## WOMEN IN AGRICULTURE SERIES HELD IN BELLEVILLE

Twenty-five women from across the area took part in a six week Women in Agriculture series that concluded March 12<sup>th</sup> at the Harvester Room in Belleville. Attendees ranged from those just getting into the industry by inheriting farmland, to those marrying into a farm family, to women who have been active farm operators for many years. A committee of nine women from the River Valley Extension District, local Farm Service Agency office, AgMark LLC, Kansas Farm Bureau, and The Citizen's National Bank planned and implemented the series.

During the first five weeks, women listened to speakers and completed hands on activities to learn about a variety of farm management topics. Stacey Forshee of Forshee Farms LLC, and Kansas Farm Bureau Board Member, presented a session on Ag Advocacy, urging producers to be aware of the messages consumers receive from the media about their industry. Meagan Cramer, with Kansas Farm Bureau also presented information on Ag Advocacy during the first session, while Libby Curry with Extension led the group through the True Colors personality profile. Carrie Williams and Nick Hansen of AgMark LLC instructed the class on the global agriculture economy, marketing, risk management, and computing cost of production. Wade Jensik, of Jensik Insurance, gave the group an overview of crop insurance and the products they offer. Participants engaged in hands on training with laptops to learn how to keep farm records with Quicken led by Kara Mayer with K-State Research and Extension. Carrie Fraser of The Citizens National Bank assisted the group in understanding financial statements and your credit score. Farm safety and USDA programs were the focus of the fourth session. The topics were covered by Serita Blankenship with Kansas Farm Bureau, Raymond Raney, county emergency management coordinator, Terry Alstatt with the Natural Resource Conservation Service, and Tamie Buckley of the Farm Service Agency. A session devoted to developing equitable leases and understanding Kansas lease laws, was presented by Mykel Taylor with K-State's Department of Agricultural Economics. Farm technology was also covered in the session. Speakers on the topic included Taylor Siemers of Concordia Tractor Inc. and Steve Bateman and Cody Bailey from Reinke.



Participants in the Women in Agriculture series received certificates of completion at the final session. The series was held at the Harvester room in Belleville. Pictured from left to right: (back row) Kim Larson, Carrie Fraser, Julie Hansen, Tatum Couture, Tamie Buckley, Sondra Reed, Betsy Evert, Grace Benfer, Stacy Novak, Becky Hatesohl, Diane Freeman, Paula Carlson, Melanie Lindberg, Jody Cromwell, Kelli Childs, Tiffiny Sasser, Jennifer Hitlgen, Ella Pachta (front row) Katelyn Brockus, Becky Craig, Jennifer Henriksen, Arlene Clayton, Megan Piersee, Gretta Snapp, Betty Cerney, Debbie Sells, and Stacey Forshee. Not pictured: Janet Heyka, Jeanne Larson, Trish Remley, Esther Stafford, Laura Tuma, and Rebecca Frerking News article continued on Page 2

#### <u>APRIL 2015</u> Volume 10 #4

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#### WOMEN IN AG-continued from front page

Members of the group were encouraged to bring their spouse, or other family members involved in their operation, to the final session. Shon Robben, attorney with Arthur-Green LLP, shared information on farm succession and estate planning with the group. Charlotte Shoup Olsen with K-State Research and Extension discussed family communication while Duane Hund, Farm Analyst, also with K-State Research and Extension, presented "Successful Family Business Transitions", which included 'Twelve Steps to Keep the Family Farming'. To cap off the event the participants were awarded certificates of completion following a social hour and catered meal.

Participants not only learned a lot during the sessions, but also developed relationships with others in the Ag industry throughout the area. "We are very fortunate to have such supportive Ag businesses in our area that are willing to sponsor this event," commented committee planning member Tamie Buckley. Other committee planning members were Katelyn Brockus, Tatum Couture, Stacey Forshee, Carrie Fraser, Rebecca Frerking, Julie Hansen, Kim Larson, and Laura Tuma. The event would not have been nearly as successful without the assistance of these local sponsors: Reinke, Concordia Tractor Inc., AgMark LLC, Nelson Seed Sales, FMSI, Hanel Vet Clinic, The Citizens National Bank, Crop Production Services, Nesika Energy, Jensik Insurance, and K-State Research and Extension. The planning committee hopes to rotate the program throughout the River Valley Extension District on an annual basis. This area includes; Cloud, Republic, Washington, and Clay Counties.

## TIPS FOR PLANTING SEASON

Planting season is upon us for corn with suggested planting dates in our area from April 10<sup>th</sup> to May 20<sup>th</sup>. It is a good idea to base planting time off soil temperature. An excellent guide is to wait until the soil temperature reaches 55°F at a two inch depth. Current soil temperatures at Scandia and Manhattan are supplied by the Kansas State Weather Data Library weekly.

A key in the success of our crops this growing season is getting our crop off to a good start at planting. Corn kernels need a soil that is warm, moist, well supplied with air, and fine enough to give good contact between seed and soil for rapid germination. A strong start with stand uniformity and good emergence is of great importance. Stand uniformity and emergence are defined differently. Stand uniformity has to do with how consistent plant spacing is within the row. Uniformity of emergence deals with timing. Do most plants come up at the same time, or are some delayed by several days?

Although uniform stands are desirable, Stu Duncan, Northeast Area Crops and Soils Specialist, has found little yield reduction from non-uniform stands as long as the final population is within 15 percent of the target population. Try to obtain plant

spacings that are as consistent as possible, but do not become

overly anxious as long as the typical spacing between plants is within two to three inches of the desired plant spacing and the final population is not substantially lower than what was desired.

Emergence can be delayed by non-uniform moisture in the seed zone, crusting, non-uniform planting depth, or nonuniform crop residue. Uniform emergence can be important for maximizing yield. The speed of germination and emergence depends on planting depth and soil temperature. Corn emergence at 50-55°F may take 18-21 days, while at 60-65°F, corn emerges in 8-10 days. Below 50°F little, if any, germination can be expected. Soils are colder at increased depths, which may slow germination and subject the seed to diseases or insects resulting in seed injury. Early plantings will emerge quicker with planting depths of 1.5 to 2 inches than if planted deeper. Sandy soils warm more rapidly than fine-textured soils because they hold less water. Planting 2 to 3 inches deep in sandy soils is necessary to prevent drying of the seed zone if dry conditions follow planting. Planting depth over 3.5 inches deep under any soil condition may cause emergence problems.

Also, pay attention to the residue if planting into a no-till field. Uneven or heavy residue can result in a less uniform stand. This is primarily due to cool soil temperatures as the residue inhibits penetration of heat from the sun. Residue will not only further delay emergence, but can also cause these uneven stands, which can decrease yields. Management of corn or sorghum residue is more critical due to the higher amounts that remain in the field compared to soybeans.

Do not neglect prepping your planter for planting season. Timing can be critical, so make sure your planter has had maintenance and any repairs needed before the season arrives. Take the time to properly adjust planter units to optimize seed placement and depth for your conditions.

For more information on corn production recommendations, pick up the Corn Production Handbook available at the Extension Office.

## SAVE THE DATE!



Wheat plot tours have been scheduled across the River Valley District. Tours will be June 3rd at the plots located in Republic County and June 10th for the Clay and Washington County locations.

K-State Research and Extension specialists will be there to discuss varieties, diseases, insects, and fertility. A highlight of the June 10th tour is an additional stop at a nitrogen demonstration plot using sensor technology for recommended rates.

A Google Map with the tagged locations of each plot will be coming out soon so check our web page or inquire at any RVED office. You may stop by the plots any time during the growing season to analyze the varieties.

# Hazardous Occupations Safety Training In Agriculture (Tractor & Machinery Safety)



Saturday, May 9th, 2015 8:30 a.m. - 4:30 p.m. CTI, John Deere Concordia, KS



Youth will need to provide their address, date of birth and contact information when pre-registering

Cost: \$20 due at time of pre-registration. (covers manuals, materials, and snacks) Participants need to bring their own sack lunch!

- Youth must preregister; complete pre-exams; and complete required reading and homework assignments prior to attending class.
- ✤ Youth must attend entire class session and pass written exam on class day.
- Youth must then complete 2 hours of supervised driving and return driving sheet to extension office to receive certification.

Pre-registration is due Monday, April 27th, 2015

For more information or to register please contact:River Valley Extension District OfficesConcordia 785-243-8185Clay Center 785-632-5335Washington 785-325-2121

Federal law requires that 14 and 15 year-olds must be certified to work in a hazardous occupation, including farm work, for anyone other than their parents.

## Sponsored by River Valley Extension District #4

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.



## HONORING KANSAS MASTER FARMERS AND MASTER FARM HOMEMAKERS

Six couples have been named Kansas Master Farmers and Master Farm Homemakers for 2014. The couples are identified as leaders in farming and their communities, and they were honored at a banquet March 13 in Manhattan. The Master Farmer and Master Farm Homemaker award program began in 1927 and is sponsored by K-State Research and Extension and Kansas Farmer magazine. The honorees include two farm couples from the River Valley Extension District.

Dewey & Carol Adams, RVED-CY, Clay Center

Children: Rhonda (husband Jim); grandsons Adam and Ryan

Dewey Adams is a fourth-generation farmer, and along with his wife, Carol, the couple raises beef cattle, including stockers and feeders, and crops that include wheat, sorghum, soybeans, grass hay, alfalfa, and silage. Dewey's great-grandfather home-steaded the farm in 1870, and he and Carol took ownership in 1964. Dewey reflects on the many changes that have occurred over the years to keep the operation up-to-date and to be more efficient.



Dewey joined the Kansas National Guard as a young man and completed active basic training before returning to the farm. He began renting more land and expanding the farming operation before his parents died in an automobile accident. Dewey can often be found tinkering around the farm and updating infrastructure, using his talents on various repairs, welding, and woodworking.

Today, the Adams' operation uses many good stewardship practices—no-till, terraces, buffer strips, cover crops, stalk grazing and pasture rotation to name a few—in hopes of preserving the farm for future generations of the family. They both have been actively involved in the agricultural industry through serving roles in Kansas Young Farmers, the Clay County Fair Board, the Kansas Farm Management Board, the Clay County Soil Conservation Board, and the Clay County Extension Homemakers Council, to name a few.

A lifelong educator, Carol worked off the farm for 43 years in the public school system, and even after retiring in 2007, she still fills in as a substitute teacher when she has the opportunity. She teaches Sunday school and helps with vacation Bible school, among many other roles, at the Mizpah United Methodist Church where she and Dewey are members.

Dewey has used his builder's niche to travel to Nicaragua and build churches as part of 17 mission trips. Carol has accompanied him on seven of those trips. Dewey has also served as a rural volunteer firefighter for more than 40 years and worked as a field technician 34 years for the Farm Service Agency.

Family is important to both Dewey and Carol, and they involve their daughter, son-in-law, and two grandsons to help out on the farm when possible. The family's motto is, "We work together; we play together." Dewey's dream is that one day his grandsons will be able to keep the farm in the family.

#### Bill and Chris Pannbacker, RVED-WS, Washington

#### Children: Jake, Molly (husband Tyrone)

Life in agriculture has extended beyond the farm for Bill Pannbacker and his wife, Chris. Bill is a renowned veterinarian who plays an active role in many organizations such as the Kansas Livestock Association, National Cattlemen's Beef Association, Kansas Farm Bureau, Kansas Veterinary Medical Association and Washington County Extension Council.

Bill often starts his day with news from C-SPAN, DTN, and the Kansas City Star before heading out the door. Chris, likewise, typically reads five to six newspapers daily, as she has always loved to read and learn. She has a background in communications and journalism and has served as editor of The Washington County News, as well as compiled and revised newsletters for many organizations.

Chris was a board director of the Kansas Press Association. Other organizations in which she has been involved include, but are not limited to: the Kansas Commission on Judicial Qualifications, Kansas Cattlewomen, American National Cattlewomen and the Washington County Emergency Response team. She was a typical "4-H mom" through the years and Girl Scout troop leader for 22 years.

Somehow despite everything going on outside the farm, the couple has been able to successfully manage a diverse farming operation, with crops that include wheat, sorghum, corn, soybeans, silage, alfalfa, and grass hay. They also are highly involved in beef production, from the cow-calf side to the stocker and feeder phases. The Pannbackers use buffer strips on several of the fields

they farm and have moved to almost 70 percent no-till. They have improved water quality for the operation by discontinuing feeding cattle adjacent to a stream to prevent potential runoff. Crossbreeding in the cattle herd has shown many benefits. Among those, home-raised steer calves from Angus-based cows sired by Charolais bulls graded 80 percent USDA Choice and gained 4.4 pounds per day with a cost of gain at 75 percent of the average quoted for the same period in 2014.

In addition to agricultural industry involvement, Bill served on the Bluestem Electric Cooperative Board and is involved in the K-State Alumni Association. He and Chris have both served on their local school board and supported local 4-H in many ways. They are active members of the First Presbyterian Church in Washington.



## SOMETIMES IT'S JUST A HARD PULL

Picture this...The weatherman is calling for a beautiful sunny, 75 degree day! I know this might be hard to picture since we are in Kansas and who knows from day to day what the spring weather might be, but stick with me here. It is the absolute perfect day to be outside admiring the landscape and the cattle herd that took years to build. Although we have had some great calving weather this spring, beef producers know that calving rarely lands on those perfect weather days. Rather we often find ourselves in that winter snowstorm with a windchill of negative 10 or out in that cold, driving, spring rain with the lots knee-deep in mud. With this scenario in mind, producers must plan accordingly in relation to the environment and the amount of labor involved with dystocia cases. This time of the year is one of the busiest for the spring calving cow/calf producers. This article will outline facts about calving difficulties, factors that affect dystocia, and how to aid in alleviating calving difficulty in the future.

Calving difficulty has many short and long term effects for both the cow and calf. According to U.S. Meat Animal Research Center (MARC) in Clay Center, Nebraska, calf losses within 24 hours of birth averaged 4% for those born with little or no assistance compared to 16% requiring assistance. Calf mortality also increased by 0.35% for every pound of increased birth weight. Researchers at MARC noted that the percentage of cows detected in estrus during a 45-day artificial insemination period was 14% lower in assisted births compared to unassisted. Conception to artificial insemination was also 6% lower in cows experiencing dystocia compared to those that did not. This data can be quite alarming if this is an area of your production system that needs strengthened. In an effort to decrease the number of dystocia cases in the herd, the factors affecting dystocia are outlined below:

It is evident that negative effects occur when cows are having difficult births. There are numerous factors that can affect the amount of calving difficulty present in the herd. A few factors affecting dystocia that are influenced by the dam include: age, pelvic area, body size, breed, genotype, nutritional state, and body condition. The sire can also be a factor in dystocia cases which is influenced heavily by breed and genotype. Dystocia factors influenced by the calf include: position or presentation, birth weight, sex, and gestation length. As you can see, these factors are not just influenced by the dam, sire, or calf, but rather are an accumulation of all three.

Now that the problem has been presented along with the cause and effects of dystocia, it is time to come up with a solution. What can we do with those cows that are notorious for having difficult births? How can we decrease the number of dystocia cases in first calf heifers? What can we do about those sires that are positively correlated with dystocia? While we may not have all the answers, research has pointed to a few key management tips. For yearling heifers, mate them with low-risk bulls. Try to select for proven AI sires whose progeny calve easily, or choose unproven bulls whose own birth weights were low.

Next, be sure your cattle are fed appropriately. Overfed females can result in just as many problems as underfed. Try to decrease your labor by implementing feeding strategies to calve during daytime hours. This will allow for extra attention to be given to your first calf heifers and your cows. Lastly, know when to step in and give assistance to your cows/heifers. Use your best judgment, but if no progress is observed 30 minutes following the first sight of the calf, then it might be time to assist.

Dr. Luis Mendonca, K-State Research and Extension Dairy Specialist, demonstrated various fetal positions that can occur during calving, as well as a time line for parturition during a calving clinic held in Salina and jointly hosted by River Valley Extension District. Similar calving clinics are being offered around the state in an effort to answer producers' calving concerns.

We have now come full circle! The facts, factors, and solutions have been presented, now it is time to take it back to the farm. Maybe we will get lucky and have one of those sunny and 75 degree days soon. Until then, I wish you all a happy and successful calving season! Please feel free to contact me with any questions at 785-325-2121 or stop in for a visit at our Washington location.-Katelyn Brockus

#### **Thayer Joins RVED Staff**



Monica Thayer will join the K-State Research and Extension, River Valley District #4 as a District Extension Agent, 4-H Youth Development effective April 13. Thayer will be housed in the Washington office with some day-to -day 4-H responsibilities there. Her primary responsibilities, however, will be to supervise and work with the three River Valley District 4-H Program Man-

agers to implement the youth development program across the district to the nearly 550 4-H members in 26 community clubs and 1 project club. In addition, Thayer will play the lead role in 4-H leadership and volunteer development and will work with the other district agents in youth subject matter delivery.

Thayer grew up near Mound City, was a member of the Busy Bugs 4-H Club in Linn County and was active in the Jawhawk -Linn FFA Chapter in High School. She attended Pittsburg State University and graduated from Kansas State University with a BS in Family Studies and Human Services with a Minor in American Ethnic Studies and a concentration in sociology. She spent two summers as an Extension Intern in Linn County and spent the last six years working in property mgt.

"We feel that Monica is a great fit for our River Valley Team," says John Forshee, District Director. "Her positive attitude, outgoing personality, educational background, and interpersonal and communication skills attained while working customer service will serve her well working with 4-H families. Her marketing, supervision, employee development and management skill set along with her personal goals and values align well with the goals of our program."

## STILL TIME TO PLANT RHUBARB

Rhubarb is a perennial garden crop that should be planted from mid-March to early April in Kansas. Rhubarb is a wonderful plant that can flourish and provide years of production but it can also be a bit tricky to grow in our area. It is native to northern Asia (possibly Siberia) and so is adapted to cold winters and dry summers. However, it is susceptible to crown rot and should not be subjected to "wet feet." Therefore it should be grown in a well-drained soil. The addition of organic matter can increase drainage as well as raise the soil level so that crown rot is less likely. Be sure to have a soil test done as rhubarb does best with a pH below 7.0.

To prepare the seed bed, mix 5 to 10 pounds of well-rotted barnyard manure into the soil for each 10 square feet of bed before planting. Rhubarb is propagated from crowns (root sections) that contain one or two buds. Plants should be spaced 2 to 3 feet apart in the row with 4 to 5 feet between rows. The crowns are planted shallow so that the buds are just one-half to 1 inch below the soil surface. Firm soil around the crowns and make sure they are not in a depression that holds water. Recommended varieties include: Canada Red, Crimson Red, McDonald, and Valentine.

Allow the crop to establish well the first year and so plan ahead to harvest this crop in year two and beyond. The plant will likely need to be dug and divided in 5 to 10 years. Establish a rotation to always have a part of the crop in production.

## **TEN RULES FOR TREE PLANTING**

Although the preferred time to plant trees is probably the fall, most planting occurs in the springtime and can be successfully done from March through May. Before you begin spring landscaping, here are some tips on planting trees.

1. Select the right tree for the site. To avoid serious problems, choose trees that are adapted to your location. Consider whether the tree produces nuisance fruit or if there are disease-resistant varieties available. For example, there are a number of crabapple varieties that are resistant to apple scab and rust diseases. Also consider the mature size of a tree to be sure you have enough room, especially around utilities. See <u>http://www.hfrr.ksu.edu/p.aspx?tabid=731</u> or ask a local nursery staff for suggestions.

2. Keep the tree well watered and in a shady location until planting. When moving the tree, lift it by the root ball or pot and not by the trunk.

3. Before planting, remove all wires, labels, cords or anything else tied to the plant. If left on, they may eventually girdle the branch to which they are attached. The root flare (point where trunk and roots meet) should be visible. If it isn't, remove enough soil or media so that it is.

4. Dig the hole deep enough so that the tree sits slightly above nursery level. Plant the tree on solid ground, not fill dirt so only dig as deep as needed. If you must back fill then be sure to firmly pack it. The hole should be three times the width of the root ball. Loosening the soil outside the hole so it is five times the diameter of the root ball will allow the tree to spread its roots faster.

6

5. Remove all containers from the root ball. Cut away plastic and peat pots; roll burlap and wire baskets back into the hole, cutting as much of the excess away as possible. If you can remove the wire basket without disturbing the root ball, do it. If roots have been circling around in the container, cut them and spread them out so they do not continue growing in a circle inside the hole and become girdling roots.

6. Backfill the hole with the same soil that was removed. Make sure the soil that goes back is loosened - no clods or clumps. Add water as you fill to insure good root to soil contact and prevent air pockets. There is no need to fertilize at planting. Adding peat moss or other organic matter to the fill soil likely does more harm than good as this can create a "pot-effect" that can fill with water and drown your new tree.

7. Don't cut back the branches of a tree after planting except those that are rubbing or damaged. The leaf buds release a hormone that encourages root growth. If the tree is cut back, the reduced number of leaf buds results in less hormone released and therefore fewer roots being formed.

8. Water the tree thoroughly at planting, water weekly for the first season, and then as needed in low rainfall years.

9. Mulch around the tree. Mulch should be 2 to 4 inches deep and cover an area two the three times the diameter of the root ball. Mulching reduces competition from other plants, conserves moisture and keeps soil temperature closer to what the plants' roots prefer.

10. Stake only when necessary. Larger trees or those in windy locations may need to be staked the first year. Movement is necessary for the trunk to become strong so staking

## APPLY CRABGRASS PREVENTER SOON

Crabgrass is a weedy grass problem in home lawns that is best controlled with a pre-emergent product that lasts throughout the season. Pendimethalin should be applied when the redbuds or lilacs are blooming. Its downside is that with a lot of moisture this product may not provide season-long control. Barricade and Dimension can be applied in fall or in early spring and will typically give season-long control. These products will need to be watered in to be activated and to develop the barrier that kills crabgrass as it emerges.

## **BAGWORM CONTROL-TIMING IS KEY**

Bagworms are a common pest of eastern red cedar and junipers and may also attack arborvitae, spruce, and pine in the landscape. A wide variety of broadleaf trees and shrubs may also serve as hosts.

As spring rolls around, homeowners may find large numbers of these bags hanging from plants. Infestations were bad last year and so we can anticipate problems again this year.

During winter and early spring one can attempt cultural control when the bags are easily seen. If numbers and plants are not large then hand-pick the female bags and destroy them. The male bags with extruded pupal cases do not need to be removed. It is important to get all the female bags, even those deep within the foliage, as a single missed female bag can result in thousands of larvae at hatching. Hand-picking should be completed by late April or early May. By mid-May to late May, the larvae will begin emerging from the overwintering bag and begin to feed. These larvae are very small and will require some careful monitoring to find them. As they begin to feed one will begin to notice small bags forming that are in constant motion as they feed. Upon careful inspection, the bagworms become readily apparent. It is at this time that insecticides are most effective.

Treat with an insecticide labeled for bagworm control as the young larvae emerge. Repeat application again in two to three weeks to catch any later hatches. It is very important to use a large volume of spray material



and adequate pressure to completely cover the foliage and penetrate beyond the outer periphery of the tree or shrub. A wide variety of products are labeled and effective for control of bagworms. Spraying should occur between mid-June through the first week of July.

For more information visit www.ksre.ksu.edu and or visit any River Valley Extension office and pick up bulletin MF 728, Bagworms. This bulletin provides a very comprehensive description of the life cycle of bagworms and effective control measures. As always, be sure to read and follow all label application & safety recommendations when working with insecticides.

## **CONTROLLING NUISANCE MOLES**

The eastern mole is a small mammal that spends most of its life in underground burrows in Kansas. They are seldom seen by humans and are often mistaken for mice or shrews. Moles prefer woodlands, grasslands, and lawns. They construct extensive underground passageways that are temporary, shallow surface tunnels for spring, summer, and fall use and feeding and deeper more permanent tunnels for winter use. Nest cavities are located underground and connect to the deeper tunnels.

Moles have high energy requirements and so they will feed actively day and night year round. Their primary food sources are mature insects, snail larvae, spiders, small vertebrates, earthworms, and infrequently small amounts of vegetation. Earthworms and white grubs are a favorite and a staple of the mole diet.

Moles prefer mellow soils with an abundance of food sources, so our highly managed lawns become an ideal habitat. In nature, they are seldom a problem and are actually beneficial by consuming unwanted insect larvae. However, their upheaval of home lawns creates grass damage and unsightly ridges that make lawn mowing difficult.

We often get the question in the Extension Office on just how to go about controlling nuisance moles. There are several options that one can try and it may take several options to be successful.

Cultural methods are always preferred as a place to start.

As moles like soft soil then home owners may use a roller/ packer to compact the soil and then reduce watering to make the lawn harder to tunnel through. Implementing a pesticide plan to control white grubs is an effective way of reducing the food source. Combining these two things may encourage the mole to find a more desirable place to live.

Repellents are only registered for limited use and are not generally available for the home lawn. The use of mothballs and other "home remedies" are said to be effective, but there is no research to back those claims up, so as extension personnel we must put that in the "urban legend" category.

Toxicants are registered for moles and gophers but to be honest the zinc phosphide grain baits that work on gophers are ineffective on moles as they just do not eat grain. However, there are some newer mole baits available in garden stores that have a size, shape, and texture of a worm and contain an attractant that encourage quick consumption by the mole. These products claim control in 12-24 hours and are likely much more effective than using grain baits.

Fumigants are generally restricted use pesticides, are not available to the average homeowner, and vary by state to state as to whether they are registered. These would likely be most effective in the deep tunnels and likely lost to the atmosphere in the more surface tunnels.

Trapping would appear to be a safe and effective means of mole control. However, the challenge is getting the trap set in an active run and set correctly to activate when the mole passes through. We have mole traps available at the local office to check out, but the success rate over the years has been low. Most of us run out of patience and do not leave the trap in the tunnel for an adequate amount of time to be effective. A homemade trap can be made by simply burying a can or jar with the upper lid in line with the bottom of the runway. Then simply place a board and some soil over the top. When the mole uses the runway he will simply fall into the jar and be unable to climb out.

There are many products and methods out there claiming to offer "mole control" from electromagnetic devices, planting a variety of plants, or to placing chewing gum in the runway. Unfortunately, there is no quick and easy method of mole control and there is no scientific research to back up any of these claims. The most effective means still remains the strategic and multi-faceted approach from the methods above.



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#### RIVER VALLEY DISTRICT "2015 UP-COMING MEETINGS & EVENTS"

DATE	TIME	PROGRAM	LOCATION
April 11	9-3pm	K-State Open House	Manhattan
April 11	9-2pm	K-State Open House	Salina
April 2,9,16,23,30	9:30-11am	Powerful Tools for Caregivers	Colonial Acres-Washington
April 14	2pm	The Caregiver Journey	Belleville Extension Office
May 1	1:30-3pm	Senior Consumer Fraud Program	Apollo Towers-Clay Center
May 9	8:30am-4:30pm	Tractor and Machinery Safety Training	CTI John Deere-Concordia
June 3		Wheat Plot Tours	Republic County
June 10		Wheat Plot Tours	Clay & Washington Counties
August 10		Field Day/Horticulture Research Update	Olathe
August 20-21		Dealing With Drought	K-State Alumni Center
Sept. 29		Agricultural Lenders Conference	Garden City
Sept. 30		Agricultural Lenders Conference	Manhattan
Nov. 12		2015 Kansas Crop Insurance Workshop	Salina

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