

Evaluating Specialty Onions in West Virginia

Lewis W. Jett, Commercial Horticulture Extension Specialist
West Virginia University, 2012 Agriculture Sciences Building, Morgantown, WV 26506

Introduction

Specialty onions include a diverse mixture of onions with some varieties being used for fresh market while others are suitable for storage. Several varieties evaluated were cipollini onions, which are becoming increasingly popular in local markets. The objective of this evaluation was to examine the growth and yield of some specialty onions in West Virginia.

Materials and Methods

A random selection of specialty onion varieties was provided by cooperating seed companies (Table 1). Seed was sown in 128-cell plug trays filled with ProMix media in late March 2013. On June 1, the transplants were planted on raised, black plastic mulch beds at a 6 in. x 6 in. spacing. Fourteen onion varieties were evaluated with each plot 4 feet in length and two replications per variety. The location of the evaluation was Spring Valley Farm in Hampshire County, West Virginia. Prior to planting, 100 pounds per acre of nitrogen as 19-19-19 was applied to the field. Standard cultural practices were followed throughout the growing season. Harvest commenced on August 20 when approximately 50% of the onions tops dropped.

Results

The planting window for onions in West Virginia is April 1-May 15. However, due to wet weather, we were delayed in planting the onions until early June. The delayed planting date may have affected bulb size of the larger sweet onion types more than the cipollini or mini onions.

Table 1. Onion varieties evaluated in 2013.

Variety	Description	Supplier
Borettana	Light yellow cipollini; long day type	Seeds of Italy
Di Genova	Red cipollini; long day	Seeds of Italy
Piatta di Bergamo	Brown/red cipollini type	Seeds of Italy
Dorata di Parma	Large round, yellow skin with white flesh	Seeds of Italy
Tropea Rossa Tonda	Elongated, red bulb	Seeds of Italy
Safrane	Large yellow onion	SeedWay
Santana	Yellow onion with blocky shape	SeedWay
Yankee	Yellow onion	SeedWay
Red Ball	Dark red storage onion	SeedWay/Johnny's
Copra	Sweet yellow onion	SeedWay
Candy	Large, sweet yellow onion	SeedWay/Johnny's
Expression	Large onion with brown skin	SeedWay
Red Marble	Red cipollini type	Johnny's Seeds
Gold Coin	Yellow cipollini type	Johnny's Seeds

Table 2. Marketable yield of specialty onions evaluated in 2013.

Variety	Avg. Bulb Wt. (oz.)	Avg. Bulb Diameter (in.)	Total Yield/Acre ^z (tons)	% Culls
Borettana	3.0	2.5	4.7	11.5
Candy	4.6	2.4	7.2	4.0
Copra	3.5	2.3	5.5	7.0
Di Genova	5.6	3.0	8.8	16.5
Dorata di Parma	5.3	2.7	8.3	7.0
Expression	4.1	2.5	6.4	2.4
Gold Coin	1.2	2.0	1.9	9.5
Piatta di Bergamo	1.7	2.5	2.7	23.5
Red Ball	2.6	2.2	4.1	4.5
Red Marble	1.1	1.8	1.7	19.0
Safrane	3.5	2.7	5.5	7.0
Santana	4.5	2.5	7.0	4.5
Tropea	2.1	1.6	3.3	9.0
Yankee	3.6	2.4	5.6	0.0
<i>Mean</i>	<i>4.3</i>	<i>2.3</i>	<i>6.7</i>	<i>15.1</i>
<i>Standard error</i>	<i>1.1</i>	<i>0.04</i>	<i>1.7</i>	<i>2.8</i>

^zPlant population of $\approx 50,000$ plants/acre.

For bulb onions, the desired bulb diameter is greater than or equal to 2 inches. However, for the miniature or cipollini types, 1.5-2.0 inch diameter is considered desirable for market. Cipollini are small, round, and flat onions that have very high residual sugars and make them excellent for specialty dishes. Large, sweet onion types such as ‘Candy’ and ‘Copra’ typically produce large diameter bulbs, but the delayed planting date possibly reduced bulb size in this trial.

Nevertheless, both of these varieties produced bulbs with excellent uniformity and appearance.

In this trial, ‘Genova’ was an excellent red cipollini onion with a mild flavor (Figure 1).

‘Genova’ had higher yields than the other red cipollini, ‘Red Marble’ (Figure 1). ‘Borettana,’ a yellow cipollini also out-yielded ‘Gold Coin,’ another popular yellow cipollini onion, and could be a replacement for this variety.

‘Dorata di Parma’ was a very appealing and high yielding yellow bulb onion that out-yielded most of the standard large bulb cultivars such as ‘Candy,’ ‘Copra,’ and ‘Expression.’ This variety is reported to have very good storage characteristics. ‘Santana’ was an excellent yellow storage onion that should be compared with ‘Copra’ and ‘Expression’ for growers who desire a sweet, yellow onion with good storage characteristics. ‘Red Ball’ is an excellent red, sweet onion with very good storage traits.

Growers should diversify their onion sales with the specialty onions. The cipollini types are easy to grow and can be planted in northern latitudes through June. While they do not produce a lot of

tonnage per acre, they are a niche market crop that undoubtedly will complement sales of traditional bulb onion.

Acknowledgments

We are thankful to Eli Cook, Spring Valley Farm, for providing a site for this evaluation.

Di Genova



Di Parma



Borettana



Santana



Red Marble



Expression



Figure 1. Some of the promising specialty onion varieties evaluated in this trial.