

Mississippi Sweetpotato News

Spring 2015

Keeping You Posted (May 12, 2015)

Sylvia Clark, Secretary, Mississippi Sweet Potato Council

I know everyone is happy to see some dry weather! It is good to be seeing plastic coming off of sweet potato beds and slips growing. I haven't heard of anyone setting yet, but I expect that to be starting soon.

A couple of updates from activities I have attended. The Farm to School program held a workshop in Jackson on May 7th. Their goals seem to be to share information with school programs about where to find local food sources (farmers) and to educate farmers about the foods and amounts of foods the school food programs would be buying on a yearly basis. There is certainly potential for growth in sales to this group from the sweet potato industry. This is an opportunity we need to investigate further and keep up-to-date on. I hope to be able to offer more information on this soon.



A variegated sweetpotato slip in plant beds in Calhoun County.

I also attended a grant writing workshop with an emphasis on the local food movement. There may be opportunities for our sweet potato council to receive funding for a local food promotion campaign featuring Mississippi sweet potatoes. Another possibility is to do a feasibility study on additional value-added products made with sweet potatoes as an ingredient.

This leads me to the other event I attended recently-the second phase result presentations from the Sweet Potato Innovation Challenge sponsored by the Mississippi State University Extension Service. The idea was to use sweet potatoes that were culled from market to grocery stores and consumers due to size or shape but could be used in other products. The teams who presented possibly doable-marketable ideas last fall were given an opportunity to carry those ideas a step further and see if they could develop a product that could be carried on to the production stage. The best team inspired idea was awarded a cash prize and an opportunity to work with the MSU Entrepreneurial Center to take their products on to market. I am pleased with the products which took the top three prizes and hope the teams will meet success in the future.

My contact information is 403 A Bost on campus at MSU. My phone number is 662-325-1696 (o) or 662-983-0232 (c). Call anytime with questions, concerns or ideas. I would love to hear your ideas for promotion, and in the meantime I will strive to keep you posted.

Updates from Pontotoc

Stephen L. Meyers

Sweetpotato Extension Specialist, Mississippi State University- Extension Service

On February 19th MSU hosted its **North Mississippi Producer Advisory Council Meeting** at the Lee County Agri-Center in Verona. A total of 20 people attended the sweetpotato section, including producers, MSU scientists, and MDAC and USDA personnel. The top research needs producers identified were 1) Variety research 2) Tip rot research 3) Pest management issues- nematodes, weeds, insects and 4) Evaluating cover crop benefits. If you were not in attendance this year and would like to participate next year, mark your calendar for **February 18, 2016**.

On April 30th, MSU students participating in the **Mississippi Sweet Potato Innovation Challenge** presented their innovative, value-added products made from processing-grade sweetpotatoes. The winning teams were a microwavable sweetpotato bread, sweetpotato beignet bites, and a nutritional supplement powder made of sweetpotatoes and other super foods. The Challenge is just one of many programs conducted with the help of the MSU Center for the Advancement of Service-Learning Excellence. Look for more information on how service-learning classes have interacted with the Mississippi sweetpotato industry in the next newsletter.



Research at MSU: It was brought to my attention that many growers don't know of all the sweetpotato research being conducted in Mississippi. In this newsletter and future newsletters, I will try to highlight some of the work being done. Here are some highlights of the pest management and variety trials slated for 2015.

Nematodes continue to be a difficult to manage pest for sweetpotato producers. Mark Shankle and I will repeat a K-Pam rate study from last year. The study compares 5 different K-Pam rates with or without VydateL. This year's trials will also include VelumTotal (Bayer Crop Sciences) and Dominus (Isagro-USA), a biofumigant similar to K-Pam. One trial will be conducted on the MSU North Farm in Starkville, MS and the other will be conducted on-farm. Additionally, Richard Baird has ongoing research investigating the possible connection between nematodes, the charcoal rot fungus, and tip/end rots. He will be conducting greenhouse research in Starkville and will also conduct on-farm trials.

Weed management is a strength of the MSU Sweetpotato Research and Extension program. In 2015 several weed control studies will be conducted including trials with herbicides not currently registered for use in sweetpotato: fluridone, linuron, and metribuzin. Additional research will look at several K-Pam and Dual Magnum rates for nutsedge control.

The National Sweetpotato Collaborators variety trial will be conducted at the Pontotoc Experiment Station and includes several recently released varieties, old stand-bys, and advanced lines from North Carolina State University. Additionally, Don LaBonte and I will conduct trials with advanced LSU lines on one or two farms in Mississippi.

As the 2015 season gets underway, I encourage you to visit the **Mississippi Crop Situation Blog** for answers to real-time questions. The Crop Situation Blog provides current production-related information for row-crop stakeholders. Visit the blog at: Mississippi-

crops.com. There you can also sign up to receive a weekly email with a list of each week's posts.

Updates from Stoneville

Larry Adams

Entomologist, USDA-ARS Southern Insect Management Research Unit- Stoneville, MS

USDA-ARS, Southern Insect Management Research Unit and Alcorn State University organized an informal meeting with the sweetpotato farmers in the Mound Bayou, Marks and Moorhead areas on April 14, 2015 at the Alcorn State University Research Facility in Mound Bayou, MS. Ten farmers and our Alcorn State University collaborators attended. Chris Johnson and I presented two presentations: Mississippi Delta On-Farm Evaluation of Yield Response to Recommended Insecticide, Nematicide and Herbicide Applications and 2014 USDA-ARS, Southern Insect Management Research Unit Sweetpotato Variety Trials and 2015 Entries. Dr. Tahir Rashid, ASU, presented a presentation: Comparison of Yield and Insect Damage to Organic Sweetpotatoes in the Mississippi Delta. Dr. Randy Luttrell spoke with the group concerning USDA-ARS, SIMRU's 2015 research plans to continue sweetpotato research plot studies, sweetpotato variety trials and to initiate studies with cotton, corn and soybean on the Alcorn State University research farm this season.

Fertilizer Applications to Mississippi Sweetpotato

Mark W. Shankle, Trevor F. Garrett, and Jeffrey L. Main

Mississippi State University, Pontotoc Ridge-Flatwoods Branch Experiment
Station mark.shankle@msstate.edu

There has been a growing interest among sweetpotato growers to use poultry litter as a fertilizer source due to higher commercial fertilizer prices and the desire to improve soil properties (tilth, organic matter, and water holding capacity). The price of litter can vary based on quality, transportation, and demand. At the experiment station we purchased a truck load of poultry litter this spring for \$38/ton drop-shipped. Litter nutrient content can also vary due to management of bird growth, clean-out technique, storage method, and other factors. As a "rule-of-thumb", litter will typically contain at least 50-40-40 lb of nitrogen, potassium, and potash per ton of litter. The litter we purchased this year contained 60-70-60 lb/ton based on sample analyses. The Mississippi State Chemical Lab (MSCL) <http://www.mscl.msstate.edu/customers/> and other labs can provide litter nutrient levels of a sample and analysis costs about \$35. To sample, collect litter from several areas inside the pile and send a composite sample (plastic freezer bag full) to the lab along with 2 documents (sample submission and limitation forms) if you are sending it to the MSCL. Then you can calculate a litter application rate based on litter nutrient content and soil test fertilizer recommendations. Just keep in mind that most all of the phosphorous and potassium will be plant available, but only about 1/2 of the nitrogen will be available during the first part of the growing season. In addition, nitrogen will decline the longer it is stored even if it is in a covered pile, but 50% more will be lost if it is not covered. When applications are made to the sweetpotato field, federal organic guidelines require that fresh poultry litter should be applied at least 120 days prior to harvesting roots, so plan accordingly.



In field studies in 2010 and 2011, we evaluated treatments of poultry litter that included 1.0 and 1.5 ton litter/ac applied alone and with supplemental nitrogen or potassium based on a litter analysis of 54-75-70 lb/ton and a soil test recommendation of 50-25-300 lb/ac for nitrogen, phosphorous, and potassium, respectively. An untreated check and a standard “commercial” fertilizer treatment based on soil test recommendations were included for comparison. US No. 1 grade yield with 1.5 ton/litter/ac was greater than the standard fertilizer treatment. Also, 1 ton/litter/ac with

supplemental potassium and 1.5 ton/litter/ac with or without supplemental potassium were greater than the untreated check. Total Marketable yield with 1.5 ton/litter/ac with or without supplement K was greater than the untreated check. Total Marketable yield with all other treatments was not different than the untreated check. This indicates that poultry litter can be used as an alternative source of fertilizer in sweetpotato production to promote a more sustainable production system and lower fertilizer costs.

Save These Dates

Mississippi Farm Bureau Summer Sweet Potato Commodity Meeting

The meeting will be held on Friday July 17th at the Calhoun County Extension Office in Pittsboro, MS. Kay Renzel, new Executive Director of the US Sweet Potato Council, will be among the guest speakers. The program starts at 10 A.M. and concludes with lunch. Contact Samantha Laird with questions (slaird@msfb.org; 601-573-7913).

Mississippi State University Annual Sweetpotato Field Day

On Thursday August 27th, MSU will host its Annual Sweetpotato Field Day. Details will be announced in the next newsletter.

This newsletter and archived issues of the Mississippi Sweetpotato News can be found at MSUcares.com