, including mineral, can only be completed legally when following the exact product-label directions. Please use your veterinarian for guidance on the correct amount to be given.

How do I prevent Anaplasmosis from entering my herd?

Since there is no prevention vaccination for this disease, we have to attack this disease in a more bio secure way. The best prevention for Anaplasmosis is to test for the disease when bringing new cattle into the herd. Be sure to quarantine those new animals until the test results come back. Comingling cattle before the tests come back defeats the purpose of testing.

The best advice I can give producers that are worried about Anaplasmosis is to contact their veterinarian. Have a discussion with them about possible symptoms that you might be seeing in your herd or if you are not seeing symptoms at all, but seem to be losing cattle in large amount. Veterinarians are our best resource for this disease. Please feel free to contact myself or your local veterinarian with additional questions on Anaplasmosis.

TUTTLE WRAPS LIVESTOCK PRODUCER MEETING

If you are a livestock producer within the Tuttle WRAPS watershed then you may be eligible for Tuttle WRAPS cost share assistance. Mark the calendar and plan to attend the Tuttle WRAPS Livestock Producer Meeting scheduled for Friday, February 19, 2016 in Washington County from 9:00 a.m. to noon. (Note: location TBD) (Snow Date: 2/26/16)

Guest presenters will be Dr. Larry Hollis and K-State Research and Extension Watershed specialists Will Boyer and Herschel George. Topics on the agenda will be Winter Feeding Strategies, Alternative Watering Options, Cover Crops for Livestock Grazing, Best Management Practices for Water Quality, and Cost Share Assistance Available.

Look for more details in the February, 2016 newsletter.

Farmland Lease Meeting

January 11, 2016

**Clay Center United Methodist Church Family Life Center,
921 5th Street, Clay Center, KS
7:00 to 9:00 PM**

About the Presenters:

Dr. Mykel Taylor

Joined the Department of Agricultural Economics as an Assistant Professor in 2011. Her research and extension programs are focused in the areas of crop marketing and farm management. She grew up on a cattle ranch in Montana and attended Montana State University majoring in Agribusiness Management. Her PhD in Economics is from North Carolina State University. Some of her current research areas include measuring basis risk for commodity grains, understanding the implications of food safety and country of origin labeling on meat demand, and estimating land values for crop and pasture land in Kansas.

Robin Reid

Joined the KSU Ag Econ Department as the Commercial Agriculture Economist in August, 2014. She provided education about the 2014 Farm Bill and is the dairy specialist for the department as well as working on a variety of projects including livestock farm management guides and financial planning and management. She previously worked for four years as an Extension Agent in the River Valley District, with a focus on livestock production and farm management. Robin grew up on a farm in Wisconsin and earned a B.S. in Agricultural Business from UW-River Falls. She also holds a M.S. in Agricultural Economics from K-State.

Topics:

- Explaining the differences and similarities of various leasing arrangements: crop share, fixed cash rent, flexible leases, AUM pasture leases
- Active management of the landowner-tenant relationship through effective communication and recognition of incentives
- Calculating an equitable lease using cost of production budgets, price and yield expectations, and other market-based information

**River Valley District
agents will present
results from our
recently compiled local
farmland lease survey.
Our lease survey
publication will be
available to be picked
up at the meeting.**

Free Event

**Pre-register by Jan. 7th
For Registration Contact
River Valley Extension District
Concordia Office 785-243-8185
John Forshee, Kim Larson,
Katelyn Brockus - Agents**

Sponsored by: 

Women in Agriculture

Educational Series



Thursdays
Feb. 4th—Mar. 10th, 2016
3:00 pm—8:00 pm
CTI John Deere Meeting Room , Clay Center, KS

Who: Women in the agriculture industry who would like to advance their business and management skills to become more involved in a farming or ranching operation.

What: Women in Agriculture is a six-session course with participation limited to 25 people.

When: Classes are held each Thursday afternoon Feb. 4th—Mar. 10th from 3:00 pm to 8:00 pm. Dinner will be provided each session.

Where: CTI John Deere Meeting Room
 Clay Center, KS

Cost: \$50.00

Sign-up starts December 1st!

***Contact the River Valley District Extension Office
 785-243-8185***

Session One - February 4th

- True Colors (personality profile)
- Agricultural Advocacy, Social Media
- Farm Technology

Session Two - February 11th

- Ag. Marketing and Risk Management
- Calculating Cost of Production
- Crop Insurance

Session Three - February 18th

- Kansas Lease Law
- Developing Equitable Farm Leases
- Farm Safety

Session Four - February 25th

- Livestock Management
- FSA and NRCS programs

Session Five - March 3rd

- Quicken for Farm Record-keeping
- Financial Management and Taxes

Session Six - March 10th

- Family Communication
- Farm Succession and Estate Planning

Family is invited to attend this last session!



River Valley Extension District Women in Agriculture
 is brought to you by the following sponsors:



Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact John Forshee, Director, River Valley Extension District #4, 322 Grant Avenue, Clay Center, KS 67432. Phone 785-632-5335.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service
 K-State Research and Extension is an equal opportunity provider and employer.

SCOUT WHEAT FOR DEVELOPMENT

Wheat development may be poor where dry soil conditions persist in areas of the district. Will this make some wheat fields more susceptible to winter injury? Here are some factors to consider when evaluating the outlook for winter survival.

How well has the wheat cold hardened? - When temperatures through fall and early winter gradually get colder, that helps wheat plants develop good winter hardiness. When temperatures remain unusually warm late into the fall (which can lead to excessive vegetative growth) then suddenly drop into the low teens, plants are less likely to have had time to cold harden properly and will be more susceptible to winterkill.

How well developed is the root system? - Good top growth of wheat doesn't necessarily indicate good root development. If plants are poorly developed going into winter, with very few secondary roots and no tillers, they will be more susceptible to winterkill or desiccation, especially when soils remain dry. Poor development of secondary roots may not be readily apparent unless the plants are pulled up and examined. If plants are poorly developed, it may be due to dry soils, poor seed-to-soil contact, very low pH, insect damage, or other causes.

How cold is the soil at the crown level? - This depends on snow cover and moisture levels in the soil. Winterkill is possible if soil temperatures at the crown level (about one inch deep) fall into the single digits. If there is at least an inch of snow on the ground, the wheat will be protected and soil temperatures will usually remain above the critical level. If the soil has good moisture, it's possible that soil temperatures at the crown level may not reach the critical level even in the absence of snow cover. However, if the soil is dry and there is no snow cover, there may be the potential for winterkill, especially on exposed slopes or terrace tops.

Is the crown well protected by soil? - If wheat is planted at the correct depth, about 1.5 to 2 inches deep, and in good contact with the soil, the crown should be well protected by the soil from the effects of cold temperatures. If the wheat seed was planted too shallowly, then the crown will have developed too close to the soil surface and will be more susceptible to winterkill. Also, if the seed was planted into loose soil or into heavy surface residue, the crown could be more exposed and could be susceptible to cold temperatures and desiccation.

Is there any insect or disease damage to the plants? - Plants may die during the winter not from winterkill, but from the direct effects of a fall infestation of Hessian fly. Many people are familiar with the lodging that Hessian fly can cause to wheat in the spring, but fewer recognize the damage that can be caused by fall infestations. Wheat infested in the fall often remains green until the winter when the infested tillers gradually die. Depending on the stage of wheat when the larvae begin their feeding, individual tillers or whole plants can die. Damage from winter grain mites, brown wheat mites, fall armyworm, aphids, and crown and root rot diseases can also weaken wheat plants and make them somewhat more susceptible to injury from cold weather stress or desiccation.

(Source: Jim Shroyer, *Crop Specialist*)

SOIL TESTS YIELD ECONOMIC RETURNS

Following fall harvest is an excellent time for soil sampling and testing. This year, with low grain prices, many producers may be looking for places to cut costs. However, cutting back on soil testing could result in lowering profits.

Having accurate soil test information is critical to making the right decisions regarding fertilizer input. Fertilizer cost has remained steady while grain prices have dropped this fall. Therefore, making good use of fertilizer input becomes critical to maximize profits.

Previous research by former K-State agricultural economists Terry Kastens and Kevin Dhuyvetter simulated 10,000 observations from farm production fields to evaluate the economic value of accurate soil test information. Each field was assigned a random value for soil test P (STP) and soil test N (STN), and different scenarios for expected yields and prices for grain and fertilizer. The random values represent what a producer might guess the soil N or soil P level is without having results of a soil test for confirmation.

The resulting yields from nutrient rates applied based on the guesses made without accurate soil test information were compared with the yields obtained when applied nutrient rates were based on actual soil test levels of N and P. Results from this study show that when the guess on soil N and P levels turned out to be exactly correct, and equal to the actual levels, there was no effect on profit from having the actual soil test information – except for the cost of the soil tests.

However, if the guess is not correct, and the actual soil N or P level is much lower or much higher than the initial guess, the producer would have lost a significant amount of money per acre. In other words, the overall return to accurate information on soil nutrient levels can be significant.

Considering other variables such as fertilizer and grain price, results show that returns to soil sampling are generally greater when grain prices are lower. This is because potential returns to inputs are tighter at lower crop prices.

If actual soil test levels of N or P are higher than what you expect, producers can realize a significant savings by reducing or eliminating unnecessary nutrient applications. This situation is not uncommon for N, where some fields may have high levels of residual N from previous crops.

On the other hand, if producers overestimate how much N or P is in the soil and actual soil test levels are much lower than expected, yields and income could be increased by applying the higher, correct amount of nutrients needed. In this case, the difference in final income per acre will depend on the cost of the needed nutrients, the yield response from applying the needed nutrients, and crop prices.

If producers are applying a “farm-wide” uniform rate, they may be missing the opportunity to maximize profits for each field. Furthermore, by sampling and fertilizing based on management zones within a field, or based on historical yield map data, producers can further increase the return per area.

WHAT IS KANSAS PRIDE?

You may have been driving through a community in Kansas and noticed a sign at the edge of town “A Kansas PRIDE Community.” So what does that mean?

The Kansas PRIDE Program is a partnership of K-State Research and Extension, the Kansas Department of Commerce, and Kansas PRIDE, Inc.

Kansas PRIDE is dedicated to serving communities across the state to encourage and assist local government and volunteers in making their community a better place to live and work.



Through the Kansas PRIDE program, local communities identify what they would like to preserve, create, or improve for their future. Working with the resources of K-State Research & Extension and the Kansas Department of Commerce, community volunteers pull together to create their ideal community future.

To become a PRIDE Community, a grassroots group organizes and then enrolls in the PRIDE program through K-State Research and Extension. The governing body of the community will then pass a resolution in support of the community's PRIDE program. Once these initial steps are completed the PRIDE group will carry out locally determined projects that preserve the past, create opportunities, or improve the future of their community. The PRIDE group reports into Kansas PRIDE on a quarterly basis. Kansas PRIDE offers opportunities for funding, recognition, education, and sponsorship.

For more information on Kansas PRIDE contact John Forsee or visit the Kansas PRIDE website at: <http://kansasprideprogram.k-state.edu>

SKUNK PROBLEMS??-THAT STINKS!!

There are two types of skunks in Kansas, but the striped skunk is by far the most common. Skunks are generally shy, secretive animals that discharge their characteristic pungent odor only when harassed, disturbed, or cornered in some fashion. Skunks in general are beneficial as over half their diet is insects with the remaining percentage being fruits, mice, and eggs of ground-nesting birds. Skunks are nocturnal, coming out to feed at night, and although they do not hibernate, they may become inactive for long periods of time during winter. Skunks tend to live in rocky crevasses or underground dens. Near rural homesteads and in urban settings, skunks tend to find homes under buildings, porches, and crawl spaces.

Skunks mate in February and after about 9 weeks the female will give birth to 4 to 6 young. The young will stay with the mother until fall when the family will split up and become somewhat solitary.

Skunks become problems when their activities intersect with human lifestyles. They damage lawns by digging for grubs and areas around outbuildings as they burrow under for dens, they may damage bee hives, and they release highly objectionable odors. For the most part, those are nuisances that may not have much cost associated with them. The real danger is the fact that skunks are the primary wildlife carrier of rabies. In addition, they may be infected with pneumonia, distemper, leptospirosis, listeriosis, and tularemia and may carry parasites like fleas, lice, mites, ticks, and various worms.

Skunk management may become necessary to prevent them from becoming too abundant. Clean up and destroy dens and remove easy food sources such as exposed pet food and garbage. Feed pets during the day and do not leave food bowls out at night. Clean up wood piles that might harbor rats and mice. Block den openings around foundations or under buildings with concrete or with sheet metal or wire mesh that is bent outwards in an L-shape and extends out at least 12 inches. This will allow them to escape out of the building but not be able to return. In May and June, young may be left in the den unattended, so one should avoid sealing building foundations at this time to avoid starving young skunks. Care for the lawn with proper grub control to eliminate this food source. Finally, destroy or remove possible den sites such as rock piles, junk piles, old cars, and open buried pipes or culverts. Wire mesh fencing may help exclude skunks from an area while illuminating den areas with bright light may play on their nocturnal nature to discourage their return.

If skunks enter or fall into window wells or other ground pits they likely cannot climb out. In this case, nail cleats every six inches onto a board and place it at an angle down into the window well. Allow the skunk to climb out and wander off on its own and then place a cover over the opening.

When necessary, live-trapping with cage traps baited with canned cat food, canned fish, chicken parts, or sardines is the preferred method of removing nuisance skunks. The trap should be 12x12x36 with the bait in a disposable container set beyond the trip mechanism. If cats are trapped instead of skunks, try using mayonnaise, peanut butter, dried fruit, or honey on bread as the bait. Cover the trap with canvas or plywood to keep the trap dark and discourage scent release. Set traps where skunks are expected to be such as along fences or buildings. Kansas law requires traps to be inspected once per day. Once a skunk is trapped quietly cover the trap to keep it dark and the skunk calm, and transport the skunk to an area where it can be euthanized with CO₂ gas or by shooting. As skunks may be diseased it is never a good idea to release them into a “new home”. If a skunk is to be tested for rabies, do not shoot it in the head, and consult your local veterinarian.

Skunk odor can be neutralized by ammonia, vinegar, washing soda, laundry soaps, citronella, canned tomatoes, tomato juice, or bleach. (Note: never mix chlorine from bleach or any source and ammonia as it produces deadly chlorine gas.) Neutroleum Alpha is a commercial product available at the extension office that can help neutralize skunk and other odors.

With the risk of rabies it is vital to use extreme caution as you work to dispose of trapped skunks. Always keep all pets properly vaccinated for rabies.

5 KEYS TO REDUCING HAY WASTE

With the winter months quickly approaching, it is almost time to start feeding hay. Even though hay costs were reduced this year, it is always smart to cut down on hay wastage. Here are five key tips to reducing hay wastage:

Never provide more than one day's supply at a time.

Research has shown that when cows are fed a four day supply, they will overeat and waste 20 to 30 percent more hay. The savings by using this management practice adds up to \$25 to \$50 more per cow over a four month feeding period.

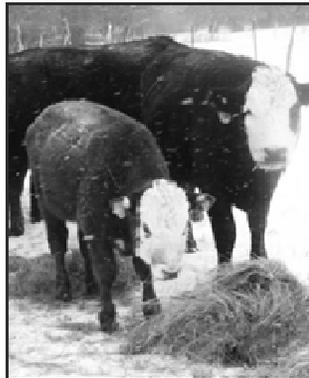
Be sure to provide sufficient space for all animals to eat at once. This will ensure boss cows don't stop timid cows from getting their fair share.

Another management practice that can be considered is to restrict access to the hay. Use bale racks or rings to keep the animals off the hay. The most useful are racks with barriers around the bottom that prevent livestock from pulling hay loose with their feet and dragging it out to be stepped on.

If you choose to unroll bales or grind and feed on the ground, position an electric fence alongside or above the hay to keep cows from trampling or bedding down on the hay.

Feed a balanced ration that provides sufficient energy and protein. Do not over-feed! Animals that eat too much protein will simply excrete it as extra nitrogen in their urine. This is just as wasteful as directly trampling it on the ground.

If you are looking for ways to improve your bottom dollar, then consider these management strategies in your operation.



SO, YOUR GARDEN HAS HIGH SOIL PH

In North-Central Kansas our garden soil tests yield pH results that can range from the upper fives (acidic) to the lower eights (basic). For the most part, however, we are seeing pH numbers from 7.1 to 7.5. Most of our garden crops, fruits, and nuts prefer a slightly acidic environment. Soils that range from 6.0 to 6.5 provide an acceptable pH range across nearly all our garden crops, fruits, and nuts with the exception of blueberries which require pH in the 4.0 to 4.5 range.

High pH soils can cause problems for plants by reducing the availability of certain micronutrients. For example, most Kansas soils have more than adequate amounts of iron. However, a high pH can make iron unavailable resulting in a condition called iron chlorosis. Iron chlorosis reduces the health of plants by reducing photosynthesis. Lowering the pH of such soils will eliminate iron chlorosis.

Now would be a good time to have a soil test done to see if your pH is too high. The extension office has soil sample bags and can send the sample to our K-State lab for analysis. The basic test that includes pH starts at \$6.50. Samples can be pulled with a soil probe that can be checked out of the Extension office or with a clean shovel. To collect a sample, walk diagonally across the garden, digging a sample every few feet and putting it into a clean, plastic bucket. Do the same across the other diagonal. Mix the samples in the bucket well and then pull about a two-cup sample to submit to the lab for analysis.

Unless your soil is extremely calcareous with large amounts of free calcium carbonate, actual particles of limestone mixed in the soil, sulfur can be added either now or in the spring to lower the pH. Not all high pH soils are calcareous. Perform this simple test to see if your soil contains appreciable amounts of free lime. Apply one drop of vinegar to dry soil. A vigorous fizz usually means the soil contains at least 3 percent calcium carbonate. A mild fizz suggests a calcium carbonate of between 1 and 2 percent and a fizz that can only be heard suggests the soil has a calcium carbonate content of less than 1 percent.

How does sulfur work to lower soil pH? Elemental sulfur does not lower pH directly like adding lime directly raises soil pH. Rather, this is a biological process through microbial action that takes time. Sulfur must first be oxidized to the sulfate form with the result being sulfuric acid. The sulfuric acid produces hydrogen, which acidifies the soil and lowers pH. The speed of microbial oxidation of elemental sulfur depends upon: amount of bacteria present, ideal temperature of 75 to 104, moderate soil moisture, and size of sulfur particle added. In general, a single sulfur application normally takes at least 2 years for most the sulfur to react and form sulfuric acid. Therefore, it is probably best to add sulfur this fall to give time for the process to begin to work.

In general, to lower the pH one point (for example lowering from 7.5 to 6.5) would take 3 pounds of elemental sulfur (95% sulfur) per 100 square feet of garden for sandy soils, four pounds for loamy soils, and five pounds for clay soils. However, we never recommend adding more than 2 pounds of sulfur per 100 square foot at any one time. If more than two pounds are required, then I generally recommend adding in stages such as at fall clean-up and then again before spring planting or again at next fall's clean-up. Sulfur should be tilled into the root zone which is the upper 6 inches.

Wood Ashes - You may have heard that using wood ashes on your garden can help make the soil more fertile. Although this may be true for some parts of the country where soils are low in potassium, Kansas soils are naturally high in potash and typically never need this soil amendment added. Ashes contain little phosphorus and no nitrogen and so there is absolutely no benefit from adding ashes to most gardens in Kansas. In addition, many of our garden soils are high in pH and ashes can further raise that pH, creating problems for gardeners. The bottom line is that unless your garden is low in pH (acidic) and low in potassium (unlikely) it is best to dispose of ashes in some other manner than to add to your garden.

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**RIVER VALLEY DISTRICT
“2015 - 2016 UP-COMING MEETINGS & EVENTS”**

DATE	TIME	PROGRAM	LOCATION
Oct. 15-Dec. 7		Medicare Part D Enrollment	Appts. at Extension Offices
Dec. 7	6:30-9pm	Cover Crop Meeting	Blair Theatre-Belleville
Dec. 1-2		Income Tax Institute	Topeka
Dec. 2-3		Income Tax Institute	Salina
Jan. 11	7-9pm	Farmland Lease Meeting	United Methodist Church-Clay Center
Jan. 15		2016 Corn Schools	Salina
Jan. 28		2016 Soybean Schools	Beloit
Jan. 29		2016 Soybean Schools	Marysville
Feb. 3		2016 Sorghum Schools	Phillipsburg
Feb. 4		2016 Sorghum Schools	Ellsworth
Feb. 4-Mar. 10	3-8pm	(Thursdays) Women in Agriculture	CTI John Deere Mtg. Rm., Clay Center
Feb. 19	9am—noon	Tuttle WRAPS Livestock Meeting	WS County—TBD

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