



Adams County  
*Extension*

9755 Henderson Rd.  
Brighton, CO 80601-8114  
303.637.8100

[www.adamscountyextension.org](http://www.adamscountyextension.org)

January 21, 2014

To: Onion Seed Companies and Onion Producers

From: Dr. Thaddeus Gourd, Extension Director & Agent (Agriculture)  
Sharon Moore, Master Gardener Coordinator (Horticulture)  
Eric Hammond, Agent (Horticulture)

I want to thank the onion seed companies, Bob Sakata, R.T. Sakata, Howard Schwartz and Mark McMillan for supporting this year's Northern Colorado Onion Trials. Also, thanks to the Colorado Onion Association for their interest in our onion research projects. It is our hope that this research provides onion producers in Colorado with information to make educated decisions on variety selection and pest management.

In general, weather conditions were challenging this spring which resulted in delayed planting. The Sakata and CSU Agriculture Research Development and Education Center (ARDEC) farm trials were planted on April 29 and May 23, respectively. We did see good emergence of the onions at both locations. The CSU Research Farm onion trial used flood irrigation and was located at the ARDEC Farm which is North of Ft. Collins, Colorado. The Sakata Farm onion trial was located just west of Brighton, Colorado and was sprinkler irrigated.

Research evaluations performed this year included a thrips and Iris Yellow Spot Virus (IYSV) assessment. Thrips populations were counted on July 24 at the Sakata Farm and August 7 at the CSU ARDEC Farm. The Sakata Farm trial averaged just 3.3 thrips per onion plant and the CSU ARDEC Farm location averaged 12 thrips per plant. With only moderate levels of thrips, we did however experience a 99% plant infection rate of IYSV at both locations. The IYSV assessments of incidence and severity occurred at the Sakata location on September 30 and on September 25 at the CSU ARDEC location. The Sakata location experienced a 1.7 severity level and the CSU ARDEC location saw a 3.8 severity level (0-4 scale with 0 = no damage and 4 = having over 25 medium to large lesions per leaf). This could also explain why the CSU ARDEC location did not see adequate sizing up of the onion bulbs. Maturity data was taken on August 24 and September 24 at the Sakata Farm. Because of the late planting no maturity assessments were performed at the CSU ARDEC location.

Harvest occurred on September 30 at the Sakata Farm followed by processing on October 1st. No harvest occurred at the CSU ARDEC location because onions failed to size up due to the late planting and possibly disease pressure from IYSV. Disease and double center assessments were performed on the day the onions were processed and showed very low levels of double centers or disease rot bulbs. Onion storage data was collected on January 9 and 10, 2014. Please attend the Colorado Onion Association Meeting on January 30 for more in-depth discussion on this year's research and the final onion storage report.

The Northern Colorado Onion Variety Trials Field Tour was held on Thursday, September 6. This field tour and breakfast was sponsored by Jose Solorzano of American Takii.

Enclosed are all reports except storage for the 2013 Northern Colorado Onion Variety Trials. Call Sharon at 303-637-8101 or Thaddeus with comments or questions at 303-637-8117 or [smoore@co.adams.co.us](mailto:smoore@co.adams.co.us). Please visit our web site at [www.adamscountyextension.org](http://www.adamscountyextension.org) for 2013 onion variety trial results.

#### ***Maturity and Harvest Reports***

- The harvest yield is in tons per acre and includes colossals, jumbos, and mediums, prepacks and defects. Market yield does not include pre-packs or defects.
- The defects are a combination of scallions, sprouts and rots.
- Measurements for the various grades were:
  - Colossal onion – greater than 4 inches
  - Jumbo onion – 3 to 4 inches
  - Medium onion – 2 ¼ to 3 inches
  - Prepack onion – under 2 ¼ inches

***Again, Special thanks*** to Bob and R. T. Sakata in Brighton and Howard Schwartz for allowing us to use their fields for this research project.

#### **2014 Northern Colorado Onion Variety Trials**

The cost of the 2014 Trials will be **\$150** per **coated** seed variety for two locations.

**Raw** seed variety cost for the 2014 Trials will be **\$200** per seed variety for two locations

Please mark your calendars, place your orders and send **at least 6 oz. of coated** seed no later than February **24, 2014**. Coated seed is preferred, with at least 6 oz. of seed per variety. Coated seed is now used to facilitate consistent planting with farm equipment. If you are unable to provide coated seed, a special effort will be made to thin these raw seed plots to compare with the coated varieties. **It is imperative that we receive this seed by February 24, 2014 so we can plant when the surrounding fields are planted.**

*Please include a brief description of any variety that has not been in the trials previously. Also provide the color and storage capability such as: Long term, Intermediate, or Short Term (no storage) for each variety.*

Send varieties to:

Sharon Moore  
CSU Cooperative Extension  
9755 Henderson Road  
Brighton, CO 80601-8114

Make checks payable to: **Adams County**

If there are problems getting the seed to us in time, please contact Sharon at 303-637-8101  
*or email her*  
[smoore@co.adams.co.us](mailto:smoore@co.adams.co.us)