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THE IDAHO GRAIN PRODUCERS ASSOCIATION MAGAZINE

**FALL 2015** 





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### CONTENTS



### A Season to Remember

HAT a season this has been in southeast Idaho for wheat and barley farmers!

What started out to be an early, dry planting season has turned into the wettest season on record. I hope it is that way all over the State. I have talked to former IGPA Presidents "Genesee" Joe Anderson and Clark Hamilton. Joe

said in his area the crops are average to a little bit above average. Clark told me his crops were excellent. In the northern part of the state, they are suffering mightily from drought conditions. As we farmers know all too well, Mother Nature's impacts depend greatly on location and luck.

Closer to home here in Soda Springs, we are having quite a different rain event. I hope we don't encounter sprout or quality issues like southern Idaho farmers did last year. We continue to deal with rain as we dive into harvest.

There is some concern that making protein will be a major issue. Grain elevators in my region are reporting low test weights. As I write this article, Caribou County growers are not harvesting barley yet but we are expecting a bumper crop. The malt companies have told me that the quality is looking very good this year in the areas surrounding Idaho Falls.

The IGPA is very busy working on several top priority issues. Congress spends the month of August away from Washington, DC which means we get the chance to see them in Idaho. On August 10 the IGPA hosted a farm tour in the Treasure Valley for Idaho's 1st District Congressman Raul Labrador. He met with IGPA lifetime member Richard Durrant and son Neil who own and manage Big D Ranch, a commodity merchandiser for area growers. Along with the business, the Durrant family farms 1,100 acres of wheat, sugar beets and pinto beans.

On August 13, IGPA vice president Terry Kulik, past president Wayne Hurst and IGPA executive director Travis Jones met with Congressman Mike Simpson and staff. The group discussed issues ranging from railroad reform legislation to the labeling of foods containing genetically modified organisms. Congressman Simpson continues to be a huge champion for our industry on these issues and especially our concerns with EPA regulations.

I happen to live a few football fields away from Monsanto's phosphorous production plant here in Soda Springs. The IGPA has a great cooperative relationship with the company and that is paying off for our industry. In July, IGPA leaders were invited to attend the grand opening ceremony of Monsanto's new Wheat Technology Center in Filer, Idaho. The Center's christening will serve as Monsanto's core U.S. wheat breeding research and development facility. Idaho is fortunate to be the home of the Center. It was a great day and we appreciate Monsanto's investment in our industry.

As we head into the fall season, the IGPA will be working with our grain leaders around the state to set up county meetings in October. We hope wheat and barley growers will attend a meeting in their area and let us know what opportunities and challenges we can focus on. The more input and conversation we have, the better we are at advocating for Idaho's grain producers and the industry.

In the meantime, I wish you all the best as you wrap up harvest and begin planning for the 2016 season!

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### **EDITOR'S NOTE**

### Idaho Agriculture Depends on Global Trade



HERE are few sectors of our economy more dependent on international trade than agriculture—and good news for agriculture is good news for Idaho.

Federal trade policies have an important impact on Idaho farmers and ranchers. Without policies that open new markets for farms, ranches, and other businesses, Idaho's ability to create and sustain good jobs is crippled. It's that simple.

Fortunately on June 24 the U.S. Senate put Congress's final seal of approval on legislation referred to as Trade Promotion Authority (TPA), also known as "fast-track" authority. Originating in 1974,

Trade Promotion Authority is an agreement between the White House and Congress on how they will work together to negotiate, consider, and vote on international trade deals.

Once an agreement is finalized by the executive branch and transmitted to the legislative branch, Congress can only vote to approve or disapprove an agreement. Congress cannot amend the agreement or use parliamentary procedures to thwart its consideration.

Leading up to the Senate's June 24 vote, the rancor over TPA had many House and Senate members on edge, including some members of Idaho's congressional delegation. Those opposed feared that the President would exploit his authority for devious purposes. The IGPA learned that those opposed believed that TPA would allow the President to relax U.S. immigration laws, weaken gun rights, and would impose onerous environmental rules on U.S. citizens.

With major trade deals in the works and at stake, American agriculture countered the opposition just as aggressively. The IGPA joined forces with other state and national organizations to educate Congress on the benefits of trade for our industries. Simply put, our view overcame.

What TPA does do is empower Congress to have a proactive role in trade negotiations—including oversight, setting objectives, and ensuring transparency. Congress ensures that trade deals aren't spoiled by narrow interests at the expense of the country as a whole. The recently passed bill ensures that the public is fully informed by requiring agreements be made public for at least 60 days before being finalized.

There is little question that TPA opens the door to exports that are vital to Idaho's economy. Idaho gross agricultural product sales totaled \$2.6 billion in 2013, and made up 4.5 percent of Gross State Product. That number skyrockets to 14 percent when agribusiness is included. In 2014, 21 percent of Idaho's more than \$5 billion export value came from agriculture. According to the American Farm Bureau, 23 percent of American raw farm products are sold overseas every year.

Here in Idaho, half of our wheat crop is exported. In fact, Idaho wheat growers were responsible for producing Idaho's top agriculture export in 2013 – \$500 million worth! What if these foreign markets were not available to our wheat producers? How might that impact the price of wheat?

Idaho barley exports are minimal compared to its domestic use by our malting and brewing partners. However, significant opportunity exists to export Idaho specialty barleys to international markets for human consumption and animal feed. TPA and trade agreements create new opportunities that serve as a backstop should our domestic markets for barley throw us a curveball.

Case in point, the President is close to finalizing the Trans Pacific Partnership (TPP) free trade agreement. Twelve Pacific Rim countries are participating in the negotiations. These twelve countries represent 40 percent of the global economy. Of the six top export markets for Pacific Northwest wheat, five of them are part of the TPP negotiations.

The Idaho Grain Producers Association is thankful to Senator Crapo, Senator Risch and Representative Mike Simpson for their votes in support of the TPA bill and free trade generally. We appreciate that these elected leaders listened to our voice and that of many agriculture organizations over the naysayers. Our leaders understand how critical these foreign markets are to our livelihoods and industries.

I urge you to take the time to shoot them an email or phone their respective staff to thank these three Idaho elected leaders for their votes.



### IDAHO GRAIN PRODUCERS ASSOCIATION

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### **IGPA Accomplishments List**

(refer to Page 16 for more IGPA accomplishments)

WITH just four months left before we turn over a new year, the IGPA has had many good successes on behalf of Idaho's wheat and barley producers. Here and on Page 16 are a few of these policy accomplishments.

### STOPPING PORT DISRUPTIONS

Summer 2014 labor strikes at West Coast ports caused major disruptions that impacted commodity prices and Idaho farmers. Port of Vancouver grain inspectors, feeling threatened by aggressive protestors, suspended inspections thus halting wheat export activity. Meanwhile, Congress began working on legislation reauthorizing the Grain Standards Act, originally created in 1916. The GSA includes authorization outlining the purpose and functions of the Federal Grain Inspection Service (FGIS). Through the IGPA's two national affiliates, NAWG and NBGA, new protections were added to the Act that require FGIS to provide inspection services in situations where disruptions occur. The IGPA also worked with Senator Jim Risch to introduce a separate but related bill that seeks alter the National Labor Relations Act, defining a labor slowdown by maritime workers as an unfair labor practice.

### TRADE PROMOTION AUTHORITY

Over half of Idaho's wheat crop is exported to foreign customers. Maintaining these critical business links and looking for ways to strengthen them is a major priority for the IGPA and the Idaho Wheat Commission. International trade agreements between the United States and our trading partners is vital to the health of Idaho grain producers. Congress recently passed legislation to provide the President with "Trade Promotion Authority" (TPA), also known as fast-track authority. TPA provides a streamlined process for the Administration to open up foreign markets to U.S. products and services. In the face of stiff opposition from anti-free trading interests, the IGPA worked to ensure that Idaho's congressional delegation supported TPA. Three of our four members voted in favor of the



In August, the IGPA hosted Idaho Congressman Raul Labrador (right) for a farm tour at Big D Ranch in Meridian.

legislation, which ultimately passed through both the House and Senate and is now law.

### EXEMPTING FARMERS FROM FUGITIVE DUST REGULATION

The IGPA led an effort to exempt a farmer's activities from the Idaho DEQ's fugitive dust rules, as long as those activities are generally recognized agricultural practices in the farmer's area. The issue arose when dust created by a farmer grinding hay led a neighbor to complain to the DEQ. The DEQ then issued a Notice of Violation to the producer citing a violation of fugitive dust emission rules. The IGPA and other groups revised the rules to exempt producers from them and the new language was approved by the Idaho State Legislature. The

rules should mean that our members can go about their business without concern that they will be cited for creating dust.

### EMINENT DOMAIN

With the help of the IGPA, State Senator Jim Guthrie (R-McCammon) passed a bill through the state legislation restricting local governments from using eminent domain powers to create bike paths and other greenways through private property. The bill proved highly controversial, though less so than most eminent domain issues. The IGPA believes that this bill protects private property rights for landowners, who will no longer be subject to local governments condemning land to put in structures like bike paths.



### Farmer regifts tractor win

By Cindy Snyder

HE chance to drive something new makes almost everyone's heart beat just a little faster. For nearly two decades one lucky grain producer has gotten the chance to spend 50 hours in the cab of a John Deere tractor thanks to a partnership between the Idaho Grain Producers Association and John Deere.

"We value grain growers and all they do," said John Hoybjerg, owner of Christiansen Implement, the John Deere dealership in American Falls. Participating in the tractor raffle gives the company a chance to show that appreciation while helping a grower offset a portion of the cost of using a tractor.

Christiansen Implement has supplied several tractors to raffle winners over the last 17 years, but it particularly proud to be supplying the 2015 tractor, the first known time the winner has donated the tractor to another producer.

Scott Fuhriman of Malta, won the IGPA annual tractor raffle. As soon as he knew his name had been drawn, Fuhriman was already making plans to gift the windfall to his neighbor Paul Hubbard.

"I immediately thought of Paul," Fuhriman said. "Retirement is in my future.

### WANT TO PURCHASE Minerals and other oil/gas interests.

Send details to: P.O. Box 13557 Denver, CO 80201 This is the future, this is our future," he added sweeping a hand to encompass all of Paul's family. "These are the ones we need to be in agriculture and to love family farming."

Fuhriman is the IGPA State Director for Oneida County and has also chaired the IGPA Conservation Committee for three years.

Hubbard grew up on a farm in southeastern Idaho and farmed with his dad and brothers. About 10 years ago he and his wife Kathy decided to start farming on their own and began buying some farmland.

"There is no better way to raise kids than farming," Kathy said, "if you can afford it"

Like many other young farmers, most of Hubbard's capital is tied up in land rather than equipment. "Paul does a great job maintaining his equipment, it's all older stuff," Fuhriman said. "His equipment looks good and it runs good."

In addition to keeping his equipment running, Hubbard also grows wheat, hay and alfalfa seed. He also hauls grain, hay and cattle for other farmers.

Fuhriman views the tractor donation as fulfilling the faith an older farmer had in he and his brother 45 years ago when that farmer rented them his land. The Fuhrimans still rent the farmland from his children. They grow both winter and spring wheat along with safflower and alfalfa.

"Scott's done a lot for us," said Kathy Hubbard looking around their farmyard. Paul nodded in agreement while pointing out which pieces of equipment belong to Fuhriman including a semi, disk and chisel plow. While they consider each other neighbors, the farms are located 18 miles apart.

"It if wasn't for Scott and my two brothers, I wouldn't be in the business," Hubbard said.

While he is carefully considering which John Deere tractor series he will use this summer, Paul isn't expecting to drive it much. His oldest son, Eric, farms with him and will probably spend the most time in the leased tractor during June when they are putting up hay. In 2014, they sold 2,300 tons to California dairies.

"It won't take long to use fifty hours," he said laughing.

Having an extra tractor available — even just for 50 hours of use — will allow the Hubbards to keep their oldest tractor, also a John Deere, at their Arbon Valley farm for summer fallow use. Otherwise, they would haul the tractor back to the Malad City farm for haying.

### RAFFLE BENEFITS AGRICULTURE

IGPA began raffling 50 hours of use on a John Deere tractor in 1998. Over the years, the raffle proceedings have been used to create scholarships for agricultural students at both the University of Idaho and BYU-Idaho, and a political action committee to identify potential state legislators that are friendly to agriculture.

Evan Hayes of American Falls was on the IGPA board when the tractor raffle began. He gives all the credit for the raffle's success to the John Deere and the dealerships that have participated over the years.

"This is a partnership between the Grain Producers and John Deere; both wanting to contribute to growers and to the industry," Hayes said. Establishing the PAC to help pave the way for a better legislative process benefits all of the state's agricultural industry, not just grain producers, by allowing agricultural leaders to get to know potential legislators and then support those who are friendly to agriculture.

Local dealers work with the raffle winner to determine tractor availability and what will best suit their needs. John Deere then reimburses the dealership for the expense.

Providing an opportunity for grain producers, some of whom already own green equipment and some who don't, a chance to use a newer tractor gives them exposure to both the brand and the local dealer.

From a salesman's perspective, it's "really great to put someone in the tractor seat and let them see the new options," explained Dale Clark, with Christiansen Implement.

A few winners have asked if they could keep the tractor beyond the 50 hours and that is usually possible at the standard lease rate. With today's technology, growers can get a lot of work done in that first 50 hours.

"I know both Scott and Paul and I enjoy working with both of them," Clark said. "I am happy for them both."

### NEED YOUNGER FARMERS

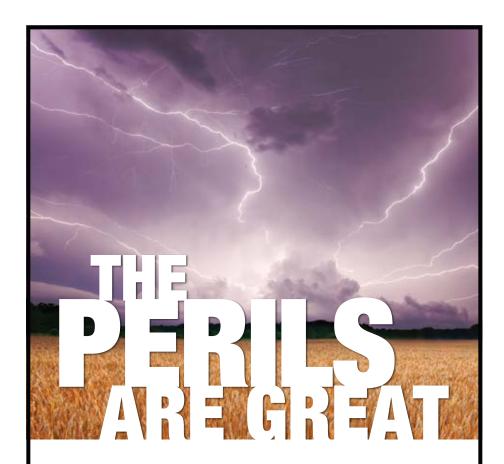
According to the 2012 Agriculture Census, the average age of U.S. farmers is 58 years old, up from 57 years in the 2007 census. The number of farmers over 75 years of age increased 30 percent between 2007 and 2012, while the number of farmers under the age of 25 dropped by 20 percent.

That is a disturbing trend for agricultural organizations like IGPA. "We need younger farmers to keep us going," said Sid Cellan, who farms near Soda Springs and is IGPA president.

He sees Fuhriman's gesture as an investment in both Paul's farming operation and Eric's future operation. Eric has taken an agricultural business course to help prepare him for his ultimate goal of farming on his own someday. Eric has been running farm equipment since he was 8 and is already known as a good mechanic. A skill that's today's farmers need, Cellan said, only half joking.

One positive trend in the ag census data is that 20 percent of all U.S. farms and ranches are managed by those with 10 years or less experience operating a farm.

"What Scott is doing is great for young farmers like these," Cellan said.





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Held at the Davenport Grand Hotel in Spokane, Wash.



### Sessions and speakers include:



Jolene Brown, Wrinkles of Wit and Wisdom Celebrate the best of the past and negotiate the future as we take a trip down memory lane. We'll learn lessons from yesterday's wit and wisdom by recognizing the need for learning, growing, and advocating in our family businesses.

Jolene is a spokesperson and champion for the people of agriculture.

Jack Bobo, Can Ag Save the Planet Before it Destroys it? In a hot, flat, hyper-connected world, public perception of risk may determine if agriculture will save the planet by 2050 or destroy it. Science and technology may hold the key to the challenges of hunger and climate change, but, if

media experience with "pink slime" and "GMOs" are any indication, society may be in for a bumpy ride. This session will examine global trends in food and agriculture, the interplay between food safety and public perceptions of risk, and the essential role of risk communication in building trust between farmers, food companies and the public.



Mike Pearson, What's Driving Agriculture in the Year Ahead? Mike is the host of Market to Market, as well as a farmer and agribusiness executive. He will take you on an journey, a look ahead at the outlook for the farm markets including global trends and drivers impacting these markets.

World Wheat Panel. World wheat trade patterns are ever changing. International trade experts will discuss trade relationships, world demand, growing markets and their impact on Northwest wheat.

- Leadership and leading effective meetings by Ray Ledgerwood
- Customize ag apps and utilize technology to your advantage
- Sustainable Solutions for PNW wheat production
- Estate Planning Panel
- Hydro Benchmarking System for the Federal Columbia River Power System
- No Barley No Beer
- Soil Health

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### Damian Mason, emcee

Back by popular demand as emcee is the incomparable Damian Mason. Damian delivers comedy and commentary with credibility. He knows agriculture—he has a degree in ag economics from Purdue University, and he and his wife own a beef, grain, and hay farm.



### Entertainment

Presented by The Mahoney Brothers, Tim, Brian and Mike take the audience on a musical journey through the musical acts of the baby boomer generation. Jukebox Heroes is an all live event that "pushes all the right buttons," combining impersonation with period staging, costumes, instrumentation and video.

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## Supporting Idaho's Emerging AgriTech Industry

By The Idaho Department of Commerce & Idaho State Department of Agriculture

Recently, Idaho has recognized an opportunity to assist an emerging, joint-venture effort in the state. AgriTech, or agricultural technology, is not a new concept. Idaho's agriculture industry has continuously remained on the cutting-edge of new technologies in order to keep up with the growing demand to feed the world. However, we have identified an opportunity to position our growing technology sector closely with our established agriculture industry to foster greater development of ag technology here in Idaho.

Agricultural technology is everything from GPS guided equipment, to scientifically-backed proprietary cattle breeding programs, to bio-engineered crops. Idaho's AgriTech effort focuses not on the application of technology by the agriculture industry, which is already robust, but more on the development of the technology by Idaho companies. We are working to create partnerships between the two industries that are beneficial for both, creating the right kind of jobs that are high-paying and secure.

Idaho Commerce Director Jeff Sayer said, "Technology and agriculture have worked hand in hand for decades, but communities new to the discussion are taking notice, investing capital, and developing new technologies that could help make agriculture increasingly efficient and sustainable."

As the State works to foster greater

development of agritech in Idaho, we have identified several areas where we can play an appropriate and effective role. The Departments of Commerce and Agriculture plan to jointly organize publications to keep our agriculture industry, technology companies, and our universities closely in tune with developments and opportunities in this area. More specifically, the two agencies will also assist in coordinating meetings around specific topics like on-farm water efficiency with those most interested in problem-solving in the highlighted area. The objective of these informal meetings is to bring together those in agriculture with a need or problem with those in the tech and research communities best poised to problem-solve and innovate.

### **Idaho's Agricultural History**

Nationally, we are in an era of agriculture that is more efficient and environmentally-conscious than ever before. In Idaho, agriculture has been the cornerstone of the economy and way of life for generations. Our farmers and ranchers produce far more food than could ever be consumed in the state. This creates tremendous opportunities for trade and growth—in fact Idaho's ag exports doubled over the last seven years—but all of this doesn't happen by accident.

"Idaho agriculture is globally recognized and incredibly productive because we've been early adopters of technology for years," said Idaho State Department of Agriculture Director Celia Gould. "Technology-based solutions have had very tangible impacts on all sectors of our vibrant industry."

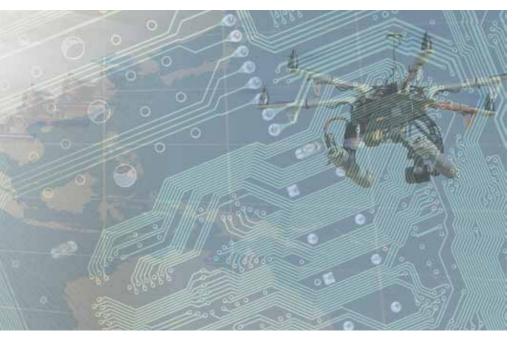
It's an enormous responsibility to feed the globe, and Idaho's farmers rise to the occasion with the help of technology. In the last 70 years, technological advances have had very tangible impacts in Idaho. Our dairy cows produce 400% more milk than they did 70 years ago. In that same period, Idaho potato yields per acre have increased 280%.

Increased agricultural productivity is a direct result of public and private effort. Many groups play a vital role in developing and implementing improved practices, and we all reap the benefits of the work done by universities, private producers, and companies. Farmers understand better than most that staying on the cutting-edge of new technology is critical for operating in a changing world.

### The Current Landscape

Idaho's companies and universities didn't have to wait for the state to become more involved before they started creating partnerships with one another. Both the agriculture and technology industries are forced to move at a staggering pace to keep up with demand, and we want to ensure we are fostering and supporting partnerships that are beneficial to all those involved.

For example, Empire Unmanned, an Idaho company developing unmanned aerial vehicles and technology which will provide precision agriculture services, is a joint venture between Idaho companies Empire Airlines of Hayden; ADAVSO of Star; and Blair



Farms of Kendrick. Additionally, ADAVSO was the first entity in the U.S. to be granted a Section 333 exemption to fly UAS commercially for agriculture by the FAA.

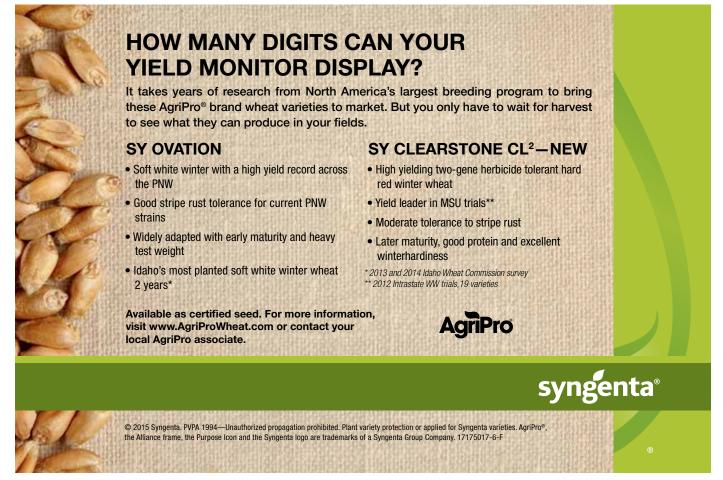
In fact, ADAVSO, Empire Airlines, and

Blair Farms were original members of the Idaho UAS Working Group – a statewide network of businesses, universities, and state and federal government organizations spearheaded by Idaho Commerce – which is the

driving force behind advancing UAS interests throughout Idaho and the region.

The Idaho Global Entrepreneurial Mission (IGEM) grant program 2015 funding cycle also awarded \$945,038 to three AgriTech programs at each of Idaho's three research universities. The mission of the IGEM grant program is to create partnerships that pair private sector experts with research professionals to bring commercially viable technologies to market.

- Boise State University received \$338,110 for research and development in data analytics for agronomic decision making. This funding will help expand agronomic services and products that are based on historic farm and crop yield data. This project presents an opportunity for the development of software and systems needed for precision agriculture.
- Idaho State University received \$179,755 for the development of algorithms of field crop data using unmanned aircraft systems (UAS). Hyperspectral sensors mounted on UAS will capture crop data at the individual plant level. This data will be used for water management, crop nutrition, and other agro-



nomic efficiencies.

■ The University of Idaho will receive \$427,173 for bringing to scale a new reactive filtration water treatment technology. Funding will support a new technology that takes unclean water through a level of treatment required for unrestricted reuse and recycling. This project creates the opportunity to address water treatment concerns from agricultural, municipal, and industrial waste water sources.

"These projects represent an opportunity to position Idaho, its universities, and industry as leaders in the precision agriculture space," said Director Sayer. "There will be constant demand to develop more efficient methods to feed the world's population, and Idaho is uniquely positioned to take a leadership role with experience in both agricultural excellence and technological innovations."

Additionally, The Idaho State Department of Agriculture annually provides funding through the United States Department of Agriculture Specialty Crop Block Grant Program. Funds are passed through for projects that enhance the competiveness of specialty crops in Idaho. Specialty crops include fruits and vegetables, horticulture and nursery crops.

Over the past few years, the ISDA has funded nearly \$2 million specifically for research and technology projects, not including 2015 projects that will be announced in the coming weeks. Several projects have included remote sensing technology applications for agronomic monitoring of nitrogen, disease and irrigation. Eligible projects may include pest and disease monitoring and control, enhancing food safety, improving production efficiency and sustainability, developing new and improved seed varieties, or developing good agricultural, handling or manufacturing practices.



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### Idaho Governor's AgriTech Summit

The first Idaho Governor's AgriTech summit took place on June 16, 2015. The summit was borne out of the current landscape combined with the need to further grow and expand Idaho's AgriTech industry. The goal of the summit was to provide a forum for Idaho's agriculture, technology, and research sectors to learn from one another and explore where there is opportunity to accelerate the development of agricultural technology within Idaho. The event featured three panels with statewide industry leaders to discuss how existing Idaho resources and strengths can be leveraged to promote the application of technology in the agriculture arena in new and different ways.

### **Looking Forward**

Technology companies and research institutions are already working to develop creative solutions for agricultural issues. However, countless opportunities still exist. With less farmable land, fewer farmers, and the need to be even more water efficient, the only option for feeding the world is to increase our investment in technologies that make farming even more efficient. Nationally, venture investment in agrelated technology has grown 10 times from 2012 to 2014 and is only continuing to climb. The more attention we can draw to the agritech advancements occurring in our great state, the greater share of these growing funds, along with new companies, we can attract to Idaho.

### **IDAHO INDEMNITY FUNDS UPDATE**

By Dave Ogden, ISDA

THE indemnity fund programs protect producers from non-payment of purchases made by Idaho licensed buyers including bonded warehouses, commodity dealers, and seed buyers. In the event that a licensed buyer cannot pay a producer for a delivered crop, then the indemnity funds will pay up to 90% of the crop value as determined by formula in Idaho Code.

Producers are encouraged to always sell to Idaho licensed buyers in order to be protected in the event they don't get paid for their crop. A producer can verify if a buyer is licensed by checking a list of current licensees on the ISDA website at www.agri.idaho.gov under the warehouse link, or by calling 208-332-8660.

At June 30, 2015, the Commodity Indemnity Fund (CIF)

had a fund balance of \$11,958,252. The CIF is not currently collecting assessments from producers because it is at its legal maximum of between \$10 and \$12 million. The Seed Indemnity Fund (SIF) had a balance of \$6,897,688. The SIF continues to collect assessments because it has not reached its legal maximum of \$10-12 million. The SIF assessment rates are .005 of producers' crop sales to buyers, and .005 per pound of seed withdrawn from storage.

Each fund has an advisory committee appointed by the Director of ISDA. Current members of the CIF are: Tom Iverson(new) of Bonners Ferry, Tony Brown(new) of Soda Springs, Calvin Kinghorn of Rigby, John Hartman (Chair) of Parma, Joe Anderson of Potlatch, Jim Soran (Soranco Bean Co, Inc.) of Twin Falls, Sam White (Pacific Northwest Farmers' Cooperative) of Genesee, and Jim Pasley (Pasley's Grain, Seed & Feed, LLC) of Iona.

Current members of the SIF Advisory Committee are: Leroy Loomis of Weiser, Jim Briggs of Marsing, Richard Durrant (Chair) of Meridian, Dave Mosman of Craigmont, John Thain of Heyburn, Jerry Inouye of Boise, Dave Ramseyer of Filer, Brett Lolley (Monsanto-Seminis Seeds) of Nampa, and Gina Lohnes (Trinidad-Benham) of Hazleton.

ISDA Warehouse Control Program staff includes Dave Ogden and Erik Klosterman in Boise, Wes Jones in Idaho Falls, and Adam Hansen in Twin Falls. Their contact information is also on the ISDA website. We all hope for a prosperous harvest and marketing year for producers and crop buyers.

# Fire managers requiring North Idaho farmers to take extra steps when burning fields

N July 13 the Idaho Department of Lands (IDL) issued a Stage Two fire restriction that may impact agricultural burners north of Riggins. While producers are still allowed to burn crop residue, they must obtain a fire safety burn permit and follow extra steps to ensure fires do not escape while the restriction is in effect.

The fire safety burn permit always is required for agricultural burning operations during closed fire season – May 10 to October 20 – but with stage 2 fire restrictions in place, the operators must follow additional steps to ensure fire does not escape. The fire safety burn permit can be obtained online at http://www.burnpermits.idaho.gov.

The mitigating measures agricultural burners must follow while stage 2 fire restrictions are in effect include:

- Minimum of one 200-gallon water truck with a spray unit, and a tractor with disk. These must be staffed in addition to the ignition personnel.
- No burning when the wind speed is over 10 miles per hour.



- Minimum fire line of 20 feet on all fields, or more if near timber or adverse topography.
- Remain onsite for patrol for at least one hour after the last smoke.
  - Mop up 25 feet from fire perimeter.

The measures are listed in the fire safety burn permit. Detailed information and maps of the areas where certain activities are banned due to fire danger can be found online at http://idahofireinfo.blogspot.com/p/fire-restrictions.html.

If producers have questions, concerns or need more information, they are encouraged to contact IDL fire program director Don Wagner at (208) 666-8647.

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### **Marketing**

OFT white wheat is the predominant class of wheat grown in Idaho, and for good reason. "Soft white wheat from Idaho is perfect," says the technical director of a sizeable mill in Ogden that buys large quantities of Idaho soft white wheat. "Don't change anything with your soft white wheat," says the marketing officer of another Ogden mill.

Soft white wheat was approximately twothirds of Idaho's harvest in 2014, and will be more than 60% of Idaho's harvest in 2015. Soft white wheat grows well as a rotation crop on the irrigated fields of eastern and southern Idaho, and is well-suited for the high-rainfall Palouse country in northern Idaho.

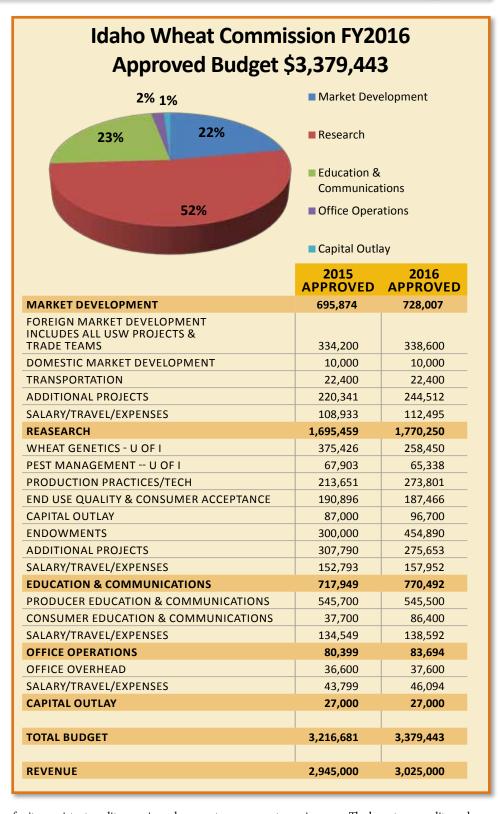
Customers in 24 states purchased soft white wheat from Idaho in 2014 and their loyalty is long-standing. Idaho soft white wheat can be found in Nabisco cookies, Pepperidge Farm cookies and Goldfish snack crackers, Ritz and Premium crackers, Top Ramen noodles, most breakfast cereals sold in America, and many other famous brand names.

Soft white wheat from the prairies of northern Idaho goes primarily to Portland, where combined with soft white wheat from Oregon and Washington, is shipped to customers in 25 countries. Japan is the largest overseas destination of soft white wheat from Idaho. Asian customers use soft white wheat for all of the same products as we do in the United States: cookies, crackers, muffins, cereals, and donuts. In addition, soft white goes into many products unique to those markets: very fine sponge cakes, steamed breads, flat breads, and certain types of noodles.

Idaho's largest export markets for soft white wheat during the 2014-15 marketing year is shown below (000 metric ton shipped from Portland):

Japan963.3
Philippines873.5
Korea554.8
Yemen320.9
Thailand215.4
Indonesia175.1
Guatemala141.3
Taiwan120.1
COURTESY: U.S. WHEAT ASSOCIATES

Customer loyalty to soft white wheat in Idaho was tested in 2014, when monsoonal rains in August caused some of the worst sprouting in nearly 60 years. The soft white wheat crop, so renowned



for its consistent quality year-in and year-out, was in short supply. Most mills relaxed their specs for one year to try to use as much of the damaged crop as possible. "It cost us more money to blend in certain additives," said one miller. "But our priority was to help get the Idaho grower into the

next growing year. The long-term quality and consistency of Idaho wheat is outstanding and we realize this was an aberration. Keeping this source of supply is important to our long-term milling operations."

Currently, the most popular varieties of soft

white wheat grown in Idaho include Sy Ovation, Brundage, ORCF 102, Whit, Diva, and WB 456.

In news on other classes of wheat, Idaho continues to grow very high-quality hard red spring wheat and hard white wheat. The monsoonal rains in August 2014 had a tremendous impact on hard white wheat. Idaho is still the top hard white wheat growing state and its customer base is well-established with Ardent Mills, GrainCraft, Bay State Milling, and others. But the problems caused by the rain in August 2014 significantly reduced the size of our harvest and caused Idaho to take a step back. It is hoped that new hard white varieties and new marketing programs from elevators and millers will return Idaho to the lofty hard white wheat harvest enjoyed in recent years.

### Research

THICH IWC research investment will have the most impact on Idaho Wheat? Fifty-two percent of the FY2016 budget is invested in research grants. The University of Idaho (UI) will receive 75 percent of those grant dollars. The rest goes to other research partners including the USDA-ARS research on Stripe Rust, the Western Wheat Quality lab, and the Pacific Northwest Wheat Quality Council. IWC grants also fund Snow Mold research at WSU and mentored student research opportunities at BYU-ID. Industry partners receive grants to provide services and contract research. But which of these investments will have the greatest impact on Idaho's wheat industry, particularly producers?

Perhaps, its IWC's investment in start-up costs for a new UI faculty position in wheat molecular genetics. In the right hands, a molecular genetics program could be transformational, strengthening production and providing sustainability for Idaho's wheat industry. The search committee is looking for someone who will take the program beyond genetic mapping, innovating new technologies and novel gene constructions. Dr. Joe Kuhl, Search Committee Chair, expects the right person will be hired in late 2015.

### **New Wheat Research Initiatives**

Newly hired UI faculty in cropping systems and entomology are making their own impact on Idaho wheat production. Dr. Arash Rashed hopes to develop integrated control measures for wireworms which plague small grains in Idaho. A state-wide survey characterizing wireworm populations in various geographic regions and soil types began in 2014. A color guide for



Jean Bruno Beaufume', LCS SWW breeder and Dr. Wang, UI researcher, introduce UI Castle CLP and UI Magic CLP at the UI Parker farm field day in July 2015.

identification of wireworms will be a helpful tool resulting from this initial project funded by Idaho wheat growers.

Aberdeen Cropping Systems Agronomist, Dr. Xi Liang, is contributing her expertise in root morphology and plant physiology to several IWC funded projects: Dr. Amber Moore's manure studies, Dr. Rashed's Barley Yellow Dwarf Virus (BYVD) project, and her own cover & alternative crops study. She hopes to help producers find new crops for rotation with wheat.

Drones are flying over Idaho wheat fields. Dr. Olga Walsh, UI Extension Agronomist in Parma and her collaborator, Take Flight, are testing drones fitted with GreenSeeker remote sensing technology. GreenSeeker measures light wave reflectance from plants as they experience water and nutrient stress. The raw reflectance data must be manipulated by an algorithm to convert it to a meaningful measure of plant stress. Dr. Walsh plans to develop the algorithm for wheat as she has done in other crops. Imagine the impact this would have on input costs and environmental sustainability when water and nutrients are applied on an as needed basis.

A novel project, "Beneficial Endophytes for Winter Wheat", presented by Dr. George Newcombe, College of Natural Resources, in collaboration with PSES cropping systems agronomist, Kurt Schroeder, explores the symbiotic microbial relationships with wheat. Endophytes, microbes living inside plants, may confer substantial benefits to the host plant. Dr. Newcombe's team has found plants inoculated with specific endophytes, have larger root systems and thus improved water and nutrient uptake. This characteristic makes the relationship particularly beneficial when the host plants experience water and nutrient stress. Endophytes may be useful to make wheat more resilient in variable climates.

Dr. Samantha Ramsey, Department of Consumer Sciences, completed a novel study

comparing the taste preferences of pre-school children for hard white wheat whole wheat products compared with hard red wheat whole wheat products. Studies have not been done on pre-school children because of the difficulty getting unbiased responses. The preference for one type of product over the other was spilt 50/50 across the population of children tested. However in the subset of children with acute sensitivity to bit-terness the hard white whole wheat product was preferred over the hard red whole wheat product. Dr. Ramsey presented her findings at the Whole Grains Conference at Oregon State University this summer.

### **New Wheat Varieties**

Domestication of wheat was driven by the need for sustainable higher yields. High yield is still the goal of modern varieties but milling and baking quality must also be considered. Idaho growers invest heavily in the UI wheat breeding programs and continue to reap the benefits. How do we quantify the impact of new varieties on the future of Idaho wheat?

Three new UI, two-gene Imidazolinone herbicide resistant, varieties are expected to change the game for Idaho wheat production. Castle, Magic, and Palouse are soft white winter varieties, adapted to different PNW production regions. All three are high yielding options for producers struggling with control of grassy weeds.

UI Platinum, a hard white spring variety was released by UI wheat breeder, Dr. Jianli Chen, in the fall of 2014. The winning bid for marketing rights came from Limagrain Cereal Seed with Lansing Trade Group. IWC commissioners were pleased with the LCS and Lansing plan making UI Platinum widely available to all Idaho growers. Any legitimate seed dealer has access to UI Platinum through sub-license agreements. UI Platinum has no delivery restrictions. Producers are free to deliver to an elevator of their choice,

minimizing transportation and handling costs. UI Platinum's solid variety performance and this unique marketing approach, creates a winning partnership for all; especially Idaho hard white wheat producers.

### **Outreach to Wheat Producers**

IWC research staff participates in delivering accurate, scientific-based information to producers helping them navigate production problems as they happen.

Licensing publicly developed varieties is a new practice in the PNW. When UI Stone was released with PVP and Title V and licensed to Limagrain Cereal Seeds, Idaho wheat producers began asking questions about how licensing works, how royalties benefited wheat research, and how regulations surrounding PVP and Title V impacted them. IWC research staff prepared an article, "Know Before You Grow: Seed Trade Law and its impact on you" clarifying the complexities of seed law and licensed marketing. It was published in the summer 2015 issue of Idaho Grain Magazine.

Barley Yellow Dwarf Virus (BYDV) infected winter wheat early in the 2015 growing season. Some producers were forced to plow under infected crops. In response, IWC partnered with Idaho Barley Commission, UI and McGregor Company to present a BYDV forum in Burley, ID. More than 60 producers and agronomists learned about the BYDV disease cycle and best management practices for the disease.

Grower dollars are funding research collaborations pulling in all those willing to meet the challenges of an unpredictable climate, new pathogens, the loss of chemical controls, new production technologies and more regulations. Idaho Wheat producers are making sure Idaho has the resources to meet these challenges in innovative ways.

### **Education and Communications**

E at the federal and state level is part of the educational mission of the Idaho Wheat Commission. The Idaho Grain Producers Association works on behalf of Idaho wheat producers, by representing their production interests at the county, state and federal levels in order to enhance their profitability and long term viability. Some of the issues and activities which were accomplished this past year include:

Improving Crop Insurance. The 2014 harvest disaster impacting southern Idaho and Boundary County caused an estimated \$250 million in damage to Idaho grain farmers. The IGPA led an effort with the IWC to request that the USDA Risk Management Agency make significant changes to federal crop insurance that reflect damage from quality issues. The RMA agreed to adjust several areas of the insurance, which are now available for the 2016 wheat policy. The IGPA will continue its work to improve crop insurance to better reflect the marketplace.

Repealing EPA Pesticide Permit. The IGPA requested Senator Mike Crapo to lead an effort in the U.S. Senate to repeal and EPA rule that farmers or their contracted applicators obtain a duplicative federal permit to spray chemicals in areas that could impact water quality. On June 3, Senator Crapo introduced S. 1500 which would eliminate this burdensome and unnecessary federal requirement. Senator Jim Risch is an original co-sponsor as well.

Eliminating Waters of the U.S. Rule. In late May 2015 the EPA and the U.S. Army Corps of Engineers released the final version of its "Waters of the U.S." (WOTUS) regulation. Many commodity groups including the IGPA have determined that the provisions are very broad, giving EPA and the Corps the ability to regulate waters not previously subject to regulation. The IGPA asked Rep. Mike Simpson and Sen. Mike Crapo to intervene with legislation to rollback the rule. Rep. Simpson has included language in a bill under his jurisdiction that would prohibit the EPA from enforcing the WOTUS regulation.

Resolving Open Range Disputes. After a year of working on a solution to problems between landowners and ranchers, the IGPA agreed to a Memorandum of Agreement with the Idaho Cattle Association that provides a formal joint process to addressing open range issues at the local level. The March announcement fortifies a



IGPA and Idaho Cattle Association leaders discuss an agreement on the Open Range issue.



new statewide network of grower/rancher liaisons and creates an open line of communication that will help resolve local disputes before they became unmanageable.

Adding Competition to Our Railroads. Rail rate reform has long been a goal for the Idaho grain industry. Legislation may finally have a good chance of being passed thanks in part to the efforts of IGPA's past president and Declo farmer Wayne Hurst. U.S. Senator John Thune (R-South Dakota), chair of the Senate Commerce Committee, introduced and passed Senate Bill 808, which makes several changes to rail rates and other rail policy area that the IGPA and other industries support. The bill passed the Senate unanimously on June 18 and is now before the House of Representatives.

Increasing Trucking Efficiencies. The IGPA requested Congressman Simpson reintroduce legislation allowing for increased truck weight limits of up to 129,000lbs on southern Idaho's interstate system. Rep. Simpson agreed and introduced House Resolution 129, titled the "Idaho Safe & Efficient Vehicle Act of 2015". He successfully inserted this bill into a germane House appropriations measure which passed the chamber on June 10. The Senate has yet to consider this bill. Meanwhile, a national coalition of agriculture groups and general business interests are also pushing for 129,000lb truck weight limits on a national scale.

Boosting Dollars for Grain Research & Extension. With adjournment of the 2015 Idaho State Legislation session came a \$1.5 million increase to the Research and Extension budget of the College of Agriculture within the University of Idaho. The IGPA led a coalition of Idaho commodity groups in lobbying key state legislators to support the new money. The UI Agriculture Research and Extension provides critical exper-



Rueben McLean, Grain Craft, visits with Jim Rooney, Lansing Grain, and Dennis Capson, Scoular Grain, at the Idaho Wheat Commission sponsored Wheat Quality workshop.

tise to the production challenges facing Idaho grain farmers while seeking opportunities and innovations that give our industry an advantage in a competitive global marketplace.

### Keeping Idaho Wheat Growers Informed

The IWC provides multiple resources for Idaho wheat growers to stay up-to-date through the Idaho Grain Magazine, The Idaho Wheat Newsletter, The Idaho Wheat Website, Cereal Schools Webinars and Workshops. When growers and elevators were faced with bins full of sprout dam-

aged wheat last year, the Idaho Wheat Commission provided educational articles, videos and workshops to help provide information about markets for sprout damaged wheat and why it was essential not to blend damaged wheat with sound wheat. It was important to make sure that Idaho's reputation for producing high quality wheat was maintained, by preventing growers and elevators from blending sprout damaged wheat.

### **Educational Activities**

The Idaho Wheat Commission provides educational opportunities to growers by sponsoring two individuals each year to participate in the Leadership Idaho Agricultural program. The Commission is committed to help build relationships and educate elected officials and government aides by hosting them on a biennial tour in Portland to learn about end-use quality, export markets, and important issues facing the wheat industry.

This two day event provides legislators the opportunity to learn about the entire wheat chain from field to fork. This includes visits to important west coast grain exporters in Portland, a tour of the port facilities, and a hands-on tour

of the multi-state Wheat Marketing Center. Guest speakers Judi Adams, Wheat Foods Council provided information about the myth that gluten causes obesity, as well as discussing the increase in gluten sensitivity. Featured speaker Dr. Thomas Clemente, Nebraska State University outlined the science of genetically engineered crops and explained to legislators why G.E. crops are safe for the environment and human consumption.



IGPA officer "Potlatch" Joe Anderson and District 1 wheat commissioner "Genesee" Joe Anderson with Idaho State Representative Caroline Troy during the June 2015 Port of Portland Legislative Tour.



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By Cindy Snyder

ONSUMERS want to know where and how their food is grown. Government officials have a duty to ensure that food is safe. Those two disparate goals intersect in a key ideal — traceability — and it's coming to a grain field near you.

### WHICH SUSTAINABILITY?

Defining sustainability can be difficult for consumers and farmers alike.

Some consumers want to eat food that is locally grown to reduce fuel use and support small producers. Others want food that is organically



grown, while a growing number are looking for food made with non-genetically modified ingredients. Still others are con-

cerned about the environmental impacts of food production such as how much water was used to grow or process their food.

supply chain virtually impossible.

approach to sustainability instead.

Companies are taking a more regional

Farmers, on the other hand, must weigh best management practices in terms of economic impact. Luke Adams has been experimenting with different cover crops following winter barley to boost soil organic matter while suppressing nematodes in the following sugar beet crop on his Rupert farm.

While oil radish has proven effective, he is hoping to find a way to garner some income from the cover crop in addition to reducing fumigant costs. Given how early the 2015 winter barley crop came off, Adams planted a field to sorghum sudangrass hoping to sell the first cutting to a dairy, then get enough regrowth to plow down and still control nematodes in his 2016 sugar beet crop.

While Idaho grain producers often look at the impact to their bottomline when evaluating whether to use management practices such as direct seeding or intensive irrigation water management; consumers are having a larger voice by how they spend their food

dollars. Or, at the very least, how food and beverage companies perceive consumers will spend those dollars.

### END USERS HAVE INFLUENCE

A 2014 Cone Communications Food Issues Trend Tracker found that 77 percent of Americans say sustainability factors play a role in food purchasing decisions. Nearly three-quarters of those polled say they want companies to explain how their purchases impact the environment.

Several food and beverage manufacturers with a history of buying wheat and barley from Idaho growers are starting to do just that largely through social media.

General Mills intends to sustainably source 100 percent of its ten priority ingredients, accounting for more than half of the company's annual raw material purchases, by 2020.

Greenhouse gas emissions, water usage and biodiversity have been identified as the challenges U.S. wheat farmers face in helping General

Mills meet that target. But growers have a long way to go in a short time as just 15 percent of the company's wheat purchases were categorized as sustainable in 2014.

Idaho growers are helping General Mills pick up the adoption pace. General Mills began partnering with Idaho wheat farmers in 2010 to collect information on 50,000 acres and create a baseline. Growers analyze data from their farm compared to the baseline to measure improvements. The program has been expanded into the Midwest.

Beer begins and ends with water so it's no surprise that reducing water usage is a priority at MillerCoors. A water blueprint for the company indicated more than 90 percent of the water used by MillerCoors occurred in the field.

Working with the Nature Conservancy and barley growers in Idaho's Silver Creek Valley, MillerCoors developed a precision irrigation project to demonstrate how to use less water to grow barley without harming yields or quality. Silver Creek growers reduced water use by 20 percent, a huge savings in a region where several years of sub-par snowpack has cut irrigation water supplies. By 2020, the company plans to expand sustainability programs to cover all of the company's key barley growing regions.

For those efforts, the U.S. Water Alliance awarded MillerCoors the 2013 U.S. Water Prize. In making the award, the Water Alliance said it was the company's "innovative reach beyond and up the agriculture supply chain that caught our attention" more than the brewery improvements that also reduced water consumption.

From his position as a grain merchant who deals with both growers and end users, JC Olson, manager of The Scoular Company in Jerome, thinks these models illustrate how food companies and commodity farmers will answer consumer questions about sustainability.

"You can't follow a kernel of grain through the supply chain through the flour mill to the loaf of bread to the consumer," he said. "However, you can track a commodity by specific growing region and that has implications for growers."

Keeping track of soil samples or pesticide use to verify how nutrients or crop protection products are applied is going to become even more important.

Agricultural companies that supply inputs to growers see the push for sustainability from a slightly different angle, but the commitment is no less. As Syngenta's sustainability policy states:

"Syngenta recognizes and acts on our responsibility to support the principles of sustainable agriculture through the use of crop rotation, integrated pest management (IPM), soil and water conservation, and cropping inputs in ways that are safe to humans, animals and the environment.



As urban sprawl continues to take valuable agricultural land permanently out of production and reduce land available for natural resources, Syngenta's focus – to develop products that produce greater yields on fewer acres, degrade rapidly in the environment and are backed by a strong commitment to all facets of product stewardship – is consistent with sustainable agriculture."

### FOOD SAFETY

The other side of the traceability issue comes from the 2010 Food Safety Modernization Act, called the most comprehensive food safety legislation since 1937. Prior to FSMA, the Food and Drug Administration could only act after a foodborne illness outbreak occurred. Since it became law, FDA can design measures to prevent foodborne outbreaks

When most consumers think of foodborne illnesses they think of leafy greens or hamburger; not whole grains. Yet grain handlers like The Scoular Company and feed companies are subject to FSMA regulations just as food manufacturers

FSMA implements a host of traceability and accountability standards for grain handlers that include pest control, safety and record keeping. Scoular has hired a full-time employee to handle compliance issues and record keeping associated with the act for 20 company locations.

"That increases our cost of doing business," Olson said. Ultimately that cost is diffused into the food chain and the extra overhead is passed on to producers and consumers, but it's usually the producer who ends up paying the price.

### WILL IT PAY OFF?

Although some small or organic producers have parlayed sustainable, traceable practices into a premium; for commodity growers meeting sustainability goals will likely become just another cost of doing business. Grain elevators, crop protection dealers and end users will become record-keeping partners so the data growers keep aligns with overall sustainability goals.

Olson envisions a future where a maltster or a miller comes to a grower and asks, "Can you do this (practice)? Can you keep your books open to prove you are doing it?" If the answer is yes, the grower will get a contract. Otherwise, the next grower on the list will get a call.

But as far as getting paid a premium to reduce water use or increase fuel efficiency or improve nutrient management, Olson is less optimistic.

"We're all seeing the same perceived interest from consumers, but no one knows how to quantify or qualify that interest," he said. "The overall feeling is if we don't do this, customers won't buy from us."





### Cover crops in northern Idaho

### By Doug Finkelnburg

UI Area Extension Educator Certified Crop Advisor

URIOUS things are happening on the Camas Prairie of North Central Idaho. Mixes of buckwheat, turnips, triticale, and other oddities can be found growing where single crops of cereals or legumes would typically be expected. Cattle can be seen in these same fields grazing on wind-rowed radish greens, clovers and forage oats weeks after traditional grass pastures have dried up.

What is going on here? With some help from University of Idaho (UI) Extension, local conservation districts, and Natural Resource Conservation Service (NRCS) personnel, growers are experimenting with fall and spring planted cover crops. Innovative producers are adapting them to their particular operations and site-specific challenges to try and find a fit within their cropping systems. What has me particularly excited is that a couple of enterprising area producers are using spring-planted cover crops as late season forage and they're seeing real advantages in the practice. Their successes have encouraged other growers to plant cover crops this spring for the purpose of grazing, haying or both.

Working with UI Extension and local NRCS to establish farm-scale test strips of spring-planted cover crop mixes, Nezperce-area grower Drew Leitch grazed half the trial and swathed and bailed the other half later in the season.

Fall wheat planted on this site grew best on the half that had been grazed. Was this due to the cattle returning their "solid and liquid nutrients" to the grazed portion? Was it due to less water being used by the grazed crop being literally cut short? We don't know yet, but we do know that



Ken and Kevin in a spring planted cover crop mix.

wheat following cover crop mixes did just as well as wheat following the chemical-fallow treatments and did so in a lower-than-average rainfall crop-year.

The following season, spring-planted cover crop mixes were mob grazed through the summer months by cow/calf pairs. Mob grazing helps concentrate animal foraging in a limited space for short periods and is facilitated using temporary electric fencing. Forage quality and weight gain were deemed acceptable and a third of the field ended up as baled hay for later use. This spring Leitch put in 150 acres of cover crop mix and a number of neighbors followed suite – all with the intention of grazing and haying.

It has been a rough year for spring crops in northern Idaho but these cover crop mixes (forage oat, turnip, radish, beardless barley, vetch, clover, peas, and canola) have produced enough volume at a suitable quality level to satisfy the growers and ranchers involved.

Cover crops are not new to agriculture. To build soil nitrogen levels, green manures such as sweet clover were grown prior to widespread availability of commercial fertilizers. This practice

took fields out of active production for a season, though, and in today's thin margined world many growers do not have the luxury of extending their rotations without the assurance of an economic return. Many banks and landlords have a hard time seeing the long-term benefit to building healthier,

more sustainable soils at the expense of immediate and predictable returns on investments.

Recognizing this reality in modern production agriculture, NRCS hit on the idea of promoting continuous cropping with diverse species grown between annual crops. Basically it works like this – any time you might fallow an area of ground chemically or mechanically, NRCS encourages you to plant a multi-species mix. They argue

that keeping diverse plant communities growing between commodities crops helps maintain microbial and fungal populations that benefit soil structure, reduce erosion, and improve nutrient cycling. A quick search for "Midwest Cover Crop Council" gives access to years of cover crop research from land grant Universities reinforcing these beneficial claims.

Idaho isn't the Midwest, though, where the majority of rainfall occurs in the spring to fall months and where nighttime temperatures are warm enough to pile up heat units so fast you can hear the corn grow, as they say. Cover crops are grown in portions of the Midwest to remove water from oversaturated soils prior to planting. Idaho's predictable late and early frosts aside, in typical years, water is our most limiting factor in dryland cropping systems. Unless you have access to irrigation, our soils are typically too dry after harvest to establish fall crops early enough to get much growth before the season ends. It is the fall canola conundrum. You have to fallow a field for a season to have enough water to ensure a fall crop is established. Cover crops do not have an established market, let alone crop insurance options to help mitigate the risks of poor or nonestablishment. The idea of fallowing a field for a season just to get a good cover crop going in the fall for soil health is highly unlikely to be a viable option for most dryland producers.

I am not discounting the potential benefit of fall-planted cover crops in our region but we must remain realistic about the challenges. Some growers have worked around fall establishment issues with success by seeding with airplanes before harvest and trusting harvest chaff to insulate cover crop seeds and help trap moisture for fall emergence. Establishment is not the whole battle though. Winters like this past one – with



Grower/Rancher Drew Leitch and NRCS employee Kevin Seitz.

wide temperature swings nearly overnight — can be devastating to winter survival of the most cold-hardy species. Additionally, going to the trouble of buying seed and paying for the fuel to plant it with a dubious expectation of success is understandably discouraging. We at UI Extension want growers to reap some of the proven benefits of cover crop mixes without selling the proverbial farm. This is why UI Extension has been working to find a way to make spring-planted cover crops economically viable in our northern Idaho dryland systems.

### Why spring-planted cover crops?

Cover crop mixes planted in the spring will produce much more biomass both above and below ground before crop termination. Plow panbusting species, such as canola and radish, have greater opportunity to work on loosening compacted soils. The plants can be harvested as hay or grazed directly – returning money to a producer's pocket and, in the case of grazing, returning nutrients to their fields. Maybe most critically from an agronomic standpoint, a spring-planted cover crop mix extends the crop rotation away from the typical one or two cash crops (usually grains) for a season.

Extended rotations lower disease pressure from cash crop specific insects, nematodes, funguses, and other plant pests. Extending rotations can provide the opportunity to build nitrogen and even conserve water for following cash crops. UI research has shown that winter wheat grown after non-cereal crops is more likely to yield and have



Wind-rowed cover crop mix and cow pies, Mart Thompson's land near Nezperce, ID.

better quality than cereal grown after cereal rotations. A non-cereal rotation option that returns profit to growers not only benefits the grower's bottom line – it provides the market with a more consistent, higher-quality cereal product, which benefits all regional grain producers, marketers and end users. Peas, lentils, and chickpeas have played this role and done so successfully, but prices are volatile and more options are always welcome.

Many unknowns and challenges to incorporating cover crops into our ag systems still exist. Chief among them are proper species selection and issue surrounding avoiding green-bridging diseases and pests between specific crops. Whatever the challenges, indications are that cover crops can play a role in diversifying crop rotation options. They can be a tool to improve long-term soil health while providing some economic security and ensuring a higher quality and more

consistent regional grain market.

For more information about UI Extension's cover crop research in North Central Idaho contact:

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### Hamilton Appointed to Idaho Wheat Commission

OVERNOR C.L. "Butch" Otter has appointed Clark Hamilton, Ririe, to the Idaho Wheat Commission (IWC). Hamilton will be replacing Gordon Gallup, who completed 10 years representing the wheat producers of District Four, which includes Clark, Butte, Jefferson, Bingham, Bonneville, Madison, Teton, Fremont and Custer Counties.

Clark operates a diverse 6,000 acre family farm in the Bonneville County area primarily producing wheat, barley, potatoes, alfalfa and peas. Over thirty years ago, he joined his father and other family members in running the operation.

Hamilton spent the past five years serving and representing Idaho wheat and barley farmers as a District Four executive officer of the Idaho Grain Producers Association (IGPA). While serving in that role, he became very familiar with the local,



state and national issues impacting agriculture and particularly wheat.

"It's an honor to be selected to serve on the Idaho Wheat Commission board," said Hamilton. "I have a great deal of respect for the work

that this board does for Idaho wheat growers. Our goal at the Commission is to help growers maximize profitability. There are many ways to do that. For instance, direct seeding reduces tillage and planting expenses – and saves soil moisture. I want to build on the foundation that my friend and former Commissioner Gordon Gallup laid, by expanding direct seed education and research

to make it a better farming practice for South Idaho growers."

Idaho Wheat Commissioner Chairman Joe Anderson, Genesee, welcomed Hamilton to the Commission, "Clark brings a wealth of farming innovation and experience to the Commission," said Anderson. He has shown his dedication to Idaho grain growers as a former IGPA board member, he understands the issues facing Idaho wheat growers, and is committed to help improve profitability to Idaho wheat growers by wisely investing grower dollars."

Clark holds a bachelor's degree in plant science and a minor in biology from Utah State University. He and his wife Kristi have been married for 28 years. They have four children and one grandchild. When not farming, Clark enjoys flying, taking road trips on his motorcycle, and snowmobiling.



### Idaho Wheat Commission Host Japanese Millers to Build Confidence in U.S. Supplies

APANESE consumers demand the highest quality and safety in their food. To help maintain a preference for U.S. wheat to produce the best wheat foods, U.S. Wheat Associates (USW) scheduled the Japanese team to travel to Idaho, Washington, and Oregon July 5-12, 2015. The trip introduced the executives to the effective U.S. wheat export supply chain from breeding to inspection and port logistics. Funding for this team was provided by the contributions of wheat farmers to USW through their state commissions.

Millers on this team are executives from mid-sized milling companies representing Japan's National Cooperative of Millers. This first trade team from this group of millers visited the United States in 2014.

"This was the first opportunity for some of these managers to personally observe all sectors of the Pacific Northwest wheat trade," said Steve Wirsching, USW vice president and director of the West Coast office. "That is important because they can influence Japan's government grain buying decisions."

"Our market share remains strong because U.S. farmers continue to grow top quality wheat, and because we keep all of our Japanese customers fully informed about quality, supply and prices," said Wataru "Charlie" Utsunomiya, USW Country Manager for Japan, who led this team. "However, we do compete with Canadian spring wheat and Australian white wheat. That is why we give milling executives the chance to discuss our logistical and quality assurance systems face-to-face with U.S. wheat farmers, breeders and exporters."

Given the advanced state of crop development in the Pacific Northwest (PNW), the team was able to see and experience soft white (SW) wheat harvest. Starting their trip in Lewiston, ID, the team toured a country elevator and a terminal elevator on the Snake River, followed by a tour and dinner at Idaho Wheat Commission chairman Joe Anderson's farm in Genesee.

The team continued their trip in eastern Washington and Oregon where they heard from wheat breeders about the potential for new varieties, developed with public funds, to improve quality as well as yield.

In their final leg of the trip, the team met with USW's West Coast Office staff,

regional managers with the Federal Grain Inspection Service. The team ended their visit at the Wheat Marketing Center which emphasized the quality of end-products that include flour from PNW wheat.

USW is the industry's market development organization working in more than 100 countries. Its mission is to "develop, maintain, and expand international markets to enhance the profitability of U.S. wheat producers and their customers." The activities of USW are made possible by producer checkoff dollars managed by 19 state wheat commissions and through cost-share funding provided by USDA's Foreign Agricultural Service. For more information, contact your state wheat commission.

U.S. Wheat Sales to Japan 1,000 Metric Tons¹										
Crop Year (June - May)	HRW	SRW	HRS	White	Durum	Total				
2015/16	69.7	0.0	97.0	94.7	0.3	261.6				
2014/15	881.2	0.0	1,274.2	986.1	1.1	3,142.7				
2013/14	1,005.2	51.2	1,167.1	854.4	1.4	3,079.3				
2012/13	1,003.4	257.3 <sup>2</sup>	1,330.7	1057.1	0.7	3,649.3				
2011/12	1,074.4	0.0	1,562.1	1207.6	0.7	3,844.7				
2010/11	908.7	0.0	1,748.5	935.2	6.3	3,598.7				
2009/10	963.2	1.5	1,518.3	879.8	0.4	3,363.1				
2008/09	817.1	28.7	1,615.4	830.0	0.3	3,291.4				
2007/08	1,079.3	18.7	1,568.2	798.9	0.0	3,465.1				
2006/07	937.0	3.6	1,768.1	722.9	0.5	3,432.1				

Data current through June 18, 2015

Source: USDA - FAS - Weekly Export Sales Report

<sup>1</sup> One metric ton = 36.74 bushels

 $^2$  With high corn prices, Japan purchased an unusual amount of soft red winter (SRW) for feed in 2012/13 and early in 2013/14



### **Expanding Filipino Milling Industry Sends Trade Team to U. S.**

THE southeast Asian wheat market is a story of success for the U.S. wheat industry. In the 2014/15 marketing year (June to May), the region accounted for 20 percent of global U.S. wheat sales. With a strong milling industry to support it, the Philippine wheat market continues to be one of the region's most consistent and important export markets year after year. In 2014/15, the Philippines was the third largest buyer of U.S. wheat and the second largest buyer of both soft white (SW) and hard red spring (HRS) wheat, setting a new sales record for the second year in a row.

Looking forward, the Philippine milling industry is going through transitions including an expansion of new mills and a new generation of management. Building on more than 50 years of service in the Philippines, U.S. Wheat Associates (USW) is playing a role in these transitions and further strengthening its relationships, which included hosting four milling industry customers on a visit to the United States Aug. 2 to 12, 2015.

"This trade team of emerging leaders represents growing market trends in the Philippines," said USW South Asia Assistant Regional Vice President Joe Sowers, who traveled with the team. "We invited participants that we thought would best apply what they learned on the trip to the challenges and opportunities presented by the evolving market environment."

USW worked with the North Dakota Wheat Commission, Montana Wheat and Barley Committee, Washington Grain Commission, Idaho Wheat Commission and Oregon Wheat Commission to organize this team. While visiting these states, the team had an on-farm look at the SW, HRS and hard red winter (HRW) wheat crops, and an early report on the 2015 crop quality outlook. The trip also included tours of wheat breeding research, shuttle and barge loading facilities and export elevators, as

well as observing activities performed by the Federal Grain Inspection Service (FGIS) to assure adherence to contracted quality specifications.

"Our purpose is to demonstrate how the quality, value and reliability of U.S. wheat and its supply chain can help these millers grow their own businesses," said Sowers.

U.S. Wheat Sales to Philippines 1,000 Metric Tons											
Crop Year (June - May)	HRW	SRW	HRS	White	Durum	Total					
2015/16	25.4	0.0	267.0	259.2	0.0	551.6					
2014/15	56.7	244.9	1,221.2	931.0	0.0	2,453.7					
2013/14	31.2	1.5	1,266.0	864.5	0.0	2,163.3					
2012/13	30.8	0.0	1,122.1	804.3	0.0	1,957.2					
2011/12	49.9	0.0	1,218.2	821.1	0.0	2,089.2					
2010/11	15.6	0.0	983.0	872.6	0.0	1,871.2					
2009/10	31.4	0.0	792.1	747.1	0.0	1,570.5					
2008/09	32.9	19.3	832.7	647.3	0.0	1,532.2					
2007/08	12.4	6.0	885.4	768.5	0.0	1,672.2					
2006/07	11.1	8.9	964.6	781.9	0.0	1,766.5					

Data current through July 23, 2015

Source: USDA - FAS - Weekly Export Sales Report

One metric ton = 36.74 bushels



### 2013-2014 Idaho Winter Wheat Variety Performance Tests and 2012-2014 Yield Summaries

By Juliet Marshall and Kurt Schroeder, Extension Specialists, Department of Plant, Soil and Entomological Sciences, University of Idaho, and Mike Flowers, Extension Cereal Specialist, Oregon State University

### **Variety Testing**

LCS Colonia

LCS Evina

Norwest 553

LCS Jet

Idaho winter wheat varieties are evaluated each year to provide performance information to help growers select superior varieties for their growing conditions. The tests are conducted using farmer fields or university experiment stations, and the varieties are grown under conditions typical for crop production in the area. Varieties are included in these tests based on their potential adaptation in an area and commercial use of a variety. The number of entries is limited due to resource constraints. Individual plots were planted as 7 rows spaced 7" apart or 5 rows spaced 10" apart for 14' to 25' in length and replicated 3 or 4 times in a randomized complete block design. Agronomic performance data for winter wheat are summarized by state districts in

Tables 1-6. Northern District results are presented in Table 1 and Western Idaho results are in Tables 2 and 3. Southern and Eastern Districts results are presented for irrigated trials in Table 4 and for dryland trials in Table 5.

### **Information Summarization**

Yield data are reported for individual sites while other agronomic data are averaged over all sites of each table. Bushel/acre yield results are based on 60 lbs/bu at 11% moisture. Lodging ratings are the percent of a plot area lodged, and in some tables not reported due to minimal lodging. Average values are presented at the bottom of listings and are followed by a least significant difference (LSD) statistic at the 5% level.

Average yield data from variety performance trials in 2012, 2013, and 2014 are presented in Table 6 for all districts. These data represent results of 3-18 site/years and can be a good indication of long-term performance of a variety.

More detailed lodging information is available on the new URL for UI cereals website http://www.uidaho.edu/extension/cereals/.

### Table 1. Dryland Winter Wheat Variety Performance in the Northern District near Bonners Ferry, Genesee, Nezperce, Tammany and Tensed, 2014.

			Seed Y	161q				A	verage			
Variety	Bonners Ferry	Genesee (rim)	Genesee (Kambitsch)		Tammany	Tensed	Yield	Test Weight	Plant Height	Protein	Lodging*	
Soft White Winter			bu/acr	e			bu/A	lb/bu	Inches	%	%	
ARS-Amber	116	76	73	40	43	96	74	55	27	13	78	
ARS-Crescent (club)	105	71	78	37	43	88	70	55	28	13	29	
Bobtail	97	92	89	48	48	105	80	54	27	12	43	
Brundage 96		83	91	42	41	94	70	56	26	13	5	
Bruneau	120	83	85	50	49	111	83	57	29	13	8	
Cara (club)	89	69	83	42		93	63	54	27	13	10	
Kaseberg	105	85	91	43	47	89	77	56	27	13	5	
Ladd	96	88	81	51	43	91	75	56	27	13	0	
LCS Artdeco	118	94	88	53	48	119	87	55	26	12	9	
LCS Biancor		101	96	51	52	97	79	55	23	12	3	
Madsen	108	80	83	52	44	93	77	57	29	14	3	
Mary	106	90	84	43	53	101	80	56	27	13	3	
ORCF102	104	94	89	46	43	115	82	57	30	13	14	
Puma	109	87	87	53	51	107	82	57	31	13	43	
Rosalyn		90	94	53	44	100	76	54	27	12	5	
Stephens	103	82	81	51	36	110	77	55	27	13	5	
UI/WSU Huffman	111	81	87	47	50	111	81	56	28	13	19	
WB-523	101	83	77	48	54	103	78	57	28	13	10	
WB-1070CL	89	92	87	40	53	89	75	59	27	14	0	
WB-1529	91	94	88	44	47	106	78	59	26	13	48	
WB-1604	97	82	92	55	46	96	78	56	27	13	3	
WB-Junction	114	92	82	61	46	108	84	57	28	13	48	
Trial Average	106	87	86	48	45	102	78	56	27	13	17	
LSD (α= 0.05)	8	11	10	19	7	8	6	1				
Hard Winter				-								
Boundary	109	89	82	42	46	98	78	57	28	13	17	
Keldin	112	106	94	61	52	115	90	59	30	12	32	
LCS Allezy		100	100	65	41	114	84	54	27	13	24	
LCS Azimut	84	86	93	65	51	99	80	53	26	12	4	

LSD (α= 0.05)	11	15	12	21	9	7	5	1	1		
Trial Average	106	94	85	59	48	99	81	57	30	13	34
WB-Arrowhead	103	91	85	45	49	102	79	59	31	13	29
UICF Grace (w)	106	87	73	51	51	102	78	58	40	13	71
UI SRG	119	78	77	61	44	95	79	57	35	13	85
UI Silver (w)	100	94	81	28	47	87	73	59	31	13	91
Rimrock	104	105	79	60	49	110	85	58	29	12	37
											-

44

60

46

101

129

73

95

57

57

32

28

79

71

79

100

116

### Information Interpretation

Average past performance of a variety is the best indicator available to predict future performance potential. Variety performance can vary from location to location and year to year. The results reported in this article are for 2014 trials; previous results can be found in the 1992 to 2014 issues of Idaho Grain Magazine or at the UI cereals website. Average performance over locations and years more accurately indicates varieties' relative

Table 2. Irrigated Soft White Winter Wheat Variety Performance at Parma, 2014.

			-, -	
Variety	Yield Average	Test Weight	Height	Protein
	bu/acre	lb/bu	(in)	(%)
AP 700 CL	169	61.2	45	8.9
AP Badger	176	59.1	38	8.0
Bobtail	184	59.3	39	8.2
Cara*	153	58.9	42	9.1
Goetze	170	59.4	38	8.2
Kaseberg	179	59.4	39	7.2
Ladd	160	59.8	39	8.6
LCS Artdeco	188	60.5	36	7.9
LCS Biancor	179	59.3	33	7.9
Legion	183	60.1	47	8.0
Mary	176	61.4	40	8.3
ORCF-101	143	60.2	39	8.3
ORCF-102	159	60.8	43	8.1
ORCF-103	166	59.4	44	8.0
Rosalyn	171	57.9	38	7.5
Skiles	174	62.2	38	8.4
Stephens	188	60.5	42	8.6
SY Ovation	183	60.8	40	7.8
Tubbs 06	173	60.3	46	8.2
WB-Junction	193	62.3	43	8.5
WB Trifecta	172	62.0	43	8.8
WB1070CL	178	63.0	39	8.9
WB1376CLP	182	60.8	43	8.9
WB1529	176	62.6	40	8.3
WB1604	178	61.9	41	9.0
Average	174	60.4	41	8.2
LSD (α= 0.05)	10	0.5	2	0.7
*Club				

\*Club

<sup>\*</sup> Lodging only observed at Tensed for soft white winter, and Bonners Ferry and Tensed for hard winter wheat (W) = White



performance. Try to evaluate as much information as you can prior to selecting varieties. Yield is a primary characteristic used to select varieties, but disease resistance, maturity, lodging tendency, and quality characteristics such as test weight and plumpness are also important variety selection considerations. Also consider that plots are managed according to the average expected yield, latest varietal maturity, and / or performance of the surrounding crop in a grower's field, whether it be wheat or barley. Varietal performance may not reflect actual performance in your field when a specific variety is managed for optimal economic performance.

Reported small differences among varieties in yield and other characteristics are usually of little importance due to chance differences in tests. Utilize the LSD statistic to determine the true difference between varieties. If differences between varieties are greater than the 5% LSD value, the varieties are considered "significantly different." This means that there is a 9.5 in 10 chance that the reported difference between varieties is a true difference and not due to other experimental factors or chance variation. If no significant differences are determined for a trial, n.s. is used in place of the LSD.

### **Further Information**

Variety performance information for winter wheat and winter barley has been published in the fall issues of Idaho Grain Magazine and on the University of Idaho Cereals website: http://www.uidaho.edu/extension/cereals/. Additional information is available on the University of Idaho catalog website: http://www.cals.uidaho.edu/edcomm/catalog.asp

(Look for publications as pdf files under "Other Cereals Publications"). In addition, publications are free through the University of Idaho Agriculture Publications (ph. 208-885-7982) or contact your county Extension Office. ■

Table 3. Irrigated Hard Red Winter Wheat Variety Performance at Parma, 2014.

Variety	Yield Average	Test Weight	Height	Protein
	bu/acre	lb/bu	(in)	(%)
AP 503 CL2	175	64.6	41.3	9.3
Genesis	161	61.4	34.9	9.2
Keldin	180	63.0	42.8	8.4
LCS Allezy	168	59.9	36.9	9.2
LCS Azimut	168	58.7	30.5	9.2
LCS Colonia	164	59.2	38.4	8.8
LCS Evina	158	62.7	45.3	9.5
Norweat 553	163	61.8	36.4	9.6
UI Silver (W)	154	62.6	47.2	8.5
UI SRG	155	62.4	52.7	9.3
WB Arrowhead	167	63.4	44.3	9.3
WB Rimrock	171	62.0	41.8	8.3
Whetstone	173	63.3	41.8	9.1
Bobtail*	189	59.8	39.4	8.9
Average	166	61.9	40.9	9.0
LSD (α= 0.05)	13	0.6	1.7	0.7
Grain protein data in	dicate that there	was insufficien	t nitrogen for h	ard wheat

Grain protein data indicate that there was insufficient nitrogen for hard wheat production at this site.



Table 4. Irrigated Winter Wheat Variety Performance in Eastern and Southern Districts at Kimberly and Aberdeen, 2013-2014.

			Test			Height	Lodging	Protein
Kimberly	Aberdeen	Average	Weight	Stand	Date			
	bu/acre -		lb/bu	(%)		(in)	%	(%)
145	183	164	54.6	94	6/2	36	25	10.1
141	164	152	56.5	94	5/29	36	20	9.9
145	182	164	55.8	96	6/4	38	30	10.6
135	160	148	55.9	97	6/7	42	54	11.0
144	180	162	54.7	96	6/1	36	27	9.4
133	161	147	55.5	94	6/4	35	12	11.9
133	179	159	53.7	95	5/30	33	19	9.4
139	183	164	54.3	98	6/2	31	27	9.7
140	172	156	56.2	96	6/5	38	18	11.3
125	172	148	55.8	93	6/5	39	38	11.1
144	175	160	56.7	96	5/31	34	23	10.5
130	173	152	54.3	97	6/3	37	22	9.6
139	170	154	56.1	96	6/3	36	25	11.3
142	170	156	55.0	95	5/31	36	28	10.3
155	176	166	56.1	95	6/1	35	18	10.8
157	181	169	55.9	93	6/2	35	30	10.5
135	187	161	56.4	96	6/5	39	37	11.4
140	140	140	57.7	94	5/28	35	13	11.3
145	170	157	55.4	92	5/30	36	39	10.8
145	149	147	57.6	94	5/27	35	24	11.1
147	169	158	55.8	98	5/29	36	28	10.2
134	180	157	55.9	96	5/30	38	24	10.8
142	166	154	56.9	96	5/30	33	39	11.1
141	172	156	55.6	95	6/1	36	26	10.6
15	15	11	1.4	5.0	1.0	1.5	14.9	1.2
	145 141 145 135 144 133 133 139 140 125 144 130 139 142 155 157 135 140 145 145 147 134	bu/acre           145         183           141         164           145         182           135         160           144         180           133         161           133         179           139         183           140         172           125         172           144         175           130         173           139         170           142         170           155         176           157         181           135         187           140         140           145         170           145         149           147         169           134         180           142         166           141         172	bu/acre           145         183         164           141         164         152           145         182         164           135         160         148           144         180         162           133         161         147           133         179         159           139         183         164           140         172         156           125         172         148           144         175         160           130         173         152           139         170         154           142         170         156           155         176         166           157         181         169           135         187         161           140         140         140           145         170         157           145         149         147           147         169         158           134         180         157           142         166         154           141         172         156	Kimberly         Aberdeen         Average         Weight           145         183         164         54.6           141         164         152         56.5           145         182         164         55.8           135         160         148         55.9           144         180         162         54.7           133         161         147         55.5           133         179         159         53.7           139         183         164         54.3           140         172         156         56.2           125         172         148         55.8           144         175         160         56.7           130         173         152         54.3           139         170         154         56.1           142         170         156         55.0           155         176         166         56.1           157         181         169         55.9           135         187         161         56.4           140         140         140         57.7           145         170	Kimberly         Aberdeen         Average         Weight         Stand	Kimberly         Aberdeen         Average         Weight         Stand         Date           145         183         164         54.6         94         6/2           141         164         152         56.5         94         5/29           145         182         164         55.8         96         6/4           135         160         148         55.9         97         6/7           144         180         162         54.7         96         6/1           133         161         147         55.5         94         6/4           133         179         159         53.7         95         5/30           139         183         164         54.3         98         6/2           140         172         156         56.2         96         6/5           125         172         148         55.8         93         6/5           144         175         160         56.7         96         5/31           130         173         152         54.3         97         6/3           139         170         154         56.1         96         6/3	Kimberly         Aberdeen         Average         Weight         Stand         Date	Kimberty         Aberdeen         Average         Weight         Stand         Date

Hard Red and White	Hard Red and White (W) Winter			Test	Spring	Heading	Height	Lodging	Protein
Variety	Kimberly	Aberdeen	Average	Weight	Stand	Date			
		bu/acre -		lb/bu	(%)		(in)	%	(%)
Garland	151	160	155	55.8	96	6/3	29	39	12.7
Golden Spike (W)	135	146	141	55.6	97	6/4	42	83	12.9
Greenville	154	161	157	56.4	96	6/1	31	47	12.4
Judee	131	156	145	59.1	98	5/31	38	58	12.0
Juniper	139	144	142	59.0	98	6/2	50	61	13.3
Juniper / Promontory	127	146	136	58.3	98	6/2	49	60	12.9
Keldin	159	171	165	58.5	96	5/31	37	61	12.1
LCS Azimut	146	162	154	54.1	95	5/30	30	21	11.0
LCS Colonia	138	176	157	53.9	99	6/4	36	7	11.8
LCS Evina	129	170	149	57.6	96	6/5	39	38	12.8
Manning	136	165	151	56.0	96	6/1	41	68	13.0
Moreland	160	165	163	57.1	95	5/30	35	40	12.9
Norwest 553	160	169	165	57.6	96	6/1	33	1	12.5
Promontory	159	167	163	58.1	96	5/31	41	61	11.5
UI Silver (W)	132	180	156	56.5	97	6/1	42	68	12.9
Utah 100	155	161	158	58.0	98	6/4	43	48	12.3
WB-Arrowhead	156	163	160	58.1	96	6/1	39	55	12.5
WB-Arrowhead / Keldin	163	168	165	58.5	96	5/31	38	50	11.6
WB3768 (W)	143	172	159	58.1	95	6/5	43	49	12.5
Whetstone	161	162	161	59.3	97	5/27	37	45	12.4
Yellowstone	148	166	157	58.3	95	5/30	40	46	11.6
Average	149	164	157	57.4	96	6/1	38	47	12.3
LSD (α= 0.05)	15	12	10	0.7	3.7	0.8	1.7	18.2	1.0
(W) = White									



	Ririe Yield	Test Weight	Spring Stand	Heading Date	Height	Protein
	bu/acre	lb/bu	(%)		(in)	(%)
Soft White Winter Whe	at				. ,	
SY Ovation	26.0	52.9	100	6/15	19	15.5
Eltan	25.7	50.2	100	6/21	21	16.6
Madsen / Eltan	25.4	51.1	96	6/19	21	15.8
SY 107	25.0	49.7	97	6/16	19	15.3
UICF Brundage	24.8	49.0	100	6/15	19	16.1
Bobtail	24.6	47.4	99	6/15	17	13.7
Skiles	24.4	52.2	100	6/17	19	15.1
Bitterroot	24.4	51.6	100	6/19	19	15.8
Otto	24.2	50.5	100	6/22	21	16.3
Kaseberg	24.1	49.8	100	6/14	16	15.0
WB-1070CL	24.0	51.6	100	6/12	20	13.1
WB 528	23.1	53.0	97	6/15	19	15.2
UI-WSU Huffman	23.0	49.3	98	6/19	19	15.8
Rosalyn	22.7	48.9	98	6/19	19	15.2
Bruneau	22.6	51.2	100	6/19	19	15.4
Mary	22.2	51.4	100	6/14	18	15.2
Ladd	21.9	50.3	95	6/19	20	15.6
Madsen	21.9	51.8	99	6/19	20	15.6
Brundage	21.7	53.0	100	6/12	19	14.4
WB 456	19.7	54.1	100	6/12	17	14.2
Stephens	19.5	50.7	98	6/15	18	15.3
Average	23.5	50.7	99	6/16	19	15.3
LSD (α= 0.05)	3.9	1.3	4.8	2.2	2.1	

-	Soda Springs Yield	Test Weight	Spring Stand	Heading Date	Height	Protein
	bu/acre	lb/bu	(%)		(in)	(%)
Madsen / Eltan	82.4	55.3	90	6/24	27	12.8
Eltan	80.8	55.4	95	6/24	28	13.1
UICF Brundage	74.9	55.3	88	6/23	26	13.2
Madsen	64.6	55.1	88	6/24	26	13.2
Brundage	62.5	54.7	87	6/19	26	13.2
Bruneau	55.3	53.4	85	6/24	25	13.1
Stephens	53.4	52.4	80	6/21	25	14.1
Average	68.4	56.5	90	6/21	29	13.5
LSD (α= 0.05)	14.9	3.0	5.7	1.6	4.7	

Hard Winter Wheat	Rockland	Ririe	Average	Test Weight	Spring Stand	Heading Date	Height	Protein
Variety		- bu/acre		lb/bu	(%)	Julian	(in)	(%)
AP503 CL2	37.2	18.7	28	59.0	98	157	19	12.5
Bearpaw	34.2	18.0	26	58.4	97	159	18	12.3
Curlew	42.7	21.9	32	59.2	99	159	24	12.4
Deloris	38.1	23.5	31	58.6	98	161	25	11.5
Garland	32.4	19.7	26	56.4	98	161	15	12.5
Garland/Juniper	37.2	18.9	28	58.3	98	161	26	12.4
Golden Spike (W)	39.1	18.3	29	56.8	98	161	21	12.6
Greenville	37.4	19.9	29	57.5	98	160	18	10.9
Judee	37.0	16.8	27	59.6	98	160	19	12.0
Juniper	37.2	25.8	32	59.8	97	160	25	13.0
Juniper / Promontory	39.0	19.5	29	59.6	98	161	25	12.4
Keldin	42.9	21.7	32	59.0	98	159	21	11.9
LCS Azimut	40.3	21.4	31	53.5	98	159	19	11.1
LCS Colonia	35.1	25.0	30	53.1	96	166	20	12.2
_CS Evina	28.1	20.5	24	54.3	94	167	20	12.9
_ucin-CL	36.8	21.9	29	58.7	98	160	25	12.8
Manning	27.2	19.6	23	58.5	97	159	20	12.6
Moreland	36.3	21.7	29	56.3	98	159	19	12.9
Norwest 553	29.1	19.2	24	57.8	91	164	20	13.3
Promontory	36.4	21.3	29	59.1	98	159	23	12.2
SY Clearstone 2CL	42.2	23.5	33	57.7	99	160	24	12.5
JI Silver (W)	41.6	25.3	33	60.0	97	160	24	11.8
JI SRG	43.7	20.2	32	57.8	97	159	24	12.6
JICF Grace (W)	32.1	21.5	27	57.8	96	159	27	12.3
Jtah 100	40.1	21.3	31	57.8	98	161	24	12.4
WB-Arrowhead	38.4	19.7	29	58.9	97	158	22	12.6
WB-Arrowhead / Keldin	38.5	22.3	30	58.9	97	158	23	12.1
WB3768 (W)	40.1	21.3	31	58.6	97	162	23	12.4
Weston	36.7	18.6	28	59.6	97	160	24	13.3
Whetstone	43.1	19.7	31	58.9	99	156	20	12.0
Yellowstone	42.5	23.7	33	58.8	98	159	22	10.9
Average	37.4	21.0	29	58.0	97	160	22	
LSD (α= 0.05)	8.5	4.1	6	1.3	4	2	3	

Table 6. 2012-2014 Winter Wheat Variety Average Yield Performance

	Northern District	Southern/E	astern District
	Rainfed	Irrigated	Dryland
Site/years	18	9	3 soft, 6 Hard
		Yield (bu/A) ·	
Soft White Wi	nter		
ARS-Amber	86		
ARS-Crescent*	80		
Bitterroot			22.5
Bobtail	92	141.9	18.5
Brundage		131.5	16.9
Brundage 96	86		
Bruneau	91	142.9	21.6
Cara	83		
Eltan			23.9
Kaseberg	90	140.0	18.0
Ladd		128.9	16.0
LCS Artdeco	95		
Madsen	86	133.7	19.5
Mary		136.3	18.0
Skiles		131.2	19.0
Stephens	82	134.2	16.8
SY Ovation		141.0	
UICF Brundage			20.4
WB 456		118.5	
WB 528		133.9	18.8
WB-1070CL	81	129.1	
WB-523	85		
WB-Junction	89	135.0	
WB1529		131.4	
Average	87	134.0	23.9
LSD (α= 0.05)	4	7.4	2.7

Average	87	133.6	23.9
Yellowstone		142	26.3
Whetstone		134	
Weston			22.6
WB-Arrowhead	87	137	23.0
Utah 100		141	25.6
UICF Grace (W)			24.8
UI SRG		87	26.1
UI Silver (W)		85	25.6
Rimrock	90		
Promontory		135	22.0
Norwest 553	92	141	19.0
Moreland		135	
Manning		127	
Lucin-CL			24.9
LCS Azimut	89	128	
Keldin		146	26.9
Juniper		123	24.9
Judee		131	23.0
Greenville		128	22.4
Golden Spike (W)		122	23.6
Deloris			25.9
Curlew			23.7
Boundary	86		
Bearpaw			21.5
AP503 CL2			22.2

\*Club wheat (W) = White

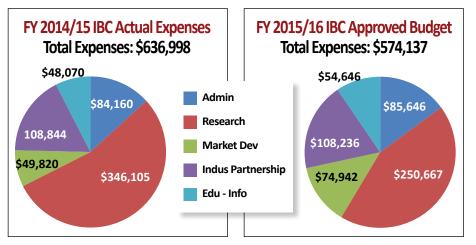


### **Idaho Barley Commission** 2015 In Review

HE Idaho Barley Commission's mission is to enhance the profitability of Idaho barley growers through research, market development and grower education. The IBC's strategic investments are currently focused on these priorities:

- University of Idaho Barley Research Agronomist Endowment (five year investment totaling \$1 million)
- Sustainable production practices, including optimizing water and fertilizer inputs
  - Pest and disease control
  - Malting barley market diversification
  - Food barley market development
- Barley producer risk management education.
   Excessive moisture during the 2014 harvest caused serious quality and economic losses for Idaho barley

producers and industry last year. The IBC immediately initiated an *Idaho Barley Crop Crisis Action Plan* that involved several strategies: communicating with producers and industry on testing procedures and handling recommendations for injured by sprout grain; assisting with county disaster declarations; working with insurance companies and the USDA Risk Management Agency on crop insurance issues and pursuing an aggressive feed barley marketing campaign throughout the Western U.S. There is



no way to sugar coat the serious economic losses experienced last year, but everyone in the Idaho barley marketing chain learned important lessons and we are better prepared for the possibility of future production challenges.

Because of these economic losses, the IBC experienced an income shortfall in FY 2015 but made some significant adjustments in its budget to trim its

deficit. Furthermore, the board has taken a conservative approach in the FY 2016 budget to ensure that we maintain funding for key priorities while rebuilding reserves. We are anticipating a significant recovery in 2015 production and quality across southern and eastern Idaho, where at least 92 percent of the state's barley crop is grown. This is great news for our producers and important malting barley industry partners.

### **RESEARCH:**

- \$1 million Barley Research Agronomist Endowment at the University of Idaho. Dr. Christopher Rogers was hired as the first Barley Research Agronomist last July and is based at the UI Aberdeen Research & Extension Center. Just one year on the job, Dr. Rogers has established a very comprehensive fertility and barley sustainability research program with collaborative research projects with the malting industry.
- Funding support for USDA ARS's malting and food barley breeding program based at Aberdeen, Idaho, with an emphasis on developing winter varieties adapted to Idaho's diverse growing conditions. ARS has established a collaborative barley variety development program with the U.S. craft brewing industry and Highland Specialty Grains.
- Disease control IBC has supported two research forums in the past year to address rising concerns with the spread of Fusarium Head Blight (January 2014) and Barley Yellow Dwarf Virus (July 2015). We are supporting targeted research efforts at controlling the threat of both of these diseases.
- Long-term impacts of manure applications on malting barley production this eight year study involves cereals, potatoes and sugar beets and is designed to develop recommendations for optimal manure applications rates and timing on basis of yield potential, grain quality, soil quality, disease pressure and nutrient uptake.

### **MARKET DIVERSIFICATION:**

 We continue to work closely with our traditional malting and brewing customers on meeting their needs, including promoting sustainable barley production practices. We also have initiated outreach to the emerging craft brewing industry across Idaho and the Western U.S. The craft beer segment is a growing market for Idaho - craft beers now represent about 12 percent of the U.S. beer market, but they use more than 25 percent of the total malt consumed in the U.S.

- We continue to expand our FOOD BARLEY INITIATIVE, including development of high fiber barley varieties (ARS and Highland Specialty Grains), new product development using barley as a key ingredient and use of barley foods in school meals.
- We have targeted barley export markets in Latin America (malting) and Asia (food), by participating in market development programs sponsored by the U.S. Grains Council, a non-profit export market development organization based in Washington, D.C. with overseas programs in more than 50 markets around the world.

### **GROWER SERVICES:**

- We worked closely with the North Dakota Barley Council on the final development of a new Malting Barley Revenue Insurance Endorsement that will be available for Idaho malting barley producers in 2016. This policy provides better coverage for both contract and non-contract malting barley production, including optional units, with a revenue component priced off of Chicago wheat futures.
- We teamed up with the University of Idaho Extension team in southern Idaho to organize and deliver nine workshops on the 2014 Farm Bill and Crop Insurance last December and January. More than 500 producers attended these workshops across the state, stretching from St. Anthony to Bonners Ferry. The



New Eastern Idaho Commissioner Scott Brown inspects his Soda Springs barley fields.

southern and eastern Idaho workshops also included discussions on why pro-harvest sprouting is a concern to malting barley and wheat customers.

■ We continue to work with local county extension faculty in offering grain marketing and risk management education across the state. Since 2001, the IBC has won more than \$155,000 in competitive federal grants from the Western Center for Risk Management Education to conduct producer education in managing production and marketing risks. Highlights last year included local Grain Marketing Strategies workshops featuring Brian Ryland with CHS Hedging in Minneapolis and webinars on diverse topics including: Understanding 2014 Harvest Weather Events; Summer 2015 Weather and Water Outlook; Basics of Grain Basis; Cereal Best Management Practices; 2014 Farm Bill Program Details; and 2015 U.S. Economic & Grain Market Outlook.

### Wireworms: Pest from the past Research for future management

By Drs. Christopher W. Rogers and Arash Rashed

'N the world of farming it seems that at any given time there is something working against our efforts to ensure Idaho is continuing to produce high yielding and outstanding quality grain. These issues are often all too real for you as they directly cut into your returns and impact your livelihood. At this time of year, many of you are in the field and on the combine getting your grain in the bin and to market. However, it is important that we are always looking forward to ensure our upcoming year's crop, whether winter or spring grain, will be as profitable, or more, compared to the last. Many of you are aware that there has been a statewide resurgence in the occurrence of wireworms, a persistent and damaging crop pest particularly in the early seedling stage of grain. In this article and our upcoming University of Idaho Extension Current Information Series (i.e., detailed management and visual identification keys), which will be published this fall, we want you to be aware of this pest and your management and monitoring options so you can be thoroughly prepared to manage your fall and spring grain crops.

Wireworms are characterized by their hard, slender, and wire-shaped bodies that are less than an inch long. They are the immature stage of a group of beetles, known as the click beetles, and it takes them multiple years to mature. Wireworms are attracted to the germinating seed due to the release of gaseous compounds in the soil. Wireworms can result in failed seed germination due to their feeding on the seed and the emerging sprout. Post-emergence damage, caused by wireworm feeding on roots and at the very base of the stem below ground, can be detected through the presence of weakened and/or dead plants, a process that usually starts by wilting of the central leaves. At the field scale, damage is often seen as patchy areas of missing or weakened plants. Traditional environmentally persistent pesticide chemistries have been removed from the market due to environmental and health concerns, and the only currently registered chemistry (i.e., neonicotonoid seed treatments) for wireworms in barley and wheat are less effective, providing limited protection, and do not eradicate wireworms in the field. However, these treatments are recommended in fields that have historically had wire-



IBC Industry Representative Tim Pella, Anheuser Busch (left), examines malting barley at UI Bonneville County Cereal Field Day in July 2014.



UI barley research agronomist Chris Rogers (left) and UI research entomologist Arash Rashed evaluate barley research trial at the UI Nutrient Management Field Day in Kimberly in July 2015.

worm damage. These neonicotinoid seed treatments are also effective at reducing cereal aphid populations, some of which are known to be efficient host carriers of the barley yellow dwarf virus, also known as BYDV. Another effective management strategy is to rotate with other crops such as sugar beet and potatoes where more effective insecticide chemistries are available to reduce wireworm population in subsequent grain crops. If you believe your field is infested or at risk, monitoring protocols can be implemented using "solar-bait traps", where pre-moistened wheat/barley/corn seed is inserted in a small hole in the soil and covered with dark plastic to attract wireworms so they can be collected and the severity of infestation assessed. Detailed instructions for this method as well as visual identification keys for the most prevalent species of wireworm will be available in the upcoming University of Idaho CIS publication.

In the past several years, the Idaho Barley Commission, the Idaho Wheat Commission, the USDA-ARS- REACCH, and the USDA-NIFA hatch programs have funded research to begin to address the wireworm threat facing Idaho grain producers. We have established numerous field sites statewide from Parma to Soda Spring as well as in Northern Idaho in multiple grower fields. Several species of wireworms have been observed and we are currently compiling the results from the 2014-2015 growing season where, during the 2015 growing season, we greatly increased our sampling program and added extensively to the monitoring protocol by investigating environmental soil factors including bulk density, moisture content, and temperature. In previous work in the Midwest, soil moisture content and temperature have been shown to be key predictors of wireworm activity in fields. Through the support of our Idaho grain growers and commissions, we believe our research efforts and intensive monitoring program will lead to an improved understanding of factors influencing wireworm management and control in Idaho. We hope you will find our upcoming publication a valuable addition to your management toolbox.

As always, we look forward to hearing from you as the feedback and contributions from all growers, county extension personnel, consultants, and barley industry stakeholders are crucial for creating a productive research and extension program to address the current needs of Idaho growers.















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