Happy Holidays from MSGA

The staff at the Montana Seed Growers Association would like to take this opportunity to say thank you to all of our growers, contractors, handling facilities, county agents and associates for making this this another successful year; and extend warmest wishes for a Merry Christmas and a New Year of health, happiness and prosperity to you and your family.

L to R: Bernie Schaff, Heather Rimel, Ron Larson, Tawnya Morgan, Dave Gettel, Bill Grey

Board of Director Results

The final votes are in for District 2 and District 3 elections. Congratulations to Rod Kitto from Toston and John Wold from Laurel. Both directors have been elected to serve three year terms. The MSGA would like to say a special thank you to Lloyd Harris of Bozeman for his years of service to the Board and Association. Thank you to all the producers in the area who took the time to cast their vote. The next Board of Directors meeting will be held in Bozeman February 23-24. Please contact your district representative or MSGA office if you have subjects or issues you would like brought up at the meeting. Contact information for your district representative can be found at www.ag.montana.edu/msga.
A Note from the Manager

As another year disappears into history, we have the opportunity to review again some of the things that have occurred in the past year. In spite of delayed planting, and sometimes no planting, depending the location in MT this year, the certification program still eventually received enough applications to meet the 60,000 acre mark as indicated by the table. Both spring wheat and winter wheat categories increased over last year, but most of the rest of the crop kinds certified by MSGA had reduced numbers of acres applied for. Winter Wheat acreage applied for increased by 10% over 2010 and spring wheat increased by about 7% compared to last year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Acres Applied</th>
<th>Acres Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>66,500</td>
<td>61,724</td>
</tr>
<tr>
<td>2010</td>
<td>64,715</td>
<td>56,892</td>
</tr>
<tr>
<td>2011</td>
<td>60,071</td>
<td>55,628</td>
</tr>
</tbody>
</table>

In other news, SeCan has announced their royalty fees for seed of AC Metcalfe and Harrington barley being sold between July 1, 2011 and June 30, 2012. AC Metcalfe fees are set at $0.90 per bushel sold and Harrington, $0.50 per bushel sold. As usual, for those who don’t have a separate individual agreement with SeCan, MSGA will be collecting these fees, to be paid in the fall of 2012. Payment notices will be sent prior to the due date.

Please note the agronomic information we have included from MSU Extension Entomologist, Kevin Wanner, regarding wireworm infestation. It seems to be a problem that is increasing in prevalence in these times, as Kevin indicates, and worth learning identify in the field scouting process.

Wishing everyone Happy Holidays from the Montana State Seed Testing Lab

Bridget, Lucy, Courtney and Jessie
Wireworms, a Growing Threat to Grain Production in Montana?

Kevin Wanner
Assistant Professor, Entomology
Extension Specialist, Cropland Entomology
Department of Plant Sciences & Plant Pathology
Montana State University

Shortly after starting my new position at MSU during the summer of 2008 I was called to the Conrad area to inspect wheat and barley fields that were severely damaged by wireworms. Wireworms are sometimes thought of as a “patchy pest” but I was looking at entire fields that needed replanting. Each of the past three years I have talked to more producers from across the state that feel wireworm damage has become more common.

Prior to the 1950s wireworms were significant pests of a variety of crops. In fact, the 1890 edition of Encyclopeda Britannica listed wireworms as “amongst the most destructive insects known to agriculturists” under the topic heading “insects injurious to wheat”. John Comstock, one of the early US entomologists, published a bulletin in 1891 about his research at the Cornell University Agricultural Experiment Station towards trying to control wireworm damage. The “insecticide era” of the 1950s produced the first generation of highly toxic and persistent synthetic insecticides that included organochlorine chemicals such as DDT, but they were also harmful to the environment. It’s believed that these insecticides reduced wireworm populations in the soil and damage became less common. The insecticide lindane (an organochlorine) was used as a seed treatment on grains for more than 30 years. However, since its deregistration by the EPA reports of wireworm damage to small grains has increased.

What are wireworms? Wireworms are the larval stage of click beetles, the common name for species in the taxonomic Family Elateridae. About 9,300 species of click beetles have been described worldwide. In North America 885 species have been identified. More than 15 years ago Dr. Mike Ivie, an entomologist and beetle taxonomist at Montana State University, identified more than 150 click beetle species in Montana along with his graduate student Cathy Seibert. These adult beetles are stored at MSU. However, they have never been linked to the larval stages that are infesting Montana’s cropland because unlike the adult beetles, the larval stage cannot easily be identified to species. During May and June the adult female beetles deposit their eggs in grassland including wheat and barley fields. After hatching the larvae live in the soil for 1 to 5 years before developing to adults, feeding on decaying organic material, seeds and seedlings and even preying on other soil invertebrates.
What’s the problem? Wireworm damage to wheat and barley is increasing. Neonicatinoid insecticide seed treatments that have replaced lindane, such as imidacloprid (Gaucho® and generic formulations) and thiamethoxam (Cruiser®), while providing good crop protection, do not kill significant numbers of wireworms in the soil. It is generally accepted that lindane reduced wireworm populations in the soil by about 50% each season it was used. Wireworms are not an isolated problem, grain producers to the west and north of Montana (Washington State and Alberta) have begun to focus their attention and resources towards managing this pest. When I travel Montana to talk about wireworms and raise awareness, I often here “Oh, wireworms, we have lots of those here too!” While not necessarily alarmed, I have become concerned enough to focus field research studies for the next five years towards addressing this growing insect pest problem.

How is MSU addressing the problem? We are working with industry and colleagues in Washington State and Canada to research wireworm biology and to develop more effective insecticide treatments. First, we are testing new insecticidal seed treatments for wireworm control, specifically assessing larval mortality in the soil, not just stand protection. Our goal is to support efforts to develop more effective seed treatments that reduce wireworm populations in the soil. Second, we are surveying wireworms in Montana’s grain fields. Because the larvae are difficult to identify, and because lindane provided effective control, the actual species causing damage to Montana’s grains have not been identified. During the 2010 field season we collected more than 2,000 wireworms from a field near Denton, and 600 from a field near Conrad, on six different dates spanning the growing season. DNA barcoding technology is being used to match the larval species collected from the fields to the adult beetles in the MSU collection. A small region of the insect’s DNA is sequenced (the barcode) and it is matched to the corresponding adult’s barcode (the DNA barcodes are unique for each species, but there are no differences between the larval and adult stages). The goal is to identify the complex of different wireworm species infesting Montana’s cropland, a project supported by a USDA Crops at Risk (CAR) grant.

Do you have thin patchy areas in your grain stand? If so, you may want to participate in the 2012 MSU wireworm survey. Despite difficulties associated with surface water, we managed to survey 60 grain fields across Montana during the spring of 2011. We asked collaborators if they had a known history of wireworms in their field. Not surprisingly, we found wireworms in most of the fields with a known history of wireworms. Interestingly, we found a small number of wireworms in 18% of the grain fields with no known history. Whether these represent transient populations come and go, or established populations that will continue to grow over the next 5-10 years, is unknown at this time. During May 2012 MSU will again mail out wireworm bait traps, plastic canisters with holes drilled into the sides. The canisters are filled with wheat seed and soil and buried in the field for 10-14 days. As the seeds germinate they produced carbon dioxide that attracts the wireworms into the trap. A postage paid box is provided so that the traps can be mailed back to MSU where the wireworms can be counted. For more information or to participate, please contact Kevin Wanner (kwanner@montana.edu).
Montana Foundation Seed - Bill Grey

MFSP was pleased with the inaugural sales of foundation Judee and Bearpaw. For those who received an allocation of the two winter wheat varieties, I hope you have a bountiful harvest of registered seed. For those who did not receive an allocation, thank you for your patience and we anticipate adequate supplies of foundation seed next fall, 2012. We will have foundation seed of Duclair this spring and I anticipate limited supplies based on the demand to date.

Foundation seed has benefited from a dedicated staff at the Research Centers over the years and we are fortunate with our newest members. Jeff Whitmus with NARC – Havre and Ron Brown with EARC – Sidney have a huge laundry list of responsibilities in addition to foundation seed. Jeff and Peggy Lamb have tagged teamed on a win this summer with Judee and Duclair at NARC. Ron Brown led a victorious team at EARC in production of Duclair, Vida and the safflower varieties. Joe Vavrovsky and Dave Wichman are co-anchormen at CARC and are perennial favorites to bring home the foundation seed. Bernie Schaff and Jake Heen have been busy with the research and breeder plots that are critical to a successful variety release. Bernie during his 15 years as Manager of the A.H. Post farm was involved with over 30 variety releases and close to 15,000 bu foundation seed with sales of $256K. I am happy to welcome our new newest staff member, Dave Gettel, who has started this month and is the manager of the A.H. Post farm in Bozeman.

While we gain new staff, there is the bon voyage celebration for a member who will start a new phase in his life. Barnard ‘Bernie’ Schaff has retired as manager of the Post Farm. Bernie has worn many hats and coats over his 39 years with MSU. He wore a benny while earning a soil science degree, a professor hat teaching students soil testing, wore the research smock as a soil scientist, strapped on the blue and gold Bobcat on game day, and dutifully placed farm caps to keep the dust and grease from soiling his pompadour hairstyle. Bernie and I have had lots of fun together producing seed while finding quality time to discuss, argue and laugh as the ‘old couple’ of the Post Farm. Foundation seed thanks your many years of service with MSU and teaching this manager what it takes to be successful with foundation seed.

I wish all of you a happy holiday.

Bill Grey

Pictures of Bernie...
“Look for the Tag on the Bag”

Upcoming Dates:

- December 26: Office closed for Christmas
- January 2: Office closed for New Year
- January 16: Office closed for Martin Luther King Day
- January 19-21: MAGIE Expo—Great Falls
- January 25-27: MABA Meetings—Great Falls
- February 16-18: MATE Show—Billings
- February 22-23: MSGA Annual Meeting—Bozeman