

# SDSU Seednews

Volume 22  
Issue 2

November  
2014

We are all here for a spell; get all the good laughs you can.  
*Will Rogers*

We make a living by what we get, we make a life by what we give.  
*Winston Churchill*

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## Scab Infected Spring Wheat Seed

Brent Turnipseed, Director, SDSU Seed Testing Lab  
Nov. 6, 2014

Once again we have had an unusual growing season with cooler temperatures and in some areas more moisture during the wheat heading/flowering stage. Due to the moisture we have seen some scab issues in the hard red spring wheat received so far. With over 170 samples of new crop spring wheat from SD and MN tested so far, over 37% has exhibited germination rates below 80%, and over 60% of the samples have below 90% germinations. The germination range that we have seen so far has been from 45% - 99%. Many of these have been in the dirt.

Scab, also known as head blight, head scab, or pink mold, is a fungal disease that can attack spring and winter wheat as well as other small grains, and it can even infect many other grass species. *Fusarium* spp. are the causal agents in scab. Visual symptoms of infected seed are not always present on seed or grain, but usually scab-infected wheat kernels are shriveled, discolored with a white, pink, or light brown scaly appearance. These kernels are often referred to as "Tombstones". Infection of scab can also lead to production of mycotoxins in the seed. The most prevalent one "Vomitoxin" (also known as DON) is often tested for as it can cause problems for grain utilization.

Spring wheat seed producers will need to more rigorously condition seed with a gravity table to remove lightweight scab-infected kernels, and should be using seed fungicide treatments on spring wheat seed. Planting seed lots that have scab damage does not, however, mean you will have scab next year as disease development depends on environmental conditions at the time of flowering.

### Germination

Scab-infected seed, if not dead, will have lower vigor and be more susceptible to other field fungi when they germinate in the soil, and will remain vulnerable to infections in the seed seedling stage. In germination testing, infected seeds/seedlings can reduce germination percentages because of secondary infections. The lab plants eight 50 seed replications to spread out seeds/seedlings to reduce secondary infections, providing a more accurate test. From past experience this practice can increase the rate of normal seedlings (have all essential structures for growth) by up to 10% versus the normal planting of 4 replications of 100 seed method.

### Seed Treatment

Another option that growers should be using is a fungicide seed treatment. Using a seed treatment will not bring dead seeds to life, but will protect seeds and seedlings from early season fungal infections. It will also suppress surface-infected *Fusarium* from growing during the germination test and prevent infection of the seedling, thus allowing that seedling a chance to grow into a productive plant. A fungicide treatment will usually increase germination of infected lots on average at least 10% higher over a standard (4 reps of 100 seed) germination test.

The SDSU Seed Testing Lab offers a treated germination test (using Raxil™ or Stamina/Charter F2™ or CruiserMaxxVibrance™) along with the standard (untreated) germination test to compare potential germination benefits of seed treatment. There are several effective fungicides on the market and the lab does not endorse one over the other. Contact your Extension Educator, your crop consultant, local Cooperative, or the Extension Plant Pathologist Dr. Emmanuel Byamukama (email: [emmanuel.byamukama@sdstate.edu](mailto:emmanuel.byamukama@sdstate.edu), phone: 605-688-4521) for treatment products and options.

### Testing

An 8 replication of 50 seed germination test (or a treated germination test) on cereal crops at the SDSU Seed Testing Lab costs \$21.00 (an additional \$21.00 for a treated sample) plus tax, a small price to pay to find out the quality of your seed. Send samples by US Mail to: SDSU Seed Testing Lab, Box 2207-A, Brookings, SD, 57007; or through UPS/Fedex/Speed-Dee to: SDSU Seed Testing Lab, 2380 Research Parkway, Brookings, SD 57006. Sample envelopes may be obtained from your Extension office. Growers of certified seed are to use the mailing bag supplied to them after field inspection. Tests take approximately two weeks. More information on submitting a sample can be found at the lab's website (<http://www.sdstate.edu/ps/seed-lab/index.cfm>)

## Foundation Winter Wheat Sales Down from 2012, 2013

Jack Ingemansen, FSSD

With the large winter wheat crop and no new SDSU releases, Foundation Seed sales were down 24% from 2013 and 8% from 2012. Ideal, which sold out early, replaced Overland as the top selling variety with 2,441 bushel sold. Redfield, a 2013 SDSU release, was the second in sales followed by Overland, which was down 62% from 2013. Both Redfield and Ideal performed well at multiple Crop Performance Testing locations. Lyman demand remained steady while Wesley continued to decline in popularity.

HRW Variety	2014 Sales (bushels)	2013 Sales (bushels)	2012 Sales (bushels)
Ideal	2,441	1,471	2,183
Redfield	2,045	1,123	2,202
Overland	2,032	5,281	1,077
Expedition	253	1,125	-
Lyman	232	193	582
Wesley	54	94	879
Other Varieties	0	0	746
Totals	7,057	9,287	7,669

### Ag Horizons Conference, December 2nd and 3rd, 2014

#### Conference Registration — on site

Full Conference..... \$95.00

1/2 Day conference..... \$50.00

#### On line registration [www.sdwheat.org](http://www.sdwheat.org)

Full Conference..... \$85.00

1/2 Day Conference..... \$45.00

### Hotel Registration

Ramkota City Center — 1-605-224-6877

Pierre SD

Room Cost

single \$89.99

double \$99.99

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## Ag Horizons Agenda–Tentative

### *Tuesday, December 2, 2014*

8:30 – 9:00 Lake Oahe Lobby Breakfast

9:00 – 9:50 Association Meetings — Final Notices to be Distributed

SD Pulse Growers	SD Trade Seed
SD Wheat Inc.	SD Crop Improvement
SD Oilseeds	SD No Till

9:50 – 10:00 Amphitheatre I Welcome — Lucas Lentsch, Secretary of Agriculture

10:00 – 10:50 Amphitheatre I From Field to Fork — Panel

- Tim Luken — Oahe Grain Coop
- Don Pikop — Baystate Milling
- Steven Brown — SD Pulse Processors

11:00 – 11:50 Breakout Sessions

Lake Sharpe Wheat Growing in the Greenhouse? — Panel

Lake Francis Case Management of New Diseases in Cool-season Pulses — Dr. Michael Wunsch, NDSU

Lake Lewis & Clark CQL-Adding Value to Our Crops — Padu Krishnan, Ph.D.

12:00 Noon Rooms B & C Luncheon — Kennebec Connection — Roger Kruger, SD Wheat Growers

1:00 – 1:50 Amphitheatre II Is Tiling for YOU? — Panel

- Dave Veldkamp — Agrem
- Christopher Hay — SDSU
- Owen Fagerhaug — USDA

2:00 – 2:50 Breakouts

Lake Sharpe Incremental Change is Not Enough — Dwayne Beck

Lake Francis Case SDSU Oat Breeding Program — Melanie Caffé

Lake Lewis & Clark Leaf Spot and Root Diseases — Shaukat Ali

2:50 – 3:00 Lake Oahe Lobby Cookie Break — Sponsored by Farm Credit Services

3:00 – 3:50 Amphitheatre I Rail, Roads and Costs — Panel

- Bruce Lindholm — South Dakota's Five Year Rail Plan
- Mike Vehle — Highway Funding Task Force
- Jim Schmidt — Lincoln County Commissioner
- Adrian Arnakis — John Thune's Counsel for Surface Transportation Board

4:00 – 4:50 Breakouts

Lake Sharpe Combine Fires: Reducing the Threat — Dr. Dan Humburg

Lake Francis Case Wheat Breeding Updates — Karl Glover SDSU & Scab Initiative — Laird Larson

Lake Lewis & Clark Northern Crop Institute Update — Mark Weber, Director

5:00 – 9:00 Rooms B & C Banquet Sponsored by SD Wheat Commission

Entertainment — VJ Smith — "The Richest Man in Town"— Sponsored by BNSF

### *Wednesday, December 3, 2014*

8:00 – 9:00 Lake Oahe Lobby Breakfast

9:00 – 10:00 Amphitheatre I Mark Gold — Marketing Options for 2015

10:00 – 10:50 Breakouts

Lake Sharpe Drone Technology in Ag Today

Gallery G CQL-Adding Value to Our Crops — Padu Krishnan, Ph.D.

Lake Francis Case Combine Fires: Reducing the Threat — Dr. Dan Humburg

Lake Lewis & Clark Keystone Pipeline Update

11:00 – 11:50 Breakouts

Lake Sharpe Estate Planning — Stulken Peterson

Gallery G Wheat Stem Sawfly Management Using Resistant Wheat Varieties — Ada Szczepaniec, Ph.D.

Lake Francis Case Introducing Carinata as a Wheat Rotation — Bill Gibbons

12:00 Noon Luncheon Speaker "Two Sided Coin Of The 2050 Grand Challenge" — SDSU Dean Dunn

**\*Continuing Education Units (CE Us) for the Certified Crop Advisor Program are pending.**

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## OFFICIAL NOTICE

This edition of SDSU Seed News will serve as your official notice of the SDCIA Annual Membership Meeting. The meeting will be held Tuesday, December 2nd at 9:00AM at the Ram-Kota Convention Center in Pierre, SD. Election results of board members from the West District, At-Large-Position and Premier Seed Grower will be announced at the annual meeting. If you have any questions please call the SDCIA office. 605-688-4604.

***Pre-Registration Form – Send to SD Wheat Inc. P.O. Box 667, Pierre,***

*Prior to November 24, 2014 \_\_\_\_\_ \$85 Full Registration \_\_\_\_\_ \$50 ½ Day*

Name \_\_\_\_\_

Additional Names \_\_\_\_\_

Address \_\_\_\_\_

Email \_\_\_\_\_

Register online at [www.sdwheat.org](http://www.sdwheat.org)