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In This Issue:

- **Sweet Potato Crop Update**
- **Weed Management Recommendations**
- **Variety Update**
- **Market Outlook**
- **Sweet Potato Research Station Field Day Recap**
- **Industry News**
- **Featured Recipe**
- **Contact Information**

Sweet Potato Crop Update

Tara Smith, Assistant Professor and Sweet Potato Specialist, LSU AgCenter

The 2010 harvest season is off to a good start. Approximately 13,000 acres of sweet potatoes were planted in Louisiana in 2010 and harvesting began in earnest in mid-September. As of Oct. 1, approximately 45 percent of the crop had been harvested statewide.

Planting conditions were considered ideal for much of the planted crop, however, some plantings did suffer from dry conditions and excessive heat in early June, and producers are realizing the negative effects of those planting conditions as they are harvesting the crop.

Marginal soil moisture and high soil temperatures negatively affected some plantings. In addition, extreme heat and dry conditions plagued many of our production areas throughout the growing season. Producers with irrigation capabilities were largely able to stay on track; however, less than average yields have been reported in some of the affected areas.

Some areas, in our southern production region received more than adequate rainfall throughout the season and producers in those areas dealt

with excessive vine growth and a crop that was slow to size in some cases.

Generally speaking the sweet potato harvest is slightly delayed on most farms, largely due to slow sizing in late July, August and September. Excessive day and night temperatures resulted in slow growth late season when we normally see good bulking of the crop.

The majority of yields reported thus far are average compared to 2007, our last harvest season not impacted by excessive rain.

However, Avoyelles Parish producers have already dealt with excessive rainfall this season. Producers in affected areas received 10-12 inches of rain in less than 24 hours in early August. Field conditions rapidly deteriorated during this time and many producers are realizing some loss at harvest due to rotting and breakdown of roots that were exposed to prolonged saturated conditions.

In-season insect pressure has been light overall during 2010. However, there have been several reports of late season sugarcane beetle damage. Some fields have been completely devastated by this feeding damage while others have been minimally impacted. Researchers are currently conducting an assessment of

sugarcane beetle damage this fall. I encourage anyone suspecting this type of damage to contact me so that we can evaluate and record the damage as we continue to research and develop management strategies for this insect pest. Several research trials for this particular insect were conducted this year and these trials will be harvested later this month. Updates on sugarcane beetle management options will be presented at winter production meetings.

I hope that we are able to complete the 2010 harvest on a positive note. A detailed assessment of the 2010 harvest will be included in the next edition of the newsletter. Please contact me or your respective county agent for any crop-related information.

Fall Weed Control Considerations and Plant-back Precautions

Dr. Donnie Miller

John B. Baker Professor for Excellence in Weed Science and Resident Coordinator, LSU AgCenter Northeast Research Station

Fall fallow ground applications of herbicides are most effective in terms of long-term management of perennial weed problems including Johnsongrass, Bermudagrass, alligatorweed and nutsedge.

Unlike annual weeds, perennial species can reproduce both by seed and vegetative means. Perennial plants contain underground vegetative reproductive structures (rhizomes, stolons, tubers, etc.) that serve as major food storage organs and have numerous buds capable of producing new plants.

Perennial weeds are most susceptible to chemical control measures when carbohydrates/sugars (food) are moving downward in the plant to form new underground vegetative structures for survival. This usually occurs from the early bud/boot stage until flowering/panicle emergence. Due to lack of a significant number of herbicides available in-crop, with sweet potato tolerance, that are effective on perennial broadleaf and grass weeds, the ideal time for making herbicide applications to manage perennial weeds is after harvest and **prior to first frost**.

Research conducted by weed scientists within the LSU AgCenter has demonstrated that optimum control of perennial broadleaf and grass species that commonly infest sweet potato fields in Louisiana can be achieved with applications of glyphosate (many formulations) at the rate of 1 to 1.5 pound active ingredient per acre (i.e. 32 to 48 ounces of a 4 pound per gallon formulation or 23 to 35 ounces of a 5.5 pound per gallon formulation) between Sept. 15 and Oct. 15.

Best results are realized with fall fallow ground applications over multiple years. **Plants should be allowed to resume growth after any damage from harvest to realize maximum effects.**

Glyphosate is absorbed into the plant and moved along with carbohydrates/sugars to underground vegetative storage/reproductive structures, effectively "killing" numerous buds on these structures and eliminating

emergence of potential plants the following spring/summer. Most glyphosate formulations contain surfactant systems, but always check to see if surfactant addition is required.

Addition of ammonium sulfate, dry or liquid formulation, can aid in glyphosate activity if water being used as the carrier is considered "hard water" (i.e. excessive amounts of divalent cations magnesium and calcium). The "sulfate" part of the ammonium sulfate "binds" with the magnesium and calcium cations. These cations would otherwise "bind" with a portion of the glyphosate molecule, rendering less of it available for uptake and activity within the plant. Consult label of ammonium sulfate formulation used for appropriate rates.

With the opening of the new processing plant in Delhi, the possibility exists for increased acreage devoted to sweet potato production in the future. Some of these "new" acres are currently or have been in the past devoted to other crops including cotton, soybean, corn, grain sorghum or wheat. With the sweet potato plant residing in the same genus (*Ipomoea*) as a common weed in most of these crops, that being morningglory, several herbicides used for control of this weed may have long-lasting negative effects on sweet potato through uptake of existing soil residues. As a precaution, always obtain as thorough a prior field history as possible when considering new acreage. Contact either Tara Smith (318-435-2155, tsmith@agcenter.lsu.edu), or me (318-766-3769, dmiller@agcenter.lsu.edu), or

your local county agent for proper plant back intervals involving sweet potato and previously applied herbicides.

Variety Update

Dr. Don Labonte, Professor School of Plant Environmental and Soil Sciences

Bonita is a new specialty release by the LSU AgCenter Experiment Station.

This white flesh variety was tested as 05-29 as a replacement for O' Henry – a white flesh mutation of Beauregard. Bonita is more potato-like in many ways in comparison to O' Henry. The flesh has no orange colorations – common with O' Henry--and a drier flakier texture.

Combine these traits with a slightly sweeter taste and you have a new standard in white flesh sweet potato. It looks different too. It has a very smooth skin, which is slightly pink to rose. Roots have a more consistent shape than O' Henry, which often has grooves. It is ideally suited for production in sandy loam soils given the southern root knot nematode resistance and a tendency to yield better than O' Henry. Yield and shape are also excellent in heavier silt loam soils. Plant production is excellent.

Our main interest in the breeding program is always to develop and release orange flesh varieties. It just happens that chance cross combinations result in white flesh types – and this was

definitely one that caught our eye.

Market Outlook

Tara Smith

Louisiana producers are beginning to move the 2010 crop. Movement has picked up in recent weeks as the availability of cured product is increasing. Movement was slower on the early harvested crop as not many producers were moving green product.

Wayne Garber, a producer and broker with Garber Farms in Iota estimates that Louisiana is currently shipping at about 50 percent of our potential, as producers across the state still have approximately 50 percent of the crop remaining to be harvested. By mid-October we should be approaching 100 percent of our shipping potential. Unlike the last two years, the 2010 sweet potato crop is on the drier side and this should translate into good storability and an excellent shelf life. Louisiana has harvested a good quality crop thus far in 2010 and producers are anxious to market their famous "LA YAMS" that consumers have come to know and love.

LSU AgCenter Field Day Recap: So Far Sweet Potato Outlook Better Than Last Two Years

Mary Ann Van Osdell and Linda Benedict, LSU AgCenter Communications News Release Distributed 08/26/10

CHASE, La. – With sweet potato consumption rising and a shift in the industry toward more processed products, the LSU AgCenter's Sweet Potato Research Station showed

growers how to optimize production at a field day held at the station Aug. 24.

The latest research was presented to help growers learn how to produce a high-yielding, predictable, profitable crop.

Don Labonte, LSU AgCenter sweet potato breeder, said one of the goals in his breeding program is to develop a tougher-skinned sweet potato. These potatoes will be more suited to the processing industry, where sweet potatoes are subjected to more handling than in the fresh market.

Arthur Villordon, LSU AgCenter horticulturist, demonstrated a model validation sensor system that can transmit real-time data of air temperature and relative humidity, wind speed and direction, precipitation and soil temperature to smart devices such as an iPad.



Dr. Arthur Villordon at Sweet Potato Research Station Field Day.

He is developing a prototype model to represent the relationship between fresh market yield and some agroclimatic variables known to influence storage root initiation in sweet potatoes. It is a tool similar to one developed by NASA to assist engineers in the interpretation of telemetry from the space shuttle, he said.

Villordon said management interventions that can be controlled are variety, seed roots, transplant characteristics, planter operation, plant stand, moisture, drainage, nutrition, pest management and planting and harvest dates. Environmental values not able to be controlled are air and soil temperature, light intensity and duration, humidity and wind.

Everlyn Wosula, LSU AgCenter graduate student in plant pathology, told producers she is trapping aphids that spread viruses and monitoring the aphid populations. She said the AgCenter is conducting research to minimize the spread of viruses in sweet potato production.

Rick Story, LSU AgCenter entomologist, said he is testing insecticide options for sweet potatoes to determine which are best for Louisiana conditions. "Twenty-five insecticides are currently available," he said. "Ten years ago there were only six."

Reniform nematodes are the dominant nematode in sweet potatoes in Louisiana, said Tara Smith, LSU AgCenter sweet potato specialist. "We are looking at labeled nematicides to compare yield

and quality." Smith said she is also testing row spacing and plant spacing and their relationship to the nematode management strategies for the crop. Part of her evaluation will be conducted at the sweet potato farm of Ken Thornhill, which is near Chase. Thornhill said this year looks to be much better than the past two for sweet potato production.

"May was a fair month, but after June 10, it's been hot and dry," Thornhill said. He installed irrigation on his farm years ago, and it has paid off, he said. "Moisture is critical to grow roots," he said.

Kurt Guidry, LSU AgCenter economist, said 2008 and 2009 were two of the worst years for sweet potato production because of too much moisture at the wrong times. Two hurricanes in September of 2008 devastated the sweet potato harvest as did excessive rain during the harvest of 2009. Guidry said demand for sweet potatoes in the United States has risen from 4.3 pounds per person in 2003 to 5.4 pounds per person in 2009. "Supply and demand and the price support system seem fairly favorable moving forward," Guidry said.

More than 150 producers, processors and agri-chemical company representatives attended the field day. Participants came from other states including Arkansas, California, Mississippi, North Carolina and North Dakota. They also came from other countries including the Dominican Republic and Australia.



Attendees evaluate a breeding demonstration plot at the Sweet Potato Research Station Field Day.

"We had eight visitors from Australia this year," said Smith, who is the coordinator at the [Sweet Potato Research Station](#) in Chase and chief organizer of the field day.

Some of the visitors came the day before to attend tours at the new Lamb Weston sweet potato processing plant, which is being built in Delhi. A company spokesperson said the plant should begin operation in September, and a grand opening is tentatively scheduled for Nov. 5-6. The public will be invited.

Industry News

Louisiana Sweet Potato Association Annual Meeting to be held Jan. 19, 2011

The annual meeting of the Louisiana Sweet Potato Association will be held, Wednesday, January 19, 2011 in Mansura.. The meeting will take place at the Avoyelles Parish extension office. The educational program will begin at 8 a.m. and will be followed by a sponsored lunch. Board meetings of the association and the Louisiana Sweet Potato Commission will be held Tuesday, Jan. 18, 2011 and will begin at 1 p.m.. Please plan to attend these meetings as your schedules permit. Research and industry updates will be provided and

this is a great opportunity to interact with others in the industry. Please contact Tara Smith or Rob Ferguson with any questions or concerns regarding the 2011 state meeting.

2009 Disaster Assistance for Sweet Potatoes

*Dr. Kurt Guidry Gilbert Durbin
Professor, LSU AgCenter,
Department of Agricultural
Economics & Agribusiness*

The USDA announced recently that a new disaster assistance program will soon become available to assist producers. This program has three major components, one of which is a crop disaster assistance program for cotton, rice, soybeans and sweet potatoes. Information regarding this program is still very limited and the rules and are still being developed. We do know that producers who are located in a parish designated as a disaster area and who can prove greater than 5 percent losses in quantity or quality in 2009 for cotton, rice, soybeans or sweet potatoes can receive a per acre payment for every acre planted (or prevented from being planted). There will be a \$100,000 payment limit per producer associated with the program. The per acre payment for sweet potatoes is set at \$155.41 per acre. It should be noted, however, that the final details for these programs are still in the draft stage meaning that additional changes could be made. The sign-up period for these programs has not yet begun. While the information provided is based on our current understanding of the program,

there is some possibility that program parameters could be changed as USDA continues to finalize all details.

Crop Insurance Approved for Louisiana Sweet Potatoes: Coverage to begin in 2011

The Federal Crop Insurance Corporation board of directors approved a new sweet potato crop insurance program on Sept. 22.. The program was developed by Crop Insurance Systems, Inc. on behalf of the Louisiana Farm Bureau Federation and the Louisiana Sweet Potato Association. Financial support for the program was provided by Crop Insurance Systems and the Louisiana Farm Bureau.

The FCIC board approved the policy after Louisiana Commissioner of Agriculture Mike Strain spoke persuasively on behalf of the sweet potato industry. The commissioner asked the board to support the insurance program that will allow sweet potato farmers to insure their crop against natural disasters. Also speaking on behalf of the program were Larry Fontenot and Brian Breaux, Louisiana Farm Bureau Federation representing the sweet potato grower producers and William Handy from OIG Bank representing Louisiana's agricultural lenders.

The new program is an APH type product that insures a producer's average historical production. Coverage levels between 50 and 75 percent of the grower's average yield are insurable. As designed by

Crop Insurance Systems, producers will be able to insure their fresh and processing sweet potatoes with yields determined according to USDA Grade Standards for Sweet Potatoes. Each type will be insurable at crop prices intended to reflect the market value of the crop type.

"This insurance product is a giant step forward for the Louisiana sweet potato industry because its design guarantees an amount of production for both the fresh market and processing segments of the industry and uses USDA's sweet potato grade standards to determine the amount of production on the farm," said Robert Cerda, president of Crop Insurance Systems Inc.

According to the current USDA implementation schedule, the program will be available for the 2011 crop year. Growers are encouraged to contact Cerda at 913-710-6219 to obtain details relating to the insurance product.

Alabama to host National Sweet Potato Convention in Orange Beach



The Alabama Sweet Potato Association will host the 49th Annual United States Sweet Potato Convention on Jan. 23–25, 2011. The meeting will be

held in Orange Beach, Ala. at the Perdido Beach Resort. *Make your hotel reservations now by calling: 1-800-634-8001.*

Please visit the United States Sweet Potato Council website at www.sweetpotatousa.org to view/download the invitation letter and registration form. For more information about the 2011 Sweet Potato Convention, please contact Arnold Caylor by e-mail (cayloaw@auburn.edu), or at (256) 734-5820.

Featured Recipe

Yam Pecan Biscuits

Ingredients:

1 medium sweet potato (yam)
or
1 15-oz. can sweet potatoes, drained and mashed
3 cups all-purpose baking mix
2 tbsp. sugar
1/2 tsp. ground cinnamon
1/2 tsp. ground nutmeg
1/3 cup chopped pecans
3/4 cup skim milk
1 tsp. vanilla

Instructions:

Place fresh* sweet potato and water (enough to cover tops of sweet potatoes) in microwave-safe dish; cover and microwave about 3 to 4 minutes until done; drain, peel and mash. Preheat oven to 450 degrees. In large bowl, combine baking mix, sugar, cinnamon, nutmeg and pecans. Add yams, milk and vanilla, mixing until well combined. Roll on floured surface to 1-in. thick. Cut with 2-in. cutter or glass and place on baking sheet. Bake 10 to 12 minutes or until golden. Makes 1 1/2 dozen biscuits.

*Canned sweet potatoes are precooked.

www.sweetpotato.org

LSU AgCenter Extension personnel are available to assist you with all of your crop needs. Please call on us if we can be of assistance.

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