

Minutes for the W2008 Annual Meeting 2012

Biology and Management of *Iris yellow spot virus (IYSV)*, Other Diseases and Thrips in Onions SAES-422 Multistate Research Project

December 14, 2012 in Las Cruces, NM

2012 Officers:

Chair: Shannon Pike, Enza USA, California

Vice Chair: Brian Nault, Cornell University, New York (not present)

Secretary: Joel Canestrino, Hazera Seeds Inc., California

Past Chair: Hanu Pappu, Washington State University, Washington (not present)

At 8:00am Shannon Pike called the meeting to order, distributed agendas and initiated the passing of a sign-in sheet for attendees.

Lee Sommers, Colorado State University, Administrative Advisor Update as liaison of the W2008 to the USDA.

-45% of all Hatch Funds have to be spent on Multi-state projects.

-REE Undersecretary and Chief of Science is Cathy Woteki with responsibility for ARS, ERS, NAL, NASS and NIFA.

-Sonny Ramaswamy, former Dean of Oregon St. Univ. is currently Director of USDA NIFA

-The Farm Bill (FB) is still appending approval by the House; its approval is needed to fund all programs in 2013. The 2012 FB had mandatory spending for specialty crops, uncertain this will be carried over in FY2013 FB.

-NIMSS (National Information Management Support System) can be accessed for updates on proposals and budgets.

-The minutes from the 2012 W2008 meeting and an Annual Report must be turned in within 60 days of the meeting in order for the 2013 meeting to be authorized.

-CARET (Council for Ag Res., Ext. and Teaching) is an advisory council to the Association of Public and Land-Grant Universities. Each state can appoint 1-3 "Lay" representatives to CARET.

-CE and AES have enlisted KGlobal for joint marketing and promotion and retain Cornerstone as their Lobbyists in Washington, DC. KGlobal has initiated the Twitter Feed-@AgIsAmerica to post updates, events and news items related to CE and AES. It has 30,000 followers and the target audience is congressional aides. A website is also in development.

Lee Sommers also announced he will be retiring in the middle of 2013.

Shannon Pike- Location for W2008 2013 meeting: Locations for the 2013 W2008 meeting were discussed. Shannon suggested Kona, HI to coincide with the NOA national meeting. Brian Nault

concluded, in absentia, according to Shannon. Dan Drost, Utah, suggested Hawaii was too far and too expensive to justify for a half-day long meeting and advocated a central, continental-US location. Christy Hoepting, NY, concurred. Joel Canestrino, CA, suggested Dallas or Houston as possible locations for the meeting. Howard Schwartz, Colorado, offered to host meeting in Denver near or at the airport. A show of hands favored Denver as the location and it was agreed that the W2008 officers would coordinate with Howard Schwartz, Thad Gourd and Robert Sakata to organize the meeting. The meeting will be held on Thursday, December 12, 2013. Shannon reminded the participants that the W2008 Project has a Public Relations and Report Committee. He asked that an announcement be sent to OnionWorld Magazine that the W2008 meeting has concluded and provide links to Annual Report Summaries. Also, the date of the W2008 2013 meeting in Denver will be provided (20-30 days ahead of desired run date in OnionWorld).

NEW MEXICO. Chris Cramer, New Mexico State University, provided update

- IYSV evaluations in 2012 a bit better than 2011, good spread of virus in field.
- Cool temps in June and July and new field with no previous history of onion production led to low stress on plants.
- Poor stand establishment in seeded plots along with weak or limited seed of PI accessions meant all plots established via transplants.
- Made seed of some first-year bulb selections, which will be evaluated as 2nd-generation material in summer of 2013.
- Date tables with extensive evaluations for thrips numbers, leaf color and glossiness and IYSV disease ratings for lines derived from previous bulb selections were provided by Dr. Cramer and explained.
- No more funding for 2013 evaluations and Dr. Cramer would really like to continue evaluations. More seed of selected resistant bulbs will be made this year and CC will announce availability to seed companies at the end of 2013. Selected inbred bulbs were also crossed to a male sterile and that seed grown out in counting-blocks; it is known that some of the IYSV resistant lines will also be maintained.

COLORADO. Howard Schwartz, Colorado State University, provided update

- 2012 weather not conducive to high IYSV pressure. Will re-test some entries.
- Researched survival and proliferation of thrips in and around cull piles
- Evaluated influence of "Living Mulch", companion crop planted with onions, on thrips and IYSV damage.
- Demonstrated Vydate still effective at reducing thrips populations and evaluated new material, cyantraniliprole, which was also effective at reducing thrips populations.
- Evaluated several pesticide seed coatings on the cultivar 'Vaquero' to see how they influenced thrips populations during the early season. The treatments included the following: 1)Thiram, 2) Coronet, Allegiance and Thiram, 3) Thiram, Coronet, Allegiance and Sepresto. Treatment number three was much more effective than treatment 1 (which does not contain an insecticide) at reducing thrips and IYSV incidence, delivering higher yields and more jumbo bulbs.

- In *Xanthomonas* leaf-blight trials, Kocide suppressed the disease as did Novozyme. The biological MBI 106 (*Bacillus subtilis*) not as effective, but better than the UTC.
- In *Botrytis* Storage Rot screening, Oxidate+Pristine reduced storage rot by 25% and MBI 106 reduced it by 20%.

WASHINGTON. Lindsey du Toit, Brenda Schroeder, Tim Waters, Washington State University, provided update

- Early season was cool and wet with substantial losses to hail.
- Aug to Oct was hot and dry. Late maturing varieties were delayed in maturing due to cool, wet early season. Storage rot was already starting to show up at some sheds.
- Very few reports of problems with IYSV this year.
- Thrips collected in WA still showing some resistance to pyrethroids.
- Cool weather early in season led to higher than normal bolting for some cultivars.
- Continued research on impact of curing temperature and duration on subsequent rot in storage. Growers heat treat at 95 degrees F to dry down necks and reduce loss to neck rot (fungus) even though this might increase problems with bacterial rots later. Bringing onions in with better necks, cured and dried in the field and then curing at ambient forced-air temps for a few days would reduce losses to bacteria in storage.

UTAH. Dan Drost and Claudia Nischwitz, Utah State University, provided update

- Studying neighboring crops and edge effects in onion fields as it pertains to distribution of thrips in the field and progression of IYSV through the field.
- Egg laying preferences of thrips not influenced much by germplasm.
- Thrips can proliferate on alfalfa plants, 120-140 per plant in July-Aug; they can reproduce on some weeds reaching 20-40 per plant; they do not proliferate on corn; on wheat they can reach 4-5 thrips per plant in June-July.
- Mallow, prickly lettuce, flixweed, clasping pepperwood, alfalfa, wheat all tested positive for IYSV and provided a "Green Bridge" for the virus.

OREGON. Clint Shock, Oregon State University, provided update

- Feb and March were dry with no weed emergence; onion trials were planted a bit earlier than normal; wet weather and weed pressure followed.
- August much warmer than normal, had prolonged dry, warm weather to field cure and harvest onions.
- Early harvest led to favorable pricing and some Fresh Market sales, easing demands on storage space.
- IYSV pressure was low in 2012; thrips not problematic, well controlled by growers.
- Some lots recently placed into storage seem to be storing rather poorly.
- Conducted plant population X irrigation method trials for yield and size distribution.
- Conducted variety trials of commercial hybrids.
- Alternative methods to control thrips were trialed (Surround, Mycotrol, Diatomaceous Earth); none were as good as growers' standard control methods and all showed substantial thrips damage.

WISCONSIN. Mike Havey, University of Wisconsin, provided update

- IYSV not yet described as occurring in WI and they are not looking for it.
- Havey produces seed from IYSV-resistant selected bulbs acquired from Howard Schwartz in Colorado; many of the Spanish lines tend to bolt or flower poorly after cutting and planting.
- Seed of IYSV-resistant Long-Day germplasm will eventually be released by the Havey Lab.

PENNSYLVANIA. Beth Gugino, Pennsylvania State University, provided update

- Pennsylvania has 300-400 acres of onions, mostly as 0.25-2 acre fields grown by the Amish and Mennonite communities. It is all sweet onion production, grown on plastic, from transplants with the varieties Candy, Expression and Candor. Marketed through Co-ops, produce auctions and roadside stands via the PA "Simply Sweet" trademark and marketing order program.
- MO assessment leads to \$5,000-6,000 available annually for research.
- Production suffers from onion collapse in the field and in storage from a complex of bacterial rots (center rot, sour skin, slippery skin).
- Investigation into mulches showed that bacterial rot is worst on standard black plastic. Bare soil has the lowest disease pressure, but not useful due to weed problems. Silver mulch and biodegradable black mulch were much better for reduced disease incidence and did not alter yields or size distribution.
- Checked sources of bacterial pathogens, seed, weeds, transplants, soil, crop residues and thrips. Growing cycle is only 90 days; many growers do not control thrips. *P. agglomerans* found on transplants from all areas; sour skin did not come in with transplants.
- Reducing plant spacing from 10" x 6" or 6" x 6", to 4" x 6" reduced bacterial rot problems.

NEW YORK. Christy Hoepting and Steve Beer, Cornell University, provided update

- Compared thrips control following a standard spray program for thrips (2x applications of Movento, 2x of Agri-Mek, 2x of Lannate, 2x of Radiant) with one based on scouting and spraying based on thrips/leaf action thresholds; many growers only needed 3-4 sprays for the whole season.
- Continue to evaluate Benevia prior to registration; control has been very good and is comparable to Radiant and Movento.
- Co-applications of Bravo (chlorothalonil) and either Movento or Agri-Mek greatly reduced efficacy of the insecticide. Other fungicides such as Scala, Quadris, Rovral and Dithane F45 Rainshield mixed with these insecticides did not interfere with thrips control.
- Combination of reduced N use and higher plant stands reduced the percent of bulbs affected by bacterial rots.
- Plots with excellent thrips control had significantly higher bacterial bulb decay problems. Thought is that aggressive adjuvants used with insecticides also strip waxy cuticle from onions and make them more susceptible to foliar disease. Leaf damage from aggressive herbicide programs might also expose leaves to more foliar disease.

Shannon Pike- Deliverables and 2014 W2008/NARC Meeting

- Minutes for W2008 meeting 2012 need to be submitted by Secretary and accepted by officers.
- All researchers involved with W2008 need to provide an annual summary report that includes: 1) how the 4 objectives of W2008 were met, 2) Impacts, and 3) List of Publications. These will

be delivered to Brian Nault by Jan 20th for comments and editing between Jan 20th and Feb 1st. Minutes and Annual summary reports will be sent by Brian Nault to Lee Sommers on or about Feb 1 to satisfy requirements for funding of W2008 meeting in 2013.

-Request for volunteers for Secretary was solicited by Shannon. Juan-Carlos Brevis of Enza Zaden USA was nominated by Joel Canestrino and the nomination was accepted.

For W2008 Meeting in Denver, December 12:

Chair-Brian Nault

Co-Chair-Joel Canestrino

Secretary-Juan-Carlos Brevis

As for the W2008 Meeting in 2014, it was decided by the NARC group that the 2014 NARC meeting will be held in conjunction with the NOA National Annual Meeting in Scottsdale, AZ (specific date and location not yet listed on the NOA website). The likely meeting period is the last week of November, perhaps spilling over into early December. Since the NARC meeting is often times hosted by a university researcher at a land-grant university involved in onion research, they typically organize the NARC meeting. Since, it will be in AZ and without a University host, it was decided a liaison committee from the NARC work with the NOA to organize the 2014 meeting. This liaison Committee will be comprised of the W2008 Officers and two volunteers. Thus, the NARC /W2008 2014 meeting organizers will be:

Joel Canestrino-Chair

Juan-Carlos Brevis-Co-Chair

To be elected-Secretary

Shannon Pike-Volunteer and Past Chair

Bill Chounet-Volunteer and Past NARC Host.