

Missouri Ag News

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USDA Disaster Assistance Programs

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Crops	Horticulture
Engineering	Livestock
Forestry	Other



Agriculture Secretary Tom Vilsack announced that eligible farmers and ranchers can now sign up for U.S. Department of Agriculture (USDA) disaster assistance programs restored by the 2014 Farm Bill.

Depending on the size and type of farm or ranch operation, eligible producers can enroll in one of four programs administered by the Farm Service Agency. The Livestock Forage Disaster Program (LFP), and the Livestock Indemnity Program (LIP) will provide payments to eligible producers for livestock deaths and grazing losses that have occurred since the expiration of the livestock disaster assistance programs in 2011, this includes 2012, 2013, and 2014.

The Emergency Assistance for Livestock, Honeybees, and Farm-Raised Fish Program (ELAP) provides emergency assistance to eligible producers of livestock, honeybees and farm-raised fish that have suffered losses because of disease, severe weather, blizzards and wildfires.

Enrollment for the Tree Assistance Program (TAP), which provides financial assistance to qualifying orchardists and nursery tree growers to replant or rehabilitate trees, bushes and vines damaged by natural disasters.

Producers signing up for these programs are encouraged to contact

their local FSA office for information on the types of records needed and to schedule an appointment. Taking these steps in advance will help producers ensure their application moves through the process as quickly as possible.

Supporting documents may include livestock birth records, purchase and transportation receipts, photos and ownership records showing the number and type of livestock lost, documents listing the gallons of water transported to livestock during drought, etc.. Crop records may include purchase receipts for eligible trees, bushes, vines, seed and fertilizer purchases, planting and production records, and documentation of labor and equipment used to plant or remove eligible trees, bushes, or vines.

Producers have three to nine months to apply depending on the program and year of the loss. Details are available from any local FSA office.

For more information, producers may review the 2014 Farm Bill Fact Sheet, and the LIP, LFP, ELAP and TAP fact sheets online, <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=diap&topic=landing> or visit any local FSA office or USDA Service Center.

David Reinbott, Agronomy Specialist, University of Missouri, Benton, MO.

Disease Control for Missouri Rice 2014

Disease pressure was low last year but, we better not let our guard down in 2014. Rice blast is one of the earliest known foliar diseases and it was hard to find in 2013. The blast fungus survives in various ways but often is seedborne. To reduce seedborne blast, research suggests Dynasty fungicide (azoxystrobin) at a rate above 0.75 fl oz per cwt seed as adequate. However, note that this seed treatment will not guarantee protection later in the season. We encourage field scouting, deep flood management, and foliar fungicides as needed. In blast-prone fields (lighter soils, tree-lined, low-lying, etc.), plant a hybrid or resistant variety. This takes care of the disease for the most part. Where susceptible varieties are planted in the wrong field, keep a deep flood of 4 inches on them at all times after initial flood. Fungicides work best if applied twice for blast. The first application should be made at late boot to beginning panicle tip emergence and the second when panicles are 50-75% out of the boot on most of the main tillers. Higher rates are best. If the field is very uniform and disease potential is low to moderate the best timing would be when panicles are emerging with about 35% of the length out of the boot on most of the main tillers. In uneven maturing fields, it is better to spray based on the earlier maturing parts of the field if disease pressure is substantial, and these types of fields would be almost automatic for two applications. Again, proper flood management will really help with blast management and improve performance of the fungicides.

Sheath Blight was low in MO last year too. For many years now, strobilurin fungicides have been used to manage sheath blight disease of rice and they have been the backbone for managing fungal diseases of rice in Southern rice producing states. Current fungicides are most effective under low or moderate disease pressure. The challenge comes when varieties are highly susceptible and environmental conditions are very favorable for disease

development. When we have sheath blight we recommend our producers use strobilurin+propiconazole fungicide mixtures to combat sheath blight and the smuts.

Smuts were bad in some fields back in 2011. Fields sprayed properly with propiconazole-containing fungicides worked to minimize these diseases. In some cases, too much nitrogen was applied to affected fields and in other cases the fungicide was applied too late in the booting stage for maximum effect. The rice smuts cannot be scouted for, so preventive treatment with propiconazole containing fungicides is the only chemical control option. Fields with a strong history of the smuts, or those that have been knowingly over-fertilized with nitrogen are most at risk. Hybrid and medium grains are very unlikely to benefit from fungicide applications. Fungicides should be applied if your effective scouting indicates more than 35%

Scout early and often and plan ahead for effective disease control in rice.

positive stops in susceptible varieties and more than 50% positive stops in moderately susceptible varieties. Timing and rate of the fungicides to prevent the smuts are critical. The fungicides need to be applied at early to late boot but before heading begins on any plants in the field. Earlier is usually better in the booting stage, especially for false smut. The minimum rate of 6 fl oz tilt or tilt equivalent is now required for most effective results under current conditions, but no application will provide 100% control. In the past, we achieved up to 95% reduction in kernel smutted kernels using propiconazole with exact timing and rate but only about 65% for false smut (at best). Where false smut is moderate, 65% reduction is noticeable, but where it is heavy, control is difficult.

Sam Atwell, Agronomy Specialist, University of Missouri, New Madrid, MO

Winter Wheat Increases Soil Organic Carbon & Total Nitrogen

A Study was conducted by researchers at the University of Arkansas (Motschenbacher et al. 2014) to assess the effect of long-term crop rotation, tillage and fertility effects on soil carbon and nitrogen in dry seeded, delayed flood rice production systems. The experiment was conducted from 1999-2010 (11 years) and consisted of 96 plots each representing a tillage – fertility-rotation treatment combination. Six crop rotation systems were evaluated, continuous rice [R], rice-soybean [RS], rice- corn [RC], rice (winter wheat) [R(W)], rice (winter wheat)-soybean (winter wheat) [R(W)S(W)], and rice-corn-soybean [RCS]. All rotations started with rice during the first year of the study and followed the respective rotations in successive years. For example, RCS started with rice followed by corn the next year followed by soybean and then back to rice. The conventional till treatment, crop residues were incorporated into the soil by disking one to two months following harvest and prior to spring planting. In the no till treatment, crop residues were left on the surface after harvest and were not manipulated by any means prior to planting in the spring. Fertility treatments were applied based on soil analyses from the study site.

The study demonstrated that SOC and soil TN

contents in the top 10 cm were affected by the tillage, rotation and/or time after 11 years of consistent management. The main findings from the 11 years' study are summarized below:

- Soil TN increased under No-till but SOC was not affected by the tillage method.
- Soils with high residue input crop management rotation system that included double cropped winter wheat had greater increase in both SOC and TN content over the 11 years.
- TN increased in rice-soybean, but did not differ among R, RC and RCS crop management systems.
- The primary difference in SOC and TN content among the different treatment combinations was the presence or absence of a wheat crop.

More detail on the methodology and results of this study can be found in the article at <http://cdn.intechopen.com/pdfs-wm/45823.pdf>.

A.J. Foster, Agronomy Specialist, University of Missouri, Bloomfield, MO.

Motschenbacher, J. M., Brye, K. R., Anders, M. M., Gbur, E. E., Slaton, N. A., & Evans-White, M. A. (2014). Long-Term Crop Rotation, Tillage, & Fertility Effects on Soil Carbon & Nitrogen in Dry-Seeded, Delayed-Flood Rice Production Systems

Free Climate Data

Farmers have a new set of free tools to help them make crop decisions. The websites are important because access to historical climate data helps farm operations that depend on favorable temperatures and precipitation patterns, Massey says. He and Guinan recently presented the information at MU's Crop Management Conference in Columbia. To explore several weather data links go to <http://extension.missouri.edu/news/DisplayStory.aspx?N=2084>.

Wheat Development: Finally Progressing

Wheat stem elongation phase of development is progressing. Below is a photo of a wheat head above first node (Feekes 6). Running over wheat, grazing and auxin (Group 4) herbicides can injure the growing point at this stage and beyond. Some areas of our region are probably in second node (Feekes 7) which will develop approximately one week after Feekes 6 followed closely by a third node to which

flag leaf emergence (Feekes 8) will begin. The flag leaf is the last leaf to emerge in wheat development and contributes approximately 75 percent of photosynthate needed for maximum grain yield. Scouting and managing for disease and insect damage is critical at this stage of development through flowering (Feekes 10.51). Flowering begins approximately 3 -5 days after head emergence and is the only timing for suppression of scab (*Fusarium* head blight) with labeled fungicides.

Anthony Ohmes, Agronomy Specialist, University of Missouri, Cape Girardeau, MO.



Wheat First Node

Challenging Year for Alfalfa Weevil Control

Spring for alfalfa growers in southern Missouri usually means it is time to scout fields for alfalfa weevil, an insect that consumes large amounts of foliage from fields in a short time. Extension specialists this year have received numerous calls that the standard insecticides that have worked for many years have not done as good of a job this time. We believe this may be due to a combination of cool weather and possible resistance. Weevils have been operating at full throttle and at typical calendar dates, but the weather has been cooler than normal which may influence some of the products used. Resistance has not been confirmed but is one possibility that may compound the problem. Some farmers are beginning to harvest instead of spraying. Though it's best not to harvest within 7-10 days of the normal 1/10 bloom period, the issue with early harvest in the spring may not be as critical as a late harvest in the fall.

If resistance is an issue, one solution is to rotate chemistries using varied modes of action instead of using the same product over and over. Another aid is to use newer chemistry that breaks resistance

cycles. At a Lawrence County alfalfa tour in April, a spray demonstration was observed where a strip in the field was sprayed 5 days prior with a tankmix of 1 pt/acre of Lorsban and 3 oz/acre of Mustang Maxx. The remainder of the field was sprayed ten days prior with the newer product from DuPont called Steward insecticide at the 7 oz/acre rate, a relatively new chemistry now labeled for alfalfa. It was quite obvious from the edge of the field the damage was significant using the more conventional products and almost nonexistent with Steward. A few weevils were found on the Steward side with a sweep net but less compared to the numbers found in the Lorsban/ Mustang Maxx side. Further research is needed to confirm these findings in replicated trials.

Tim Schnakenberg, Agronomy Specialist, University of Missouri, Galena, MO.



Alfalfa Weevil, *Hypera postica* courtesy Kansas State University Entomology Department.



FREE - Pesticide Collection - FREE

FOR MISSOURI FARMERS and HOUSEHOLDS

Saturday - May 31, 2014

9am-4pm

The following items will be accepted:

- **Pesticides** • **Fungicides** • **Rodenticides** • **Insecticide** •
- Herbicides** • **De-wormers** • **Fly Tags** • **Fertilizers**
- containing herbicides / pesticides**



Perry County Road and Bridge Department

4803 N. Highway 51 in Perryville, MO 63775

When transporting waste pesticides to a collection event, it is important to remember these are hazardous wastes. Harm to human health and the environment is possible if the described procedures are not followed carefully. Remember to always read the product's label for specific instructions.

Safety Precautions

- Wear protective gloves such as nitrile or chemical resistant gloves when handling waste pesticides.
- Avoid bringing children or pets to the collection site.
- Do not smoke while handling or transporting waste pesticides.

Procedures

- Keep waste pesticides in their original containers when possible.
- Do not mix unwanted pesticides with other materials such as used motor oil or antifreeze.
- Label materials that are not in their original containers when known.
- If you have pesticides with unreadable labels, please **save any portion of the label** to help identify the material to assist with disposal.
- Check all containers for tightly sealed lids to prevent splashing while starting and stopping during the drive.
- If the lid will not secure tightly or if the container is leaking, then this container should be placed within a larger, plastic container with a tight-fitting lid. A nonflammable absorbent, such as clay-based cat box filler should be packed around the waste pesticide to absorb any possible leaks. Label the outside container with the contents.
- Place waste pesticides upright in a cardboard box and secure so that they do not tip over in transport.
- Transport waste pesticides in the back of a pickup truck, a trailer or in a car trunk. If you must transport the materials in the passenger compartment, make sure there is adequate ventilation. Do not smoke while transporting waste pesticides.
- Keep flammables out of direct sunlight and away from sources of heat, spark, flame or ignition.

The hazardous waste contractor will unload the waste pesticide from your vehicle at the waste pesticide collection site. Please stay in your vehicle until the contractor asks for your assistance.

FOR MISSOURI RESIDENTS ONLY Pesticides from businesses, pesticide production facilities, pesticide distributors, pesticide retailers and the like cannot be accepted. For questions contact: Dennis Hansen, Missouri

Flooded Corn Fields

Following the rain, corn fields may be experiencing some ponding soil conditions. The concern with flooding or saturated soils is oxygen depletion. Small seedlings are most vulnerable and information on germinating seeds is limited. In either case, survival will be dependent on length of flood, air temperatures, and in the case of germinating seeds to some level - corn hybrid. Germinating and emerging corn requires oxygen. Soil oxygen in flooded fields is depleted within approximately 48 hours. In general, air temperatures below 77 degrees F will aid in survival during the flooded period of time. Research indicates emerged corn, prior to 6th leaf stage, can survive up to 4 days when air temp is less than 77 degrees F. As air temps increase, this time period can be reduced from 4 days to 1 day. In addition to oxygen depletion, concerns associated with flooding are seed rots, seedling blights and crazy top.

Once water recedes, growth will resume approximately within 3 to 5 days, this is the time to begin evaluating corn stand and plant survivability. Healthy radicle root and coleoptile should be white to cream color. Conduct stand counts and utilize replant decision guides to make a determination whether to keep the existing stand.

Refer to MU guide 4091: "Corn and Soybean Replant Decisions" at the following link: <http://extension.missouri.edu/p/G4091> for more information.

A helpful resource is Iowa State's IPM article: "Corn Survival in Flooded and Saturated Fields" at the following link: <http://www.ipm.iastate.edu/ipm/icm/2007/4-30/flooded.html>.

Anthony Ohmes, Agronomy Specialist, University of Missouri, Cape Girardeau, MO.

Missouri Century Farms Program

If your farm has been in your family since December 31, 1914, you can apply to have it recognized as a Missouri Century Farm. To qualify farms must meet the following guidelines:

1. The same family must have owned the farm for 100 consecutive years or more as of Dec. 31, 2014.
2. The line of ownership from the original settler or buyer may be through children, grandchildren, siblings and nephews or nieces, including through marriage or adoption.
3. The present farm shall consist of no less than 40 acres of the original land and shall make a financial contribution to the overall farm income.

For applications received by May 1, a \$65 fee covers the cost of a certificate, farm sign, and booklet for approved applicants. If the application is received between May 1 and May 15, the cost is \$75. Applications must be postmarked by May 15, 2014 to be considered.

For application forms and more information you can visit any local extension center home page or go to the Missouri Century Farms Web site. You can also contact the MU Extension Publications department at 1-800-292-0969.

<http://extension.missouri.edu/>

<http://extension.missouri.edu/centuryfarm/>

Alfalfa Weevil Management

Alfalfa weevils lay eggs in fall, winter and spring. Larvae grow through four stages (instars). After enough degree days above 48 have been collected egg hatch begins and larvae move up alfalfa stems to feed inside the plant terminal. Third and fourth instar stages feed on foliage outside terminal, with a large amount of foliage possibly consumed leaving a skeletonized stem.

Scouting should begin in early April and continue to scout as feeding gets progressively more intense through April. Scouting with a sweep net will help identify presence of larvae, however, the most effective technique is to collect ten alfalfa stems in five locations in the field and tap them into a white bucket. Handle stems carefully when clipping so larvae do not fall to the ground. The economic threshold is an average of one or more larvae per stem and 30% terminal feeding damage.

Early harvest is an option for management, however it is best for the crop to not harvest earlier than 10 days prior to normal growth stage of 1/10 bloom. Harvest could be done by

cutting for hay or grazing. University of Missouri research found that 98% of weevils can be reduced with mechanical harvest and a 90% reduction by grazing. If grazing, be cautious of bloat and damage to the alfalfa crowns from trampling during wet conditions.

If insecticide treatment is warranted there are numerous registered products in Missouri. It is best to use a lot of water (20 gallons per acre) for ground spray rigs. Be sure to read all label restrictions and preharvest intervals. There have been some reported control failures with standard treatments of chlorpyrifos products and pyrethroid products in Southwest Missouri. Entomologists have attributed some control failure to cool weather however there are some concerns with increased tolerance to these products. In Southwest Missouri, indoxacarb (Steward) has had good activity where the standard pyrethroid and chlorpyrifos products failed.

Anthony Ohmes, Agronomy Specialist,
University of Missouri, New Madrid, MO

Update National Farmers Market Directory

USDA's Agricultural Market Service (AMS) manages the National Farmers Market Directory project and is launching its annual updating process. The Directory is voluntary and relies on self-reported input from farmers market managers, representatives from state farmers market organizations, and other key market personnel. It is one of the most comprehensive and up-to-date sources of information about farmers markets nationwide. Market listings can be updated online.

AMS just opened the directory for this year's updating. This is an opportunity for local managers and any new first time marketing managers, to add or update their listings in time for the peak market season.

A [press release](#) was issued that provides additional information and includes this year's publishing schedule. The complete directory will be released for National Farmers week, during the first week of August. USDA also sent out [a blog](#), Farmers Market Managers: Update or Add Your Listing to the National Directory; you can include these in your communications if you wish.

Corn Nitrogen Management

Feeding corn when it needs it spreads your risk. The properties of nitrogen lend it to potential loss from leaching, volatilizing and/or denitrifying. This instability will vary with soil properties such as CEC (Cation Exchange Capacity) and OM (Organic Matter) and greatly influenced by rainfall. Nitrogen holding capacity will vary with these two soil properties and we cannot predict the exact weather pattern for the season even if your soil could hold all possible nitrogen. Peter Scharf presented his research on nitrogen timing at the 2013 Regional Corn Meeting (<http://extension.missouri.edu/scott/agriculturalpresentations.aspx>). The take home message from his presentation was corn nitrogen should be available at the time of greatest need and that timing is not preplant. The timing of greatest response is once corn enters rapid elongation (V6) through early

reproductive stages. Actual percentage of nitrogen utilized by developing corn from VE to V5 (first month of development) is very small in respect to the rapid growth period that follows. Splitting nitrogen spreads risk and enables one to make adjustments as the season progresses to account for weather. Avoid applying more than 1/3 of total N for yield goal as a preplant or pre application. Some may be able to get by with more than this upfront but are at a higher risk of applying more nitrogen for the season. All corn will need to continue to be evaluated as it develops, if weather is conducive for in season nitrogen loss and corn is showing signs of nitrogen stress, a late season application (up to R2) may be necessary.

Anthony Ohmes, Agronomy Specialist, University of Missouri, Cape Girardeau, MO.

Valuing Manure and the Environment

July 8-9 2014

Springfield, Missouri

Ozark Empire Fairgrounds

This Expo provides side-by-side comparisons of agitation and application equipment to help determine which best meets an individual's needs. The exhibitor areas provide an opportunity to connect with individuals from the Midwest. Attendees will appreciate the access to educational seminars, in-field demonstrations and exhibitor booths. Join the quality, innovation, and expertise that will be exhibited at the North American Manure Expo,



Manure Storage Agitation Demo (pasture-based, concrete tank agitation, lagoon agitation)

Wastewater Treatment (anaerobic digestion, nutrient management plan, field mapping)

Sessions – Managing Manure as Fertilizer; Application Equipment and Operation; Manure Value and Optimization; Environmental Protection; New Methods of Liquid and Solid Manure Application

Admission is FREE but registration is required. Go to <http://www.agannex.com/manure-manager/manure-expo/> registration to register.

Nutrient Management Planning Course

Thursday, May 8, 2014

9:00 a.m. - 3:30 p.m.

Delta Fisher Research Center

Portageville, MO

The primary goals of this course include:

- ◆ Train people on the **use of WebSNMP** for delineating fields and setback features and making farm maps;
- ◆ A refresher on using Purdue's Manure Management Planner for developing a nutrient management plan;
- ◆ Instructions on using the **Missouri Web-based Document Generators** to create your nutrient management plan.

We will have laptop computers available for all participants. You can bring your own laptop if you prefer. Lunch will be provided.

We will apply for 5.0 Nutrient Management and 1.0 Soil and Water Continuing Education Credits for Certified Crop Advisors. The cost is \$75. For questions about registering for the course contact Hannah McClure (McClureH@missouri.edu; 573-884-6311).

This course is sponsored by University of Missouri and Missouri NRCS.

UNIVERSITY OF MISSOURI
 Extension

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Future Meetings & Events -

Nutrient Management Planning Course May 8, 2014. Delta Fisher Research Center, Portageville, MO. Contact Hannah McClure at 573-884-6311 for more information.

Free Pesticide Collection, May 31, 2014. Perry County Road and Bridge Department, 4803 N. Highway 51, Perryville, MO.

Valuing Manure and the Environment July 8-9 2014. Ozark Empire Fairgrounds in Springfield, MO. Register at <http://www.agannex.com/manure-manager/manure-expo/registration>.

Missouri Young Farm/Young Farm Wives Tour July31-August2, 2014. Dexter High School, Dexter, MO. Contact Gary Wyman for more information gwyman@dexter.k12.mo.us.

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

2014 Farm Bill - <http://extension.missouri.edu/scott/Farm-bill.aspx>