North Country Sweet Potato Variety Trial, Results Summary

2012 Season

Conducted by UNHCE Grafton County in collaboration with the Grafton County Farm




Funded by: Grafton County

Purpose: The purpose of this trial is to evaluate 8 sweet potato varieties for yield and quality.

Grafton County has two winter farmers' markets, indicating consumer demand for local food through the fall and winter. To meet this demand, farmers need information on vegetable varieties with storage potential that are adapted to the local growing conditions.

Sweet potatoes can be stored for 4-7 months if cured and stored under ideal conditions[1], and the crop is growing in popularity in this area. However, there are not very many varieties available commercially that are adapted to our short season and results of earlier trials have shown wide variability among those varieties in terms of yields.

Eight varieties of sweet potatoes were trialed at the Grafton County Complex in North Haverhill, NH. All varieties were commercially available and chosen for their short season. The purpose of the trial was to test these varieties for yield and quality.

The trial was set up as a random complete block design with four replications and 15 plants per plot. The sweet potatoes were grown on black plastic mulch covered rows with 6 foot centers and 1 foot between plants. The sweet potatoes were ordered as slips and arrived by mail in late May and early June. The slips were transplanted into the field on June 7th. Row cover was used to provide additional heat in the first couple of weeks in the field. Fruit were harvested between September 24th and October 10th, counted and weighed. See the table and figure on page two for results.


6/8/12


7/6/12


7/27/12


8/3/12


9/7/12

Rainfall was high in the later part of the season, with 7.75 inches in August and September. Four of the rain events were downpours causing a portion of the field to flood and some of the fruit to be destroyed. The flooding was mainly restricted to one block and that block was eliminated from the trial. Overall there was a 83% cull rate primarily due to

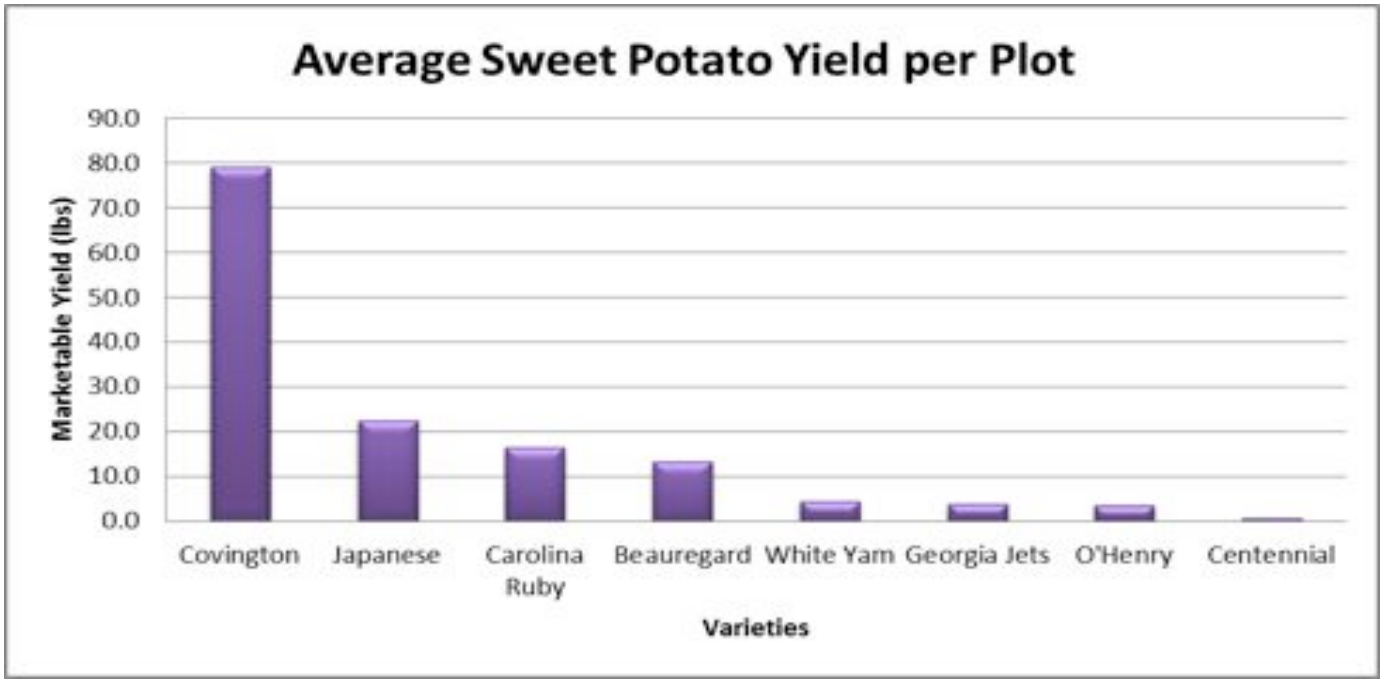
the scurf and stress cracking. Scurf is a fungal disease that causes cosmetic damage to the fruit making them less marketable and the stress cracking was likely caused by the high late season rainfall and resulting flooding.

[1] *Kemble, J., 2004. Harvesting and Curing Sweetpotatoes. Alabama Cooperative Extension factsheet ANR-1111.*

Variety	% Slip Survival	Ave Marketable Yield per Plot (lb)*	Ave Fruit Size (lb)	Comments	Slip Source
Covington	100	79.2 A	0.87	easy to harvest, some oversize fruit, copper outside/orange inside, low percentage of culls	Scott Farms
Japanese	93.3	22.6 B	0.71	reasonably easy to harvest, purple outside/white inside, low percentage of culls	Scott Farms
Carolina Ruby	84.4	16.4 B,C	0.57	easy to harvest, variable sizes, purple outside/orange inside	Scott Farms
Beauregard	77.8	13.3 B,C	0.74	easily damaged in harvest, large, curved roots, copper outside/orange inside	Johnnys Selected Seed
White Yam	100	4.5 C	0.39	reasonably easy to harvest, long thin roots, tan outside/white outside	Johnnys Selected Seed
Georgia Jets	73.3	4.0 C	0.80	reasonably easy to harvest, some spreading roots, rose outside/orange inside	Steele Plant Company
O'Henry	97.8	3.5 C	0.56	reasonably easy to harvest, some spreading roots, tan outside/white inside	Steele Plant Company
Centennial	31.1	0.9 C	0.50	difficult to harvest, long thin spreading roots, orange outside/orange inside	Vermont Bean Seed Company

*= yields of varieties identified by the same letter are not significantly different

Some slips were donated by Johnny's Selected Seed, the rest were purchased from the listed source.



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