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In This Issue:

- **Sweet Potato Crop Update**
- **Foundation Seed Survey**
- **Weed Management in Beauregard and Evangeline Sweet Potatoes: 2007 Observations**
- **Market Outlook**
- **Foundation Seed Update**
- **Industry News**
- **Fun Facts**

Sweet Potato Crop Update

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

The 2008 production season is right around the corner and Louisiana producers are anxiously waiting for this year's field season. Producers have been busy in recent months, packing the 2007 crop and making plans for the 2008 crop year.

As a whole, 2007 was a good year for Louisiana sweet potatoes. Average total yield for the state exceeded 380 bushels/acre which was a 15% increase from 2006. Luck was in our corner where weather was concerned. We did experience typical dry periods both early and preceding harvest and also dealt with excess rainfall in July. Some producers also dealt with significant insect damage on a percentage of their crop. The majority of that damage being attributed to white grubs, cucumber beetles and isolated sugarcane beetle damage.

Despite the slight decrease in acreage experienced in

2007, the farm gate value of the crop exceeded \$65 million, surpassing that of 2006. The value of the crop after packing and processing exceeded \$110 million.

Recent cost of production information gathered in conjunction with the sweet potato research verification program initiated in 2007, estimates the cost of production after packing to be approximately \$2700 per acre. Storage costs are not included in this figure and costs will vary between operations from \$2000-\$3,500 per acre. Sweet potato producers face challenges around every corner. Fertilizer and fuel costs are higher than they have been in recent years and the profit margin is definitely dependent on yield and quality.

With that said, I still see the future of sweet potatoes as promising. Current and ongoing research being conducted by LSU AgCenter researchers and others is narrowing the knowledge gap on various production issues. In addition, marketing opportunities, particularly for

off grades are increasing every day and afford producers a choice in moving their crop into different venues.

As you prepare to start your bedding operations, please remember that plant bed management is critical, and proper fertilization and insect/disease/weed management are important initially. **Transplant vigor, health and establishment at time of planting, set the stage for ultimate yields realized at harvest.**

Initially plant beds should be fertilized with a complete fertilizer, such as 13:13:13 or 8:24:24 at a rate of ca. 1 lb/ 100 sq. ft. of plant bed or 300-400 lb/A. Additional ammonium nitrate may be applied after the first cutting if needed. Zinc (9 % chelated), can also be applied at 1 qt/acre, one-two weeks before cutting plants. Recent research suggests that spacing roots further apart in plant beds may increase transplant girth and the number of nodes present on the transplants.

Pay particular attention to aphids, whiteflies, and early season cucumber beetles in plant beds. If cucumber beetles are present in plant beds before cutting, apply a labeled foliar insecticide along with the foliar zinc application. Producers in south Louisiana should manage sweet potato weevils in plant beds according to the mandatory

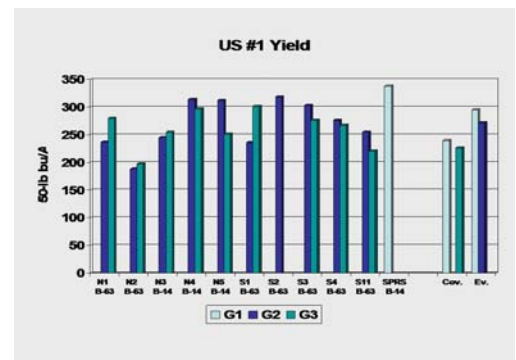
spray program. Also keep in mind, that plants should be cut and not pulled from plant beds. Seed potatoes should also be treated with Botran® and / or Mertect® fungicides according to label directions. Please contact us with questions or for additional information on managing sweet potato plant beds.

Foundation Seed Survey
LSU AgCenter, Dr. Tara Smith, Sweet Potato Research Station, Drs. Chris Clark and Don Ferrin, Dept. of Plant Pathology

The virus-tested technology that is used today in the production of certified foundation sweet potato seed was integrated into the LSU AgCenter Sweet Potato Foundation Seed Program in 1999. The program has been well received and the benefits of this technology are well known and touted in the sweet potato industry. It is not known how quickly productivity decreases once the seed is incorporated into on farm commercial sweet potato operations.

An applied survey of virus-tested foundation seed users was initiated in 2007 to evaluate the overall response of second and third generation foundation seed. Several producers in North and South Louisiana willingly cooperated with us in 2007 to make this possible.

Preliminary results from 2007 indicate that a decrease in yield is realized in G2 and G3 generation seed compared to G1 (First year foundation seed, Sweet Potato Research Station). We did not detect large differences between G2 and G3 seed. A total of 10 locations or seed sources were evaluated. U.S. #1 yield ranged from 188-318 bu/acre (G2), 198-301 (G3), and 338 bushels/acre (G1) (Fig 1).



This study will be repeated in 2008. We appreciate all of those who have provided seed and who are cooperating with us on this survey.

Weed Management in Beauregard and Evangeline Sweet Potatoes: 2007 observations

LSU AgCenter, Dr. Donnie Miller, Assoc. Professor, Northeast Research Station, and Tara Smith, Sweet Potato Research Station

Studies were initiated in 2007 at the LSU AgCenter Sweet Potato Research Station to evaluate the tolerance of Beauregard

and Evangeline sweet potatoes to labeled herbicides and potential ability of each variety to compete against weeds. Herbicide treatments included several labeled rates of clomazone (Command 3ME), flumioxazin (Valor SX), and metolachlor (Dual Magnum). A weed free control was included for comparison. Crop injury and weed control were visually rated 13 and 34 days after treatment, respectively. Plots were harvested on October 18, 2007. Yield comparison was made between varieties within each respective herbicide treatment and the weed free control. In addition, yield comparison was made for each variety within a herbicide treatment and the weed-free for that respective variety.

Control of carpetleaf, cutleaf groundcherry, spiny amaranth, yellow nutsedge, and purple nutsedge was no greater than 54, 79, 75, 51, and 46%, respectively, when clomazone (Command 3ME) was applied alone. Flumioxazin (Valor SX) at 2.5 oz/A provided 86, 100, 98, 76, and 73% control of these respective weeds, while control with metolachlor (Dual Magnum) was 60, 96, 89, 85, and 83%.

U.S. #1 yield and total yield grade were statistically similar comparing Beauregard to Evangeline within each treatment and weed-free control. Under weed-free conditions, yield of U.S. #1's and total yield grade for Beauregard was 291 and 526 bu/A, respectively, compared to 378 and 655 bu/A for Evangeline. For clomazone only treatments, yield of U.S. #1's for Evangeline was reduced 72-77% compared to the weed-free Evangeline treatments, while total yield was reduced 53-63%. With respect to Beauregard and the clomazone treatments, U.S. #1 yield was reduced 53-59% compared to the weed-free Beauregard treatment while total yield was reduced 0-42%. All other herbicide treatments did not result in yield reductions when comparing each variety within each herbicide treatment to its respective weed-free control.

These data reinforce the need for a comprehensive weed management program in sweet potato. Beauregard and Evangeline performed similarly under the various herbicide regimes evaluated in the current study. This study will be repeated in 2008.

Market Outlook

Tara Smith

The past two months have seen steady movement of the 2007 crop. As of February 21, 2008 the FOB price for a cured 40# box of U.S. #1's in Louisiana was \$16-18 with most at \$17-17.50. The fresh market price is down slightly compared to that received in late 2007. Packers are currently supplying sweet potatoes to meet the Easter demand. The movement of Jumbos has increased recently due to a reduced supply of that grade in other sweet potato producing states. Demand is expected to stay steady as Easter approaches and based on previous years, is likely to slack off during the summer months. Movement into various processing markets and the price received for processing potatoes has been strong in recent months. Producers are pleased with the new opportunities they have in moving their crop.

Foundation Seed Update

Tara Smith

The majority of foundation sweet potato seed produced in 2007 has been allocated. Producers have been collecting seed in recent weeks for bedding this month. Those of you, who have not collected your seed, please make

arrangements to do so at your convenience, preferably before April 1st. We do still have several bins of B63 available, for those who may be interested.

Approximately 200 bins of Evangeline sweet potato seed were produced in 2007 and allocated to in state producers this year. Several producers are expected to plant between 50-100 acres of Evangeline this year. **Note:** Evangeline performed well in plant beds last year but we are still encouraging producers to pre-sprout Evangeline seed prior to bedding this year.

Thank you for supporting our foundation seed program this year. Please contact us if you have questions regarding the LSU AgCenter Sweet Potato Foundation Seed Program.

Industry News

Paul Laborde: Distinguished Service Award Winner LSPA 2008

Paul Laborde, Allen Canning Company (Retired), is the 2008 recipient of the Louisiana Sweet Potato Association Distinguished Service Award. Paul was presented the award by Mr. Alton Coco at the 71st annual Louisiana Sweet Potato Association State Meeting, which was held in Mansura,

La. on January 12. Paul has been associated with the sweet potato industry in our state for several years. He is well deserving of this honor. Congratulations Paul!

Insect/Weed Management Guides Available

Updated sweet potato insect and weed management guides are now available. Copies can be obtained by accessing this information online via: www.lsuagcenter.com. You may also request a hard copy of these publications by calling the LSU AgCenter Sweet Potato Research Station (318-435-2155). These guides are useful tools for identifying pest problems and any subsequent management strategies that may be available.

Sandea® Herbicide

Sandea herbicide will not be labeled for use on sweet potato in Louisiana, 2008. For questions concerning this matter, please contact Tara Smith.

Spring Meeting of the Louisiana Sweet Potato Commission/LSPA Board Meeting

The next meeting of the Louisiana Sweet Potato Commission will be held at 10:00 a.m. April 21, 2008 at the new LSU AgCenter Avoyelles Extension Office and Louisiana 4-H Museum

on Hwy 1. in Mansura, La. The spring board meeting of the Louisiana Sweet Potato Association will follow the Commission meeting, and will begin at 1:00 p.m.

Sweet Potato Fun Facts

- The Center for Science in the Public Interest (CSPI) ranks the sweet potato as the #1 most nutritional vegetable.
- The sweet potato is a complex carbohydrate that provides twice the recommended daily allowance of vitamin A and more than one-third of the requirements for vitamin C.

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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