

SPRING 2024

# IDAHO

THE IDAHO GRAIN PRODUCERS ASSOCIATION MAGAZINE

G R A I N



Idaho Grain Producers Association  
821 West State Street, Boise, Idaho 83702-5832





BY JUSTIN PLACE  
**PRESIDENT**

As the ground begins to thaw and I look forward to getting into the fields, I'm going over my "spring checklist." From my tractors to the businesses I deal with, I'm going to be expecting a lot from them very shortly and I want to make sure my partnerships are in order.

I agree with the local grain buyer who goes by the philosophy that the farmer, buyer, and miller all have to prosper for any of them to be successful. The business of farming is not a competition or bragging right; we all have to succeed together. Same is true with vendors, dealers, family, and the neighbor I share a fence with. I don't have all of the tools and resources to move my grain to market without the cooperation of my local elevator; he can't continue his business without the producer. We all need to successfully unite to create a quality product for the consumer on the other end.

As a grass roots organization, Idaho Grain Producer's Association (IGPA) works to cultivate partnerships with equipment dealerships, chemical companies, and each other as we collaborate for a healthy farm bill and on other important issues that will benefit everyone from producer to consumer.

Idaho is well represented in leadership positions in the National Wheat Foundation, National Association of Wheat Growers (NAWG), US Wheat Associates, and other organizations across the nation. More than our share takes an active role as we maximize relationships and individual strengths to give a voice to the agricultural community.

I've been impressed with the National Cotton Council and their vision as they reach out to commodities like wheat, soy, corn and barley for the Multi-Commodity Education Tour. They know that partnerships mean thinking beyond one's self to the betterment of the whole. We are more successful as industry partners pushing the same agenda.

Sponsors frequently ask how they can help IGPA with educational opportunities and financial backing. They know that working together is not a hand-out but as industry partners, collective effort and collaboration are keys to achieving success.

Like the cliché says, "Teamwork makes the dream work." Best wishes for safety and success in your 2024 growing season for you and those you are in partnership with! ■

## CONTENTS

Views: Justin Place, IGPA President .....	2
Editor's Note: Stacey Satterlee .....	3
Legislator Profile: Rep. Dan Garner .....	4
Legislator Profile: Rep. Mark Sauter .....	6
Legislator Profile: Sen. Geoff Schroeder .....	7
Legislator Profile: Rep. Josh Wheeler .....	8
Legislator Profile: Rep. Jack Nelsen .....	9
Mentorship Program Participant Profile: Brody and Colter Welch .....	10
Mentorship Program Participant Profile: Casey Stevenson .....	12
Mentorship Program Participant Profile: Grant Stevenson .....	14
Mentorship Program Participant Profile: Milo Heitstuman .....	15
The Gem State Shines Again as Three Idaho Growers Receive National Recognition .....	16
Agriculture Industry Grows Energy Savings, not Just Crops .....	20
Taking Your Conservation Efforts to the Next Level with NRCS .....	22
The Critical Role of Idaho Grain Inspection Services .....	23
IWC Annual Report .....	24
Plant Sap Sensing for Aluminum Toxicity in Wheat and Liming Evaluation .....	26
An Open Letter from USW President on the Columbia Snake River System .....	27
It's Okay Not to Be Okay – Navigating Mental Health with Compassion and Understanding .....	28
2024 Idaho Barley Yield Contest in the Works .....	29
UI Barley Agronomy Program Update .....	30

Published quarterly by

**Idaho Grain Producers Association**

821 W. State St. • Boise, Idaho 83702 • (208) 345-0706

**Stacey Katseanes Satterlee** Editor-in-Chief

**Kellie Kluksdal** Assistant Editor

Every effort is made to assure accuracy in articles published in Idaho Grain. However, the publishers assume no responsibility for losses sustained, allegedly resulting from following recommendations in this magazine.

Send inquiries about articles or editorial content to the Idaho Grain Producers Association. The publisher will attempt to handle unsolicited articles with care, but the magazine assumes no responsibility for them. Materials will be returned only if accompanied by a self-addressed envelope with return postage. Address inquiries regarding editorial policy and writer guidelines to the editor.

For subscription corrections, please call Idaho Grain Producers Association at (208) 345-0706

To subscribe or unsubscribe to Idaho Grain magazine at any time, visit the IGPA website at

[www.idahograin.org/idaho-grain-magazine](http://www.idahograin.org/idaho-grain-magazine), click on the appropriate button, and fill out the required information.

Printing Production Coordinated by  
**Northern Directory Publishing**

For Advertising information call:  
Leah Anderson **Advertising Sales Representative** • Phone: (406) 475-1856

Printed in the USA



### IDAHO GRAIN PRODUCERS ASSOCIATION

821 West State Street  
Boise, Idaho 83702-5832  
(208) 345-0706  
<http://www.idahograin.org>

#### President

Justin Place • Hamer

#### Vice President

Jonathan Rosenau • Nezperce

#### Secretary/Treasurer

Kyle Wangemann • Soda Springs

#### Executive Member

Larry Hollifield • Hansen

#### Past President

Ty Iverson • Bonners Ferry

#### Executive Director

Stacey Katseanes Satterlee

#### Communications Manager

Kellie Kluksdal

#### Industry Engagement Manager

Harmony Wright

### IDAHO WHEAT COMMISSION

(208) 334-2353

**Chairman** Wayne Hurst  
**Vice Chairman** Cliff Tacke

#### District 1 Commissioner

Joseph Anderson

#### District 2 Commissioner

Cliff Tacke

#### District 3 Commissioner

Wayne Hurst

#### District 4 Commissioner

Clark Hamilton

#### District 5 Commissioner

Cordell Kress

#### Executive Director

Britany Hurst Marchant

#### Communications and Programs Manager

Ryan Mortensen

#### Research Consultant Office Manager

Jim Peterson

Jill Cloward

### IDAHO BARLEY COMMISSION

821 West State Street  
Boise, Idaho 83702-5832 • (208) 334-2090

#### Chairman / District 1 Commissioner

Josh Jones • Troy

#### Vice Chairman /

#### District 3 Commissioner

Allen Young • Blackfoot

#### District 2 Commissioner

Mike Wilkins • Rupert

#### Industry Representative

JC Olson • Twin Falls

#### Executive Director

Laura Wilder • Boise

#### Office Manager

Wren Hernandez • Boise



## BY STACEY KATSEANES SATTERLEE EXECUTIVE DIRECTOR

I recently returned from an extended stay in Washington, DC. We had back-to-back meetings of the National Association of Wheat Growers and the National Barley Growers Association in late January/early February. Idaho has growers serving on each of those organization's board of directors, as well as growers serving in national leadership positions. In addition to board members, we take growers to attend these meetings as part of our mentorship program. Seeing policy in action, making visits to Idaho's delegation on Capitol Hill, and visiting our nation's capital can be educational, inspiring, and (hopefully) motivational. This year, we had three wheat growers join us for NAWG meetings – brothers Brody and Colter Welch and Milo Heitstuman. And we had two barley growers come to NBGA, cousins Casey and Grant Stevenson. What a great group of guys – you can read more about them and get their take on things on page 10. And if you're interested in the mentorship program, which we can continue because of the generous support of the Idaho Wheat Commission, the Idaho Barley Commission, and NBGA – let me, a member of the e-board, or your county director know.

We're working our way through the 2024 legislative session, and on the heels of that is Idaho's primary election – May 21 is primary election day. Make sure you're registered to vote and put a reminder in your calendar now to vote in the primary. In Idaho, many important races are determined in the primary (as opposed to the general election in November). Last session, we had a big class of freshman legislators – so we picked five freshman, four of whom serve on the Ag Committee, so you can get to know them better ahead of the primary. All of them serve their districts well – read more about them starting on page 4.

Finally – as you can see at the top of this page, I got a new headshot. I've been taking some heat for having such an old, outdated picture – it's all the way back before I had babies, living and working in Washington, DC. I've been putting off getting a new headshot for years. But I finally did it, and I'm glad I did. Just a friendly reminder – that thing you've been dreading and putting off, maybe it's time to do it, maybe it won't be as bad as you think it will, and you'll be glad to have it crossed off your list! 🇺🇸

MARK YOUR CALENDARS  
AND DON'T FORGET  
TO VOTE



IDAHO PRIMARY ELECTION

★ MAY 21, 2024 ★

[www.voteidaho.gov](http://www.voteidaho.gov)

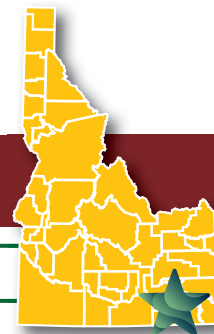




REPRESENTATIVE

## Dan Garner

CLIFTON, ID • DISTRICT 28



**Tell us about your hometown, where you grew up, and where you went to school.**

I grew up in Clifton, Idaho which is a small rural farming community in the north end of Cache Valley. Its population is about 300 and it has one gas station and one church house. The best part about this community is the fact that everyone knows everyone, and they are willing to help each other out. There have been many times that a neighbor has shown up to plow out my driveway for my wife or feed the cows when I have been out of town or under the weather. It's the type of community where everyone still waves at each other as they pass one another on the road. I can't imagine a better community to raise kids in and to teach them the value of a hard day's work and integrity. I attended West Side High School where I made lifetime friends that I still visit with often and then received my BS degree in Economics from BYU Provo. It was a big adjustment to go from a small school with a graduating class of 32 to a university that had over 300 students in a classroom. The education I received at both schools was excellent and has continued to help me throughout all aspects of my life. I am truly grateful for the education and caring teachers I have had.

**Tell us about your family, spouse, kids, grandkids.**

My wife Sherri-Jo is truly my better half. She keeps me grounded and on task. If it wasn't for her, I can honestly say I don't know where I would be. She supports me in everything I do, and I really appreciate that. We met my last semester of college on a blind date and life has been an adventure ever since. I have been blessed with four kids, the oldest being a girl and then three boys. They all helped on the farm as they grew up and were a big help in anything we were doing. My daughter is married and lives in Illinois now while the three boys have all landed closer to home. One is a diesel mechanic; one is studying to become an electrician and the youngest is in college at ISU. The best part is they are all willing to help their parents out, often.



**What one word would you use to describe yourself?**

Understanding. The one thing you learn by being a farmer and rancher is that things don't always go the way you want them to. Mistakes happen, things break, and most things are out of your control. You quickly learn that you can be miserable when things go wrong, or you can laugh and pull yourself up by the bootstraps and do the best that you can. This has taken me a few years to realize but it has made life a lot more fun. One of my favorite quotes is by William Aurther Ward: "To make mistakes is human; to stumble is commonplace; to be able to laugh at yourself is maturity."

**What did you want to be when you grew up and is that what you currently do for work?**



When I was young and growing up, I wanted to be anything but a farmer and rancher. The work was too hard and dirty, and I couldn't wait to get an education and move to a city. I dreamed of being a day trader in the commodity pits on Wall Street or working for some big Fortune 500 company. As I went to college and took my economic classes and business classes and went to different places, I found out I missed being outside, and yes, I even missed getting dirty. One of the biggest things I missed was being able to come in at the end of the day and look and see the difference I had made by my labor. Whether it was working a field or looking at a newly built fence line I missed this sense of accomplishment and knew I wanted to be a farmer and rancher and started working toward that goal.

## What committees do you serve on in the legislature – which is your favorite and why?

I have the privilege of serving on the house Education Committee, Judiciary and Rules Committee, and the House Agriculture Committee. My favorite is the Agricultural Affairs Committee, because I know this is the area in life that I love to be involved in. I get to meet farmers from all over the state representing

different commodities and areas. When I talk to them it reminds me of home. We all have the same concerns and problems within agriculture. We worry about the weather and the ability to continue to do what we love. The regulation we see brings fear and concern to every aspect of farming and it doesn't matter where we are located or what we grow. This unity is what will get us through the unfamiliar and secure the future of agriculture in Idaho.

## What challenges do you think the state faces in 2023 and beyond?

Idaho has been discovered. The growth we are facing will be a challenge going forward. This growth puts a strain on our water, housing, and all of the services that the state and local governments provide. You see it in our education system. Communities are growing and they are having problems building schools, keeping the roads up and connecting the growing areas to sewer systems, garbage pickup and the list goes on. The other big concern is Idaho is a strong agricultural state, it plays into our economy and our identity as a state. The growth puts a strain on all aspects of government. We will have to address each problem

Continued on next page

**WB6430 | WB9668 | WB7696 | WB9707**

## SEIZE THE SEASON WITH WHEAT THAT'S IDAHO STRONG.

To get the most out of Idaho fields, you need wheat that can endure the region's toughest challenges. **WB6430** offers excellent tolerance to yellow (stripe) rust and leaf rust with very good protein content, while **WB9668** has excellent yield potential and standability. **WB7696** performs best in irrigated or high rainfall areas. And **WB9707** provides excellent yield potential and standability. Trust WestBred® to help you get the most out of every acre.

**Now's the Time. Boldly Grow. Seize the Season.**



Bayer, Bayer Cross, WestBred and Design® and WestBred® are registered trademarks of Bayer Group. ©2024 Bayer Group. All Rights Reserved.





Continued from previous page

separately, but we don't want to lose that identity as our state continues to grow.

## What do you love most about Idaho?

I love Idaho. I loved growing up here and raising my kids here. I want my grandkids to grow up in the Idaho that I know. With caring neighbors that help when

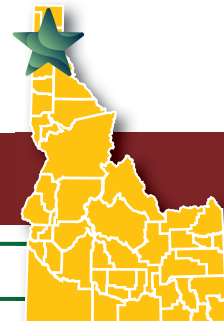
needed, and truly want the best for each other. The many outdoor activities that we have the opportunity to enjoy are amazing and we need to protect them. I love fishing on the many rivers and lakes. Taking my boys hunting or sightseeing in the mountains and exploring the many different areas that this great state has to offer. There is no other state in the union that I can imagine my grandkids being raised in or enjoying more. I just love all of Idaho. ■



REPRESENTATIVE

# Mark Sauter

SANDPOINT, ID • DISTRICT 1



## Tell us about your hometown, and where you grew up.

I grew up in a suburb of Southern California. My parents and I visited Priest Lake in 1969 and I never forgot it. I returned in the early 90s and bought some forested ground with a year-round stream. I still have it.

I retired from the Fire Service after 30 years. I served in City Administration for another 3 years after my Fire career.

## Tell us about your family.

I married a wonderful woman late last year (at the age of 65) and look forward to spending the rest of my life with her. I'm extremely fortunate to have two fantastic kids. My daughter is an assistant district attorney and my son is a Navy pilot.



## Was there a teacher or educator during your early years that had an impact on your life?

A number of teachers influenced me in many ways. However, I never got to meet the teacher who influenced me the most. Coach John Wooden has served as a guiding light



as I developed my leadership skills and matured preparing myself to be a Fire Chief. His wisdom, insight and faith all had an impact on my personal and professional development.

## If Hollywood made a movie about your life, who would play you and why?

I love to volunteer in my community. I don't think I stack up to George Bailey (Jimmy Stewart) from the movie "It's A Wonderful Life", however, I do work hard to be like George.

## What Committees do you serve on in the legislature?

I serve on the Education, Agriculture and Judiciary Committees. I've found the Agriculture Committee to be fascinating, there is so much to learn and so many facets of the industry. What could be more important than feeding our communities? ■



SENATOR

## Geoff Schroeder

MOUNTAIN HOME, ID • DISTRICT 8



**Tell us about your hometown, where you grew up, school, etc.**

I grew up near Caribel, about 8 miles north of Kamiah. Before my dad bought that 40 undeveloped acres of timber, we lived in a couple of farmhouses on the Camas Prairie, the heart of grain growing in that area. I went from kindergarten through 12th grade in Kamiah schools. I then attended the University of Idaho beginning in 1984 and later joined the Army National Guard which became a full time career. After retirement, I graduated from Boise State with a philosophy degree in 2012, and got a law degree from the University of Idaho in 2018.

**Tell us about your family.**

I've been married to my wife, Kenda, for 31 years. We have three children (28, 26, 24) and a grandchild (9).

**Was there a teacher or educator during your early years that had an impact on your life?**

Yes; my father, Roy Schroeder, who was a junior high school teacher in Kamiah for 20 years. Also, Dave Kries and Roger Parsons were incredible educators and had a great impact on my life.



**What one word would you use to describe yourself?**

Thoughtful.

**What did you want to be when you grew up and is that what you currently do for work?**

I wanted to be a teacher, and then later wanted to be an attorney. I ended



up (accidentally) having a career in the Army and then went on to do both.

**What Committees do you serve on in the legislature – which is your favorite, and why?**

I serve on the Senate Resources and Environment Committee, the Agricultural Affairs Committee, and the Local Government and Taxation Committees. My favorite for now is the Local Government Committee, as that is where the bulk of my work is done and where I am passionate about our local governments.

**What challenges do you think the state faces in 2023 and beyond?**

Assuring a safe clean supply of water, balancing the need for minerals while protecting our environment, and preserving our vital public education system, that is vital to our state.

**What do you love most about Idaho?**

I love its beauty, our connectedness with this place – as Idahoans we recognize our common bonds to our favorite places. One only need mention one's hometown, and soon the mutual acquaintance list comes rolling out, and this is true no matter where I go in this beautiful state. I maintain I represent the most scenic legislative district in the state. ■

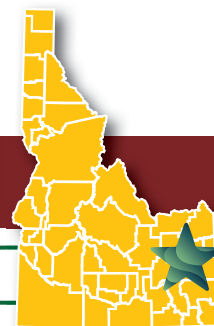




REPRESENTATIVE

**Josh Wheeler**

AMMON, ID • DISTRICT 35



**Tell us about your hometown, where you grew up, and where you went to school.**

I was born and raised in Ammon, ID, and graduated from Hillcrest Highschool in 1995. I got an undergraduate degree in construction management. Years later, I earned an MBA from ISU.

**Tell us about your family; spouse, kids, grandkids?**

My wife Laramie and I were both raised in Ammon, ID and were among the first students to attend Hillcrest High School when it was brand new. We were the best of friends through our freshman and sophomore years and then dated our junior year but sadly broke up our senior year.

We got back together a few years later, married and completed our education at Brigham Young University. We have been blessed with six beautiful children. No grandkids yet, though two of our daughters are married.

I own a family electrical business, Wheeler Electric, and my wife is the owner of an integrative medical clinic, Wholesome Health.



aside at one time to inform her that, “Nerds make the best husbands.”

**What one word would you use to describe yourself?**

Optimistic.

**What did you want to be when you grew up and is that what you currently do for work?**

At one point, I wanted to be a geneticist or a writer. Now I am a businessman, which does involve technical writing.

**If Hollywood made a movie about your life, who would play you and why?**

According to my mother-in-law, Mel Gibson, because I am handsome.

**What Committees do you serve on in the legislature – which is your favorite, and why?**

I serve on the Health & Welfare, Commerce & Human Resources, and Energy, Environment, and Technology Committees.

**Was there a teacher or educator during your early years that had an impact on your life?**

I probably have to say my sophomore English teacher, Mrs. Bybee, who encouraged my love of reading and writing, convinced the journalism teacher to put me on staff for the school paper, and pulled my future wife







## What challenges do you think the state faces in 2023 and beyond?

Solving our growing labor crisis.

## What do you love most about Idaho?

Our commitment to strong families, independent minded communities, and our breadth of beautiful natural resources. ■



REPRESENTATIVE

# Jack Nelsen

JEROME, ID • DISTRICT 26



## Tell us about your hometown, where you grew up and where you went to school.

I grew up on a farm and dairy in Jerome, Idaho. I am a third generation farmer and the grandson of an Idaho legislator in the 1960's. I graduated from Jerome High School, College of Southern Idaho, University of Redlands (CA), and Boise State University. I've spent my life both on the farm and dairy, and also working in different capacities in our public education system. I've been a band director in the public schools and the community college, I've taught night music classes for the college, I've served on the college foundation board and also on the board of trustees.

## Tell us about your family; spouse, kids, grandkids?

I have been married to Emily for nearly 44 years, have three sons and am blessed to be surrounded by a gaggle of lovely girls and women. We have three daughter-in-law/significant others, five granddaughters (the oldest who is a page here in the House of Representatives right now), with our first grandson due to arrive in the next week or two.

## Was there a teacher or family member during your early years that had an impact on your life?

My Grandfather Nelsen had a large impact on my life. He and I spent hours together while he taught me how to bale hay, irrigate and to live life. He was the one who first planted the seeds of the importance of serving the community you live in, and my interest in public office. Because of his impact I served on the Jerome County Planning and Zoning Commission, the Mid-Snake Water Commission, and now here in the Idaho Legislature.



## What Committees do you serve on in the legislature – which is your favorite, and why?

I serve on the House Education Committee, the Resources and Conservation Committee, and the House Agricultural Affairs Committee.

## What do you love most about Idaho?

The things I love most about Idaho are the people and the diverse outdoor recreational opportunities. ■



*Each year, IGPA sends growers who are new to the organization to Washington D.C. as part of our Mentorship Program. And this year was no exception. IGPA staff and executive board members welcomed Colter Welch, Brody Welch and Milo Heitstuman to meetings with the National Association of Wheat Growers. The very next week, Casey and Grant*

*Stevenson joined the group for National Barley Growers Association meetings. From the sounds of it, everyone enjoyed their time in our nation's capital learning about the grain industry and how important it is for our voices to be heard. Read a little more about these up-and-coming leaders below.*

## MENTORSHIP PROGRAM PARTICIPANT PROFILES

### Brody and Colter Welch

#### Tell us about your farm: size, what you grow?

The farm was originally homesteaded in 1898 – and we still farm there today with our dad, Kim Welch. In 1890, Idaho became a state – our great grandfather homesteaded, that makes us fourth generation. The homestead is in Lund, Idaho, which is not far from Bancroft (people are more likely to know where Bancroft is than Lund).

We grow wheat, barley, and seed canola. We have around 800 acres under irrigation, but the majority of our operation is dryland.

#### How and when did you get into farming?

Brody: I graduated from high school in 1995, went to college for a year at Utah State, then went on a mission for the Church of Jesus Christ of Latter-Day Saints – it was when I came home that I started really getting involved in the farm. I bought my first farm in 2004.

Colter: I graduated from Idaho State University with a business degree, then worked for five years in Pocatello in banking. I came home to the farm in 2011 and bought first piece of ground in 2012.

#### Tell us about your family; who is on the farm?

Brody: I married my wife Shelli in 2004—she grew up in Aberdeen and currently teaches sixth grade at Black Canyon Elementary. We have four kids: Rylee, Carson, Ashlyn and Zachary. Rylee is currently studying Elementary Education at Utah State University, Carson is a Junior at Grace High School, where he participates in football, basketball and track. He is a great help on the farm and is frequently driving tractors for us. Ashlyn is in 8th grade and enjoys cheer and gymnastics, and Zachary is in 6th grade and plays football and basketball.



Colter: I married Lacey in January of 2023 – she grew up in Soda Springs and is a dental hygienist. We have two beagles, Allie and Noah. Turns out, I love beagles.

#### How do you market your grain?

Our malt barley goes to Great Western in Pocatello. Most of our wheat and feed barley goes to Scoular Grain.

#### Is there anything unique about your operation?

Brody: It's pretty unique that we get along (both laugh).

Colter: That's true. Also, our ground is spread way out and there's just the three of us – our dad, Kim, Brody and me.

#### What are the biggest challenges in your operation?

Colter: One of our biggest challenges is finding reliable help – we're in that tough time between wanting to grow, but if we get much larger we will need more help, especially during planting and harvest. And our line of equipment is almost maxed out – so we'd need more of that too.

Input costs are going up and the price of wheat is going down. That's why we got into the seed canola business, to try to diversify and add a crop rotation, to





help mitigate risk. Grace is also uniquely positioned for seed production.

## What do you do for fun?

**Brody:** I coach junior high boys' basketball, between that and watching both my sons play and my daughter cheer, that takes up a lot of my time in the winter. We have a place at Blackfoot Reservoir, and we spend time there in the summer wake surfing, wake boarding, tubing, etc. My family has grown to enjoy our time that we get to spend together at the lake.

**Colter:** My wife and I like to travel and fish. In our area, we are lucky to have some world-class rainbow and cutthroat trout fishing. We also like to go snowmachining.

## What surprised you about Washington D.C.?

**Brody:** Going to visit Idaho's members of the House and Senate, I was amazed by how young everybody is. It felt like a college campus – it was amazing to me. It's also amazing to me that there are lots of really good people out there fighting for the wheat industry – it's good to see first-hand that there are people willing to fight for that. I'm grateful that people are willing to be unselfish to fight

Continued on next page



## Cultivating your future.

With over a century financing agriculture, we know firsthand the challenges and rewards you face every day. Let's work together to help you build your best future.

Learn more at  
[AgWestFC.com](https://AgWestFC.com).



This institution is an equal opportunity provider and employer.



Continued from previous page

for the future of the industry so there is a future for American farmers.

Colter: I was surprised by how many people are actually out here working to help the growers in big and little ways. You kind of know it, but it's amazing to see. You need people here and a voice, you need representation – and we in the wheat industry have that.

### **How do you see the future of the U.S. grain industry and the grain industry in Idaho?**

Brody: A lot of opportunity still there, it's getting harder to access. The world is producing more and more grain, and we are more efficient, we're our own worst enemy. Future is great for ag – we've got to be smart about it.

Colter: I'm optimistic about the future – you have to be, or why would you keep doing it. But being here in our nation's capital, hearing from people involved in trade and exports, made me worried about what's going on in the world (for example, Russia can export wheat for \$80 less than us?!). We have a lot of work to do. So, I guess I'd say I'm cautiously optimistic.



### **What do you love about Idaho agriculture?**

Brody: I'm convinced that living and farming in Idaho is one of the best ways to raise a family. It's hard work, but it's worth it. I get to work with my kids, coach my kids, and spend one on one time with them – it's the best.

Colter: Where I live and work, I have easy access to fishing holes, which is great. Even on hard days, I look out my office windows and remember how great it is. I get to work for myself, with my family. ■

## MENTORSHIP PROGRAM PARTICIPANT PROFILES

### Casey Stevenson

*Both Casey and Grant, who are cousins, are 4th generation farmers.*

#### **Tell us about your farm: size, what you grow?**

I farm with my dad Scott – we farm 2,000 acres in the Paul area, and we grow sugar beets and malt barley.

#### **How and when did you get into farming?**

I grew up on the farm. I graduated from BYU-Idaho in 2017 with a degree in Ag Business and was ready to come back to the farm. But that was always part of the deal – we had to get an education.

#### **Tell us about your family.**

There's my wife, Kayleann – and we have three kids, Sawyer (7), Kai (4), and Livvy (1).



#### **How did you meet your spouse?**

We attended high school together, but we didn't date until after I came home from my mission (I served in the London, England mission for the LDS church).





## How do you market your grain?

We contract all our barley through Molson Coors.

## What are the biggest challenges in your operation, and of agriculture as a whole?

I'd say labor is our single biggest challenge but everyone knows that and is working on hopefully getting a better long term plan. Besides that, it can be frustrating at times when sustainable or regenerative agricultural practices are pushed onto us growers from the purchasers and indirectly from consumers. There is a disconnect between farmers and the consumer as to what practices are truly applicable on large scale farming. I would hope that we see more communication and education from the farmers to the direct consumers to help connect the dots.

## What do you do for fun?

Feels like we don't have a lot of time for fun – between a young family and farming, we're just trying to keep



afloat. But we like to go snowmobiling, and we have a place in Island Park, we try to spend some time there.

## You're participating in Class 44 of Leadership Idaho Agriculture – tell us about your experience so far.

Going in, I felt like there was a large generational gap between the older generation of farmer and my younger generation – but I realized there's lots of good individuals working in and on behalf of ag, old, young, and in the middle. It's also been a good opportunity to see some places I needed to work on myself and strengthen some skill sets – for example, while I'm a pretty confident public speaker, I've been able to improve how I interact with people and better see how I'm perceived. It's been great.

## What challenges face the grain industry in Idaho? How do you see the future of the grain industry in Idaho?

I'm very optimistic. The way I see it, water is an issue and will only be more of an issue going forward. We're dealing with some uncertainty and shifting values – in the Magic Valley, the majority of farmers used to grow grain and sugar beets. Now farmers are growing alfalfa and corn. Grain crops are less water intensive – so will we see more grain grown in the valley in the future? We'll have to see, but water will be an ongoing issue for our state. ■



## MENTORSHIP PROGRAM PARTICIPANT PROFILES

### Grant Stevenson

#### Tell us about your farm: size, what you grow?

I farm with my dad Dean – we farm just under 2,000 acres 25 miles north of Paul. Just over half of our acres are in grain, the other half is in sugar beets. This year, all our grain is malt barley.

#### How and when did you get into farming?

I've always wanted to farm. I've been working full time on the farm since I was a junior in high school – I'd go half days to school then work half days on the farm. I took two years off to serve an LDS mission to Los Angeles – came home and went straight to work. I worked one year with my dad, then spent four years as the Assistant Farm Manager for the LDS welfare farm in Rupert while going to college online. In 2019, I came back to the family farm.

#### Tell us about your family.

My wife Taylor and I have four children – Rhett (6), Ila (4), our daughter Gracie who passed away 2 years ago, and four-month-old Blake.



#### How did you meet your spouse?

We met at the Eastern Idaho State Fair in Blackfoot – we were both there with FFA, judging livestock. I was a senior in high school, she was a sophomore. We dated briefly before my mission, got married three months after I got home.

#### How do you market your grain?

All our barley is contracted with Coors. If we grow wheat, we market it with Evans or AgriSource, where it eventually makes it to the mills in Ogden, then into Goldfish crackers or Uncrustables sandwiches.

#### What conservation practices do you employ?

We no-till our sugar beets when we can make it work with our crop rotation. We also try to cut tillage passes, to the greatest extent possible.

#### What are the biggest challenges in your operation?

Cost of labor, and instability of water in our valley.





## What do you do for fun?

I like to ski. And I like to spend time with my kids, doing things they like to do. (Rhett added that they like to watch cooking videos on TikTok together.)

## What was the most interesting thing you learned in D.C.?

It was interesting to talk with representatives from Coors and other companies about the other side of the equation. We're just the production – they're looking at a lot of other things like the economy, market share, aluminum tariffs, the bigger picture. We just focus on

production – so that was eye opening for me.

## How do you see the future of the U.S. grain industry and the grain industry in Idaho?

The future looks good for Idaho. For the grain industry, when we're pressed for water, cereal grains are a good crop to grow to implement water management. On the other hand, acres are being taken away to grow corn, alfalfa, and other crops – water and the availability of ground is going to increasingly be an issue. Overall, the future looks good – we can consistently grow a quality crop, and that's not going to change anytime soon. ■

## MENTORSHIP PROGRAM PARTICIPANT PROFILES

# Milo Heitstuman

## Tell us about your farm: size, what you grow?

I'm the third generation on our family farm – I farm with my dad Neil. We farm on the edge of the Camas Prairie – we grow wheat, barley, canola, lentils, and chickpeas. I also have a red and white border collie.

## How and when did you get into farming?

Late junior high, high school I knew I wanted to farm. I am a proud Vandal – I went to the University of Idaho and got a degree in Ag Systems Management, the umbrella of all ag degrees.



## What is your upbringing/childhood?

I grew up on the farm, and I knew from an early age I wanted to be involved with ag. Agriculture was always there.

## How do you market your grain?

Ninety eight percent of our wheat goes to the Terminal at Port of Lewiston – we have a neighbor that buys a little bit for hog feed.

## Is there anything unique about your operation?

Where we farm is kind of unique, in that we farm some very steep hillsides, which adds a challenge.

Continued on next page



Continued from previous page

## What conservation practices do you employ?

We've made the transition from conventional tillage to minimal tillage. We did this to prevent soil erosion, to increase soil health and water quality, and as a water management tool.

## What are the biggest challenges in your operation?

Our number one biggest challenge is finding help. Also, having commodity prices where they're at is a huge challenge. And the consistent threats to the Lower Snake River Dams is a real challenge – we rely on those dams to move our grain from Lewiston to Portland to customers around the world. They're critical infrastructure for wheat farmers in Idaho and the PNW.

## What do you do for fun?

I like to snowmobile. I participate in a farmer bowling league, which is fun. And I like to come to Idaho Grain events.

## What did you learn in D.C.?

We got to see how everything actually works. Also, going through the Capitol was amazing to see first-hand. All the work that wheat farmers are doing here to advocate for the industry, it's all good and important.

Also – it was awesome to meet with our legislators and see that legislators are all normal people. Getting to sit across the table from our Senators was very cool.

## How did you get involved with IGPA?

Several neighbors asked, do you want to go to a county meeting? That's how my involvement started.

## What are the most important issues facing the future



## of the U.S. grain industry and the grain industry in Idaho?

Being able to keep the Lower Snake River Dams in and barge our grain from Lewiston is critical to the success of Idaho's grain industry.

And having the policies in place to support agriculture, specifically a Farm Bill, is important for certainty and to keep farmers farming. I guess that's why it's important to be here and advocate for a Farm Bill that works for farmers. ■

# The Gem State Shines Again as Three Idaho Growers Receive National Recognition

Many of you know what takes to get your crop from seed to harvest to elevators and to the tables of people around the world. It takes a lot of work! And beyond that, vying for national recognition for wheat yields takes even more! But for Idaho grain growers, it's all in a day's work.

Three growers from Idaho have once again exceeded expectations and have been named national winners of the National Wheat Foundation Wheat Yield Contest for 2023. These growers come from all parts of Idaho and we







are proud to have them representing Idaho wheat growers nationally.

Here is a little bit about each of these amazing wheat growers.

## Trevor Stout, Genesee

This is Trevor's 5th time as a national winner. He and his dad have been entering the contest for many years.

### Tell us about your farm.

We are a dryland wheat, canola, and chickpea farm based in Genesee, ID. We grow mostly red wheat varieties, HRW and DNS, some locations on our farm are a two-year rotation crop cycle and some are a 3-year cycle.

### How and when did you get into farming? When was the operation established?

I am a 24-year-old 5th generation farmer who started right out of high school. Multiple sides of my family moved to the Palouse region to homestead in the late

Continued on next page



# MAKE THE CO-OP CHOICE



## ENERGY

Propane, bulk fuel, oils & lubricants

[wvcenergy.com](http://wvcenergy.com)

## AGRONOMY

Precision agriculture, fertilizer & seed

[valleyag.com](http://valleyag.com)

## RETAIL

Farm supply, clothing, boots, fencing & feed

[shop.valleywidecoop.com](http://shop.valleywidecoop.com)



Continued from previous page

19th century, and we've been here since.

## **Tell us about your family; who is on the farm?**

My father Doug, mother Tammy, and sister Makenzie. My mother does the farm books and takes care of the financial and daily organizational aspects of the operation. She was to thank for incorporating the farm over a decade ago. My dad and I take care of most of the field work now since my grandpa has semi-retired. Grandpa still drives truck during harvest and we have a few other great part time helpers to get the crop in. Makenzie is a freshman student and volleyball player at LCSC.

## **How do you market your grain?**

Make good budgets so you know the exact cost of production, never sell all of one commodity in a single day. Dollar cost average throughout a couple year cycle. Stay up to date on how well the rest of the world's crop production is. Embrace the volatile market. It used to be an exciting event when wheat would move 5-10 cents, now it's a daily occurrence.

## **What conservation practices do you employ?**

Our farm has been involved in various CSP and Equip contracts throughout the last decade. We have cut down on tillage passes since enrolling in these programs, and have also implemented grass water way buffers to better protect the ecosystems we farm around.

**Gary Reynolds, Castleford**

## **Tell us about your farm.**

I am third generation on the farm. We farm 2,500 acres in Castleford and also raise 300-400 head of bull calves in winter. We also have corn, beans, peas and hay.

## **Tell us about your family; who is on the farm?**

My wife Becky, my son Rylee and daughter-in-law Madison, my grandsons Baker (3) and Rawley (1.5). Rawley can't talk yet but he can say PAPA really well! Also my daughter Haddee is 24 and our youngest Oree is 21. Haddee works for Western Trailers in Boise; Oree is going to school at the University of Idaho in Moscow, which was a hard pill for me to swallow as a BSU Bronco. But he loves it. My wife and I met at BSU, as did Rylee and Madison and our daughter Haddee also attended BSU. You could say we are big fans of Boise State.

## **How and when did you get into farming? When was the operation established?**

My Grandpa established the place in 1952. He came to Idaho from Arkansas when my dad was young. The name of our operation is Crescent F Farms; my grandkids would be 5th generation on the farm.







## How do you market your grain?

We contract three-quarters of next year's wheat ahead of time and leave probably one quarter open depending upon where the market is headed throughout the year.

## What conservation practices do you employ?

Not no-till but minimum till; lot of implementations of that.

**Dallin Wilcox, Rexburg**

Dallin is a repeat National Winner but this is his first time as a Bin Buster. His uncle Terry Wilcox has also competed and won the contest in past years.

## Tell us about your farm.

We have 12,000 acres on our family farm where I am 4th generation. We grow potatoes, wheat, barley, and alfalfa along with our cattle operation of about 800 head of beef cattle.

## How and when did you get into farming? When was the operation established?

I grew up on the farm. I started with Dad when I was a kid. My great-grandfather established our operation in 1948 as a potato warehouse.

## Tell us about your family; who is on the farm?

My older brother runs part of the farm—he manages half of it; I manage the other half. I have one boy in college who helps part-time when he is not in school. My wife and I have five kids ranging from 11 to almost 20 who all help out during harvest time.



## How do you market your grain?

We watch the market (which is not very good right now, unfortunately) and use some of the elevators around here to get some pricing to market. We also use some of the mills to help us out.

## What conservation practices do you employ?

We do a lot of water dams to try to help prevent run off. We actually just put more in last fall and that seems to help quite a bit. 🇺🇸





# Agriculture Industry Grows Energy Savings, not Just Crops

BY DOUG JOHNSON, BONNEVILLE POWER ADMINISTRATION

How does growing grain and other agricultural crops intersect with electricity? Energy savings for pumping and distributing irrigation water.

For decades, the Bonneville Power Administration (BPA) has worked with its partner utilities to develop and promote energy efficiency programs for farms, ranches, and other agricultural businesses to save water and energy.

Since passage of the Pacific Northwest Electric Power Planning and Conservation Act in 1980, BPA has acquired an estimated 2,541.7 average megawatts (aMW) of energy savings. To put that in perspective, this is enough energy to serve 1.86 million Northwest homes for a year, while saving ratepayers \$1.9 billion annually. In Idaho, these savings benefit anyone served by a municipal electric utility or rural electric cooperative that purchases a portion of its electricity from BPA.

BPA's Agricultural Energy Efficiency program is a win-win for both the agricultural sector and the Federal Columbia River Power System. Saving energy stretches the system, providing value to the entire Pacific Northwest.

"Energy conservation investments reduce the need for higher-cost resource acquisitions to meet BPA's power load obligations and help conserve one of the region's most important energy resources – the Federal Columbia River Power System," said Jamae Hilliard Creecy, executive vice president, Energy Efficiency, BPA.

In 2022, the most recent year with available energy savings data, BPA and its utility partners worked with agricultural entities to save 9.6 million kilowatt-hours (kWh) or 1.1 aMW of electricity. These savings came from working with partners across the Northwest.

Two Idaho projects that contributed to energy efficiency savings are profiled below.



Using tiedown straps and ratches to seat the pipe into the elbow.

### South Board of Control Irrigation District Pipeline Project

BPA partnered with the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS) and the Owyhee Conservation District to financially assist the South Board of Control (SBOC) and a dozen farmers with saving water and electricity on 17 large agricultural properties near the Idaho/Oregon border.

The project converted an open-ditch conveyance lateral to a buried pipeline. The upgraded system eliminates seepage, evaporation, and operational spill from the lateral, saving about 1,200 acre-feet, or 391 million gallons, annually. It also increases water distribution and reliability, enhances water quality,





reduces operation and maintenance costs, decreases on-farm pumping plant requirements, and aids the conversion of flood irrigation systems to sprinklers. These improvements have resulted in money, water, and energy savings of 309,000 kWh annually for the SBOC. Additional energy savings will be realized by the farmers served by Idaho Power.

While those savings are a huge win, there's more. The improvements eliminated water spilling into Jump Creek, which is habitat for the threatened Red Banded Trout. It's a momentous environmental benefit for that species.

Jordan Verbree, soil conservationist, NRCS, Marsing Field Office said, "This project was a great opportunity to save water for the SBOC and farmers alike during all, especially low, water years. The project lowers pumping cost to producers from the pressurized line. It is estimated there is a net reduction of 735 tons of sediment, 2,352 pounds of nitrogen, and 1,176 pounds of phosphorous entering Jump Creek per year. From a water quality standpoint, this project greatly benefits fish and other wildlife that utilize Jump Creek."

"Anytime we can save water, money and electricity and help a threatened species, I consider it a win," said Margaret Lewis, manager, Energy Efficiency Programs, BPA.

## United Electric service territory project

United Electric Cooperative partnered with BPA to replace less efficient equipment and reduce energy use on a farm owned by service area resident Kent Searle. Searle upgraded his water distribution system on a section of ground with two linear moves and many wheel-lines as well as on an adjacent 135-acre property with a corner system pivot and a wheel-line and some handlines. The existing pivots were renovated, while new pivots replaced the linear systems, wheel-lines and most handlines. Searle also replaced three centrifugal pumps totaling 450 horsepower (hp) with three turbine pumps totaling 425 hp and installed a Variable Frequency Drive (VFD). The VFD controls the speed of one turbine pump and can start and stop the other two turbine pumps. A VFD was also added to a 60-hp booster. An additional larger mainline was installed to reduce friction loss. Finally, the project included 995 mid-elevation sprinkler replacement (MESA) drops, and 136 MESA pivot drops replacing high-pressure wheel lines. In total, these modifications are expected to save almost 160,000 kWh of energy annually.



Turnout construction in the main canal.

"All the pivots can be controlled and monitored remotely by computer or smart phone," said Searle. "The VFD and pumps can be controlled and monitored remotely. The time and mileage savings by not having to drive to each pivot or pump to check their status or make changes are significant. I have been able to drop the operating pressure by more than 10 pounds per square inch. I estimate power savings of at least 25%."

These savings add up. When considering the average United Electric household uses 14,400 kWh per year, this project alone saves enough energy to power 11 residences annually.

"We provide agriculture efficiency measures that help our members save money on their power bills and benefit the rest of our membership by reducing the need to acquire more expensive resources to meet our system's load," said Chris Seibold, Member Services manager, United Electric Coop.

Utilities that purchase a portion of their electricity from BPA are always looking for partners to share in their agricultural energy efficiency efforts. If you are interested in learning more, have a project in mind, and are served by a qualified utility, you can contact your power utility or visit <https://www.bpa.gov/energy-and-services/efficiency>. ■



# Taking Your Conservation Efforts to the Next Level with NRCS

BY CHELCEY LARSEN, USDA-NATURAL RESOURCES CONSERVATION SERVICE

Calling all passionate stewards of the land! If you are already taking steps to improve the condition of the land, chances are, the Conservation Stewardship Program (CSP) can help you find new ways to meet your goals.

Through CSP, the Natural Resources Conservation Service (NRCS) offers technical and financial assistance to help agricultural and forest producers take their conservation efforts to the next level. The program is designed to compensate agricultural and forest producers who agree to increase their level of conservation by adopting additional conservation activities and maintaining their baseline level of conservation. CSP is for producers who are passionate about conservation and environmental stewardship.

CSP offers opportunities for producers to expand on existing conservation efforts by applying new conservation practices, enhancements, or bundles. These new activities will help enhance natural resources and improve the operation. For example, if you have been planting a cover crop, you may decide to try an enhancement for a multi-species cover crop or implement a deep-rooted cover crop to break up soil compaction.

If you decide to apply for CSP, your local NRCS conservation planner consult with you one-on-one to evaluate your current management system and the natural resources on your land. Then, you'll work with the NRCS conservation planner to select new CSP conservation activities based on your management objectives for your operation. Once you choose the practices or activities that best fit, you will submit an application. If your application is found eligible and is selected for funding, CSP offers annual payments for implementing these practices on your land and for maintaining existing conservation efforts.

Lands eligible for CSP include private agricultural lands, agricultural Indian lands, nonindustrial private forest land, farmstead, associated agricultural lands and public lands that are under the control of the applicant and part of their operation. There is no minimum acreage requirement. CSP enrolls your entire operation



into the program, not just one specific field or tract. All land must be in compliance with the USDA highly erodible land and wetland conservation provisions to be eligible for CSP.

CSP contract are for five years, with the potential to renew for another five-year period if you successfully complete your first contract term. CSP payments are based on two components: Payments to maintain the existing level of conservation based on the land uses included in the contract and payments to implement additional conservation practices and activities. The minimum annual payment for CSP is \$4,000. NRCS makes payments on an annual basis as soon as practical after October 1 of each fiscal year for contract activities installed and maintained in the previous fiscal year and completed before September 30.

Idaho, with assistance from the Inflation Reduction Act, has received a record amount of funds for the CSP program in Fiscal Year 2024. NRCS Idaho is accepting applications on a continuous basis until June 24. Contact your local NRCS field office and let them know you are interested in CSP. A conservation planner will work with you to review the details of the program and show you the conservation activities available. They will assist you with each step you need to take to participate in the program and utilize the funds available for increased conservation on your operation. If you need help locating your nearest USDA Service Center, please visit [www.nrcs.usda.gov/idaho](http://www.nrcs.usda.gov/idaho). ■





# The Critical Role of Idaho Grain Inspection Services

BY DUSTIN YOUNG, OWNER, IDAHO GRAIN INSPECTION SERVICES

The Idaho Grain Inspection Service (IGIS) plays a crucial role in ensuring the integrity and quality of grains within the state. Established to safeguard the interests of both producers and consumers, the Idaho Grain Inspection Service is essential for maintaining the FGIS/USDA standards of the grain industry. IGIS serves as a reliable mechanism for quality control in the grain sector in Idaho. Grains are a staple in our daily diet, and their quality directly affects the health and well-being of consumers. The inspection service employs rigorous standards to evaluate the various aspects of grain, such as moisture content, foreign material, protein, damages (sprout, frost, mold, germ, heat, and blacktip fungus) and overall cleanliness. By enforcing these standards, IGIS ensures that high-quality grains reach the market, safeguarding the health of consumers and upholding the reputation of Idaho's agricultural products.

IGIS contributes significantly to the fair and transparent functioning of the grain market. The inspection service acts as an impartial third party that assesses the quality of grains, preventing fraudulent practices and promoting fair trade. This not only protects the interests of consumers but also fosters trust among grain producers, elevating the overall credibility of the industry. In a competitive market, such trust is invaluable for sustaining long-term relationships between producers and consumers. The economic impact of the grain industry cannot be understated, especially in an agricultural state like Idaho.

IGIS plays a pivotal role in supporting the economic viability of grain producers by ensuring that their products meet the required standards. By maintaining a reputation for high-quality grains, Idaho can attract more buyers, both domestically and internationally, contributing to the growth of the state's agricultural economy. The inspection service's role in quality assurance becomes even more critical in the global market, where adherence to stringent standards is often a prerequisite for export.


IGIS plays a role in protecting farmers from unfair trade practices and market fluctuations. By ensuring that grains meet specific quality standards, the inspection service minimizes the risk of farmers receiving lower



prices for their crops due to undetected quality issues. This protective function is crucial for the livelihoods of countless farmers who rely on the grain industry as their primary source of income.

IGIS is indispensable for the agricultural landscape of the state. Its multifaceted role in quality control, economic support, and farmer protection highlights the need for such a regulatory body. As Idaho continues to be a key player in the grain industry, IGIS will remain an essential institution, contributing to the prosperity and sustainability of the state's agricultural sector.

IGIS is owned by Dustin & Jennifer Young with the only Federal Designation for Southern Idaho. With over 35 combined years in the industry, they look forward to helping the farmers and the elevators protect the quality and standards Idaho has long been known for.

Idaho Grain Inspection Service is located at 6702 South 5th Ave Pocatello ID 83205. Contact us at 208-233-8303 or [idahograininspection@gmail.com](mailto:idahograininspection@gmail.com). 



# ANNUAL

## GROWER DOLLARS AT WORK

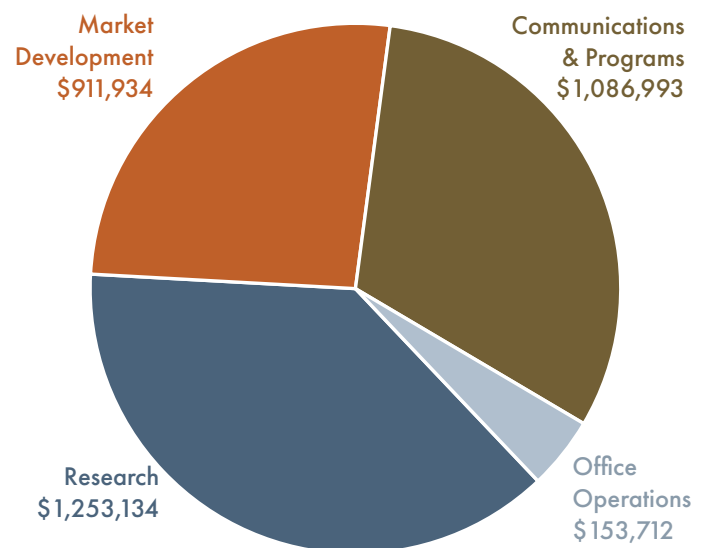
**TOTAL REVENUE: \$748 MILLION** Third Largest Crop Value

- **Total Planted Acres: 1,170,000**
- **Winter Acres: 750,000 | Spring Acres: 410,000**

### MARKET DEVELOPMENT

One of the primary missions of the Idaho Wheat Commission (IWC) is to actively promote wheat exports through strategic trade missions in collaboration with U.S. Wheat Associates (USW). USW utilizes grower dollars to sustain staff across 15 global offices. During the summer of 2023, IWC hosted five trade teams from Singapore, the Philippines, Indonesia, Japan, Ecuador, Colombia, and Mexico to promote Idaho's wheat. IWC Commissioners and staff also participated in various events in foreign countries, including buyers conferences and wheat quality crop tours, all executed in close partnership with USW.

### FY23 BUDGET BREAKDOWN



### HOW DOES IDAHO WHEAT STACK UP IN THE US?



### RESEARCH

Idaho Wheat greatly values research and extension efforts to improve wheat production, sustainability, and profitability for Idaho growers. Idaho Wheat funds both long-term and timely research projects. This year, grower dollars supported the funding of 21 research projects. These projects are conducted in collaboration with leading institutions, including the University of Idaho, USDA-ARS, Oregon State University, Utah State University and the Wheat Marketing Center. By strategically investing in research, Idaho Wheat ensures that our growers benefit from a comprehensive and dynamic approach to advancing the wheat industry.

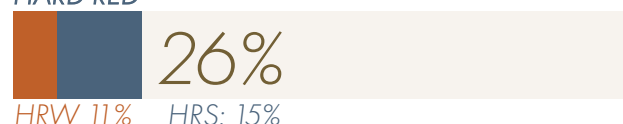


# REPORT 2023

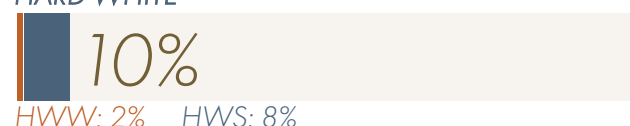
## SOFT WHITE



## HARD RED



## HARD WHITE



## FUNDED RESEARCH AREAS

- END-USE QUALITY: \$199,668
- AGRONOMICS: \$27,087
- BREEDING: \$294,232
- SOIL SCIENCE: \$166,883
- DISEASE & PEST MANAGEMENT: \$127,250
- WEED MANAGEMENT: \$71,580
- VARIETY TRIALS: \$100,174
- CAPITAL EQUIPMENT: \$120,000

## GROWER EDUCATION

Idaho Wheat hosted three grower education tours this year, offering valuable experiences for participating farmers. The PNW Tour took growers to Portland to learn about the wheat export market. The itinerary included visits to The Wheat Marketing Center, Shaver Transportation, and the United Grain Terminal in Vancouver, Washington. In June, Idaho growers participated in the Domestic Marketing Tour, providing growers with insight into how wheat is used here in the U.S. This tour included visits to Pepperidge Farm, Bayer Science, and Grain Craft. Later in the fall, Idaho Wheat took growers through the Bayer phosphate facility and mine. This tour explored the production of fertilizers and their effective application in the fields. The overall goal of these grower tours is to enable wheat farmers and their families to trace wheat comprehensively, from cultivation to the final consumer.

SW 64%

HRS 15%

HRW 11%

HW 10%

Durum 1%

**2023 Total Idaho Production**  
**89,110,000 bushels**

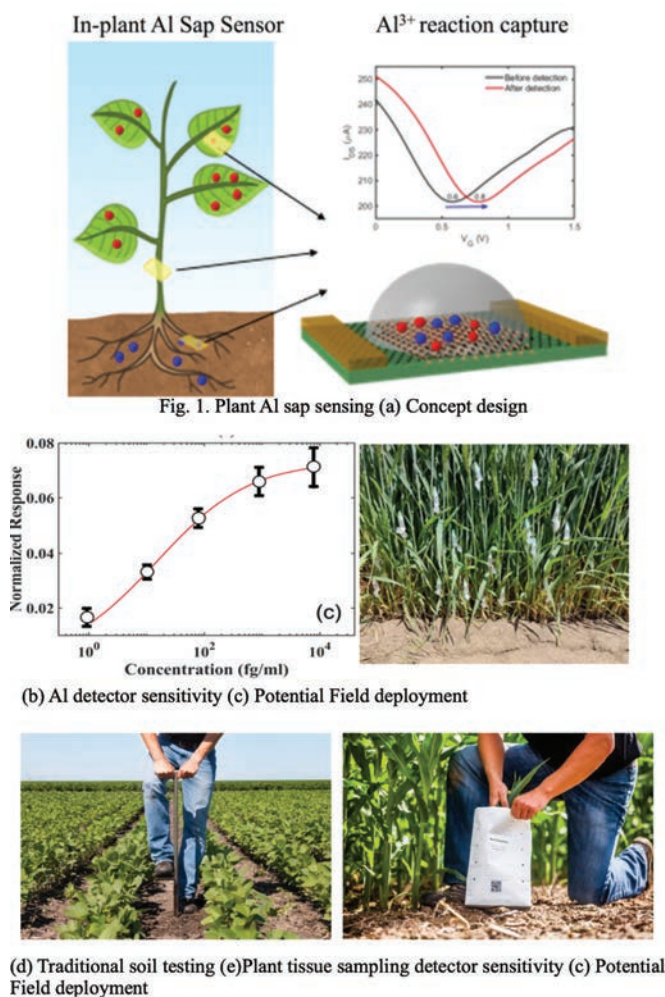
# Plant Sap Sensing for Aluminum Toxicity in Wheat and Liming Evaluation

BY JOHNNY LI, ASSISTANT PROFESSOR IN PRECISION AGRICULTURE, DEPARTMENT OF SOIL AND WATER SYSTEMS & DEPARTMENT OF MECHANICAL ENGINEERING, UNIVERSITY OF IDAHO

Globally, acidic conditions affect approximately 50% of all arable soils, leading to aluminum toxicity. This toxicity hinders plant root growth and restricts nutrient and water uptake, thereby impacting crop productivity (Brown, 2023). In the Palouse region, soil pH has declined from 7 to as low as 5 (McFarland, 2020). Therefore, understanding soil acidity and plant tolerance to aluminum toxicity is crucial before any ‘subclinical’ deficiencies or visible symptoms occur. Traditional methods such as standard soil tests, plant leaf tissue analysis, and plant sap tests are destructive, laborious, and time-consuming, requiring a laboratory setting.

This research aims to develop a non-destructive in-plant sap sensing system based on a MXene-Graphene nanomaterials platform (Fig. 1a). This system will continuously monitor plant aluminum concentration and assess the effectiveness of liming treatments, providing a comparison with traditional soil and plant tissue analyses before and after lime/nitrogen application. We have developed and calibrated the plant Al sap sensing platform for in-situ Al toxicity monitoring under varying Al chemical forms/concentrations and pH levels. The sensor shows a significant response even at extremely low concentrations of synthetic  $\text{AlCl}_3$  solutions (1 fg/ml of Al component), indicating the feasibility of the proposed sensing platform and its potential for plant Al sensing (Fig. 1b). We plan to validate this sensor for field use (Fig. 1c), comparing its results with standard soil tests (Fig. 1d) and plant tests (Fig. 1e) used to predict Al toxicity in an existing soil acidity and lime treatment research trial in the northwest Palouse region. This new in-plant sap sensor will enable real-time field measurement of Al in plant sap, facilitating in-season evaluation and correction of Al toxicity through precise liming treatments.

According to a meta-analysis of 1,570 observations from 121 field-based studies worldwide (Wang, 2021), liming agricultural acid soils can increase crop yield by 36.3%. This could result in a global increase of upland crop yields by  $7.70 \times 10^8$  Mg, rice yields by  $0.56 \times 10^8$  Mg, and grass production by  $5.90 \times 10^8$  Mg annually. Based on FAOstats data (FAO, 2013), the estimated



increase in crop and biomass production due to liming could potentially feed nearly 1261 million people in the future. Therefore, continuous monitoring of soil acidity and Al phytotoxicity for precise lime amendment could address the challenges of land degradation and food security. Furthermore, the production of in-situ plant Al sensing could accelerate the breeding of Al-toxicity resistant plant species. This could fundamentally change the current decreased productivity in acidic soils, providing long-term benefits to the US agricultural economy and global food security.





This research “Development of In-plant Sap Sensing for Aluminum Toxicity in Wheat and Lime Treatment evaluation” was funded by Idaho Wheat Commission, and led by Johnny Li, Assistant Professor in Precision Agriculture, Department of Soil and Water Systems & Department of Mechanical Engineering at University of

Idaho, Daniel Strawn, Professor in Environmental Soil Chemistry, Department of Soil and Water Systems, Kurt Schroeder, Associate Professor & Cropping Systems Agronomist, at University of Idaho and collaborating with Bob Wu, Nanomaterials Scientist at Texas A&M University. ■

## An Open Letter from USW President on the Columbia Snake River System

BY VINCENT R. PETERSON, PRESIDENT, U.S. WHEAT ASSOCIATES

U.S. Wheat Associates (USW) is the export market development organization representing the interests of U.S. wheat farmers in international markets. We are sharing important information about, and full support of, the locks and dams on the Columbia Snake River System for the record for the Energy, Climate, and Grid Security Subcommittee of the House Energy and Commerce Committee hearing on January 30, 2024.

The Columbia Snake River System provides essential service and critical infrastructure for U.S. wheat farmers, their customers, and the wheat export system in the Pacific Northwest (PNW).

Barging on the Columbia Snake River System is a crucial part of a logistical web that moves over half of annual U.S. wheat exports. Six PNW export elevators serve some of the world’s largest U.S. wheat buyers in more than 20 Pacific Rim countries. That wheat is delivered by truck, rail, and barge. The Snake River moves more than 10 percent of all wheat exported from the United States each year. An estimated 75 percent of all exported soft white wheat grown by farmers in Washington, Oregon, and Idaho moves by barge.

The sustainability and reliability of wheat transportation by barge to port locations is unquestioned. Research indicates that one four-barge tow can move the same volume of grain as 144 rail cars or 538 semi-trucks with far greater fuel efficiency and lower carbon emissions. Barging also supports economic sustainability for farmers who bear the cost of wheat transportation. Moving a larger volume of wheat by barge provides a check on the increasing cost of rail transportation and helps ensure U.S. wheat export costs remain competitive in the global wheat market. Loyal U.S. wheat buyers agree.

Mr. Sergio Morales, Director of Molino San Cristobal flour mill in Chile, said “for the United States to continue to be a competitive supplier for our company,

the transportation system that feeds wheat through the Columbia Snake rivers must continue working in a stable and efficient way.”

Japan imports approximately 85 percent of wheat consumed by its citizens. More than half its imports are from the United States, and all is shipped from PNW ports. Mr. Kenichi Hirano, Director of the Grain Trade and Operations Division of Japan’s Ministry of Agriculture, Forestry and Fisheries (MAFF), said “U.S. Western White wheat is a vitally important ingredient in Japanese confectionary products and fine cakes, and I expect the United States will continue providing a stable supply, barged economically and efficiently on the Snake and Columbia rivers.”

“The Philippines has a long history of using flour made from U.S. wheat that is milled by our domestic flour mills and has become the world’s top destination for hard red spring and soft white wheat classes,” said Mr. Ric Pinca, Executive Director, Philippine Association of Flour Millers (PAFMIL). “As I have traveled to the United States and seen its robust supply chain from the farm to inland elevators, the railroads and barges along the Snake and Columbia rivers, and finally to its export facilities, it has become clear to me how each piece is essential to maintain the reliability and competitiveness of the U.S. wheat supply which is critically important for Filipino flour mills and consumers.”

Locks and dams on the Lower Snake River and the Columbia River provide essential infrastructure for moving U.S.-grown wheat to high-value markets around the world. We cannot overstate the positive value they create for U.S. farms, as well as the industrial economy of the Pacific Northwest and far beyond. U.S. Wheat Associates appreciates the opportunity to share this information and restate our unwavering support for the Columbia Snake River System. ■

# It's Okay Not to Be Okay – Navigating Mental Health with Compassion and Understanding

BY RYAN MORTENSEN, COMMUNICATIONS AND PROGRAMS MANAGER, IDAHO WHEAT COMMISSION

As we all know, farmers play a crucial role in feeding our nation and ensuring food security. However, many of us may not realize the immense pressures and challenges that farmers face on a daily basis.

Farming is not just a profession; it's a way of life. Farmers work tirelessly, battling unpredictable weather conditions, pests, diseases, and market volatility. They invest their time, money, and energy into their land, crops, and livestock, always striving to provide for their families and communities. This level of dedication is both admirable and awe-inspiring.

However, these challenges can take a toll on farmers' mental health. The unique nature of their work often leaves them isolated and vulnerable to stress, anxiety, and depression. Financial uncertainties, crop failures, and the weight of family expectations can all contribute to the mental health struggles faced by farmers.

The impact of poor mental health among farmers goes beyond the individual. It affects their families, communities, and even the agricultural industry as a whole. Stress and mental health issues can impair decision-making abilities, reduce productivity, and strain relationships. Moreover, the stigma surrounding mental health often prevents farmers from seeking help when they need it the most.

"By far for me, the biggest challenge is worrying about things, and stressing about things that are out of my control", said Cory Kress, Idaho Wheat Commissioner and farmer in Rockland, Idaho. "That is human nature, and I don't understand why we do that."

According to the Center for Disease Control, suicide rates increased by 36% between 2000-2021. Suicide was responsible for 48,183 deaths in 2021, which is about one death every 11 minutes. The number of people who think about or attempt suicide is even higher. In 2021, an estimated 12.3 million American adults seriously thought about suicide, 3.5 million planned a suicide attempt, and 1.7 million people attempted suicide.

So, what can we do to support our farmers' mental health?

We must address the stigma surrounding mental health in the agricultural community. Because of the stigma around mental health within agriculture, farmers and those working in the industry avoid seeking treatment

due to concerns about being treated differently within their communities or fears of losing their livelihood. Stigma can be subtle, or it can be obvious, but no matter the magnitude, it can lead to harm. By promoting open and honest conversations about mental health, we can create a safe space for farmers to express their struggles and seek assistance without fear of judgment. Farmer's struggling with mental health do not want to be fixed, they want to feel loved, needed and understood, and to know that it's okay to not be okay.

We need to improve access to mental health resources specifically tailored for farmers. This could include initiatives such as help lines, support groups, and counseling services in rural areas that understand the unique challenges faced by those in agriculture. Farm organizations and agricultural institutions should prioritize mental health education and training, equipping farmers with the tools and knowledge to recognize and address mental health issues.

"Having other people to lean on for me is great. Hearing other people say I have been there and know what you're going through is amazing", said Kress. "Having family to fall back on, and having things to do outside of the farm are just as important as the farm itself".

It is essential for us as consumers to support local farmers. By purchasing their products, we can contribute to their financial stability, reducing the stress and anxiety associated with unpredictable market conditions. Supporting local farmers is an important way to promote healthy and sustainable food production, boosts the economy and build up the community. Supporting local farmers today ensures that there will be farms in your community tomorrow.

Taking care of our farmers' mental health is not just a moral duty; it's an investment in the sustainability and well-being of our agricultural industry. It is crucial to recognize that it's okay for farmers not to be okay. Mental health challenges are a reality for many individuals in the agricultural industry, and addressing this issue is not only necessary, but also a sign of strength and resilience. Let's work together to break the silence surrounding farmers' mental health, provide access to resources, and create a supportive environment that enables our farmers to thrive both physically and mentally. ■





# 2024 Idaho Barley Yield Contest in the Works

BY BRETT WILKEN, SCOULAR AND LAURA WILDER, IDAHO BARLEY COMMISSION

In the annals of agricultural history, Idaho has long been celebrated for its bountiful harvests of potatoes, wheat, and other staple crops. Yet, amidst the verdant fields and rolling plains, one crop has remained conspicuously absent from the record books—barley. While other states have boasted impressive yield records for various grain crops, Idaho's barley harvests have never been officially recognized on a state or national level. That is, until now.

2023 marked a pivotal moment in Idaho's agricultural narrative as efforts were made for the first time to establish a barley yield record. Mix Miller Farms of Jerome, Idaho, established an incredible yield of 200.97 bushels per acre growing Molson Coors' groundbreaking spring variety, Moravian179™.

A standout feature of Moravian179™ is its remarkable test weight. Miller's barley sample clocked in at an astounding 55 lbs. per bushel—a feat that surpasses the typical high-quality barley, which usually hovers around 52-54 pounds per bushel. This not only speaks to the density and robustness of Moravian179™ but also highlights its potential to elevate the overall quality standards in the malt barley industry.

Building on this momentum, the Idaho Barley Commission, in collaboration with industry sponsors, is set to launch the first-ever Barley Yield Contest in 2024—an exciting initiative that aims to celebrate and elevate the art of barley cultivation.

The contest comes on the heels of the historic barley yield achieved by Molson Coors' Moravian179™, a variety developed by Dr. Bob Brunick's breeding program for Molson Coors in Burley, Idaho and serving as a testament to the industry's commitment to pushing boundaries and fostering continuous improvement. The contest is designed to recognize excellence in three distinct divisions—Dryland, Irrigated Spring, and Irrigated Winter—providing a platform for farmers to showcase their expertise across various growing conditions.

The 2024 contest is considered a pilot program for Idaho, with plans to expand to a national scale in 2025. This pioneering initiative not only adds an exciting new dimension to the agricultural landscape but also underscores Idaho's role as a trailblazer in the barley industry. The three divisions reflect the



Molson Coors Moravian179™, 2023 yield record setter.

diverse agricultural practices employed across the state, ensuring that farmers from different regions and climates have an equal opportunity to participate and shine.

"The contest promises more than just accolades," said Brett Wilken of Scoular in Twin Falls. "It offers a platform for knowledge exchange, collaboration, and the collective pursuit of excellence. By fostering healthy competition, the barley industry is set to unlock untapped potential, encouraging farmers to explore innovative techniques and share best practices that will benefit the entire community."

As the barley fields of Idaho prepare for this inaugural contest, the air is charged with anticipation and excitement. Farmers, researchers, and industry stakeholders alike are eager to witness the fruits of their labor unfold in the form of record-breaking yields and exceptional barley quality.

The Idaho Barley Commission invites farmers across the state to join this historic event, marking a new chapter in the legacy of Idaho's barley industry. As the pilot contest unfolds in 2024, it sets the stage for a national competition in 2025, where the best in barley cultivation from coast to coast will converge to celebrate the art and science of growing this essential grain. Contest details will be available soon on the Commission's website at <https://barley.idaho.gov>. ■

# UI Barley Agronomy Program Update

BY DR. JARED SPACKMAN, UNIVERSITY OF IDAHO IDAHO BARLEY COMMISSION ENDOWED BARLEY AGRONOMIST

Dr. Jared Spackman's Idaho Barley Commission Endowed Barley Agronomy program has been conducting research and Extension programming on sustainable irrigated and dryland barley and wheat production strategies with an emphasis on nutrient management practices for yield, end-use quality, plant health, and soil and water quality. A major objective of Dr. Spackman's program is to produce nutrient management data that can be used to update the University of Idaho's barley and wheat production guides.

Since September 2020, Dr. Spackman's program has conducted 10 trials evaluating spring and fall-seeded annual grasses as forage crops. These studies have included awnless barley and wheat, forage oats, triticale, and hybrid rye. The program has also conducted irrigated and dryland trials that evaluate the yield and grain quality response of malt, feed, or food barley or hard red, hard white, or soft white wheat to nitrogen (N) fertilizer rate (48 trials), N fertilizer source (8 trials), N fertilizer application timing (42 trials), phosphorus fertilizer rate (5 trials), phosphorus fertilizer placement (4 trials), potassium rate (2 trials), sulfur (S) fertilizer rate (21 trials), S fertilizer source (8 trials), and micronutrients (3 trials). Additionally, the Barley Agronomy program has evaluated the effect of seeding rates on malt and feed barley (14 trials), seeding dates on winter wheat (2 trials), and soil moisture availability on dryland winter wheat yield potential (61 sites). Finally, the program is currently conducting 9 on-farm multi-year field trials evaluating precipitated calcium carbonate (sugar beet lime) as a lime amendment for acidic eastern Idaho soils that are primarily found in Ashton, St. Anthony, Swan Valley,

Soda Springs, and Pocatello Valley. If you would like additional information about any of these research projects, you can visit <https://www.uidaho.edu/cals/aberdeen-research-and-extension-center/barley> or email Dr. Spackman at [jspackman@uidaho.edu](mailto:jspackman@uidaho.edu).

The following are some of the key takeaways from Dr. Spackman's research projects.

Project: Spring Malt, Feed, and Hulless Food Barley Yield and Protein Response to Nitrogen and Sulfur Rates and Application Timing (2021 – 2022; Aberdeen and Kimberly, 2021; Aberdeen and Rexburg, 2022);

Project: Malt Barley Response to Sulfur Fertilizer Products and Rates When Grown Outside the Snake River Plain (2023; Bellevue, Tetonia, and Soda Springs)

- Current University guidelines suggest that when soil (0-2') sulfate-S tests are <10 ppm and irrigation water sulfate content is low, barley and wheat may benefit from 20 to 40 lb sulfate-S/ac.
- In all measured variables (yield, straw, plumps, test weight, plant height, lodging, etc.), there was no response to S fertilizer applications (0, 15, or 30 lb sulfate-S/ac) across all barley classes and sites. Irrigation water sample analysis indicated that both surface (Kimberly) and groundwater (all other sites) irrigation sources can supply 33 to 70 lb sulfate-S/ acre foot of water negating the need for additional S inputs (from a nutrient requirement standpoint).
- There are many different S products available on the market, but the S must be in or converted to the sulfate form before it is plant available.

Sulfur sources	Aberdeen 2021	Kimberly 2021	Aberdeen 2022	Rexburg 2022	Bellevue 2023	Soda Springs 2023	Tetonia 2023
SO <sub>4</sub> -S (0-2' ppm)	6	11	25	4	8	5	4
UI Supplemental SO <sub>4</sub> -S Recommendation (lb/ac)	20-40	0-20	0	20-40	20-40	20-40	20-40
Irrigation Water Sulfate-S (lb/acre foot)	70	46	46	33	11	0	29

Table 1: Barley fields irrigated with water from the Snake River or its aquifer can receive 33 to 70 lb sulfate-S per acre-foot of water. Dryland farms or farms irrigated with other water sources may benefit from S fertilization if the soil test (0-2') sulfate-S content is <10 ppm.

• Elemental S is commonly used in the Snake River plain to acidify soils for improved phosphorus and micronutrient uptake and to improve soil tilth. A good rule of thumb is that 33% of elemental S will convert to sulfate annually.

• Bentonite S or micronized elemental S products may convert to sulfate-S more rapidly than elemental S. Sulfate-S sources are immediately plant-available and, depending on the formulation, may





provide N, calcium, or potassium as an additional nutrient source.

- Malt barley fertilized with 20 lb S/ac sulfate-based fertilizer products headed out 3 days earlier than the 40 lb S/ac rates. In contrast, the 40 lb S/ac micronized elemental S products headed out 3 days earlier than the 20 lb S/ac rates.
- Micronized elemental S products improved yield by 7 to 10 bu/ac on average across all site years relative to elemental S, potassium sulfate, or calcium sulfate. Ammonium sulfate yield was no different than any of the other S products.
- There was no difference in grain yield when malt barley was fertilized with 0, 10, 20, 30, 40, or 50 lb S/ac as ammonium sulfate at all three locations in 2023.

Project: Active Canopy Sensors to Prescribe In-Season Supplemental Nitrogen for Barley (2021 – 2023; Aberdeen and Kimberly 2021, Aberdeen and Rexburg 2022, Aberdeen 2023)

Project: Spring Malt, Feed, and Hulless Food Barley Yield and Protein Response to Nitrogen and Sulfur Rates and Application Timing (2021 – 2022; Aberdeen and Kimberly 2021, Aberdeen and Rexburg 2022)

There are many approaches to evaluating crop yield response data to determine the optimal N rate for barley production. One approach is the modified arcsine log calibration model. In this model, individual site's yield and available N (fertilizer and 0-2' soil N at planting) response data are converted to a common scale (relative yield) and are combined with other site years of data to create a larger, more representative dataset. This model estimates that across years and sites evaluated, the optimal N rate (accounting for available soil N (0-2') plus fertilizer N) for irrigated malt, feed, and hulless food barley is 254, 278, and 274 lb N/ac, respectively.

Another approach simply regresses yield against available N (at-planting soil N plus fertilizer N). The point at which yield is maximized (star) is the agronomic optimum N rate (AONR). In this example from Aberdeen in 2023, the AONR was 357 lb N/ac yielding 195 bu/ac when the fertilizer was applied as a single application at planting. 1.8 lb N/ac was required to produce 1 bu/ac of grain.

- When N is split-applied as 40 lb N/ac at planting and the remainder is applied at late-tillering, the AONR was 383 lb N/ac yielding 179 bu/ac. 2.1 lb N/ac was required to produce 1 bu/ac of grain.



Image 1: Malt barley fertilized (from left to right) with 50 lb S/ac as ammonium sulfate, 20 lb S/ac as gypsum (calcium sulfate), 40 lb S/ac as gypsum, 20 lb S/ac as micronized elemental S, and 40 lb S/ac as micronized elemental S. (Photo Courtesy of Grant Loomis).

- It is often not economically feasible to maximize yield because as you approach the AONR, each additional unit of N produces less yield. The economical optimal N rate (EONR; triangle) is estimated as the point at which the last unit of N returns a yield large enough to pay for an additional unit of N. This will fluctuate as the price of N and barley changes. In the current scenario, malt barley was valued at \$7.50/bu and N was \$0.83/lb. This calculation does not account for the cost of applying the N fertilizer. If included, the EONR would move further to the left.
- The EONR for a single application at planting was 307 lb N/ac yielding 192 bu/ac with an N: yield ratio of 1.6. The EONR for a split application was 313 lb N/ac yielding 176 bu/ac with an N: yield ratio of 1.8.
- Across 42 site-years of data in barley and wheat, split-applying N at jointing on irrigated spring grains was either no different from or did not improve grain yield compared to a single application done at planting. In some instances, split applications reduced yield.
- Grain protein was 0.1 – 0.8 percentage points greater with a split application compared to a single application, except at the highest applied rates when the split application protein concentrations were 0.8 – 2 percentage points greater than a single application.

If you have specific agronomic research topics related to barley or wheat production that you would like us to address, please reach out to Dr. Spackman at [jspackman@uidaho.edu](mailto:jspackman@uidaho.edu), other University of Idaho researchers, or your county Extension educator. ■

# THERE'S NO SECOND CHANCE WITH A SEED TREATMENT.

**PROVEN ON OVER A MILLION ACRES IN THE PACIFIC NORTHWEST.**

The best harvests start with a seed treatment – but not just any seed treatment. Albaugh has been delivering specialized solutions to growers in the PNW for more than a decade. From single active ingredients to custom blends, you'll get the right seed treatment for the right acre – and give your bottom line a lift.



TREAT 'EM RIGHT. LEARN MORE AT  
**ALBAUGHSEEDTREATMENT.COM**

©2024 Albaugh, LLC. All rights reserved. Albaugh and the Albaugh logo are registered trademarks of Albaugh, LLC. Always read and follow label restrictions, precautions and directions for use. Some products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status.

