

WINTER 2018

IDAHO

THE IDAHO GRAIN PRODUCERS ASSOCIATION MAGAZINE

GRAIN



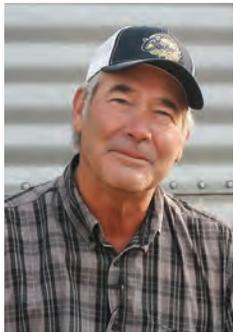
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VIEWS



VIEWS



**BY DWIGHT LITTLE
PRESIDENT**

Wow – where does a year go? It seems like just yesterday that I became President of the Idaho Grain Producers Association. The year has been both successful and challenging with many new laws taking effect. We have a new trespass law, which should help producers control the activities on their private property, and we have a more methodological way of licensing and routing farm trucks. Finally we now have a better ability to deal with wildlife damage and engage the Department of Fish and Game.

In Washington, D.C., we helped put together a new Farm Bill which we hope to get passed through a conference committee before the session ends. We have pressed the Administration on trade and its importance to Idaho. Trade between the United States, Canada, and Mexico has been agreed upon – NAFTA has been upgraded to the USMCA, but many other trade issues remain unresolved. Our input and participation is vital to get meaningful and successful trade deals with other countries. Agriculture has taken the brunt of the current trade tariffs but we are pushing for rapid resolution to the trade problems we have.

This year’s election process has brought changes on both the state and national level. Idaho will have a new governor and many new legislators. It will take some time to become acquainted with the new people in office. Our job will be to educate and inform them on the issues that are important to grain producers and will, as always, be looking out for all the needs of Ag.

On the national front, beginning in January we will begin a new session of Congress with a different looking legislative body. It will have new leadership, including a Democrat-controlled House and a different view on many national issues. Hopefully we can be effective in maintaining some of the gains that have been made, like less government intrusion and lower taxes.

It truly has been a pleasure to serve as your President for the last year. The best part of this position has been meeting many of you. We can be proud of the job we do! Who else would do so much and get paid so little? Good luck and high prices – and thank you! ■

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EDITOR'S NOTE



BY STACEY KATSEANES SATTERLEE
EXECUTIVE DIRECTOR

I have a few thoughts to share as we look to the end of 2018.

First, I hope you all exercised your right to vote in November. What a tremendous opportunity we have to vote! Now that we're past November 6, a missive comes to mind: elections have consequences. And we will be dealing with those consequences in 2019 as Democrats take control of the House and a slew of new members of Congress are ushered into DC – one of which we're looking forward to working with, newly-elected District 1 Representative Russ Fulcher. Idaho will also welcome a new Governor in 2019 – we are excited about incoming Governor Brad Little. There will also be lots of new faces in Idaho's statehouse this upcoming session (read more on page 4) – so we will have a lot of work to do, and lots of new people to work with at both the state and federal level.

Second, your IGPA staff and grower leaders are busy every day working on issues important to Idaho's grain industry. We just completed a fall board meeting and annual convention – at the board meeting in particular, every speaker and presentation addressed an issue we'd heard about directly from growers. We heard there was an issue with the appraisal of ag land in Bonneville County – so we had the Tax Commission speak to the board and explain their process. We had a county express concern over the process to approve 129,000-pound truck routes – so LH-TAC came and gave us an update on route approvals. Every speaker was a direct result of an issue brought up by an individual or county – so if you have a concern, let us know and we'll get to work on it.

Finally – the end of the year offers a unique time to reflect on those things that truly matter and one of the things I feel is tremendous gratitude. I am grateful to represent such a vibrant industry that has so many engaged growers. I am grateful to get to work with such capable (and fun) colleagues. And I am grateful for my family. It is an honor to represent Idaho's grain growers – if you aren't a member of IGPA, our 2019 membership drive is the perfect time to join us! ■



Election Outcome and 2019 Session Outlook

BY RICH GARBER

**DIRECTOR OF GOVERNMENT AFFAIRS,
IDAHO GRAIN PRODUCERS ASSOCIATION**

The “blue wave” projected to sweep the country in the last election certainly did not hit Idaho. With a near record turnout at the polls and an unusually high number of open state office and legislative seats, the voters continued a strong Republican hold on state government. All seven statewide executive branch offices were retained by Republicans as well as 83 legislative seats. All told, the legislature will have 24 new members this year, three in the Senate and 21 in the House. Also, two House members, Van Burtenshaw and Don Cheatham, have moved to the Senate.

If there was any kind of a blue wave it was a small one in Ada county where District 15 flipped from red to blue. In addition to the two seats in District 15, Democrats also made a slight gain in District 5 where Republican Senator Dan Foreman lost to Moscow Democrat David Nelson, in District 26 where incumbent Republican Steve Miller was defeated by Democrat Muffy Davis and in District 29 where Republican Dustin Manwaring was defeated by Democrat Chris Abernathy. Come January, Idaho’s 105-member Legislature will still be solidly red comprising of 84 Republicans and 21 Democrats.

Governor-elect Brad Little will work with this host of new faces in the 2019 Legislature and with new chairs in a least nine committees. Most closely watched will be the Joint Finance and Appropriations Committee (JFAC) where both co-chairs retired this year. On the Senate side, in addition to JFAC, there will be a new Chair in the Senate Resources and Environment Committee and on the House side there will be new Chairs in Commerce and Human Resource, Education, Environment and Energy, Judiciary, Local Government, and State Affairs. December’s organizational session will be very interesting to watch as current Chairs of committees will likely vie for other committee chairmanships.

In addition to the many leadership positions that Governor-elect Little will have to fill, creating a budget that reflects his legislative priorities will demand immediate attention in the short interim before the session begins on January 7. Impacting those budget considerations will be concerns over state tax revenues that are coming in lower than expected. According to the state Division of Financial Management, tax revenues came in \$34.3 million lower than expected in October, an 11.2 percent shortfall.

These numbers become even more significant in light of the voters 60% approval of Proposition 2. While the federal government will bear most of the administrative costs of expanding Medicaid, there will be some added state costs. Considering the long history of the Idaho legislature’s refusal to expand Medicaid there could be some very contentious debate over how to fund the expansion.

While Proposition 2 passed handily, Proposition 1, the initiative to allow historical horseracing, was defeated. Millions of dollars were spent both promoting and fighting the controversial measure. Proponents said it would boost Idaho’s horse racing industry and economy, helping to fund schools. Opponents said it would send the state down a path of gambling and casinos. The conventional wisdom is that when voters are unsure of an issue they vote “NO” and it appears that is what happened with proposition 1.

In addition to health care and the expansion of Medicaid there will be several other issues dominating the 2019 session. Education was front and center during the gubernatorial debates and campaigns leading up to Nov. 6. Teachers’ salaries and Idaho’s overall educational performance will continue to demand the governors and legislators time.



LEGISLATIVE UPDATE

With the Department of Corrections eyeing a \$500 million prison expansion, criminal justice looks to be another urgent area of focus. The expansion request will prompt proposals aimed at reducing prison populations as well as discussions about sentence reduction for good behavior and consideration of mandatory minimums.

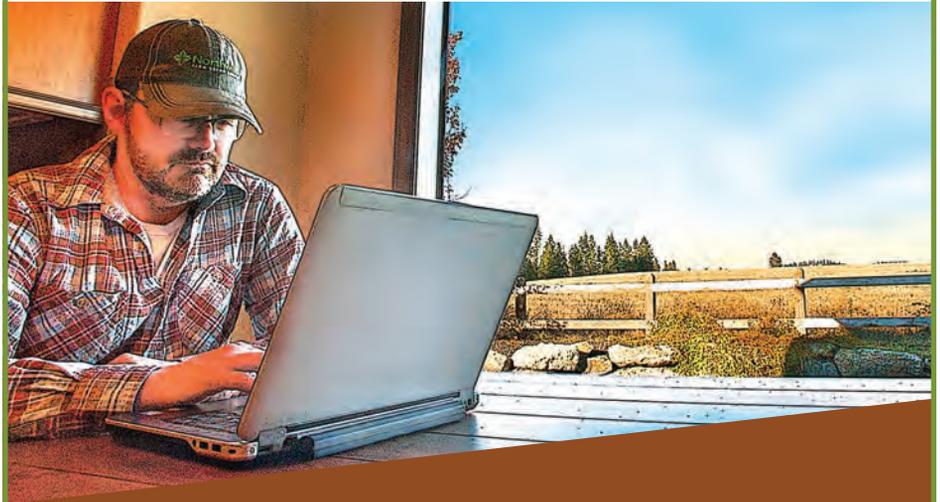
The trespassing law passed in 2018 appears to be headed for a revisit in 2019. Unintended consequences, posting requirements, consent forms and other concerns will likely result in some efforts to tweak the law.

We are hopeful that with a new governor, new legislators and many new committee chairs that the state’s transportation infrastructure will get some much-needed attention. We anticipate legislation that will provide incentives for improvements to the state’s short line railroads.

And for those watching our neighbors to the west it is interesting to note that voters in Ontario, Oregon have approved the recreational sale of marijuana. The ballot initiative approves the sale of recreational marijuana within Ontario’s city limits with an imposed three percent sales tax. The ordinance will take effect Jan. 1, when Ontario business owners will be able to apply for a license to sell recreational marijuana.

Oregon legalized marijuana in 2015 but allowed cities and counties to opt out. Also, Utah passed a ballot initiative for the legalization of medical marijuana as well. Despite Idaho’s historically strong opposition to any use of cannabis products, many speculate that we are only a few short years away from approval here.

“It’s going to be interesting” – an overused but generally true phrase that can be used to describe the upcoming session. ■



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A Winning Combination for Conservation

BY DAVID DRESSEL & ERIK BARTHOLOMEW —
REGIONAL WILDLIFE BIOLOGISTS, SOUTHEAST REGION, IDAHO DEPT. OF FISH AND GAME

Landowners, Idaho Department of Fish and Game, and conservation may seem like an unlikely combination considering they're often driven by different motivations, but they are proving to be a benefit to Idaho's wildlife across the landscape. Idaho Department of Fish and Game works with private landowners, primarily agricultural producers, throughout the state. The goal of this partnership is to try to integrate the goals of the landowner with those of the Department's mission.

Many times the headlines are filled with those programs that may sometimes be viewed as contentious. However, the vast majority of our interactions with landowners consist of sitting at a kitchen table and listening to what the conservation and production goals of the landowner are. After discussing the landowner's goals, Department staff can provide advice related to possible funding programs that align with landowner operations or just provide information for the landowner to implement on their own.

It is no surprise that wildlife cannot discern between public and private lands. This means healthy habitats and ecosystems are just as important, if not more so, on private lands as they are on public lands.

The partnership between producers and biologists is a win-win for wildlife. For example, in Southeast

Idaho, this partnership is aimed at improving habitat for Columbian Sharp-tailed Grouse, but the benefits extend beyond that. Many other species benefit including deer, elk, sage grouse, pheasants, and a host of pollinators and small mammals. The benefits extend beyond wildlife as well. Marginally productive lands, that were once vulnerable to soil erosion and variable financial returns, now have plants maintaining the quality of the soil for years, pollinators that benefit crop production, and stabilized farm revenue.

The cooperation between landowners and biologists is vital to the survival of game and nongame species in Idaho. Expertise from both sides is used to choose seed mixes, time of planting, and a host of other decisions. Biologists rely on the landowners' skill and years of knowledge about their ground, while landowners rely on biologists' insight and experience in choosing plants and the method of planting that will benefit wildlife, soil, and habitat.

By working together with a common goal in mind, both parties can create a healthy and sustainable habitat that is benefiting all of Idaho's wildlife. In a state where the outdoors, wildlife and plants mean so much to people, the ongoing relationship between the Idaho Department of Fish and Game and landowners is beyond a nicety, it is a necessity. ■

IGPA would like to thank our Industry Partner members for their continued support of our organization and Idaho's grain industry.



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REPRESENTATIVE

Megan Blanksma

HAMMETT, ID • DISTRICT 23



Rep. Megan Blanksma is a native Idahoan, growing up in Nampa, ID. She is a graduate of Nampa High School and holds a B.S. in Economics from the University of Idaho. She and her husband, Jeff, have lived and farmed in the Hammett area for more than 20 years. They have two kids, Adrie and Tucker.

Rep. Blanksma represents District 23 in House Seat B (Elmore, Owyhee and Twin Falls counties) and serves on the Health & Welfare, Resources & Conservation and Transportation & Defense Committees. She has been an active member of the Idaho Republican Party for most of her life and has served in many capacities including Precinct Committee Person, State Committee Woman, and Chairman of the Elmore County Central Committee.

Blanksma considers Idaho, and especially rural communities such as Hammett, an amazing place to live, work and raise a family with endless opportunities to recreate and enjoy outdoor life. She also sees that more and more people are wanting to live and work in rural Idaho. However, a problem has continued to emerge over the years for those wanting a more rural life: Rural broadband accessibility.

According to Rep. Blanksma her part of rural Idaho is “basically a dead spot” – they just don’t have the wireless capabilities to cover all the farms in her part of the state.

“There’s actually a spot on Highway 78 that is totally dead. No bars on my phone. No access to 911 if you need it,” she says.

The need for good rural broadband coverage is essential. With telecommuting becoming more the norm instead of the exception for people and their work/life balance, the need for high-quality and high-speed connectivity to the internet, phone services, etc. is vital.

It’s a huge disadvantage for not only the farming community, but other businesses and people wanting to live in rural Idaho and work from home. “More and more work is done online. Many people telecommute nowadays. Our lack of connectivity here in the Hammett valley is a huge competitive disadvantage. If you don’t have the right tools, you are very limited in what you can accomplish. We need to be able to be competitive in today’s environment,” she says. At her own home, she has to use her satellite internet or make her cell phone a hot spot, neither of which are an affordable option.

“People should be able to live and recreate in rural areas, own a business here or telecommute, and remain competitive. We need to level the playing field.”

Blanksma is working toward improving the situation, however. The Idaho Department of Commerce is involved in the rural broadband issue and is very aware of the need for improvement. She is working to encourage people in her community and elsewhere to push for the services they need.

“People should be able to live and recreate in rural areas, own a business here or telecommute, and remain competitive. We need to level the playing field.”

The other issue, aside from working farms and folks telecommuting, is the lack of connectivity to emergency services, including EMT and ambulance services. “Many people live in Boise and recreate in our part of the state. If they have an accident and need services, it’s actually really hard for them to get through. There’s just no cell service,” she says. This continues to be a problem and is not easily solved. “We want people to live here, recreate here, but we all need basic connectivity services to do so.”

Rep. Blanksma can be reached at the statehouse during the legislative session, January-March, and the rest of the year in the Hammett valley. Visit <https://meganblanksma.com/> for more information. ■



Tri-State Convention and IGPA Award Winners

BY KELLIE KLUKSDAL, COMMUNICATIONS MANAGER,
IDAHO GRAIN PRODUCERS ASSOCIATION

Each year at convention time, IGPA members and partners in the industry nominate individuals for several awards which convey commitment to service in the grain industry in Idaho. These awards are voted on by the IGPA executive board and presented to industry members who give to the grain industry in significant ways. This year's awards were presented at the annual Tri-State Grain Growers Convention in Portland, OR on Thursday, November 15.

ACHIEVEMENT AWARD

This award is given in recognition of an individual, associate or otherwise for their achievement and contribution to Idaho's grain industry.



WINNER: JIM SIMPSON

Jim Simpson is no stranger to the grain industry in Idaho. He has just finished his 50th harvest as head of the Federal Grain Inspection Service office in Eastern Idaho and recently retired from his long-standing career.

Raised in Mt. Pleasant, Utah, Jim grew up on the farm but his family had to leave it when finances got tight. Unfortunately, the family never made it back to the farm, but it was always in Jim's blood. He started in the grain inspection industry at the age of 18, working for what was then called the Grain Exchange and did grain grading for the states of Utah and Idaho. Jim says lots of things have changed since his early years.

"It used to be the Grain Exchange for both Utah and Idaho but over the years that changed. Flour mills in Ogden were the end users and Idaho was the main producer; back then Utah relied on Idaho production. There were conflicts of interest and ultimately the states split and Idaho took Idaho and Utah took Utah."

Years later, Jim moved to Pocatello and bought the Idaho Grain Inspection Service where he worked until his retirement this fall.



IGPA member Scott Fuhrman had a lot to say about Jim. "This year marked the 50th harvest that Jim Simpson has worked in the grain industry. He not only built and established a very good service-oriented business in Idaho but developed many friendships along the way. Throughout his career he was able to keep and maintain the honesty and integrity he brought with him as a young man. His retirement will leave a void in the grain industry in Idaho."

Jim sold the Idaho Grain Inspection Service to Dustin and Jennifer Young.

Jim's family includes five children who are located all over the United States. In his retirement he keeps up his little property with horses and a few cows and says he wasn't sure how he'd do in retirement. "All I did was work, but I have certain goals to meet so I try to accomplish a little something every day."

Continued on next page



MEMBER OF THE YEAR AWARD

This award is given to an IGPA member who has demonstrated exceptional leadership and a high level of involvement and commitment to the mission and goals of the Association over the past year.



WINNER: ALEX REED

Raised in Filer and now farming the land his Dad used to, Alex is a prime example of an extraordinary IGPA member. After high school, Alex worked as a lineman for more than 10 years before returning to farming and ultimately purchasing the family farm. Acre by acre he built it back up. His wife Leah also grew up on a farm,



so raising their own family that way seemed only natural. “I always remembered the fun times I had when I was growing up on the farm,” he says. “We wanted that for our kids too.”

Alex and his wife Leah have 5 children, ages 9 to 4-months, along with several animals, which keep them plenty busy. “We’ve got everything,” he says, “cows, donkeys, horses, sheep, goats, pigs, a dog.” Sometimes the kids go out to help their Dad, feeding the animals or move wheel lines, which he says is the highlight of his day.

Alex has proven himself to be a go-getter and has participated in several state and national leadership development opportunities over the last several years. He took part in the Leadership Idaho Agriculture (LIA) Program, IGPA’s mentorship program, and the Wheat Marketing Tour sponsored by the Idaho Wheat Commission.

Alex says the tour was a great learning experience. “It was a great opportunity to see how the exporting process comes together, seeing the research being done and learning about falling numbers test.” He also said his biggest take away was the friendships he developed. “It’s good to meet other farmers in other parts of the state to see how they do things, especially if it’s different than how I do it.”

Alex serves as Farm Bureau president for Twin Falls County and also serves on the IGPA board.

Jamie Kress, IGPA executive board member, had much to say about Alex. “Alex has really stepped up to the plate this year and reinvigorated Twin Falls County Grain Growers. He successfully organized county and regional events, is an active board member, has been a media spokesperson with local news outlets, and serves on the auction committee. He has shown tenacity and a drive to succeed with his participation in NAWG and NBGA leadership development opportunities including the Wheat Organization Leaders of the Future program and the Barley Industry Leaders of Tomorrow program and has really become a strong voice in the grain industry in southern Idaho. We are proud to have him as a member of IGPA and look forward to working together in the years to come.”

“A lot has changed for me over the years,” says Alex. “I’ve had to change how I farm to keep up with the times. But that’s progress. And I’ve grown a little over the years; things change and I have progressed.”



FRIEND OF IGPA AWARD

This award is given to an individual, industry associate, elected official, member of the media, or other person who has demonstrated exceptional support, value and work with and for IGPA over the past year.



WINNER: CATHY WILSON, PHD

Cathy has worked as Director of Research Collaboration for the Idaho Wheat Commission since 2011. In her role she oversees research projects (including varietal development, pest control, and quality improvement) and serves as a liaison with private and public institutes to help collaborate research efforts.

Plant breeding was an early career focus for Cathy as she became the world wide project leader for processing tomato varieties when working for Asgrow Seed Company. She was able to release hybrid varieties with multiple disease resistance, yield and the excellent processing qualities demanded by the processing industry.

IGPA Executive Director Stacey Satterlee had nothing but accolades for Cathy. “She’s my go-to person for all things research. She is always striving to increase grower engagement and works with researchers to not only coordinate projects, but to encourage them to be able to translate their findings into information that is useful for growers,” Satterlee said.

Cathy has 20 years of R&D experience in the international vegetable seed industry. She has held many roles including Station Manager, Plant Breeder and Seed Production Manager, traveling to Europe, Mexico and Central and South America. Cathy worked closely with growers, processors, dealers, New Mexico State University and the extension service.

Cathy has been involved in numerous professional organizations dedicated to the advancement of plant breeding, genetics, and plant pathology. She is also an advocate for science education in local Boise high schools.

Cathy’s friend and IGPA Past President, Potlatch Joe Anderson, nominated Cathy. “Cathy has done a tremendous job coordinating the wheat research program at the University of Idaho and ARS Pullman,” he says.

“I remember a quote from Cathy that I’ve used in



presentations over the years. I was invited to speak about Low Falling Numbers at the PNQ Wheat Quality Council meeting several years ago. As part of the conversation, Cathy and I were talking about the age of some of our scientists in the PNW and the danger of not getting “new thinking” to focus on the FN issue. I made the statement then that I would likely be the oldest person in the room. She then said something that has always stuck with me. *Yes, but your eyes are on the future, enlightened with memories of the past.* I thought it was an excellent phrase, not only because it was flattering to me, but that it could be applied in many circumstances,” said Joe.

A native of Idaho’s Magic Valley, Cathy holds a BS in Biology with an emphasis on Botany from Boise State University, and an MS in Plant Pathology from the University of Idaho. Cathy managed the Seed Pathology Lab at the U of I for a short time following graduation. She completed a PhD in an interdisciplinary pilot program at New Mexico State University, between the departments of Plant Science, Biology and Chemistry, to achieve a doctorate degree in Plant Molecular Genetics.

Cathy and her husband Daryl have two children. They enjoy many outdoor activities in Boise, particularly riding bikes on the green belt and skiing at Bogus Basin.

Continued on next page

INDUSTRY SERVICE AWARD

This award is given to an industry member who has demonstrated exceptional service to the agricultural community in Idaho. It is given on behalf of the Idaho Grain Producers Association, the Idaho Wheat Commission, and the Idaho Barley Commission.



WINNER: CELIA GOULD

Celia Gould is the Director of the Idaho State Department of Agriculture, a role she has served in since 2007 when Governor C.L. “Butch” Otter appointed her to the position. She is the first female ISDA director and is currently the longest serving agriculture department director in the U.S.

She is an owner/operator of a fourth-generation farming and ranching operation, G+ Ranches, where she and her family raise Black Angus and Angus-Wagyu cattle as well as crops. Prior to her appointment at ISDA, Celia served 16 years in the Idaho Legislature. She was Chairman of the Judiciary and Rules Committee and was instrumental in the creation of the Idaho Department of Juvenile Correction, as well as Idaho’s drug courts.

Celia and her husband Bruce have five children and 10 grandchildren. “My husband, Bruce, and I each came into our marriage with family ranches. His is in the Declo area, and my family’s ranch, the one I now operate, is in Buhl. We have children all over the northwest, but our youngest son, JD, and his family are now back at the ranch. Because we have family all over, I have treasured the times when we’ve been able to have grandkids and kids at the ranch as well as many family celebrations. While not all of the kids work on the ranch, we hope that each of our kids and grandkids has been able to take a piece of the ranch—and the values that come with it—with them.”

As Director of the ISDA, a big part of Celia’s job is promoting Idaho agriculture – and she has nothing but good things to say about Idaho’s grain industry: “The accomplishments of Idaho grain producers are tangible across the state and remain an incredibly important part of Idaho agriculture’s legacy. Agriculture shapes and defines who we are in Idaho. A commodity sector as important as grain touches every community. But we also know that Idaho grain producers’ accomplishments do not stop at the state line. As one of Idaho’s most important exports, grain has helped solidify Idaho’s sterling reputation around the world. Our international customers have come back for decades because they know the best producers and finest commodities are

in Idaho. It is an enormous responsibility to feed our nation and the rest of the globe, but Idaho’s farmers and ranchers rise to the occasion better than any others.”

Friend and IGPA Director of Government Affairs Rich Garber shared his thoughts on Celia and her work for the state.

“I first met Director Gould when she was representing District 22 in the Idaho Legislature. Later, when Governor Otter appointed her Director of the State Department of Agriculture, we knew he had appointed the best advocate possible for our industry. History has proven what a wise and timely decision the Governor made.”

“In my career representing various agriculture and commodity groups, the College of Agriculture and Life Sciences at the University of Idaho and now the Idaho Grain Producers Association, I have greatly appreciated Celia’s open door and listening ear when our issues needed her careful attention. Celia is pragmatic and solution-oriented in her leadership, always pursuing her commitment to the viability of Idaho’s farmers and ranchers. I am honored to call Celia my friend but know I speak for all Idaho agriculture in recognizing what a friend she has been to the industry as a whole,” Garber said.

“I’m honored to be recognized by Idaho’s grain industry. I know these are tough times for agriculture. Regulation, trade, labor and transportation issues are giving the industry a lot to think—and worry—about. Still, stunning productivity makes agriculture the cornerstone of Idaho’s economy. Thanks to our farmers and ranchers, Idaho agriculture is auspiciously resilient. I believe in their



innovation, work ethic and intellect, so I know Idaho agriculture's brightest days are still ahead," Gould said.

"I have been richly blessed to live a life full of remarkable experiences. But, more than anything, I look at my family as my greatest accomplishment. Everything I do and work for comes back to my family."

Celia holds a B.A. in Political Science and a Masters of Public Administration from Boise State University.

CONTRIBUTION TO SCIENCE AWARD

This award is given in recognition of an exceptional contribution to science, thereby adding significant value to the Idaho grain industry over the past year.



WINNER: DR. JIANLI CHEN

Dr. Jianli Chen works as an Associate Professor for the College of Agriculture and Life Sciences at the University of Idaho, Aberdeen Research & Extension Center in Aberdeen. She grew up in a large family in China, the youngest of six children, and began her career in Plant Breeding, Genetics, and Genomics in 1979 when she was admitted to Northwest Agricultural University in Yangling, China. She continued her graduate school (MS program) in the same university and received her Ph.D from Virginia Tech.

She says she had several mentors along the way who guided her into wheat breeding as a career and all left significant impressions on her. Her extensive resume is a true reflection of her knowledge and love for the field of plant breeding, specifically wheat, and with more than 44 refereed journal papers to her name to date, Chen is clearly an expert in her field.

Friend and fellow scientist Cathy Wilson of the Idaho Wheat Commission has nothing but praise for Chen. "Dr. Jianli Chen was the first UI researcher I met. She welcomed my interest in building collaborations and listened intently as I shared wheat grower's production concerns. She was eager for producers to experience the value in her new varieties with a balance of high yield with the best end-use quality. Her energy and enthusiasm are contagious."

Chen says her biggest career achievement thus far is that she has released 11 wheat cultivars since joining the University of Idaho in 2007. "Four of them (UI Platinum, UI Stone, UI Silver, and UI Sparrow) are in the list of ID preferred cultivars. UI Platinum and UI



Stone are spring wheat cultivars that have high grain yield and excellent end-use quality and expanding production acres. I have developed several lines to release in 2019 and beyond years," she says.

She says she has been given the nick name "Wheat Queen" because, "I have worked on wheat for 33 years since 1985 on various subjects of wheat research and production in both China and the US."

Chen is active in service on several levels including chair of Western Wheat workers (2014-2016), chair of the National Wheat Improvement Committee PNW region (2014-2016), and served as a board member for USDA Plant Variety Protection (2015-2017).

Wilson was also quick to say how Chen has changed wheat breeding in Idaho. "Jianli changed wheat breeding in Idaho, applying new breeding technologies like Doubled Haploid lines and molecular markers, resulting in a shorter time to release of new varieties. She is collaborating with others to move new genetic traits into adapted wheat varieties to increase resiliency, yield, and quality. A superb scientist, Jianli is also a person of high character, generous spirit, diligent in her work and readily shares her expertise with others," Wilson said.

Chen and her husband like to walk and cook together in their free time. They have a son who is a licensed psychologist in Utah where he and his family live. ■



A Spider's Web Inspires FN Working Group

BY CATHY M. WILSON, PHD, DIRECTOR OF RESEARCH COLLABORATION,
IDAHO WHEAT COMMISSION

Stepping on to the back porch on a crisp winter morning, a dazzling, intricate sight greeted me. Cloaked in frost, a beautiful spider web glistened in the faint sunlight. (photograph to use as banner or in a box) The lines of webbing stretched from various anchoring points supporting intricate lateral strands connecting the anchor lines to each other. The architecture was strong and resilient, as I knew from trying to hose previous webs off the porch. The web looked delicate, fragile, a work of art, not a functional form meant to help the builder catch a meal. Contemplating this beauty, my thoughts drifted to the day's tasks at the Wheat Commission. Much of my work is about connecting people, facilitating conversations, and finding potential solutions to things that limit profitability for wheat producers.

As I headed to the office, the spider's web lingered on my mind. The center of the web seemed a dense tangled mess. Strands woven through strands coming in from all angles, forming a center so complex I couldn't decipher it. Wheat production problems can be similarly complex. Low Falling Number (LFN) discounts, herbicide resistant weeds, glyphosate residue, wheat functional quality, or developing a logistics system for trait-based grain, and the list goes on.

Low Falling Number discounts (LFN) is a tangled mess like the center of the spider's web. Anchored not by web strands but by the science focused on the LFN test itself – starch chemistry, enzyme chemistry, plant genetics, agronomics, environment, production practices, logistics, risk management, and profitability. Each anchor line is connected to a network of lateral lines, each a different research specialty, interconnected by lines of communication, questions and ideas, and collaboration. The results of each discipline's research alters the other's perspective of the problem and the potential solution.

I thought that drawing a web-inspired picture could help me understand the areas of expertise needed to figure out LFN discounts and what could be done about them. (Fig.1)

The LFN web began to populate with faces, names, and their respective areas of expertise. I saw where collaborative projects between widely different scientific disciplines could begin answering some of the messy



questions at the center of the LFN problem. But how to bring people together who would normally never be in the same room with each other? Would the Wheat Commission be able to create opportunities for people to connect, talk, and think out loud with others who would understand and challenge their thinking?

In time, IWC sponsored a mini research review bringing researchers from the University of Idaho Moscow campus to share, listen, and learn about each project funded by IWC. Regional researchers were brought together for a Falling Numbers roundtable and later researchers and industry connected at our Late Maturity Alpha-amylase (LMA) forum. IWC encouraged and facilitated conversations with international scientists



from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and University of Adelaide, in Australia. Conversations between scientists created energy, generated lots of questions and new ideas to explore, and resulted in new research partnerships.

The new Falling Number Working Group has been among the most productive of any collaboration I've been privileged to be part of. The laboratory scientists are getting the right grain samples from the field projects to do testing. Experiments on starch structure and function revealed the effects of production practices, like manure application, on starch structure and functional baking quality. Enzyme chemistry experiments verified that different alpha-amylase genes, active in grain fill, have different abilities to degrade starch.

The story that's unfolding is telling us LMA is not the monster it was thought to be. LMA has a different mode of action than the alpha-amylase active in pre-harvest sprouting. LMA if present and is activated in the FN test, but it has a weak ability to damage starch and is activated at a different temperature with a unique thermal activity curve. Wheat with LMA may drop the falling number

in the laboratory test, but mounting evidence shows the end-use functional quality is not diminished. Bits and pieces of information are beginning to form a strong web of data shifting our thinking, our approach, and our definition of solutions to the LFN discount problem.

These collaborative conversations extend to the grower's fields. Laboratory researchers are interacting with growers on their farms and in their meetings, to learn what growers consider real problems and real solutions. Our research teams are helping growers understand the scientific steps necessary toward solving the complex problems they have identified. Growers become more than financial partners as they actively support research projects with their time, experience, and farms. Together growers and scientists are tackling the most difficult problems limiting profitability. Researchers reap satisfaction of knowing their research is bettering people's lives and livelihoods.

Connecting people, solving tough issues for Idaho's wheat producers, and celebrating the beauty of a spider's web on a frosty Idaho morning: what could be better? ■

2018-2019

Idaho Wheat Producer Scholarship Recipients

The Idaho Wheat Commission is proud to introduce Idaho wheat growers to the 2018-2019 Idaho Wheat Producer scholarship recipients attending Utah State University. Three students from eastern Idaho attending Utah State University were chosen to receive scholarships funded by Idaho's wheat-growing families.

Each scholarship is granted at \$2000.00. The Idaho Wheat Producer scholarships were instituted six years ago to help support a future generation of agricultural leadership. All of the scholarship recipients are distinguished individuals who are committed to working in all aspects of agriculture.



Caleb Ball

Caleb Ball grew up in Hamer, a small farming community about 30 miles north of Idaho Falls. Caleb has seven brothers and sisters, whom he worked alongside on the family farm and ranch. Growing up, there was always something that needed to be done on the family farm and ranch that his dad, uncle, and cousin ran as a joint operation, and the farm and ranch was a family business.

Most of Caleb's time was spent caring for the sheep that have been in his family for 4 generations. This mostly entailed pushing the large bands of ewes from field to field in the fall and winter months and aiding them during lambing in the spring (February-April). Caleb also spent a great deal of time working with cattle and farming. "I helped do ground work in the fall and spring and with planting," Caleb recalled. "The main crops we grew while I was growing up were winter wheat, spring wheat, potatoes and alfalfa. The many experiences that I had in my youth engrained a deep passion for agriculture in me and I still enjoy helping on the family farm whenever I get a chance."

It was during a two-year stay in Mozambique, Africa that Caleb gained a greater appreciation for the incredible agricultural economy that we have in the United States and how it affects the global ag economy. "After my return I immediately began my

studies at Utah State University and decided to major in International Agribusiness. I am planning on working in the ag industry upon graduation, and I am grateful to the Idaho wheat industry supporting me. Their investment in my education has helped me dedicate more time to the future of agriculture and feeding the world."



Azdyn Bartschi

Azdyn Bartschi is from Montpelier, where he grew up working on the family farm located near Georgetown. It was on the farm that Azdyn learned the value of honesty, work, and discipline.

Azdyn enjoys many aspects of the farming lifestyle, most of which are "just part of the job", such as mechanic work, working with animals, and moving pipe in the cool, crisp summer mornings. However, when it's time to play, Azdyn can be found hunting, shooting, riding horses, riding dirt bikes, fishing, camping, skiing, and cooking.

With help from Idaho wheat growers, and a small herd of beef cattle he owns and operates, Azdyn will continue Agricultural Business at Utah State University.

"I really enjoy Utah State University and the emphasis they give the College of Agriculture and Applied Science," Azdyn said. "The programs, seminars, and conferences they offer and facilitate allow students access to a variety of opportunities in agriculture. I have been the beneficiary of some of these great opportunities." Azdyn was able to participate in the Pacific Northwest Export Tour hosted by the Idaho Wheat Commission last January, where he had the opportunity to network with other wheat growers and learn firsthand about the different aspects of wheat marketing, shipping, and exports.

"I like to think of the people in agriculture as one big community. I have been helped in a variety of ways by the generous and wholesome people in this community. After college, I hope to find a place working closely with quality individuals within agriculture. I am motivated by a passion for agriculture and whether I end up working as a producer or working in an industry that supports producers, this passion will drive me to do my best and give back to a community that has given me so much."



Christina Peters

Christina Peters was raised in Jerome, where she graduated from Jerome High School before attending Brigham Young University – Idaho in Rexburg. While at BYU, Christina earned an Associates

of Science. Christina is currently a senior in the Coordinated Program of Dietetics at Utah State University. “After I graduate I plan to continue

my education and get a Master of Public Health,” Christina explained.

“The Idaho Wheat Commission scholarship has really given me the opportunity to focus more completely on my education, and I am so grateful for the help and support of Idaho’s wheat growing families.”

Christina spends her spare time outdoors skiing, hiking, biking, backpacking, and picking rocks – especially with her family. Christina recently tried her hand at remodeling and indoor craftsmanship. She took a short hiatus from school to serve an LDS mission in Fresno, California speaking Spanish. ■

Does all low FN wheat impact bread baking quality?

Low falling number (FN) wheat is often discounted and segregated into the feed market regardless of the cause of the low FN. Does all low FN wheat impact bread baking product quality? A recent article published by a research team led by Christophe Courtin in Germany discussed the impact of preharvest sprouting (PHS) on bread baking quality. Another recent article published by Jean-Philippe Ral and his students in Australia studied the effects of late-maturity α -amylase (LMA) on bread baking quality.

Adverse weather conditions, including prolonged and repeated rainfall before harvest time, causing germination of kernels in the ear is known as Pre-harvest Sprouting (PHS). PHS results in the elevation of several degrading enzymes (i.e., α -amylase) in grains and decreases the end-use quality. In the review article, Dr. Courtin and his student discussed bread crumb quality, in which the texture of the crumb is largely established by the starch matrix that sets during cooling. Bread crumbs are sticky when sprouted wheat is used because the increase of α -amylase hydrolysis generates sticky substances and diminishes the ability of the dough to retain water. Consequently, bread slices have a higher tendency to stick together. In addition, using sprouted wheat usually is accompanied by low dough stability, a dark crust color, and a poor crumb texture (e.g., distortion). The impact of sprouting on loaf volume is contradictory in research because of variations in the kind of sprouted samples (lab-induced sprouting vs. field sprouting), the degree of sprouting, and other materials used in baking (e.g., sugar amount). In general, flours within FN ranged 200-300, surprisingly, exceed loaf volume made with flours with an FN above 300. However, loaf volume decreases dramatically when using flours with an FN below 200. Although there are some health benefits of sprouting grains, which are naturally enriched in bio-active compounds, such as vitamin B, minerals, and polyphenols, it is challenging to use field-sprouted wheat because of its diverse nature. The uncontrolled profile of sprouting and the potential contamination of mycotoxin generated by mold on the sprouted grain head result diminished product quality.

Unlike PHS with its widely acknowledged and clearly demonstrated detrimental effects on end-use quality, there is no direct evidence that elevated levels of α -amylase in LMA-affected wheat have negative effects on the end-use quality. LMA is induced by a cold or heat shock at a specific developmental stage, particularly 25-30 days after flowering. The research team led by Dr. Ral used LMA prone lines grown at three locations with a total of 240 genotypes, to investigate if LMA-affected wheat has poor bread baking quality. The research team confirmed selected wheat was LMA-affected using 4 different tests; eFN (equivalent FN) to indicate reduced viscosity, ELISA test to indicate presence of α -amylase isozymes, total α -amylase activity measure, and the RT-qPCR test to measure the expression of TaAMY1 gene, coding for an α -amylase isozyme protein. TaAMT1 gene is typically active in LMA but not PHS. Their samples had eFN ranging from 193 to 294 seconds. Bread was made following the AACCI standard method. They examined oven spring, bread loaf volume and weight, the gas cell number, slice area and brightness, and crumb firmness. Their data showed no consistent or significant phenotypic correlation between LMA-affected low FN wheat and bread baking product functionality. These experiments indicate that LMA-affected low FN wheat does not negatively impact the bread baking process.

These two articles, along with others, have shown that low FN wheat has different biochemistry based on the causes of low FN. Some low FN wheat (i.e., LMA-affected wheat) maintains acceptable bread quality, according to Dr. Ral. However, the existence of low FN, not the causes of low FN, determines trading prices, and the FN test cannot distinguish wheat with good or poor end-use quality. ■

This summary is edited by Dr. Amy Lin, Associate Professor of starch chemistry and health, Bi-State School of Food Science, University of Idaho (Moscow, ID), in discussion with Dr. Cathy Wilson at the Idaho Wheat Commission (Boise, ID).





The Sun Never Sets on Pacific Northwest Wheat Export Promotion

BY AMANDA SPOO, ASSISTANT DIRECTOR OF COMMUNICATIONS, U.S. WHEAT ASSOCIATES

As U.S. Wheat Associates (USW) President Vince Peterson often says, at any given hour of the day there is someone, somewhere, talking about the quality, reliability and value of U.S. wheat. As the export market development organization for the U.S. wheat industry, USW works through its 15 offices around the world to promote all six U.S. wheat classes to wheat buyers, millers, bakers, food processors and government officials in more than 100 countries.

Historically wheat farmers in post-World War II America were producing more wheat than ever before. But, with a poorly standardized marketing system, farmers needed a new way to improve marketing opportunities for their wheat. To do so, state wheat leadership created two regional organizations to coordinate export market development – Great Plains Wheat Market Development Association and Western Wheat Associates. The Great Plains Wheat Market Development Association, chartered in 1958, was tasked with promoting wheat exports from the Plains states. Western Wheat Associates was formed in April 1959 to expand international markets for wheat from the Pacific Northwest.

Realizing that the world wheat market was transforming into a global marketplace combined with the growing

overlapping demand for U.S. wheat classes, the two organizations merged in 1980 to form one overseas grain promotion organization for wheat – U.S. Wheat Associates.

Today USW remains fixed on the mission of the farmers who created these legacy organizations to “Develop, maintain, and expand international markets to enhance wheat’s profitability for U.S. wheat producers and its value for their customers.”

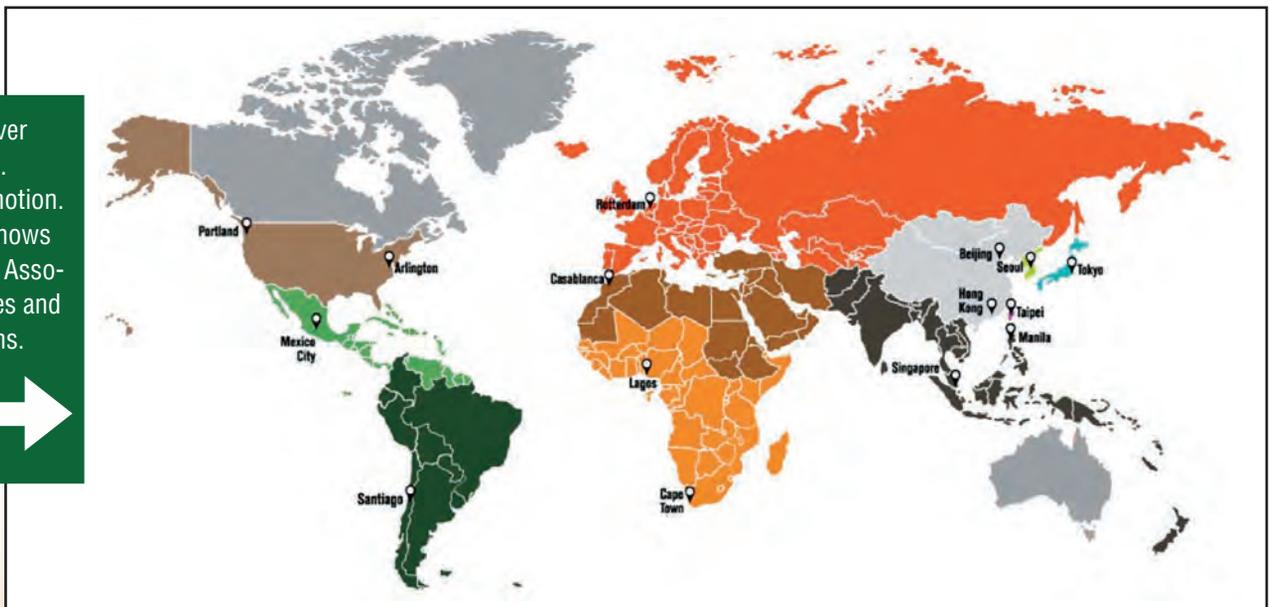
Public-Private Partnership

USW is supported by a highly successful public-private partnership between its 17 state wheat commission members, including the Idaho Wheat Commission, and cost-share funding from the USDA’s Foreign Agricultural Service (FAS). U.S. wheat producers contribute a portion of their wheat sales (either by bushel or by production value) to their state wheat commission through a checkoff program. On average, U.S. wheat farmers contribute about one third of a penny per bushel (\$0.0032) to USW.

This funding qualifies USW to apply for matching funds from FAS, which primarily come from the Market Access Program (MAP) and the Foreign Market

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The sun never sets on U.S. wheat promotion. This map shows U.S. Wheat Associates offices and sales regions.





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Idaho Wheat Commission member Jerry Brown and Executive Director Blaine Jacobson welcome Japanese milling, baking and government customers at a celebration in Tokyo marking 60 years with an office promoting U.S. wheat exports in Japan. Idaho Wheat was an original member of Western Wheat Associates, which merged with Great Plains Wheat in 1980 to form U.S. Wheat Associates. Japan is now consistently at or near the top among overseas buyers of U.S. wheat.

Development (FMD) program. While FAS funding varies, its average match has been about \$2.00 for every \$1 in state funding. The application process requires extensive strategic planning that carefully examines every market, identifying opportunities for export growth and recognizing trends or policies that could threaten existing or prospective markets.

These partnerships make it possible for U.S. wheat farmers to have representatives who work directly with their customers daily and translate customer needs directly back to the wheat commissions, who are in turn helping direct research for wheat variety development in their states. The return on investment is evident. A 2016 econometric study of export demand showed that between 2001 and 2014, MAP and FMD provided a return of \$24 in export gains for every additional \$1 spent on foreign market development (the ratio is \$28 to \$1 between 1977 and 2014). It also increased average annual farm income by \$2.1 billion and created 239,000

new full and part-time U.S. jobs. These results were consistent with a 2016 economic analysis of wheat export promotion that showed U.S. wheat farmers received \$45 in net revenue for every \$1 they invested in export promotion between 2007 and 2014.

Working with Buyers

The U.S. grain marketing system is reliable and transparent but can be complicated. USW works directly with buyers, millers, bakers, food processors and government officials around the world to provide them the trade service, technical assistance, market information and consumer promotion that creates value for them as U.S. wheat customers and users.

Through trade servicing, USW answers questions and helps resolve issues in purchasing, shipping or using U.S. wheat through regional and country offices, trade delegations to the United States, regular crop and market



condition updates, quality surveys and other activities. USW also regularly gathers and analyzes relevant market data, and shares information with buyers on trade policy, standards or specifications that may affect imports, and projections for future wheat production and consumption. USW publishes several regular reports, covering wheat export prices, commercial sales, world and U.S. supply and demand (WASDE), crop quality and wheat harvest.

Through technical assistance USW sponsors customer participation in technical courses, workshops and seminars to help strengthen the global milling, storage, handling and end-product industries. Other activities include personalized consulting in milling technology, baking, snack food and pasta production and grain storage and handling.

To bring the value of U.S. wheat full circle for its customers, USW works with customers and other U.S. wheat industry partners to expand overseas consumer awareness and appreciation for wheat foods, including nutritional information through seminars, consumer demonstrations, trade shows and promotional campaign support.

Trade Policy

Trade policy can help reduce the costs of getting wheat from U.S. farmers to their customers around the world. Too often, regulatory and trade policies distort wheat markets and drive up costs for wheat farmers, handlers, processors and consumers. This is particularly troublesome when these actions violate a country's trade

commitments. That is why USW actively works with the U.S. government and other governments around the world to minimize these policy costs and promote rules-based free trade.

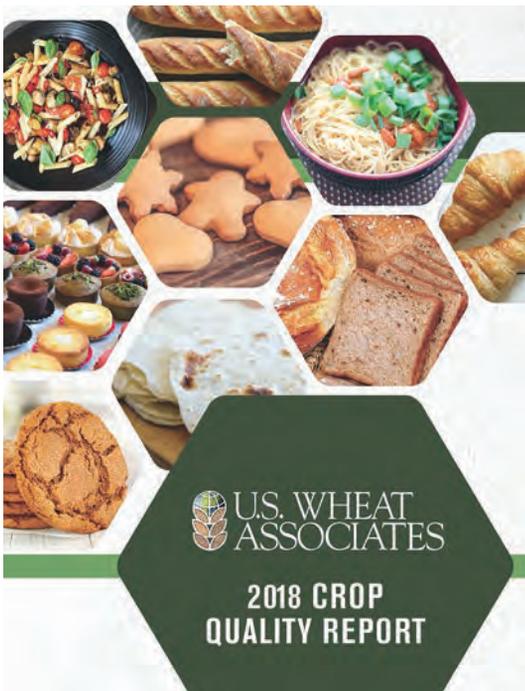
USW supports free trade through multilateral, regional and bilateral agreements, and works closely with FAS and the Office of the U.S. Trade Representative (USTR) to provide input on trade negotiations to improve market access and monitor existing trade agreements to ensure rules are implemented properly. USW actively seeks to bring down trade barriers or change policies that may prevent an overseas customer from choosing U.S. wheat. In most cases, these barriers violate a country's commitments under rules of either the World Trade Organization (WTO) or free trade agreements (FTAs). Every year, USW submits a report to the USTR detailing these barriers.

Innovation and sustainability, as well as food security and assistance are also an important of USW's trade policy priorities. USW supports finding new ways to improve wheat quality and increase production with less impact on the environment, including new research in plant breeding innovations. It promotes rules on human and environmental health that are scientifically sound, based on appropriate risk assessments, and managed in a way that does not distort trade. And since wheat is the source of 20 percent of the world's caloric intake and a dietary staple around the world, USW is committed to global food assistance and encourages strategies that include a full range of options to help countries attain lasting and sustainable food security.

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LEFT: USW and state wheat commissions work with overseas customers to evaluate flour and baking performance of new U.S. wheat varieties. Here in 2016 at the UFM Baking and Cooking School in Bangkok, Thailand, customers compare cake flour performance from U.S. soft white wheat. Results are shared with state wheat commissions who work with public breeders to improve functional quality of new varieties to better meet overseas customer needs.



ABOVE LEFT: Every year for more than 30 years, U.S. Wheat Associates has worked with many partners to conduct quality analysis of all six classes in the year's U.S. wheat crop and published results in a booklet that is shared with customers around the world. "The annual U.S. Wheat Associates Crop Quality Report is one of the most useful tools available to the world's wheat buyers," says USW President Vince Peterson.

ABOVE RIGHT: At a recent baking test in Santiago, Chile, U.S. Wheat Associates Regional Director Miguel Galdos (left) points out to local bakers the performance of flour blends with U.S. soft white wheat and hard red winter wheat compared to standard flours milled from Canadian Western Red Spring wheat. USW is working to demonstrate that such blends of U.S. wheat can replace the Canadian wheat standard with no loss in performance and at a lower cost.

Success Stories

USW has an undisputed reputation for transparency and dedication to service and strives to be a valuable resource and partner to our export customers, in ways that provide a significant return on farmer and federal investment in wheat export market development.

In 2016, USW proved its history of trust and partnership by listening to its customers' needs and helped protect key North Asian wheat export markets in crisis. When a rogue wheat plants genetically modified to be "Roundup Ready" were found, USW worked on the issue closely with all stakeholders involved to keep the domestic grain trade, downstream customer organization and overseas grain trade and buyers informed. Because of the swift, transparent work of all parties and the bank of trust USW and the state wheat commissions had already built with customers in Japan, Korea and Taiwan, markets were reopened to all U.S. wheat imports within eight weeks. Instead of export losses, total U.S. wheat exports to the North Asian countries in marketing year 2016/17 increased 12 percent compared to 2015/16 with a total value of \$1.2 billion.

In another success story, USW provided trade servicing

and technical support to protect soft white (SW) wheat export to Korea. Perceptions of wheat flour quality can be difficult to change, and that was the case for Korean flour millers in 2016, after two years of hot, dry growing conditions reduced the low-protein SW supply and spurred a price barrier to sales. By demonstrating that higher protein SW would still meet customer demand for flour performance and helping them adjust grade and protein specifications in their import tenders, USW was able to help end a significant decline in SW sales.

More examples of USW's work are available here: <https://www.uswheat.org/who-we-represent/trade-activities/>

Who We Represent

USW proudly represents hard-working farm families that help fill American tables and supply a significant share of world wheat trade. The global demand for wheat food grows stronger every year so exports are vitally important to U.S. wheat farmers. The support for export market development starts with U.S. farmers, like those in Idaho, who listen to the needs of their customers and believe in U.S. wheat quality and the added value that U.S. Wheat Associates provides through its programs and trade policy work. 



Wayne Hurst receives 2018 Distinguished Service Award

BY BRITANY HURST, COMMUNICATIONS AND GROWER EDUCATION, IDAHO WHEAT COMMISSION

Each year the Idaho Wheat Commission presents the Distinguished Service Award to an individual chosen for his or her leadership, dedication, and service to Idaho's wheat industry. This year, the Idaho Wheat Commission Distinguished Service Award was presented to Wayne Hurst at the Tri-State Grains Conference in Portland November 15, 2018.

Wayne has operated a multi-generational, diversified crop farm since 1980 in Declo. Together with his wife, Sherrie, Wayne grows wheat, potatoes, sugar beets, dry beans, and forage crops. Wayne and Sherrie have raised five children on the farm and enjoy the company of their ten grandchildren as often as possible.

Most recently, Wayne has taken on the policy challenges of improved infrastructure, better transportation services, and competitive rail rates representing agriculture as Vice Chairman of the Railroad-Shipper Transportation Advisory Council (RSTAC). As Chairman of the National Wheat Foundation, he remains actively involved in communicating the importance of the wheat industry to state and federal leaders and protecting and promoting our livelihoods and heritage.

Wayne has held numerous county, state and national leadership posts across agriculture and has been deeply engaged in the national farm policy debate for more than twenty years. He has also been actively involved in his community and church and has held many leadership positions in both. Wayne has also found time to serve as the president of the Idaho Grain Producers Association (IGPA) and president of the National Association of Wheat Growers (NAWG), where he went to extraordinary lengths to coordinate farm and trade policy strategies and maximize influence with Congress and government agencies.



Most recently, Wayne has taken on the policy challenges of improved infrastructure, better transportation services, and competitive rail rates representing agriculture as Vice Chairman of the Railroad-Shipper Transportation Advisory Council (RSTAC). As Chairman of the National Wheat Foundation, he remains actively involved in communicating the importance of the wheat industry to state and federal leaders and protecting and promoting our livelihoods and heritage.

Wayne attended Brigham Young University and Idaho State University, majoring in business. He and Sherrie have been married nearly 40 years and have five children, all of whom are married, and ten grandchildren. Wayne plays the trombone in the Magic Philharmonic Orchestra and other musical groups and enjoys playing and listening to classical music. He also finds time to hunt and fish and remains actively engaged in policy development. ■



2018 Idaho Barley Industry Service Awards Presented to Dr. Gongshe Hu and Tim Pella

BY LAURA WILDER, ADMINISTRATOR, IDAHO BARLEY COMMISSION

The Idaho Barley Commission recently presented two 2018 Barley Industry Service Awards in recognition for outstanding service to the industry.

The first award was presented to ARS Barley Breeder Dr. Gongshe Hu from the Aberdeen ARS Station at the October commission meeting in Rupert.

“Gongshe has contributed greatly to the advancement of the Idaho barley industry through the development of new cultivars of both malting barley and food barley varieties,” said Wes Hubbard 2017-18 Idaho Barley Commission Chairman. “We appreciate his dedication, skill and collaborative work within the barley industry to develop and release varieties to improve the industry and help growers throughout the Pacific Northwest and Intermountain regions.”



Dr. Gongshe Hu (left), Barley Breeder with the USDA Agricultural Research Service at the National Small Grains Germplasm Research Facility in Aberdeen, receives the 2018 Idaho Barley Service Award from Wes Hubbard, 2017-18 Idaho Barley Commission Chairman, at the October 25 IBC Board Meeting in Rupert.



Dr. Gongshe Hu checks on a test plot of Goldenhart at the Aberdeen ARS research facility in July.

“Idaho is the number one producing barley state in the country, currently growing 34% of the nation’s crop,” according to Laura Wilder, Administrator for the Idaho Barley Commission. “Gongshe’s barley germplasm research program and the release of new cultivars which have become well established through major commercial production have helped expand contract barley acreage in Idaho and provided opportunities for growers to be successful.”

Wilder noted that Dr. Hu’s ARS program previously released two very successful food barley cultivars in Transit and Kardia, and just received approval to release the new food variety Goldenhart last month. Goldenhart is a spring 2-row hullless food barley, and has now been released with a limited amount of Foundation class seed available this fall from the University of Idaho Foundation Seed office to licensed producers with some additional experimental seed available for field testing. Additionally, Dr. Hu’s barley breeding program has developed cultivars of great interest to the malting industry including recent release Gemcraft.



Tim Pella (left), Idaho Elevator Manager for Anheuser-Busch and Idaho Barley Commission Industry Representative, receives the 2018 Idaho Barley Service Award from Scott Brown, 2018-19 Idaho Barley Commission Chairman, at the Tri-State Grain Convention in Portland on November 16.

The second award was presented to Idaho Barley Commission Industry Representative Tim Pella who is currently serving in his 5th and final year on the commission at the Tri-State Gran Convention in Portland on November 16.

Tim grew up on a farm in North Dakota and graduated from South Dakota State University. He has been involved in the grain business for 25 years, the past 20 of which have been with Anheuser-Busch. He has run grain elevators in North Dakota, Minnesota, Montana, and in Idaho for the past 12 years. Tim is currently the Idaho Elevator Manager for Anheuser-Busch located in Idaho Falls, running barley and seed elevators in Idaho for the company.

“Tim’s knowledge of the barley industry has been a real asset to the commission throughout the years,” according to Scott Brown, 2018-19 Idaho Barley Commission Chairman. “He has especially enjoyed working with researchers funded by the commission and seeing the positive return to growers on the barley tax through



Tim Pella at October Idaho Barley Commission meeting in Rupert.

funded research and other commission programs. In addition, Tim has demonstrated outstanding leadership and advocacy in advancing the Idaho barley industry and we thank him for his dedicated service to the Idaho Barley Commission.” ■



Despite Good Barley Crop, Fusarium Head Blight Remains Elephant in the Room

BY DR. JULIET MARSHALL, UI CEREAL CROP MANAGEMENT SPECIALIST, IDAHO FALLS



Overall, the 2018 barley crop was very good with the exception of high levels of thins in a few malt varieties. While the 2017 yields weren't close to that of 2016, the quality of last the last two year's cereal crop has many of us breathing a sigh of relief. There were a few production areas in 2017

that had high levels of DON in the Rupert area and we had some protein concerns. There were a few isolated cases of barley yellow dwarf in winter barley, several surprising cases of strawbreaker foot rot in spring barley, consistent issues with cereal cyst nematode (CCN) but for the life of me, I couldn't find Fusarium Head Blight (FHB or scab) causing issues in production fields of spring barley in 2018. Whew – What a relief! That does not mean you can get complacent.

The elephant in the room remains FHB.

Similar to many barley diseases, FHB infections in barley and wheat may result in lower yields and test weight. While a significant impact on profitable production, the unseen threat of fungal toxins is of far greater concern. As the fungus colonizes and infects, a mycotoxin called DON (short for deoxynivalenol) or also VOM (short for vomitoxin) is produced that helps the fungus invade and spread. Unfortunately, there is no room for mycotoxin-contaminated grain in our markets. Tolerance for malt barley remains below 1 part per million (PPM), and preferably no or 0 PPM of detectable DON levels.

Grain delivered to the elevator is tested for DON, and malt barley can be rejected lock-stock-and-barrel for levels above 0.5 parts per million (ppm). It may still be used for feed, but only up to about 5 ppm for beef cattle, which often must be blended with other feed ingredients to reduce the DON concentration in the

final ration. You may find dairy producers won't take it at all.

So the best solution is to not get FHB in the first place. An ounce of prevention is worth more than a pound of solution. Doesn't that sound like a parent scolding a child? "I told you not to go there!" But that remains my answer. So.... What are the DON'T's?

- Do not plant barley or wheat after corn
- Do not plant barley or wheat after small grains
- Do not plant susceptible varieties
- Do not use irrigation practices that keep heads wet during and after flowering.



Fusarium Head Blight. Photo courtesy of Suzette Arcibal.



Fusarium Head Blight. Left photo courtesy of Dr. Juliet Marshall. Right photo courtesy of Dr. Phil Bregitzer.

More importantly, what are the DO's?

- Do practice good crop rotation, reducing or eliminating back-to-back cereals but especially barley following corn
- Do grow the more resistant varieties
- Do use ONLY the recommended triazole fungicides when most of the heads of barley have emerged to maximize coverage at the vulnerable crop stage
- Do use ground rigs for maximum fungicide coverage
- Do increase fan speed when harvesting infected fields to blow out damaged grain
- Do plow down residue from infected crops for removal of infected residue from the soil surface and hopefully for rapid break down of residue that harbors the fungus

With contracted malt barley, you often don't have a choice in the variety you grow. Be aware of the susceptibility of the varieties you do grow and treat accordingly. Your risks of FHB increase with reduced rotation, the presence of corn residue within and close to your production field, irrigation practices, and temperatures prior to and through heading. High temperatures in June 2015 contributed to the substantial outbreak of FHB in barley resulting in the first widespread rejection of barley for malt. Some years it will all depend on temperatures at critical pre- and post heading growth stages, which of course are beyond our control.

CCN

Cereal cyst nematodes occur throughout our southern production region, and populations are highest in sandy soils where barley and wheat are frequently

grown. Nematodes are microscopic worm-like animals that feed on plant roots, reducing yields and opening wounds that allow fungal invasions to further damage the root system. The nematodes cause bushy, knot-like growths to form at the root tips, reducing rooting depth and restricting the uptake of nutrients, which predisposes plants to other environmental stresses such as drought. The best way to reduce the impact is to rotate for two to more years into broadleaf crops. Some barley varieties are more susceptible than others. CCN barley screening research was

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Bacterial Streak. Photo courtesy of Dr. Juliet Marshall.



conducted in 2013-14, and the results were included in the 2017 Small Grains Report (<http://uidaho.edu/extension/sceidaho/reports>). Soil testing for CCN nematodes is done at multiple locations, including the UI Soil nematode lab at Parma. If you know there are high populations of CCN in a specific field, choose a tolerant and resistant variety or choose another field for production. Substantial yield losses, up to or greater than 30%, may occur in heavily infested fields.

In the spring of 2017 we had many samples come into the lab with lesions on stem bases. The cool and wet spring led to unusual damage from strawbreaker foot rot that normally is seen in winter cereals. Other frequently occurring fungal diseases, such as barley scald and spot form of net blotch, were not a problem in 2017 or 2018.

Bacterial streak in barley occurs regularly in the area. This is a bacterial disease that infects wheat (black chaff) and barley (bacterial leaf streak) leaves, often moving up into the heads and kernels. Damage can be severe when leaf damage occurs early in the season from hail, windy conditions that blow debris against leaves, from frost damaging or any other physical

injury to the leaf surface. Infection can occur even without extensive leaf damage, as the bacteria on plant surfaces infect through the leaf pores (stomata) as well as through damaged tissue. Once the infection is established, it can spread rapidly via splashing rain and irrigation water when temperatures climb mid- to late-season. This pathogen is very hard to control. Reduction of the initial infections can be achieved by using clean certified seed, reducing in-season crop injury, and by not replanting in fields where barley bacterial leaf streak recently occurred. There are, however, **no** foliar products available that will control or reduce this disease.

Best management practices are sometimes neglected in the rush to get planted. Slow down the tractor speed when planting, manage planting depth to 1.5 inches or less (with appropriate soil moisture), optimize seeding rate and plant early. Use appropriate, verified seed treatments when needed and fertilize for expected yield. We plant our grain fields only once, but have to live with the consequences for the rest of the year. Make sure you maximize planning, preparation and profit and minimize the “if-only’s”. ■

Idaho Barley Commission Welcomes New Administrative Assistant Wren Hernandez



Wren Hernandez joined the Idaho Barley Commission staff as Administrative Assistant in October. She replaces Tammy Golder.

Wren is a Nebraska native but has lived in several other states before coming to Idaho from California in March 2017. Prior to the move, Wren helped

her husband start and run a successful construction company. She has worked in high volume

construction company offices supervising over 100 employees as an Office Manager.

“Wren is a great addition to the Idaho Barley Commission,” according to Administrator Laura Wilder. “She has a great skill set and has jumped right in to help with commission programs and support.”

Wren has been a Board Member/Treasurer of her son’s football team of 300 players in all levels of High School. She has also coached both of her younger daughters in volleyball and softball over the last 7 years, and has been involved in numerous fundraisers for a variety of charitable events and school functions. Wren, her husband, and her children are very involved in their community, where her husband is a firefighter. ■



Enrich Your Diet and Improve Your Health With "Super Grain" Barley

The health and nutrition benefits of barley have been well documented by human and animal scientists and nutritionists. The human health benefits include reduced cholesterol and associated risk of health disease, regulation of blood-glucose levels, reduced glucose intolerance and insulin resistance, weight control and improved gut health.

Barley and Heart Health

Barley contains key components like soluble beta-glucan fiber, antioxidants, phytochemicals, proteins, vitamins, and minerals that provide specific nutritional benefits for human health.

Since 2006, the U.S. Food and Drug Administration has determined that soluble fiber from barley, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease by lowering low density lipoprotein (LDL) cholesterol and total cholesterol levels. Whole grain barley as well as dry milled barley products, such as pearly barley kernels, flakes, grits and flour that provide at least 0.75 grams of soluble fiber per serving, qualify under this new health claim.

Barley and Digestive Health

There are two main types of dietary fiber - soluble and insoluble. Barley is a good source of both types. The main difference between the two is how they move

through the digestive tract. Insoluble fiber, also known as roughage, moves through the digestive tract mostly undissolved.

Studies show that insoluble fiber is beneficial in lowering the risk of bowel disorders and colon cancer.

Barley contains fiber throughout the entire kernel! Processed barley products such as flour, flakes or pearl barley, retain at least 50% of their original fiber content even after the bran or outer layer of the barley kernel is removed. In most grains, fiber is found only in the bran or outer layer of the kernel. Not enough fiber in your diet? Just 1 cup of cooked pearl barley provides 20-25% of daily fiber needs.

Barley and Bodyweight Management

Eating fiber-rich foods helps increase the feeling of fullness which is important in maintaining a healthy weight. Soluble fiber (beta glucan) mixes with liquid and binds to fatty substances to help remove them from the body. Studies show soluble fiber (beta glucan) is effective in lowering blood cholesterol and has also been shown to be beneficial in slowing the absorption of sugar, which, for people with diabetes, may help decrease the need for insulin. Barley and oats are the only two edible grains that contain significant levels of beta glucan.

The combination of barley's high soluble fiber and

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total dietary fiber (the highest fiber of any grain!), low glycemic index and antioxidants are all key to achieving these significant health benefits.

Barley foods are great for all occasions! Consumers may purchase barley in several forms. Pearl barley is sold in most supermarkets. Barley flour, flakes, and grits may be found in health food and specialty stores. Barley is also used as a commercial food ingredient in breakfast cereals, soups, pilaf mixes, cookies, crackers, and snack bars.

Like other grains, pearl barley requires cooking time for water absorption. Regular pearl barley should be cooked for about 40 to 45 minutes. “Quick” cooking barley has been rolled and steamed and requires only about 12 minutes cooking time. To save time on busy cooking days, prepare barley in advance and freeze for later use. Use your microwave for quick defrosting (cook on HIGH for 2 to 2 1/2 minutes for 1 cup frozen cooked barley). ■

Quick Ideas to Fiber-up Prepared Foods

It’s easy to fiber up prepared foods quickly and easily with heart-healthy pearl barley. Here are a few ideas to get you started. To keep prep time down, cook pearl barley ahead of time, divide into one-cup portions and refrigerate or freeze until ready to use.

- Add a cup of cooked pearl barley to a package of fresh or frozen stir-fry Oriental vegetables. For added crunch, toss in cashews or sliced water chestnuts.
- Stretch your favorite meatloaf or meatball recipe with a cup of cooked pearl barley. Don’t forget to give burgers a fiber boost too.
- Make good canned soup even better by adding a cup of cooked pearl barley. Tomato, vegetable, split pea, beef, chicken and minestrone soups are all especially good with the addition of this wholesome grain.
- For a quick whole-meal salad, gently toss a cup of cooked pearl barley with 1-1/2 cups cooked and cubed chicken or turkey, 1 cup halved green grapes and 1/2 cup each sliced celery and water chestnuts. Dress with your favorite salad dressing and garnish with toasted almonds.

Looking for a great barley recipe? Go to: <http://www.naturesheartypearbarley.com/recipes.html>.

RECIPE

Barley Mushroom Risotto



INGREDIENTS:

- 1/2 cups chicken stock or canned low-salt chicken broth
- 2 teaspoons butter
- 1 cup finely chopped onion
- 1 cup pearl barley
- 2 teaspoons chopped fresh thyme or 3/4 teaspoon dried
- 1 bay leaf
- 2 teaspoons olive oil
- 1 pound assorted fresh mushrooms (such as oyster, stemmed portobello and stemmed shiitake), sliced
- 1 garlic clove, minced
- 2 tablespoons chopped fresh Italian parsley

DIRECTIONS:

Bring chicken stock to boil in heavy medium saucepan. Remove from heat, cover and set aside.

Melt 2 teaspoons butter in large nonstick skillet over low heat. Add onion and sauté until translucent, about 5 minutes. Add barley, thyme, bay leaf and 2 cups warm chicken stock; bring mixture to boil. Reduce heat and simmer until most of stock is absorbed, stirring frequently, about 5 minutes. Add remaining stock 1/2 cup at a time, allowing stock to be absorbed before adding more and stirring frequently until barley is tender, about 50 minutes.

Meanwhile, heat oil in another large nonstick skillet over high heat. Add mushrooms; sauté until beginning to brown, about 3 minutes. Stir in garlic. Reduce heat to medium; cover and cook until mushrooms are tender, stirring occasionally, about 3 minutes. Mix in parsley and barley mixture. Season with salt and pepper. Spoon risotto into bowls and serve immediately. ■

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