Ryegrass and cheat, are weeds best managed in the fall. Typically these weeds start near ditches and field borders. It is important to identify ryegrass because products that work on ryegrass will not work on the brome grasses (cheat). However, if both weeds are present, there is a package mixed product available that offers control of both grass weeds. Identifying features of ryegrass include: waxy, shiny leaves compared to wheat and unlike cheat, ryegrass is hairless.

Herbicide products in mode of action Group 1 (ACCase Inhibitors) and Group 2 (ALS) are used for ryegrass control. In 2013, ryegrass from a wheat field in Southeast Missouri was confirmed cross resistant to these modes of action. Resistance management practices would include properly identifying ryegrass and cheat presence in the field, applications made on small, less than 2-tiller plants and rotating crops. Fall is the best application window. Spring applications could result in poor control if weeds are greater than 2-tiller. These products have specific requirements, so carefully read and follow label directions. Continue to monitor fields for ryegrass escapes after ACCase or ALS herbicide applications.

Fall also means aphids. Two aphid species in particular are greenbug and bird cherry-oat. Greenbug aphids damage 1- to 2-tiller wheat by feeding and injecting
Fall is the Time… continued……

**Fall Forage Management**

This fall, as we approach frost causing temperatures, keep in mind that some forage grass species in the sorghum family can contain high levels of prussic acid in freeze damaged tissue. Sudangrass, sorghum-sudan hybrids, grain sorghum, johnsongrass, and shattercane can develop toxic levels of prussic acid. Other plants include Indiangrass, chokecherry, and elderberry. To help avoid danger to your livestock: 1) Do not graze on nights when frost is likely; 2) Do not allow animals to graze for two weeks following a non-killing frost; 3) Do not graze after a killing freeze for 7 days or when plants are dry; 4) When unsure of levels, have a representative sample tested. Pure stands of legumes such as alfalfa and clover have an increased risk of causing bloat when grazed within two days after a frost.

**For further information on weed identification or aphid scouting contact your local MU Extension Center and ask for IPM guide 1022, “Management of Soft Red Winter Wheat” and M171, “MO Pest Management Guide”. You can also find them on the web at the following links:**


Moisture and good growing conditions this fall has brought on winter annual and biennial weeds. Many of these weeds are in rosette stage of development and cannot be seen from the road. Walk your fields to determine if weeds need to be managed this fall. Fall dormancy is a good timing for alfalfa since there are only a few days in the spring when alfalfa is dormant, and it’s not too wet or windy. You can find more information on weed control options: http://extension.missouri.edu/explorepdf/miscpubs/mp0581.pdf

Anthony Ohmes, Agronomy Specialist, University of Missouri, Jackson, MO.
The 2014 MO rice crop is 95% harvested with average or above yield. Although we don’t have the final yield data I can say we have been blessed with another good crop. It was a “normal year” of ups and downs with no big hiccups out of the ordinary. The extended cool spring and a cool snap in late summer caused a delay in maturity, although 2014 was a bit earlier than 2013. There seemed to be more cold water spots this year, but they were tiny. We had the usual herbicide drift problems however, wind speeds were less than the past two years. Insects were low to normal with stink bugs mounting late. Diseases were low except for sheath blight on some varieties along the southeast side of the Bootheel and blast, primarily CL 151, on the southwest side. Blast was more prevalent in a couple bedded row rice fields due to lack of water. Fertility issues and lodging seemed to be less than past years. I contributed this to our growers paying closer attention to their nitrogen program with many of them following a specific plan such as the UAR N-Star program and others.

MO farmers planted 216,000 acres of rice in 2014 with 210,000 acres of long grain and 6,000 acres of medium grain. Diverse varieties fit specific conditions and situations in ten MO counties. Some growers want short, some tall, some early, some later. Some want disease resistance and some want the Clearfield weed trait, while some want less expensive seed so they can plant thicker. Variety selections were divided between ten varieties. About 50% of MO farmers choose hybrid rice for silt soils where they often see a yield increase over conventional varieties and they like the disease package. Others prefer varieties that stand and grade better giving them a premium price.

Southeast Missouri is the beginning of the Mississippi Delta so soils vary like those below us from coarse sand to sharkey clay. About 70% percent of our soils are silt with a clay base, 25% heavy clay with only 5% sandy. Over 90% of our rice is in a conventional flood system but with these soil differences we have some successful bedded row rice and less than 1% in pivot irrigated rice.

2014 Farm Bill Meeting
For the latest information on how the new crop programs in the Farm Bill will work on your farm, plan to attend.

2014 Farm Bill Meeting
Monday, November 10, 2014
Miner Convention Center,
Miner, MO
10:00 a.m. Program Begins
Pre-register by Nov. 5 at http://
muconf.missouri.edu/farmbilleseminar or
contact: David Reinbott at 573-545-3516 or reinbottld@missouri.edu

Rice farmers in Missouri have increased their interest in growing rice on beds, a system referred to as “Bedded-Row Rice”. University of Missouri has been researching bedded-row rice since the early 1980s. With the introduction of new technology, new varieties and herbicides for weed control, farmers are now seeking benefits from the rotational option provided by bedded-row rice. Compared to conventional flooding rice production systems, bedded-row rice is a natural fit for rotation and cover crops. The ease in rotating to other bedded crops such as corn, soybeans and cotton provides a significant economic advantage to the producers. The challenges lamented by producers are the difficulty in weed control, irrigation management and the lack of information on the system.

Sam Atwell, Agronomy Specialist, University of Missouri, New Madrid, MO
How Much Nitrogen Should I Apply?

Nitrogen is the nutrient farmers tend to apply in the largest amount, it is also the most costly, most susceptible to misuse and losses. It is important for a producer to have a good knowledge of how much nitrogen to apply. Not apply the appropriate amount can be costly, as applying too little can result in low yields while applying too much can cause lodging, delay harvest, increase pest and disease pressure and off-site pollution.

But the question still remains how do you know how much? I believe that there is a correct N rate for each field, just like I believe there is a correct seeding rate for each field. I also believe that these rates also vary from year to year based on environmental condition. With seeding rates, once the seeds are in the ground we can’t go back and increase or decrease the rate if conditions for the growing season change and favor a lower or higher rate. So, for seeding rate, I will settle for the rate that gives the best result most consistently from year to year. But, regarding N rate we can make adjustment throughout the growing season. So we do have some flexibility here. I would say producers now and in the future will need to adopt methods that increase nitrogen use efficiency and profitability at the field and farm level. Every farmer is aware that grain yields vary from year to year, but most are unaware that the amount of N that environment delivers to the crop for free varies also. The N rich strip (NRS) concept can tell you how much N the environment delivers. In my opinion, this is the best way to figure out your N rate for each field. How is it done? You create a strip with sufficient N applied pre-plant or soon thereafter in each and every field, and use the difference between the NRS and your conventional practice to determine how much N the environment delivers and whether or not you should apply additional fertilizer N. For example, in wheat, if you cannot see the difference between the NRS and your conventional practice (visual interpretation from January to March), you are unlikely to obtain any benefit from mid-season fertilizer N. In other words, what the N rich strip does, is it serves as a guide to how much top dress N should be applied to maximize yields, taking into account how much the environment delivers for free. For more information on the Nitrogen rich strip visit Oklahoma State University NUE website: [http://www.nue.okstate.edu/](http://www.nue.okstate.edu/). If you are interested in utilizing N rich strip in your fields next year feel free to contact AJ foster by phone at 573-568-3344 or email fosteraj@missouri.edu.

AJ Foster, Agronomy Specialist, University of Missouri, Bloomfield, MO.
EPA Registers New Nematicide Alternative

The U.S. Environmental Protection Agency is registering a new active ingredient, fluensulfone, a non-fumigant nematicide that provides lower-risk chemical control of nematodes than methyl bromide and other Restricted Use soil fumigants. Under the Montreal Protocol, EPA has phased out methyl bromide because its use depletes the ozone layer.

Nematodes are difficult to control and can cause significant economic damage by reducing crop yield and quality. Fluensulfone is a nematicide for pre-plant, bare-soil application on fruiting vegetables and cucurbits – cucumbers, melons, squash, tomatoes, okra, eggplant and peppers.

Of the seven main alternatives to fluensulfone used in the last five years, six (including methyl bromide) are soil fumigants and the seventh is a carbamate. All seven are Restricted Use Pesticides, which may pose a greater risk to human health than fluensulfone.

Restricted Use Pesticides require special applicator training and certification, reporting and record-keeping and additional restrictive labeling to protect against human exposure. Soil fumigants can be labor intensive, requiring tarping and posting of fields.

With its evaluation, EPA confirms that when used in accordance with the newly approved label, fluensulfone meets the safety requirements in the law.

The EPA’s final regulatory decision document is available in EPA docket EPA-HQ-OPP-2012-0629 at: http://www.regulations.gov/#!home.

Provided by Cathy Milbourn, EPA; Milbourn.cathy@epa.gov

Midwest Winter Vegetable Production Conference

Monday & Tuesday, November 10 and 11, 2014 *

Continental Banquet Center 2728 North Rangeline, Joplin, MO 64801
To register go to webbcityfarmersmarket.com

Monday, November 10 (8:00 a.m.)

For beginners (high tunnel sites, choices of equipment, costs and returns) or for experienced high tunnel growers (high tunnel maintenance and rehabbing equipment and long term soil management); winter production crop choices and planning for our region; maximizing high tunnel production; high tunnel heating alternatives; low tunnel production; and high tunnel greens production or high tunnel strawberry production

Tuesday, November 11 (9:00 a.m.)

Managing and record keeping for maximum production; food safety update; post harvest handling; panel – marketing opportunities (schools, restaurants and grocery stores.) A farm tour will follow. Location will be determined closer to conference time.
Food Safety Modernization Act

The comment period on the revised Food Safety Modernization Act is now open until December 15. If you are interested in the National Sustainable Agriculture Coalition’s review and understanding of the rules, check out their website at http://sustainableagriculture.net/fsma/. It will give you the background of the rules and let you see if you will be affected or not. Those engaged in direct marketing, or marketing of local foods to wholesale outlets, should look through this website and dive into these rules.

High Tunnel Tour

Join the Oregon County Extension Center and NRCS as they sponsor a tour of 3 local high tunnels.

Monday, November 3, 2014

Start time: 9 am

- See how seasonal high tunnels extend the growing season for vegetables and other specialty crops.
- Visit with the high tunnel owners.
- Learn about available cost share assistance.

To sign-up for the tour or for more information contact: 417-778-7490

An equal opportunity/ ADA institution USDA is an equal opportunity provider & employer.

Oregon State University’s Center for Small Farms also has information, including how they commented on the first round of rules that were proposed in late 2013: http://smallfarms.oregonstate.edu/node/175900.

The Organic Trade Association has comments here: http://www.organicnewsroom.com/2014/09/ota_encouraged_by_fda_revision.html.

The National Sustainable Agriculture Coalition believes: “Everyone has a role in ensuring safe food from field to fork. The Food Safety Modernization Act (FSMA) is the first major overhaul of our nation’s food safety practices since 1938, and it includes new regulations for produce farms and for facilities that process food for people to eat. It represents some big changes to our food system – and it is extremely important for the Food and Drug Administration to get these regulations right.” http://sustainableagriculture.net/fsma/

Mary Hendrickson, Advisor - Sustainable Agriculture, University of Missouri, Columbia, MO

Watermelon Meeting

American Legion
Kennett, MO
Wednesday, December 3, 2014

Lunch is provided through our sponsors. For more information or to let us know you will attend call: 573-686-8064
Thank you to all consigners and buyers!

A short, but successful sale was recorded for the 75th Southeast Missouri All-Breed Performance Tested Bull Sale on October 24. Auctioneer Jack Lowderman herded 15 bulls through the ring in a mere 25 minutes bringing an average price of $4487.

The sale included 1 Simmental, 4 Charolais, and 10 Angus bulls. The top price bull was consigned by Rolling Fields Cattle Company, Potosi at $6500. Other consignors to the sale included Roger Eakins, Jackson; Abbott Charolais, Poplar Bluff; Birk Beef Cattle, Jackson; Matthew Brandt, Fults, IL; Turner Farms, Belgrade; and Triple V Farms, Perryville.

Buyers arrived as early as three hours prior to sale time to study EPD’s and assess visual appraisal. As there were only 15 bulls, buyers needed to be primed and ready to bid. Bulls ranged from 374 – 646 days of age and had an average yearling weight of 1294.5 pounds. Over half of these bulls were Show-Me-Select Qualified which places major emphasis on birth weight and calving ease EPD’s.

Producers have done an excellent job at consigning top quality bulls enabling buyers to find “right-fit” animals that will increase the quality of calves. Bulls must be in the top 50 percentile for any 2 out of 5 EPD traits of calving ease or birth weight, weaning weight, yearling weight, milk and marbling. Bulls must also pass visual and soundness evaluation. More information on required performance and confirmation can be found at semobeef.com. If you have an interest in consigning bulls to the sale or have any other questions contact a livestock specialist or the sale manager:

Darrell Aufdenberg, Sale Manager 573-270-6755
Kendra Graham, Livestock Specialist (St. Francois County) 573-756-4539
Erin Larimore, Livestock Specialist (Cape Girardeau County) 573-243-3581

The next sale will be held **March 27, 2015**

Erin Larimore, Livestock Specialist, University of Missouri, Jackson, MO

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<th>Breed</th>
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**Soil Health Clinic**

Wednesday, November 5, 2014
Miner Conference Center, Miner, MO

(Next to the Drury Inn – E. Malone & I-55, Exit 67). CEU’s applied for.

Registration: 8:00 a.m.  Program: 9:00 a.m. to 4:00 p.m.

Pre-register by contacting the Stoddard County SWCD office at 573-624-5939, Ext 3.
Missouri Rice Study

Since Southeast Missouri is the beginning of Mississippi Delta, our soils vary like those below us from coarse sand to Sharkey clay. About 70% percent of our soils are silt with a clay base and about 25% heavy clay with only 5% sandy. Over 90% of our rice is in a conventional flood system but with these soil differences we have some successful bedded row rice and less than 1% pivot irrigated rice.

Rice farmers in Missouri have increased their interest in growing rice on beds, a system referred to as “Bedded-Row Rice”. University of Missouri has been researching bedded-row rice project since the early 1980s and Dr. A J Foster MU Agronomist is expanding it. With the introduction of new technology, new varieties and herbicides for weed control, farmers are now seeking benefits from the rotational option provided by bedded-row rice. As opposed to conventional flooding rice production systems, bedded-row rice is a natural fit for rotation and cover crops. The challenges lamented by producers are the difficulty in weed control, irrigation management and the lack of information on the system. Recently, there is a big push for the use of cover crops as a means to improve soil health and weed control in crop production systems. These benefits are being explored in MO with crop rotation systems that include bedded-row rice. MU research will use field scale and small-plot research on the management of bedded-row rice - soybean rotation to monitor soil health, weed management strategies and economics. Bedded-row rice crop rotation systems have potential to expand rice acreage further north into areas and fields that were not previously considered suitable for rice production.

**Project Outcomes** - This project aims to quantify challenges and opportunities of converting conventional flooded rice to bedded-row rice. Short term: Producers will have increased knowledge and awareness of the advantages and disadvantages; increased understanding of how to convert flooded to bedded-row rice; enhanced skills for improving bedded systems with cover crops. Medium Term: Producers will evaluate their specific conditions and capabilities for converting from flooded to bedded-row rice; incorporate cover crop into the rotational crop system; modify equipment to allow for the conversion; add bedded-rice to their crop rotation.

Long Term: Improve soil health, crop water use efficiency and farm profitability.

The ability to rotate and grow cover crop comes with numerous economic and environmental benefits. For centuries, crop rotation has been recognized as a means to increase crop yield, lower pest management cost, fuel cost, labor cost, provide more flexibility in utilizing irrigation system, lower water use, and allow farmers to be more resistant to economic loss due to fluctuating commodity prices. In addition, incorporating cover crops into a rotation system can enhance soil health and reduce population of specific weeds, insects and diseases.

In flooded rice production system, levee building, maintenance, lost space and harvest problems related to levees are principal challenges associated with rotation from flooded to non-flooded crops.

**Impact** - This project will impact rice and non-rice producers across the region by expanding rice acreage into soils not normally suitable for rice and other crops acreage into traditional monoculture rice fields. Thus, the main impact of this project is the increased opportunity for crop rotation into a traditional monoculture production system. Impacts will include risk reduction and empowerment of farmers with greater tools for decision making on their operation such as the option for ground versus air equipment for pest management in all their crops. In addition, including rice in a crop rotation system can have significant benefit on soil health and weed control. The results of this study will not only benefit current producers, but also impact the future generation of producers. The rice growing region will be impacted first and expansion could come with shorter season cultivars. System adoption could be impeded by inadequate, difficult and more expensive weed control options for some growers under certain conditions.

AJ Foster, Agronomy Specialist, University of Missouri, Bloomfield, MO
On October 1 we welcomed a new faculty member to Southeast Region. Erin Larimore joins extension as a Livestock Specialist headquartered in Cape Girardeau County.

Erin has a Bachelor of Science degree in Animal Science, from University of Missouri – Columbia. She is a recent graduate of South Dakota State University, with a Master of Science degree in Animal Science and a specialty in Reproductive Physiology.

Erin’s work experience includes serving as a Graduate Research Assistant at South Dakota State, teaching, conducting lab sessions and providing experiences for undergraduate students. She has taught artificial insemination school activities for extension audiences and students; and conducted events at field days. She had a reproductive management internship at Select Sires.

In addition to being an author or co-author on several research publications, she has also made presentations at national and international professional society meetings in Indiana, Michigan, Canada and Japan.

On November 10 we welcome Joel Tatum, a new faculty member to Southeast Region. Joel also joins extension as a Livestock Specialist. He will be headquartered in Wayne County.

Joel has a Bachelor of Science degree in Agriculture, and a Master of Animal Science degree, both degrees from Murray State University, Murray Kentucky.

Joel’s work experience includes working with an alternative energy company; and serving as a store manager and a training manager for Orscheln Farm and Home stores in 5 locations in Missouri. In addition, Joel served as an assistant herd manager on a large Angus cow farm in north Missouri. While at Murray State Joel was assistant barn manager at the university’s equine center.

I know you will join me in welcoming both Erin and Joel to MU Extension in Southeast Region.

Although he is not new to Southeast Missouri we want to recognize Kevin Anderson as the new Ag Business Specialist now headquartered in Reynolds County, as of November 1.

Kevin has transferred from Butler County where he served as a Business Development Specialist. He has an Associate of Arts degree in Management from the University of Maryland; a Bachelor of Science degree in Aeronautics from Embry-Riddle Aeronautical University; and a Master of Business Administration degree from William Woods University.

Kevin’s recent work experience has been with University of Missouri Extension, headquartered in Butler County. He served as the coordinator for MU’s Telecommunication Community Resource Center in Poplar Bluff. And for the past 3 years he has worked as a Business Development Specialist, working in 8 SE Region counties with businesses, companies and communities providing training and consulting.

Although he will be missed in the Butler County office he will continue to be an asset to Southeast Missouri as he continues to provide business support to agriculture producers and agribusinesses.
Future Meetings & Events -

High Tunnel Tour - Monday, November 3, 2014. To register for this Oregon County program and for more information call 417-778-7490.

Soil Health Clinic - Wednesday, November 5, 2014. Miner Conference Center, Miner, MO. Pre-register by calling 624-5939


Farm Bill Meeting - Monday, November 10, 2014. Miner Convention Center in Miner, MO. 9:30 a.m.

Watermelon Meeting - Wednesday, December 3, 2014. American Legion in Kennett, MO beginning at 8:30 a.m. Please RSVP at 686-8064 if you plan to attend.

Commodities and markets - http://extension.missouri.edu/scott/crop-budgets.aspx