Agriculture and Natural Resources

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University of California SWEETPOTATO TIPS Agriculture and Natural Resources



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UC Coperative Extension • 2145 Wardrobe Ave. • Merced, CA 95341 (209) 385-7403 FAX (209) 722-8856 • http://cemerced.ucdavis.edu



IN THIS ISSUE:

- Upcoming field day
- **General Notes**
- Research update
- ✓ Jan 25 27, 2015. 53rd National Sweet Potato Convention at the Opryland Hotel in Nashville, TN. More info at www.mssweetpotato.org

The Sweet Potato Council of California's new website

www.casweetpotatoes.com

Livingston Sweetpotato Festival a big success.



FIELD MEETING OCTOBER 17, 2014, WITH LSU PLANT **BREEDER DR. DON LaBONTE**

Please join me on Friday, October 17 for a brief field day and lunch to see examples of the Advanced Line Trial (ALT). This year there are 50 entries — 11 from NCSU and 39 from LSU — making this the largest ALT ever. As a result, harvest will begin the day before, on October 16. Professor Don La Bonte and I will be riding the digger taking notes on skin color, shape, set, and overall production and appearance. Samples will be taken of each new cultivar. You are welcome to swing by on Thursday during harvest if you would like to see the new lines come up the chain. The field is located near the corner of Rose and Hull Rds. The main emphasis of the trial is to evaluate new red yam varieties, but there are also sweets and Oriental types, and perhaps even a couple purple/purples. Don will also be there to discuss the licensing program and answer your questions. Box lunch provided.

Sweetpotato ALT Harvest Field Day

Friday, Oct 17, noon - 1:30 pm

D&S Seed Storage Shed, corner of Sunset and Hull Rds

Lunch: Boxed sandwich and drinks + BBQ sweetpotatoes (come taste the new entries hot off the grill)

Special Guest: Dr. Don LaBonte, LSU

Other:

Quick update on food safety and crisis communication, research trials, Livingston Sweetpotato Festival, SPC marketing campaign, and upcoming convention.

CDFA FREP. Managing Agriculture Nutrients. October 29-30, 2015. Modesto Double Tree Hotel. \$80 per day. www.healthyplants.org

October, 2014

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GENERAL NOTES

175 and LSU-52 Update.

175 is now called "Burgundy". It's performance this year has been disappointing — light sets of only 2 - 4 roots per hill has resulted in overall low yields with a lot of jumbos. Of course, for those fields harvested in July there weren't a lot of jumbos, but 175 was yielding 8 - 16 bins per acre when Diane was doing 12 - 20, or even more.

According to Don La Bonte, root set is something that can be influenced by hill selection. Therefore, I have started a hill selection for 175 for improved hill set while still screening new entries from LSU and NCSU. The hill selection process is rather straightforward, but slow. Selections are made off the harvester from various fields for plants that have set at least 6 uniform, well shaped roots, being careful that these are not near skips, mainlines, or the ends. I hope to have 30 - 40 good selections by the end of this season, which will be whittled down to 10 - 12 for bedding next spring. These will cut and increased in the field to evaluate next fall. Hopefully, 1 - 3 clones will show potential for better set and shape. If so, they'll be taken to UC Davis for virus-testing and further evaluation in 2016.

Your help is welcome. Anyone harvesting a 175 field and happens to see a great hill coming up the chain should grab it and let me know so that I can add it to the collection, or call me about a field and I'll try and make it out to ride a harvester and collect some samples myself.

The Red Yam trial was harvested last week, and unfortunately none of the new lines looked that good compared to Diane or 175. Actually, the best performer was G0 vine cuttings of 175. Very similar to what I penned last year in this newsletter:

As far as screening for new varieties, the red yam category has proven to be especially difficult. What looks great this year will be completely different in the next. Odd things happen, like inconsistent skin color, too much latex, developing pimples in storage, shape changes, etc., that take a promising line out of consideration.

Two additional variety trials remain to be dug, which will give me some more looks at these lines. The goal remains a red-skinned sweetpotato that stores well, has good nematode and disease resistance, and can deliver yield comparable to Diane.

Contrary to 175, LSU-52 looks great, at least in the few fields I've seen it in so far this season. Roots set,

skin color and shape has been excellent. Furthermore, it has also looked well in numerous other locations around the world, including Senegal, Australia, North Carolina, and Louisiana. This will be officially released this winter after collecting this season's trial data. In general, it yields well, has excellent shape and skin smoothness, nice color, eats fine, and stores well. But like every variety, this one has its shortfalls. Some things to be aware of:

• Poor plant bed production. Plant density in the hotbeds is half that of Beauregard and even less than Covington. LSU52 requires a long pre-





Three-hill sample of Burgundy (175) and Diane from the same field show dramatic differences in root set.

Sweetpotato Tips October 2014 page 2

warming period before bedding.

- Propensity to jumbo. Like Beauregard and Bonita, this one can be easily pushed into producing a lot of jumbos, and high density plantings will be extra expensive because of low plant production.
- Low insect resistance. Wireworms and grubs have been problematic in many locations, making this one questionable for organic production.
- Susceptible to Pox? Resistance may only be moderate to this disease and further evaluation is necessary, but it should be manageable with proper soil pH.
- Air cracks. This variety can air crack under cool harvest conditions. How cold the soil (or air) needs to be before this happens needs to determined.

Most California producers had the opportunity this season to evaluate a limited number of acres and I would like to get your feedback at the meetings this



The set for LSU52 has looked excellent in many fields this year.

fall and winter. A name has been selected, for release next spring.

RESEARCH UPDATE

Movento trial with Mininger Farms

Foliar applications of Movento were compared to nematicides put thru the drip tape on 175 in a buffer zone that had not been fumigated. This was harvested in July, with no yield differences between treatments.

Fungicide trial with Yagi Bros Farms

Registered fungicides, including Mertect, Botran, Serenade Soil, and Maxim were evaluated for control of Stem Rot (*Fusarium*). Yagi Bros proprietary Japanese type was the variety used. Plants were treated in the bed, dipped, or both. The new fungicide Maxim as a plant dip looks promising, especially with pulled plants.

Phosphorous and Boron fertilizer rate trial with Paul Espinola

A 1-acre trial with 16 different P and B combinations, this trial was done with Covington to re-evaluate phosphorous fertilizer rates and see if boron has any impact on storage of this variety, especially with "tea staining" and leopard scurf.

<u>Dominus fumigation trial with Garcia and Mininger Farms</u>

A trial to evaluate the effect of a potentially new fumigant called Dominus, both alone and in combinations with Pic and Telone. Dominus is the trade name for a new, synthetically produced biopesticide allyl isothiocyanate. Its mode of action is very similar to metam products, but with a more favorable environmental profile and reduced toxicity. It's registered everywhere but here, of course.

<u>Variety Trials (National Sweetpotato Collaborators Group Trial, Quail H Farms; ALT and Red Yam Trial, D&S Farms</u>

NSPCG Trial and ALT will be later this month. The red yam trial was dug in late September. None of the reds performed that well this year in this location.

Scott Stoddard, Farm Advisor

Sweetpotato Tips October 2014 page 3