

Missouri Ag News

A Publication of University of Missouri Extension - Southeast Region

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September 1, 2013

Soybean

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Look for the color code to find articles related to the following.

Crops	Horticulture
Engineering	Livestock
Forestry	Other



Sudden Death Syndrome

I have been receiving several calls throughout the region about symptoms caused by Sudden Death Syndrome (SDS). SDS is caused by the soil borne fungus *Fusarium solani*. Soil borne pathogens enter into host plants through the root system.

Therefore, foliar fungicides would not control SDS.

Sudden Death Syndrome foliage symptoms begin in the upper canopy after reproductive development begins. Symptoms include yellow blotches between leaf veins that turn reddish brown in the center. The leaf veins will stay green. Leaf tissue will dry and leaves will curl upwards. Typically SDS is found in patches in a field. Similar symptoms can be caused by stem canker and brown stem rot, but neither of these diseases are common in Missouri.

Conditions favoring Sudden Death Syndrome include high soil moisture during vegetative growth stages and frequently associated with below normal temperatures at

or near bloom. SDS may be found in both upland and river bottom fields. However, do not hold off on irrigating beans that are filling pods. SDS is usually found in patches; therefore, manage the rest of the field for maximum yield. Infection is sometimes associated with fields that have Soybean Cyst Nematode (SCN). If you planted a variety susceptible to SCN or have never tested a field for SCN, you may consider sampling this fall after harvest.

Losses associated with Sudden Death Syndrome will range from trace losses up to 80% loss depending on variety and when symptoms first appear. The later it appears, less yield loss associated. Most common yield loss range is 5 – 15%.

Management options are limited to variety selection, improving drainage, staggering planting dates, avoid continuous soybeans, avoid crop stress and timely harvest. For more

continued.....Soybean

information contact University of Missouri Extension.

Cercospora Leaf Blight/Leaf Spot

Cercospora leaf blight and leaf spot are caused by the fungus *Cercospora kikuchii* is most commonly associated with seed called purple seed stain. Initial foliar symptoms of Cercospora blight begin when plants begin to set seed. The upper trifoliolate leaves exposed to sun will have a dark, reddish purple color highlighted with bronze. Cercospora leaf spot will be in the upper most trifoliate and begin with reddish purple to brown lesions followed by premature yellowing.

Symptoms typically do not progress down the plants more than one or two nodes. Fungicides are labeled for preventative management. Once symptoms are noticed in the field infection has already occurred. The disease typically only affects the two upper most nodes and infection is typically late season. Pods can be infected which can cause the purple staining of seeds.

Warm, humid weather favors disease development. Yields are not usually reduced, but seed stain may be evident at harvest. Management includes crop rotation, fungicides labeled prior to onset of disease and the use of a fungicide seed treatment if stained seed must be planted.

Septoria Brown Spot

Septoria brown spot is caused by the fungus *Septoria glycines*. This disease is one of the most common diseases we see each year.

Infection of lower leaves occurs when wet springs produce spores on residue which then splashes or is blown onto soybean leaves. Symptoms appear on the lowest trifoliolate leaves as small angular red to brown spots followed by leaf yellowing. Infected leaves will drop prematurely.

Symptoms typically stay in the lower canopy. Under moderate temperatures (59 to 86 degrees) and wet weather, Septoria may move up into the middle canopy. Management include crop rotation and labeled foliar fungicides at early pod development (R3-R4).

Soybean Insects

Soybean podworm pressure remains low this year. Wet, humid weather is favorable for beneficial fungal organisms that help reduce caterpillar populations. Continue to monitor for green stinkbug in soybeans moving into R5. Thresholds are 1 pod feeding insect per foot of row on average or 9 pod feeders per 25 sweeps on average. Once beans are at R6 (beans touching in pod) yield reduction from insects is significantly reduced. Podworm typically will not feed on R6 beans and stinkbug injury which affects quality is only possible if populations are high.

For more information and photos on soybean diseases refer to IPM Guide 1002, "Soybean Diseases" at <http://extension.missouri.edu/p/IPM1002>.

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

Cotton Update

At this time, our cotton is about two weeks behind our normal. Much of our cotton growing area has had about 6 inches of rain or more within the last month with most of it coming in a two week period. We normally refer to the July and August rains as “million dollar” rains because it helps revive the non-irrigated cotton and it lowers irrigation costs. However, it could hurt some of the cotton on the poorly drained soils. We will need to look at nitrogen, sulphur, and potassium as we go forward.

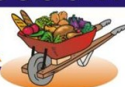
Some of the cotton is reacting to the shock of the extra water by shedding squares and small bolls. Our temperatures are lower and we haven't had much sunshine. If you look at our DD-60's, from May 1 through August 1, we have had 1435 heat units. This is less than the 1624

for the same period last year and in 2011 when heat units totaled 1732 at this time. However, the record yield occurred in 2008 with 1,106 pounds per acre and we only had 1114 heat units at this time of year. We have had cooler weather due to the fronts bringing in the rain.



Picture courtesy of Southeast Farm Press

SOUTHEAST MISSOURI
Food Bank
 Delivering Help and Hope to the Hungry



The
 Southeast
 Missouri

Food Bank is eager for donations of specialty food crops. The food bank will bring a 24 foot box truck to pick up any edible produce, including seconds, which should be in a crate or box.

Contact James Landewee, Operations Director at 573-651-0400 several days ahead of time if possible and specify if a refrigerated truck is needed. He will provide you with a tax receipt for anything you donate.

The USDA Cotton and Wool Outlook of August 14 projects Missouri to have a yield of 1,103 pounds per acre. This projected yield is the highest yield for all of the Southeast, Delta, and Southwest regions. Only California, New Mexico and Arizona are forecast to have higher upland cotton yields. The average projected yield for upland cotton in the U.S. is 796 pounds per acre.

We have been spraying for plant bugs and our moth counts are picking up as we approach the end of the season. We are in desperate need of plant growth regulators to slow the crop down, but they must be applied by air. It was hard to apply chemicals during wind and rainy conditions.

Mike Milam, Agronomy Specialist, University of Missouri, Kennett, MO

52nd Fisher Delta Research Field Day

"Meeting the Diverse Needs of Missouri Agriculture"

9 a.m. to 1 p.m. Thursday, August 29, 2013
Lunch provided.

Field Day Talks Include:

- Andrea Jones - "Cotton Variety Trials"
- Jeremy Angotti - "Wheat, Soybean and Corn Variety Trials"
- Jim Heiser - "Options to Control Umbrella Sedge in Rice"
- Gene Stevens - "Managing Rice Production Uptake Challenges"
- Matt Rhine - "Maximize Rice Yield Using DD50 Program"
- Gene Stevens - "Managing Soil Water Deficits via Smart Phone"
- David Dunn - "Corn Nitrogen Management in Wet vs. Dry Season"
- Joe Henggeler - "Energy Efficient Options in Irrigation"
- Earl Vories - "Soybean Irrigation Management by Maturity Group"
- Grover Shannon - "Future of Soybean Breeding: Conventional & Round-up Ready"
- Andrew Scaboo - "Improving Soybean Yield Using Exotic & Wild Genetics"

For more
information call:
573-379-5431 or
email
clarktr@missouri.edu

**Lee Farm,
Junction T and TT**
Take I-55 to
Portageville.
Continue on Hwy
162 and turn left
onto Hwy T. Turn
left onto Hwy TT
and continue for 5
miles.

Protect, Drain & Harvest Missouri Rice

Finally, (almost) all rice in the state is headed. The early rice is approaching maturity and ready to drain although late rice has a long way to go. We must prepare the early rice for harvest and give the late rice protection from stink bugs and diseases so it has plenty of time to mature. The weather is and looks to be great for this the next few weeks. The point at which fields are projected to reach 20% grain moisture for harvest is spread out to say the least. The first fields are there but the last fields won't get there until late September or early October.

With some of the rice crop reaching maturity and some beginning to head – be on the alert for rice stink bug infestations and sheath blight.

Rice Stink Bug Early planted rice has headed, some is ready to drain. Continue to scout for stink bugs as they can damage grain. Rice stink bug numbers have dropped but some fields have hit spray threshold levels. In Missouri we follow the UAR insect spray program for rice. With a threshold of 5 stink bugs per 10 sweeps, the question isn't whether or not you're at threshold but "do I really need to count how many are in the net?" While it may sound silly to some the answer is, yes, you need to count. When you come back after application you can see how much control you were able to get.

Remember with numbers as high as this it may require 2 applications to achieve control. If one application does it, that's great, but you need to be prepared for a second. The threshold of 5 stink bugs per 10 sweeps the first two weeks of heading increases to 10 stink bugs per 10 sweeps the second two weeks of heading.

Choices on insecticides are Declare, Karate (lambda-cyhalothrin), Mustang Max, and Tenchu. I expect these will be the most available. We've tested all of these and found them to all be

effective. I don't see any advantages of one over the other, so shop and get the best price.

One question I've received this past week, "on fields that have treatment level stink bugs but aren't even heading - should I go ahead and spray?" **NO**. If you spray before heading you may have to spray again once the rice begins to head, because there is usually a big influx of stink bugs into the field at heading. Save your money and spray once. The first two weeks of heading we are protecting yield potential so continue to scout.

Sheath blight has been low but now it's up. Recent rainfall favored disease development. Temperature and humidity are also high and there is a possibility for vertical movement of the disease. Continue scouting late rice until a few days before heading and make sure the top three leaves are free from disease. Research has indicated Stratego at 16 oz/A will give ~14 days of protection, at 19 oz/A will give ~21 days of protection. Quadris at 6.4 oz/A will give ~14 days of protection, 8.5-9.2 oz/A will give ~21 days of protection, and the full 12.5 oz/A will give ~28 days of protection. These are average figures and may change depending on field factors that affect the activity of the fungicide used.

Blast has so far not been a problem in Missouri.

Drain: Don't drain too soon. This 95°F day and 70°F nights are perfect for fast maturity but it also causes quick water loss.

Draining Guidelines:

- Long-grain – 25 days after 50% heading.
- Medium-grain – 30 days after 50% heading.

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

Geographical Information Systems GIS Symposium

Making GIS work in Southeast Missouri

Cape Girardeau Career and Technology Center
1080 S. Silver Springs Road
Cape Girardeau, MO 63703

Sponsored by: *MGISAC, Cape Girardeau Career & Technology Center, and East Central Missouri Mappers*

Date: Wednesday, September 18, 2013

Times: 8:00 a.m. - 4:00 p.m.

Conference Presenters:

- | | |
|--------------------|--|
| 8:00 – 8:30 a.m. | Sign In and Vendor Set Up |
| 8:30 – 8:45 a.m. | Sponsor Recognition and Introductions |
| 8:45 – 9:15 a.m. | Mark Duewell: MSDIS GEO Portal |
| 9:15 – 9:45 a.m. | Keynote Speaker: Aaron Addison, Washington University |
| 9:45 – 10:00 a.m. | Break with Vendors |
| 10:00 – 10:30 a.m. | Charlie Ellis: Precision Agriculture in Southeast Missouri |
| 10:30 – 11:00 a.m. | Heather Milton: GIS Corp |
| 11:00 – 11:30 a.m. | Frank Wideman: Filling Community Needs with a Good Map |
| 11:30 – 12:00 p.m. | Shannon White: GIS for K-12 Youth & Educators in Missouri |
| 12:00 – 12:45 p.m. | Lunch Provided & Visit with Vendors |
| 12:45 – 1:00 p.m. | Local Chapter of MO Mappers Meeting |
| 1:00 – 2:00 p.m. | Round Table Discussion led by Mark Duewell: Issues with GIS |
| 2:00 – 2:30 p.m. | ESRI: Using the ArcGIS Platform |
| 2:30 – 2:45 p.m. | Break |
| 2:45 – 3:15 p.m. | Indi Braden: A Peak into the Future of GIS: Opportunities in Education |
| 3:15 – 3:45 p.m. | Steve Duke: What's Happening in the Local RPC and Stan Baisman: SEMO RPC & SEMO GIS Web Site |
| 3:45 – 4:00 p.m. | Wrap Up |

Variety Testing Program 2013

Our motto is “We test the best” and that is exactly what we do. Each year, the best seed companies and organizations select several of their best varieties for evaluation by the MU Variety Testing Program. We use the latest scientific principle and procedures to provide farmers and others with an interest in wheat variety performance with accurate and unbiased information.

The MU Variety Testing Program has provided Missouri farmers with unbiased variety comparisons for more than 75 years, first with corn, then soybean and wheat. Current staff members have a total of over 100 years of experience with testing crop yield performance. Our plots are placed where you farm. They have the soils and weather conditions your fields have. The MU Variety Testing Program is on-farm research in the truest sense of the word. Six of our wheat locations are on farmer fields in your

communities. The other three locations are MU farms. These CAFNR owned and operated research centers sample the north, central and southeast regions of Missouri and combined with the private farm locations provide you with the diversity of environments you need to select the best varieties for your farm. View the map in our procedures section to see the placement of our locations and the cooperators that are so important to the quality of our information.

The latest results for Soft Red Winter Wheat can be accessed by region at the following link: <http://varietytesting.missouri.edu/wheat/>. Results for southeast Missouri are shown below.

William Wiebold, Agronomy Professor, University of Missouri, Columbia, MO

CHARACTERISTICS OF WHEAT TEST LOCATIONS – SOUTHEAST REGION

Location	Soil Type	pH	Soil Test			Precipitation ^a				Total ^b	
			OM	P	K	Fall	Winter	Apr	May		
		%	pounds/acre			inches					
Chaffee	Commerce silt loam	6.9	2.3	150	258	9.1	12.3	6.4	5.6	33.4	
Charleston	Dundee silt loam	6.8	1.8	26	282	7.7	12.1	4.7	4.6	29.1	
Portageville	Tiptonville silt loam	6.1	0.9	66	252	8.6	18.9	7.0	7.7	42.2	

^a Fall is October through December; Winter is January through March

^b Region average growing season (October through May) total = 34.9 inches, 1.4 inches above normal

CROP MANAGEMENT PRACTICES AT THE WHEAT TEST LOCATIONS – SOUTHEAST REGION

Location	Dates		Fertilizer			Tillage	Herbicide		Fungicides/Herbicides
	Planting	Harvest	N	P ₂ O ₅	K ₂ O		Pre	Post	
		---pounds/acre---							
Chaffee	Oct 23	June 25	125	0	0	Conv	None	Harmony	None/ None
Charleston	Oct 23	June 25	120	60	60	Conv.	None	Harmony	None/ Karate
Portageville	Oct 16	June 24	125	0	0	Conv.	None	Harmony	None/ None



Missouri Ag News is a publication of the University of Missouri Extension, compiled by Agriculture Specialists in the Southeast Region of Missouri. Contributions to this publication are made by:

Donna Aufdenberg - Horticulture
aufdenbergd@missouri.edu 573-238-2420

Sam Atwell - Agronomy (Rice)
atwells@missouri.edu 573-748-5531

Van Ayers - Ag and Rural Development
ayersv@missouri.edu 573-568-3344

Sarah Denkler - Horticulture
denklers@missouri.edu 573-686-8064

Sarah Kenyon - Agronomy (Forage)
kenyons@missouri.edu 417-778-7490

Mike Milam - Agronomy (Cotton)
milamr@missouri.edu 573-888-4722

Anthony Ohmes - Agronomy (Corn)
ohmesa@missouri.edu 573-243-3581

David Reinbott - Ag Business
reinbottd@missouri.edu 573-545-3516

Frank Wideman - Ag Engineering
widemanf@missouri.edu 573-547-4504

If you are interested in receiving this publication via e-mail or being removed from the email list please send a request to denklers@missouri.edu.

Future Meetings & Events -

Delta Fisher Research Day: Thursday, August 29, 2013 from 9 a.m. to 1 p.m. at the Lee Farm on Hwy TT and T in Portageville, Missouri. Lunch provided.

Southeast Missouri Geographical Information Systems Symposium: Wednesday, September 18, 2013 from 8 a.m. to 4 p.m. at the Cape Girardeau Career and Technology Center

Watermelon Meeting: Mark you calendar for the watermelon meeting to be held on Wednesday, December 4, 2013.

Commodities and markets - <http://extension.missouri.edu/seregion/fmmkt.htm>