

Sweet Onion Variety Trial, NFREC - Quincy Spring 2012.

Now is the time to start thinking about selecting sweet (short-day) onion varieties for the winter production season. Though sweet onions are a relatively minor crop in Florida, their value on a per acre basis can be quite high. Production exists as both green tops (immature) and as dry bulbs (mature). Limited production exists throughout the state. The biggest deterrent for increased production is from competition from established markets in south Texas and middle Georgia (Vidalia) areas. However, the potential exists for expanding production, especially in the areas of local sales and direct marketing.

The objective of this trial was to evaluate the performance of sweet onion varieties under northwest Florida conditions.

The transplants for this trial were produced from field beds at the NFREC, Quincy. Thirty four entries were seeded on 7 Oct 2011. Seed were planted at rate of about 30 seed per ft into rows spaced 12 inches apart. Preplant fertilization of seedbeds was 40-40-40 lbs/A of N-P₂O₅-K₂O. Dacthal W 75 was applied over the top at 10 lb/A after seeding. Seedbeds were top dressed once with 34 lbs N/A. Entries were transplanted into the production field on 19 Dec 2011. Soil type was an Orangeburg loamy fine sand. Total fertilization in the field was 165-100-160 lbs/A of N-P₂O₅-K₂O. Production scheme was 3 rows spaced 15 inches apart under a 6 ft tractor and in-row spacing was 4 inches (65,340 plants/A). Goal 2XL at 2 pts/A was applied on soil surface before transplanting and Prowl H₂O at 1.5 pts/A after transplanting. Registered pesticides were applied as needed to control pests.

Entries were harvested as they matured, where maturity is defined as when about 50% or more of the tops of an entry had fallen down naturally. Bulbs were lifted, allowed to dry for a few hours and tops and roots removed. Bulbs were then placed in wooden bushel baskets and dried for 72 hours at 100° F in large drying rooms. After drying time was complete, onions were removed, allowed to cool down and graded. Grading consisted of discarding culls (small onions, splits, off color and decayed bulbs) and sizing into medium (1.5-2 inches), large (2-3 inches) and jumbo (>3 inches) categories. Bulbs were then weighed and counted.

Harvest occurred from the period of 23 April to 3 May (199 to 209 days after seeding). Total yields ranged from 744 50 lb bags/A for 'Honey Bee' to 370 50 lb bags/A for 'Sweet Caroline' (Table 1). Yields were good to poor in 2011 and growing conditions were severe. We had a very warm production season and disease started early and progressed rapidly. 'Dawn' produced the largest bulb at 9.9 oz and 'Sweet Carline' produced the smallest at 4.9 oz. Percent marketable bulbs ranged from a low of 57.6 % for 'SSC 1535' to a high of 98.6 % for 'Serengeti'. Bolting was not a problem.

Table 1. Sweet onion variety trial NFREC-Quincy 2012.

Entry	Source	Percent Marketable	Bulb Size (oz)	DTH ^Z	Large Yield (50lb bags/A)	Jumbo Yield (50lb bags/A)	Total Yield (50lb bags/A)
Honeybee	Shamrock	96.2 a-c ^Y	9.3 a-c	199 d	66.3 fg	668.7 a	743.8 a
Sweet Deal	Shamrock	93.7 a-c	9.5 a-c	199 d	69.9 fg	635.6 ab	715.2 ab
Amelia	Wannamaker	86.6 c	9.6 ab	207 b	69.5 fg	560.9 bc	640.8 bc
WI-3115	Wannamaker	88.9 a-c	8.9 bc	201 c	104.2 de	494.1 c	616.0 c
Dawn	Wannamaker	74.7 d	9.9 a	209 a	50.3 fg	505.2 c	564.8 cd
HA-10229	Hazera	96.0 a-c	7.4 d	209 a	172.8 ab	297.2 de	502.2 de
Sweet Agent	Seminis	95.4 a-c	6.9 de	200 cd	77.1 ef	391.7 d	490.1 de
Ringo	Sakata	88.1 bc	7.5 d	207 b	121.7 cd	335.1 d	476.0 d-f
Ponderosa	Sakata	94.6 a-c	6.0 ef	206 b	151.4 bc	226.7 ef	443.7 e-g
Sweet Vidalia	Nunhems	96.5 a-c	6.1 ef	206 b	183.5 a	211.3 e-g	437.1 e-g
Serengeti	Nunhems	98.6 a	5.4 fg	199 d	191.2 a	66.0 h	393.9 fg
SSC 1535	Shamrock	57.6 e	8.5 c	209 a	36.8 g	345.7 d	388.3 fg
Savannah Sweet	Seminis	97.2 ab	5.6 fg	200 cd	187.4 a	143.9 f-h	388.1 fg
Century	Seminis	98.0 ab	5.1 fg	199 d	184.4 a	98.3 h	384.4 fg
Sweet Caroline	Nunhems	93.8 a-c	4.9 g	206 b	189.0 a	117.1 gh	370.3 g

^ZDays to harvest after seeding

^YMean separation by Duncan's Multiple Range Test, 5% level