

VIDALIA VEGETABLE NEWS

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ONION SEEDSTEMS AND DOUBLES, 2006

Attached as an Excel workbook are the results of seedstem and double counts from this year's variety trial. Counts were made from each 30 ft. plot on March 30, 2006. Data were transformed prior to analyses to reflect a more normal distribution. The reported averages are based on back transforming the means to their original units.

Seedstems are the flower stalks or scapes that develop with some onions. Seedstem formation is primarily under the control of environmental factors. Onions with sufficient number of leaves can be induced to bolt or form flower stalks if exposed to low temperatures. This can happen in early spring if there is a dip in temperatures, which completes the vernalization process. Although primarily under the control of environmental factors, variety does play a role in seedstem formation.

Overall the number of seedstems was not very great this year (range 0-15) and was in line with last year's results. In contrast to the 2004 season in which the number of seedstems ranged from 0 to 123 per plot. The 2004 season is an example where early spring temperatures were such as to cause a high percentage of bolting.

The greatest number of seedstems in 2006 was with Granex Yellow PRR from Seminis, which averaged 15 seedstems per plot. This was significantly greater than any other variety this year. Other varieties that had relatively high seedstems counts included Yellow Granex 15094 from Dessert Seed and Sweet Vidalia from Nunhems. These averaged 10 and 9 seedstems per plot, respectively. Excluding these three varieties and the range of seedstems was from 0-5. There were four varieties that had no seedstems at all and include; Ohoopee Sweet from D. Palmer Seed, Nirvana from Nunhems, J 3002 from Bejo Seed, and XP Red from Seminis.

Onions can form doubles where a single bulb splits into two or more bulbs. As with seedstems there are both environmental and varietal issues controlling this. It is believed that adverse conditions such as freezing temperatures damage the growing point resulting in two or more bulbs developing. Other cultural practices such as planting date can also have an effect. Finally, variety is also a factor in double development with some varieties more prone to this condition than others.

The five worst varieties for doubles this year were Sapelo Sweet and Georgia Boy from D. Palmer Seed, WI-129 and WI-131 from Wannamaker Seed, and Granex Yellow PRR from Seminis.

This year we saw an unusual condition where doubles developed at the neck rather than at the bulb. Normally doubling is quite evident with a single bulb split into two halves

which closely adhere to each other. There is in effect two distinct bulbs often flattened on one side. This new phenomenon looks like a single bulb but on closer inspection two leaf stalks are growing out at the neck. These bulbs would inevitably have two or more centers when cut horizontally. The early maturing Japanese overwintering types appear to have more of these types of doubles. From a fresh market perspective I don't think these onions would be culled since they appear as a single bulb. Of course for onion ring processing this would be undesirable.

SUMMER PLANS AT THE VIDALIA FARM

As you may already know the Vidalia Onion and Vegetable Research Center is now under extension control. I hope this portends a new level of support for the farm. We have been discussing various upgrades, new equipment purchases, and hiring a technician. This should open opportunities for more research particularly for county agents.

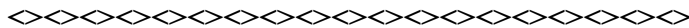
This summer I plan on having my watermelon and cantaloupe variety trials. This will be the first year these trials are on plastic. In addition, I will be evaluating fertilizer products on watermelon, squash, and cucumber. I am also working with Chris Hopkins on a squash variety trial. I also have several crosses of the new pumpkin we've released with other material, which we will be evaluating and making selections from this summer.

I hope to do some soil solarization and cultivation work for weed control in the organic plots. We hope this will lead to better weed control with plantbed onions this fall. Finally we will be continuing the work with millet as a cover crop to reduce bacterial diseases in onions.

FROM MY DESK

This newsletter is very late because I had surgery the end of April. I didn't plan on having the surgery during onion harvest, but it was the only time the surgeon was available without waiting till late May or June. I had been having problems with my right arm, pain and numbness. I had a pinched nerve in my neck and carpal tunnel syndrome in my right hand so I had both taken care of. I still can't speak very well, but hope to be back in the pink in a couple of weeks.

Regards,



George Boyhan, Ph.D.
Associate Professor
Extension Horticulturist-Vegetables
Dept. of Horticulture
University of Georgia

Southeast Georgia Extension Center

PO Box 8112

Nessmith-Lane Bldg. 2nd Flr.

Statesboro, GA 30460

(912) 681-5639 Office

(912) 681-0376 FAX

(912) 682-3481 Mobile

gboyhan@uga.edu

