

WHEAT LIFE

The official publication of the Washington Association of Wheat Growers

AUGUST/SEPTEMBER | 2023

HANGMAN UPDATE

Pilot program to compensate producers for riparian buffers; opinions differ

ALSO IN THIS ISSUE:

Insurance woes hit crib elevators

Study contemplates life without glyphosate

Dollar Sense: Tips on navigating Social Security, Medicare

Seed rate, size could impact stand, yields

USW spotlight: Ting Liu, Wei-Lin Chou

Ode to The Farmer

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Washington Association of Wheat Growers
109 East First Avenue, Ritzville, WA 99169

WHEAT LIFE

Volume 66 • Number 08
wheatlife.org

The official publication of



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Wheat Life (ISSN 0043-4701) is published by the Washington Association of Wheat Growers (WAWG):
109 E. First Avenue • Ritzville, WA 99169-2394

Eleven issues per year with a combined August/September issue. Standard (A) postage paid at Ritzville, Wash., and additional entry offices.

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President's Perspective



Lessons from the great, greasy potato incident of 2003

By Andy Juris

Approximately 20 years ago, I erupted through the door of the tiny, one-bedroom apartment my wife and I shared in the first couple months of our marriage. At the time, I was attempting to teach disinterested college seniors the finer points of high-speed aerodynamics in the aftermath of the post 9-11 downturn in the aviation industry. That day, the “kids” had seemed particularly disinterested, and I was in a “mood” as Jen calls it. My wife of two months stood smiling sweetly at the stove making dinner.

“What are you making” I said. “Potatoes,” she replied.

“Well, those look different” I said flatly, making, what I thought, was a purely objective statement. I watched, with an exponential horror, as my wife transformed. With narrowed dark eyes and nostrils flared, she took a step forward.

“Different? Just what is that supposed to mean?” she asked, menacingly.

“Uh, well, they look greasy,” I stammered as I watched her knuckles whiten as she adjusted her grip on the spatula. I took a nervous step backward. And thus began the great greasy potato incident of 2003 where I learned some valuable lessons on communication. And that a spatula can be used as a deadly weapon.

It's harvest time as I'm writing this, a disappointing harvest for most of us. After a long day of poor yields, equipment issues, and the stress of wondering what the banker might say, I can become “terse” (Jen has another term for it I can't print). It can be frustrating, then, when people stop to see the combine or ask how the crop is doing. But harvest is one of the few times of year when many folks not associated with agriculture actually take notice of what we're doing. The rest of the year, it's worrying about GMOs, glyphosate, or advocating for riparian buffers for those who consider themselves thoughtful of ag. For the rest, it's the same disinterest shown by my students so many years ago.

It can be maddening, even offensive, to have to engage with folks on issues they clearly know very little about, despite their expert opinions formed by watching Bloomberg or an article shared on Facebook. But in harvest, you see an openness that isn't necessarily there the rest of the year. There is something about the show and tell of harvest that makes people stop and listen. They get to hear what we went through to seed, fertilize, and protect the crop. It opens the door to discussions of the cost of growing food, of what makes it safe and affordable.

The legislative dam tour the wheat growers will be sponsoring later this month is another great example of being able to showcase the importance of our river system. We can, and often do, go to Olympia and Washington, D.C., to advocate for all of you but there is just something different about getting them on a farm, to visit our dams, and have real conversations based on what they see in front of them.

So, this summer, don't be cranky, terse, or brusque (I got a dictionary the other day) like me. Let's take the opportunity to showcase wheat, both good yields and bad. Even though we're tired and maybe stressed, let's have the conversations with people when they're most receptive. Let's be open and honest, about the good and the bad. You're the experts in your field (pun intended); let's show them that.

I smell dinner cooking. Potatoes tonight? ■

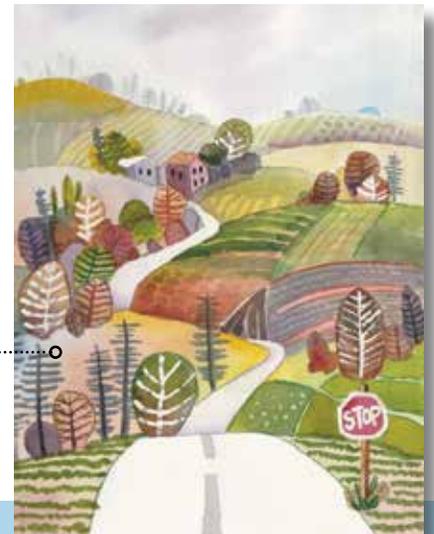
Cover photo: This month's cover photo is the winning photo from the 2022 Tri-State Grain Growers Convention photo contest. The photo was taken by Carissa Schmitz, whose family farms in Spokane County. All photos are Shutterstock images or taken by *Wheat Life* staff unless otherwise noted.

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Dollar Sense



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WAWG MEMBERSHIP FORM

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Non-Voting Membership						
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Industry Associate \$150	X	X	X			

WAWG's current top priorities are:

- ✓ Preserving the lower Snake River dams.
- ✓ Fighting mandatory climate/carbon regulations.
- ✓ Lobbying the state Legislature for a seasonal overtime exemption.
- ✓ Maintaining a strong, reliable safety net by preserving crop insurance and making sure farm commodity programs work.
- ✓ Maintaining a safe, sound transportation system that includes rail, river and roads.

If these priorities are important to you, your family and your farm operation, join WAWG today and help us fight.

More member benefits:

- Greensheet ALERTS • WAWG updates
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- National Wheat Grower updates
- State and national legislative updates



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WAWG at WORK

ADVOCATING FOR THE WHEAT FARMERS OF EASTERN WASHINGTON

Ag industry bring taste of Washington to Washington DC

Last month, Washington Association of Wheat Growers (WAWG) leaders and staff joined more than a dozen Washington agricultural stakeholders on a trip to Washington, D.C., to celebrate the state's incredible ag industry at the 4th annual Taste of Washington event.

The group included representatives from the Washington State Department of Agriculture, Washington State University, the Washington Grain Commission, the Washington Wine Commission, the Washington Potato Commission, the Northwest Horticultural Council, and the Washington Conservation



Commission, among others. They visited with members of the state's federal delegation, majority and minority House and Senate ag committee staffers, and several U.S. Department of Agriculture (USDA) representatives to talk about the importance of the farm bill and trade, federal investment in research, and conservation.

To finish off the trip, the Taste of Washington reception showcased Washington's diverse food products to nearly 300 people, including congressional staff and members of Congress.

"By attending meetings with legislators as

a group from all different parts of agriculture, we highlight the cooperation and the partnerships we have across the industry. It makes our message stronger, and legislators are more willing to hear concerns when they come from such a diverse group," said Michelle Hennings, WAWG executive director.

The group discussed farm bill priorities with both the Senate and House ag committees. In a meeting with Robert Bonnie, undersecretary for farm production and conservation at USDA, the group discussed staffing issues at state and county offices, Inflation Reduction Act funding and roll-out, improvements to the Conservation Reserve Program, and disaster funding. Research was on the agenda during a meeting with Chavonda Jacobs-Young, USDA's chief scientist

and the USDA undersecretary for research, education, and economics.

The Washington legislators who met with wheat industry representatives included Rep. Dan Newhouse, Rep. Kim Schrier, Rep. Suzan DelBene, Rep. Cathy McMorris Rodgers, Rep. Rick Larsen, Rep. Marie Gluesenkamp Perez, Sen. Patty Murray, and Sen. Maria Cantwell. See congressional meeting photos on page 8. ■

WAWG debuts updated logo

This month, the Washington Association of Wheat Growers (WAWG) is debuting a new and improved logo, designed by graphic artist Jen Juris of Bickleton.

"We've got some great mileage out of our old logo, but we felt it was time for an update," said Michelle Hennings, WAWG executive director. "Jen graciously donated her time and worked with the board to come up with a logo that puts the Washington in Washington wheat front and center. We'll be rolling out the new logo all month." ■



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Rep. Rick Larsen (back row, second from right)



Rep. Dan Newhouse (right)

Washington Ag Industry Congressional Meetings, July 10-13, 2023



Rep. Marie Gluesenkamp Perez (right)



The House Agriculture Committee



The Senate Agriculture Committee



Sen. Patty Murray (center, in front)



Sen. Maria Cantwell (center)

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[Fertilizer]


Winter wheat production down

From the National Agricultural Statistics Service

Based on July 1, 2023, conditions, production of winter wheat in Washington is forecast at 99.2 million bushels, up 1% from last month, but down 19% from last year. Harvested area, at 1.74 million acres, is down 60,000 acres from 2022. Yield is expected to be 57 bushels per acre, down 11 bushels from the previous year. Idaho winter wheat is forecast at 58.7 million bushels, down 4% from the June 1, 2023, forecast, and down 8% from last year. Harvested area, at 690,000 acres, is down 20,000 acres from 2022. Yield is expected to be 85 bushels per acre, down five bushels from 2022. Oregon winter wheat production is forecast at 40.9 million bushels, down 5% from last month and down 17% from last year. Harvested area, at 730,000 acres, is up 10,000 acres from 2022. Yield is expected to be 56 bushels per acre, down 12 bushels from the previous year.

Spring Wheat

Washington spring wheat production is forecast at 22 million bushels, up 2% from last year. Harvested area, at 440,000 acres, is down 30,000 acres from 2022. Yield is expected to be 50 bushels per acre, up four bushels from the previous year. Idaho spring wheat production is forecast at 31.5 million bushels, up 8% from last year. Harvested area, at 375,000 acres, is up 15,000 acres from 2022. Yield is expected to be 84 bushels per acre, up three bushels from 2022.

Barley

Washington barley production is forecast at 4.36 million bushels, down 14% from last year. Harvested area, at 67,000 acres, is up 7,000 acres



COLUMBIA COUNTY SUMMER MEETING. Chris Peha from Northwest Grain Growers speaks to Columbia County wheat growers on marketing strategies for growers and challenges to the co-op this year. The lunch meeting took place at David McKinley's shop in Dayton. State Sen. Mark Schoesler also gave an overview of the wins, losses, and draws of the 2023 Washington State Legislative Session.

from 2022. Yield is expected to be 65 bushels per acre, down 19 bushels from the previous year. Idaho barley production is forecast at 59.4 million bushels, down 1% from last year. Harvested area, at 550,000 acres, is up 10,000 acres from 2022. Yield is expected to be 108 bushels per acre, down three bushels from 2022. ■

Report: Research shows lack of evidence in dam delayed mortality theory

A recently released report confirms a lack of evidence supporting one of the justifications of dam breaching advocates, that stress from the dams on the Columbia and Snake rivers are a major cause of delayed mortality in juvenile salmon.

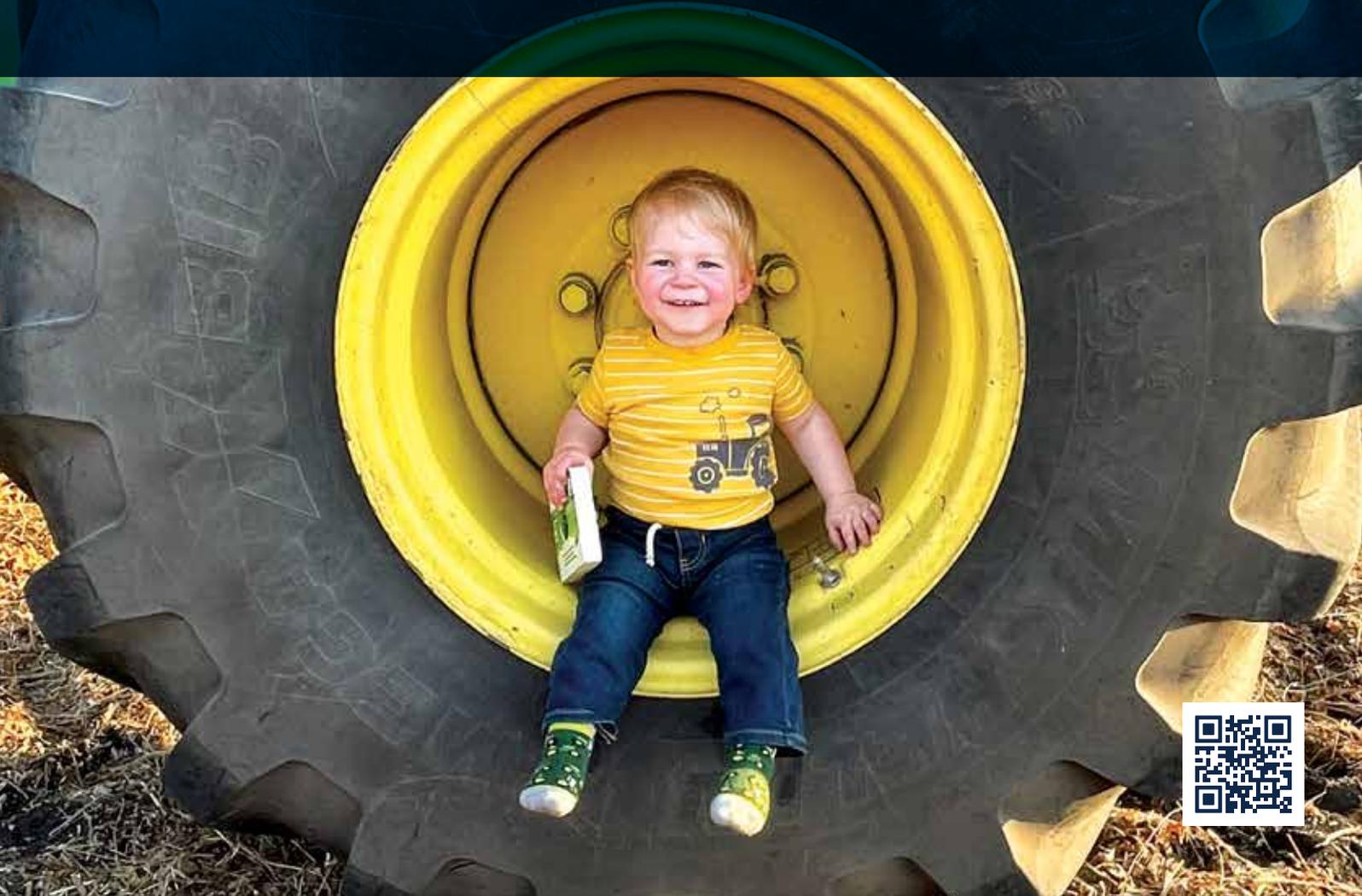
“The volume of relevant research conducted over the past three decades is vast, but an undisputed quantification of hydrosystem-related delayed mortality does not exist. It stands to reason that passage through the eight mainstem dams has carryover effects on juvenile salmon and steelhead, but whether that results in significant mortality is subject to scientific dispute,” the paper said.

The report was authored by fisheries scientists at Mount Hood Environmental (MHE) for the Inland Ports and Navigation Group (IPNG). IPNG is managed by the Pacific Northwest Waterways Association (PNWA), a nonprofit trade association that supports the navigation, energy, trade, and economic development of the Pacific Northwest.

“Many of the dam breaching arguments we hear are based on the theory of delayed mortality, which claims that juvenile salmon are weakened as they make their way through the federal dams on the Snake and Columbia rivers, and this affects their ability to survive in the ocean,” said PNWA Executive Director Heather Stebbings. “We want the region to truly understand the sci-

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ence on this matter, and where the gaps in information might be.”

MHE examined hundreds of scientific papers produced over a 30-year period and ultimately concluded that evidence supporting delayed mortality is contradictory and inconclusive. While there is some evidence to support the idea that the Federal Columbia River Power System projects could influence ocean survival, there is also a significant body of literature suggesting that the observed effects are caused by other explanatory variables, such as fish size, distance traveled, and ocean conditions.

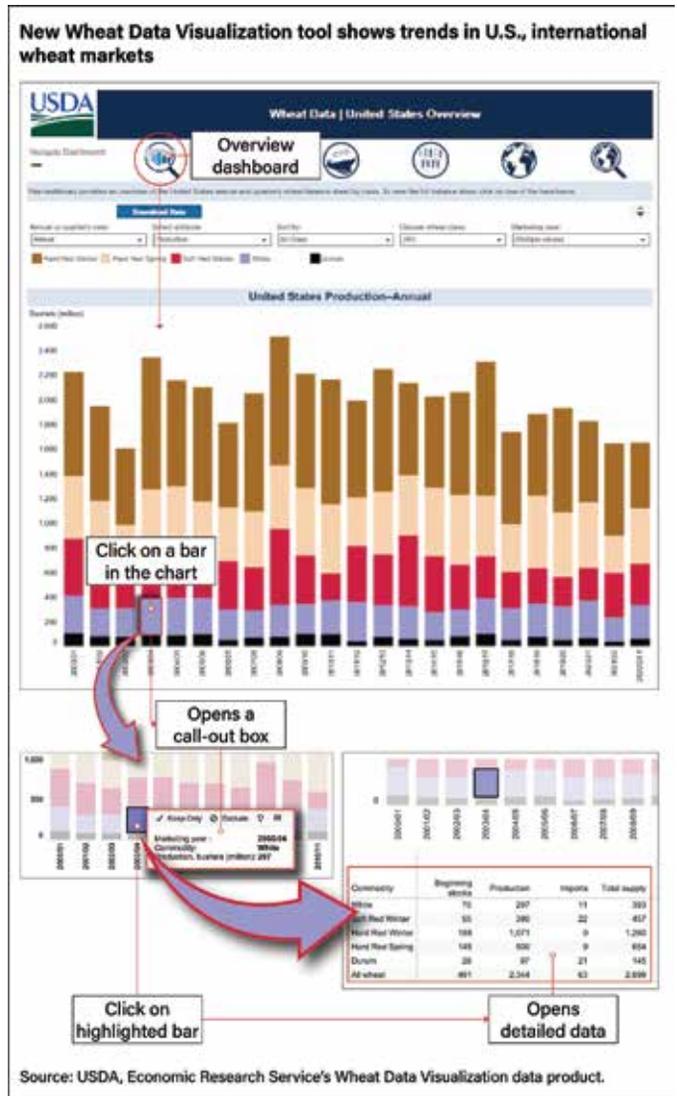
“Snake River salmon and steelhead abundance depends on many factors,” stated Ian Courter, senior scientist with MHE, “including tributary and estuary habitat conditions, predation, fisheries, and mainstem hydropower dams. We found that delayed mortality may be occurring, but mechanisms are not well-defined, and the magnitude is unknown. Future research should focus on these two key uncertainties to determine whether removal of the LSRD would significantly increase adult fish returns.”

Looking across all of the data, MHE identified three pathways that merit further investigation to address the possible effects of delayed mortality: examining Snake River salmonids for nonlethal injuries when they arrive at the Columbia River estuary to model the potential effect of stress and injury from dam passage; analyzing when juvenile Snake River salmon and steelhead arrive at the estuary; and understanding what relationship may exist between estuary conditions and fish survival in the ocean.

“After 30 years of research, there are many significant questions that remain unanswered regarding the theory of delayed mortality, and we can’t ask our policymakers to make catastrophic decisions such as dam breaching without having all of the information,” stated Stebbings. “PNWA is choosing to focus on science-based efforts that we know will improve conditions for fish, increase populations, open up habitat, and bring more salmon and steelhead back to the Columbia River Basin. We continue to be committed to this comprehensive approach, and to being part of the long-term solution to salmon recovery.” ■

New wheat tool explores trends in US, world market

U.S. Department of Agriculture’s (USDA) Economic Research Service (ERS) has developed an interactive tool to explore trends in U.S. and international wheat markets. The tool provides graphic overviews of the wide



array of data ERS publishes each month in the Wheat Data product — a resource that includes statistics on the five classes of wheat: hard red winter, hard red spring, soft red winter, white, and durum, all by year and by quarter. Monthly domestic and international price data are included, as well as monthly trade data by product and class and interactive maps of U.S. export markets. The Wheat Data Visualization tool is available on the ERS website at ers.usda.gov/data-products/wheat-data/wheat-data-visualization/.

Each month, ERS updates the Wheat Data Visualization tool after USDA releases the World Agricultural Supply and Demand Estimates. Wheat Data Visualization users can flip through six dashboards by clicking on navigation icons at the top of each dashboard. In addition, the complete dataset that supports each dashboard can be downloaded through a “Download Data” button below the navigation icons. ■

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AMBASSADOR KIP TOM served as the U.S. Ambassador to the United Nations Agencies for Food and Agriculture and the chief of the U.S. Mission to the UN Agencies in Rome from 2019 to 2021. He is the managing member of Toms Farm in Indiana. Ambassador Tom will be discussing trade issues and status of the 2023 Farm Bill.



ROB SHARKEY is better known as the SharkFarmer. He is a risk taker and out-of-the-box thinker who believes everyone has a story to tell. His authentic interview style and ability to tackle controversial issues has catapulted him onto Sirius XM, PBS, Acres TV, and six seasons of SharkFarmer TV.

DR. DAVID KOHL is an academic Hall of Famer in the College of Ag at Virginia Tech. Dr. Kohl has keen insight into the agriculture industry gained through extensive travel, research, and involvement in ag businesses. Dr. Kohl's wisdom and engagement with all levels of the industry provide a unique perspective into future trends.



ERIC SNODGRASS is a Science Fellow and the Principal Atmospheric Scientist for Nutrien Ag Solutions, where he develops predictive, analytical software to help agricultural producers manage weather risk. His frequent weather updates focus on how high-impact weather events influence global agriculture productivity.

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- Wheat market Update
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- Barley Trends



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Watch wawg.org/convention for updates



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___ Tri-State Luncheon (Wednesday)	___ Idaho Banquet (Wednesday)	___ Luncheon (Thursday)
	___ Washington Banquet (Wednesday)	___ Dinner & Auction (Thursday)

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___ Exhibitor	___ Idaho Wheat Commissioner	___ Past Washington Barley Commissioner
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___ Past President	___ Oregon Wheat Commissioner	___ First Time Attendee
___ State Officer	___ Washington Grain Commissioner	___ 15x40 Attendee
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POLICY MATTERS

WAWG testifies in House field hearing on dams

In June, Michelle Hennings, executive director of the Washington Association of Wheat Growers (WAWG), testified in a field hearing of the U.S. House Committee on Natural Resources Subcommittee on Water, Wildlife, and Fisheries regarding the importance of the Columbia-Snake River System, and the lower Snake River dams in particular, for wheat farmers in the state of Washington.

“Farmers, including myself and my family, rely on barge transportation to ship goods to market. Not only is the Snake River system critical for Washington state, but farmers across the country rely on its transportation benefits as well,” said Hennings.

In her testimony, Hennings also emphasized the importance of dams for the future generation of farmers.

“For the younger generation hoping to start or take over a family-owned farm, the benefits provided by the dams, especially the irrigation and transportation benefits, are critical to the economic viability of the business. If the dams were to be breached, the higher transportation costs could drive many family farms out of business,” she said.

Alex McGregor, chairman of The McGregor Company, a wheat farmer, and a long-time advocate of the industry, also testified. He emphasized how important barging is to



Michelle Hennings, executive director of the Washington Association of Wheat Growers (fourth from the right), testified in a field hearing of the U.S. House Committee on the importance of the lower Snake River dams to the wheat industry.

move products up and down the river system and the lack of a viable transportation alternative that could pick up the slack.

“Exchange an efficient, low carbon, timely transport system with some sort of makeshift alternative added to an already over-burdened road and rail network, and you’ve cooked a recipe for trouble,” he said. “While we ship by rail, too, we were stunned when fertilizer manufacturers, upon whom we depend, were told by the Union Pacific to cut their shipments by 20%, warning that noncompliance would result in the embargo of facilities.”

Also testifying at the hearing were Beth Coffey, U.S. Army Corps of Engineers; Jennifer Quan, National Oceanic and Atmospheric Administration; John Hairston, Bonneville Power Administration; Scott Corbitt, Port of Lewiston; Rick Dunn, Benton Public Utility District; Todd Myers, Washington Policy Center; and David Welch, Kintama Research Services, Ltd.

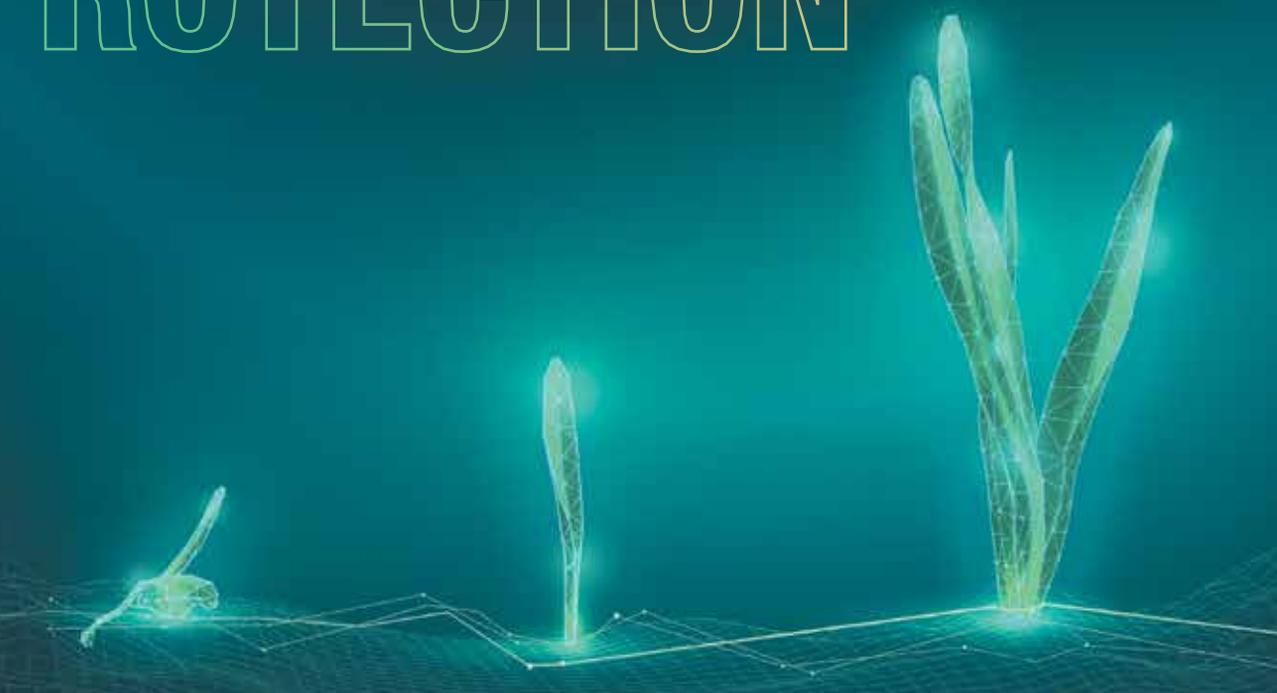
Lawmakers who attended the hearing were Rep. Mike Collins (R-Ga.), Rep. Cathy McMorris Rodgers (R-Wash.), Rep. Dan Newhouse (R-Wash.), and Rep. Cliff Bentz (R-Ore.).

Any disruption to the Columbia-Snake River System could impact the



Lawmakers who attended the hearing were (on left, from left to right) Rep. Mike Collins (R-Ga.), Rep. Cathy McMorris Rodgers (R-Wash.), Rep. Dan Newhouse (R-Wash.), and Rep. Cliff Bentz (R-Ore.).

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efficient movement of crops for export and therefore, negatively impact the strong trade relationships that the U.S. has cultivated over the years. In fact, more than 55% of all U.S. wheat exports move through the Columbia-Snake River System. Specifically, 10% of wheat that is exported from the U.S. passes through the lower Snake River dams.

Additionally, dam breaching would create challenges in meeting climate-related goals. The dams provide irreplaceable hydropower benefits that help to deliver a reliable, low-cost energy source for around 750,000 homes. Barge transportation on the river system is the most fuel-efficient mode of transportation. ■

Coalition urges Congress to pass farm bill this year

The National Association of Wheat Growers (NAWG) has joined 19 other advocates to launch the “Farm Bill for America’s Families: Sustaining our Future” campaign to urge Congress to pass the 2023 Farm Bill this year. The campaign seeks to engage consumers, leaders, and lawmakers on the importance of the farm bill and highlights five core objectives: food security, job creation, conserva-

tion, risk management, and addressing hunger.

The current farm bill expires on Sept. 30, 2023.

Besides wheat, soybeans, corn, cotton, pork, peanuts, and rice groups, the other founding members of the campaign include the American Farm Bureau Federation, the American Seed Trade Association, the Association of Public and Land-Grant Universities, the Environmental Defense Fund, the National Council of Farmer Cooperatives, and The Nature Conservancy.

“Farm Bill for America’s Families believes that together, we can ensure our food system remains thriving and sustainable for all Americans, for generations to come,” the coalition said in a press release.

The coalition’s campaign also has a website (farmbillforamericafamilies.com) that includes information and facts about agriculture and the farm bill such as:

- There are more than 2 million farms in the U.S., covering 874 million acres of land.
- Agriculture supports 46 million jobs in the U.S.
- Today, the farm bill’s nutrition programs help supply more than 9 billion meals annually.
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Washington Wheat Foundation Meetings are scheduled for **Sept. 18, and Oct. 16, 2023**, at the Wheat Foundation Building in Ritzville, Wash.

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Riparian buffers coming to watershed

PROGRAM WILL PAY PRODUCERS TO SWAP CROPS ALONG HANGMAN CREEK WITH TREES, SHRUBS

By Trista Crossley
Editor, *Wheat Life*

Nine farmers in the Hangman Creek Watershed are taking part in a pilot program that, if successful, has the potential to help solve a major water quality conundrum: installing riparian buffers without breaking producers' bottom lines.

The Hangman Creek Riparian Restoration and Conservation Program is funded by the Washington State Department of Ecology (Ecology) and managed by the Spokane Conservation District (SCD). The program will pay producers \$300 per acre for 15 years for ground that is taken out of production and put into riparian buffers. A total of 170 acres, most on the main stem of Hangman Creek, have been contracted. The program will cost approximately \$2.7 million, which includes the payments to

producers, the initial plantings, replantings, monitoring, and five years of maintenance.

"It's very similar to continuous CRP (Conservation Reserve Program) but it pays way better," said SCD Water Resources Manager Walt Edelen who is in charge of the program.

The buffer widths are based on site potential tree height (SPTH). The minimum buffer size is 50% of the SPTH, and the maximum they can get paid for is 100%. The buffers will be planted with trees and shrubs, and the SCD will hire crews to take care of weeds and water the plants as best they can. In certain areas, especially those areas that were farmed, the land will be planted to native grasses for a year before woody plants are introduced. In some cases, the SCD will pay the landowners to seed or to take care of weeds. ▶



A typical area along Hangman Creek that will be taken out of production and planted with trees and shrubs. Photo courtesy of the Spokane Conservation District.



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“Some of the sites are fairly remote, and it’s difficult to get to the other side of the creek,” Edelen explained. “Hangman is such a difficult system to get things to grow in. We know we will have to replant. We know we will have to deal with predators, deal with predation on plants. We’ve got to deal with beaver, deer, heat, and just the lack of water. It has its challenges for sure.”

The goals of the program are threefold: address potential temperature, sediment, and nutrient issues as flagged by Ecology; restore the riparian zone; and reimburse producers for the land that is taken out of production.

“Mature riparian areas are going to provide lots of things, including shade. It’s going to provide habitat. It’s going to provide stability to the channel. One thing that’s missing in Hangman Creek is large woody debris. It’s all gone,” Edelen said, adding that installing riparian buffers is a long-term fix, and it could be at least 10 years before results are seen. “You’ve got to start somewhere.”

Ongoing conflict

Farmers have long been under a microscope when it comes to water quality issues in the Hangman Creek Watershed. Ecology has designated the stream as a polluted body of water. When Ecology finds a potential issue, the department will generally send a contact letter asking the landowner and/or producer to contact them. If that fails, Ecology will send another contact letter and then a warning before issuing an administrative order, which can be accompanied by financial penalties. In fact, for this pilot program, one of the eligibility requirements is an Ecology contact letter. As long as producers follow their contract with the SCD, they are considered to be in compliance. Edelen said there has



A typical area along Hangman Creek where trees and shrubs will be planted. Photo courtesy of the Spokane Conservation District.

been some frustration from growers feeling like they are being told what they can and can’t do with their land, and some producers have been more reluctant than others to participate. He hopes they’ll all see the benefits of restoring the riparian zone.

“These producers are getting letters from Ecology, but they didn’t like a lot of the options available to them to help mitigate the issues they might have with Ecology and come into compliance,” he said. “These are good people. They are

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The Spokane Conservation District has partnered with local high schools to have students, like these juniors from North Central High School, help plant trees and shrubs along Hangman Creek. Photo courtesy of the Spokane Conservation District.

just trying to do the best they can with their land out there.”

At this point, livestock ground is not eligible for the program, but Edelen hopes there will be a similar program for those producers in the future.

“There are livestock producers out there that have this same issue. They’ve got productive riparian areas for grazing, and if they can’t graze them, they should be able to put them in a program like this as at least an option,” he said. ■

Geologically speaking

Hangman Creek is often called “flashy,” meaning it can go from a gentle stream to a raging river in a very short amount of time. Those high flows usually bring a lot of sediment with them due to the clay and silt soils of the Palouse. While environmentalists would likely like to see a year-round clear creek, Walt Edelen, Spokane Conservation District water resources manager, said that’s pretty unlikely.

“(Hangman Creek) is a system, geologically, that has high sediment as well as a lot of fine sediment. Geologically, there’s nothing you can do about that. There’s always going to be natural erosion in a watershed,” he explained. “There’s obviously a lot of exacerbated erosion caused from different land uses, agriculture being one of them. But agriculture isn’t totally to blame for everything up there. The stream banks, I think, are kind of underestimated as to how much sediment they are producing vs. what’s coming off fields.” ■

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Farmer has high hopes for buffer program

By Trista Crossley
Editor, *Wheat Life*

Cary Janson was one of the first farmers to sign up for the Hangman Creek Riparian Restoration and Conservation Program. The Janson farm runs between Latah and Tekoa, and quite a bit of their ground is along the creek. Janson said he didn't have any reservations about giving up farming a 65-foot strip along the waterway because to him, the money is a win-win.

"No one's making money, but they can maintain and do their part for agriculture," he said. "I tell my neighbors that are upset, this is not going away. People are moving in, and you think they are going to want that muddy water?"

Janson and his sons are the fourth and fifth generations to farm the family's land. They grow wheat, canola, lentils, chickpeas, and hay. Like the other farmers involved in the program, he has also received a contact letter from Ecology and has followed the legal wrangling over the watershed.

"We are fighting a battle against people with a lot of money that can slant the news to make it look worse than it is," he said. "Farmers are conservation minded. There isn't a farmer I know that doesn't like the soil and doesn't care if it washes away, but we still need to make a living on the land."

Janson, who grew up floating down and fishing Hangman Creek, says he's seen big improvements in soil erosion from when he first started farming. Much of that improvement comes from the adoption of no-till practices. He believes that the key to further water quality improvements is to work from the stream out into farmland, stabilizing the banks so high flows don't eat away at farmers' fields.

"You can't feel good if you see your field washing away," he said. "This program is just a huge step. I've never seen anything like it in my lifetime, with the amount of work going on. It is astronomical. The public needs to know we are all environmentalists, but we are still trying to make a



Wheat farmer Cary Janson is one of the producers signed up for the Hangman Creek Riparian Restoration and Conservation Program, which aims to install riparian buffers along portions of the creek and its tributaries.

living. Margins are tight."

Besides the improvements to water quality, Janson says another benefit will be the wildlife habitat the woody plants will eventually provide.

"I have real strong family ties here. I'm hoping this works," he said. ■

"Farmers are conservation minded. There isn't a farmer I know that doesn't like the soil and doesn't care if it washes away, but we still need to make a living on the land."

— Cary Janson

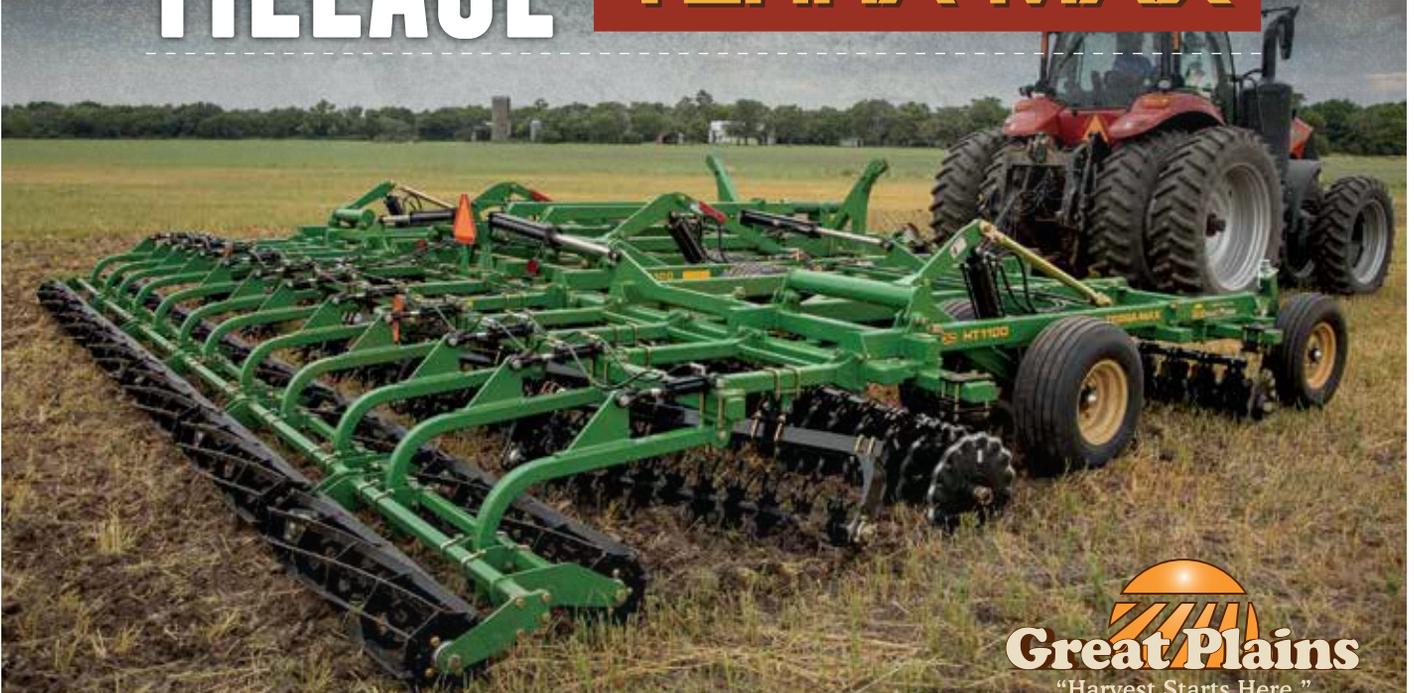
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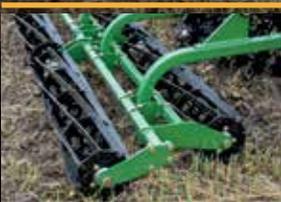
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Family ‘frustrated’ with agency actions

By Trista Crossley
Editor, *Wheat Life*

Shelly Haas is one of the landowners signed up for the Hangman Creek Riparian Restoration and Conservation Program, but she and her husband, Jim, aren't very happy about it.

The program is funded by the Washington State Department of Ecology (Ecology) and managed by the Spokane Conservation District. The program is only open to tillage operations in the Hangman Creek Watershed that have been notified by Ecology about a potential water quality violation.

The Haas family farm is located about three miles outside of Fairfield and has less than a half mile of property on one of the Hangman Creek tributaries. They've been served an administrative order from Ecology, meaning the next step, if they don't come into compliance, will likely involve financial penalties.

“We have an administrative order that says we have to have these buffers. We have to have these trees and shrubs. We have to have 300 stems per acre. We have to have X, Y, and Z, so you either pay for this yourself, and you maintain this yourself, and if you don't have an 80% survival rate, we (Ecology) will come after you for not doing a good job. Or, sign onto this program, and we'll pay for everything for you and give you a very small kick-back,” Haas explained. “We are losing money by pulling that land out of farming. Something is better than nothing, I guess.”

While the program's price of \$300 per acre is higher than other programs that pay farmers to take land out of production, it's still well below the income the family would normally be able to make on the approximately nine acres they are losing. Haas said, depending on the year and the crop grown, they can make from \$800 to \$1,200 per acre. A concern she has is being locked into a \$300 per acre contract for 15 years. If additional rounds of funding are offered — and Haas believes it's likely most, if not all the farmers in the watershed will eventually be targeted for the program — will a higher price per acre be offered to account for increased costs, inflation, and to entice landowners to enroll?

“It kind of feels like we might potentially be double hit because I do think they are only going to have to increase that price that they are giving farmers to make it more attractive to be in the program,” she said.

Haas doesn't disagree about the need for clean water



Jim and Shelly Haas have signed up for the Hangman Creek Riparian Restoration and Conservation Program, but feel like it is a choice that's been forced on them.

or to have farming practices that protect water quality. She's upset over what feels like selective enforcement by Ecology against her family's farm, explaining that as far as she knows, the only administrative order issued by Ecology since the 2018 settlement with the Spokane Riverkeeper is theirs.

“My family, my farm, happens to be one that I feel has been targeted, maybe by pure coincidence. They (Ecology) had to pick somebody to be first, but it feels like they've focused their energy wholly on us. It feels like blackmail, and it feels like selective enforcement,” she said. “If you look at the watershed, we are like a tributary to a tributary. Why are they not focusing on the biggest impacts first? I feel like if you start from the biggest to the smallest, it's going to give you the biggest bang for your buck.”

The Haas family was appealing Ecology's administrative order through the courts, but Haas said the department was threatening penalties against them and told them that unless they dropped the appeal, the family would be ineligible for any financial assistance through the riparian buffer program.

“Our choices came down to dropping our appeal and signing into the program so we were in compliance with the administrative order and avoiding penalties or pushing forward with our appeal and risk being issued penalties,” she explained.

Haas questions the science used to establish the parameters of the program, such as the minimum buffer width,

and if the trees and shrubs will be able to survive the high springtime flows Hangman Creek is known for. She also questions whether the expectations around Hangman Creek and water quality are realistic. Those questions might have been answered in the appeals process.

“If the goal is to have salmon come back up this waterway, what are the unintended consequences of making that happen? Is it taking all the farmland back out?” she said, adding that the program is ultimately funded by taxpayers who should be aware of the amount of money that is being spent.

“It is my understanding the watershed has an estimated 220,000 acres of dryland farming. That is a major taxpayer project to pay farmers to pull that land out of farming and then pay SCD to prepare, plant, and maintain the buffers and trees,” she said. “Some taxpayers may also want clarification about the science, and what is necessary to protect the waterways. Taxpayers may not agree with funding this program, and if not, they need to be in contact with their legislators.”

If people want to have food on their table or bluegrass for their yards and golf courses, Haas pointed out they need farmers for that. She believes there has to be a middle ground between those pushing for more restrictions in the watershed and farmers being able to make a living and passing the farm to the next generation.

“We’ve got farmer friends who are saying, ‘I can’t believe you are even going to sign into that program,’” Haas said. “I say to them, wait until you have an administrative order. Wait until they (Ecology) are issuing penalties against you, and then tell me what you are going to do. We are making the best decision we can for our fourth generation. We have two boys in their 20s that intend to take over this farm, and I have to make good decisions with them in mind, too. It is frustrating.” ■

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Insurance woes

COVERAGE COSTS ON WOODEN CRIB ELEVATORS RISE DRAMATICALLY

By Trista Crossley
Editor, *Wheat Life*

Elevators across Eastern Washington are suddenly finding it hard to insure parts of their structures regardless of condition, and if they do find insurance, the price is sky high.

Palouse Grain Growers Manager Mike Bagott said they were unable to renew the insurance on their wooden crib elevator through their traditional insurance company, despite recently finishing nearly \$750,000 worth of improvements on it. They finally found an alternate insurance company that would ensure the structure, but it added nearly 50% to the cost of their insurance policy.

“For us, that crib elevator is a real critical point. Not only is it where the pit is and handles the influx, but it also acts as a distribution point,” he said. “We figured that for the time being, it’s worth biting the bullet, so to speak, and paying the additional charge, but also sensing the need to start setting money aside to self-insure at some point.”

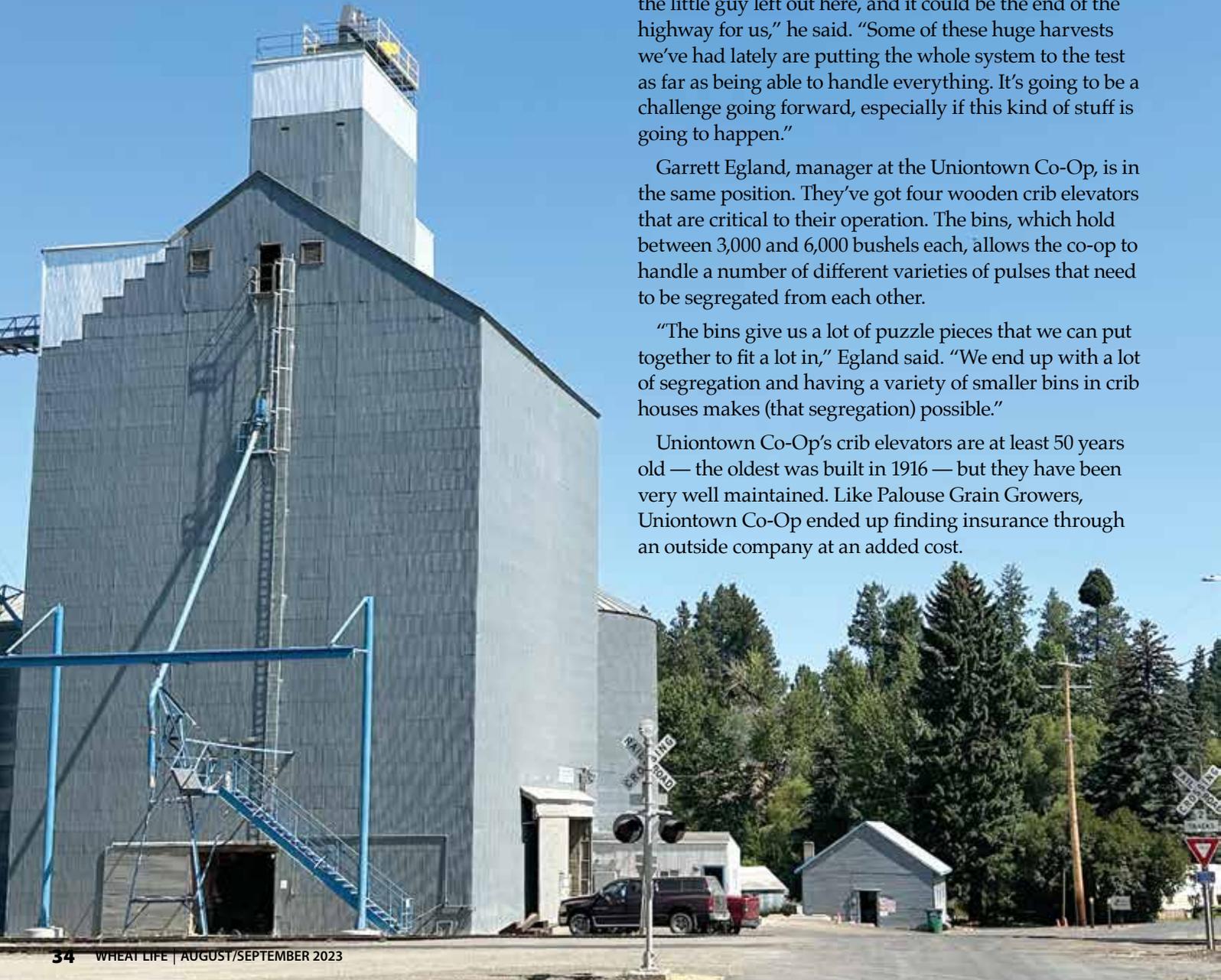
Palouse Grain Growers also has some older steel bins they weren’t able to fully insure. Bagott said the replacement cost is three to four times more than the insurance covers.

“It’s not quite as bad (as the crib elevators), but it’s the same story. If something ever happens to them, to get yourselves back on your feet could be a killer. We are the little guy left out here, and it could be the end of the highway for us,” he said. “Some of these huge harvests we’ve had lately are putting the whole system to the test as far as being able to handle everything. It’s going to be a challenge going forward, especially if this kind of stuff is going to happen.”

Garrett Egland, manager at the Uniontown Co-Op, is in the same position. They’ve got four wooden crib elevators that are critical to their operation. The bins, which hold between 3,000 and 6,000 bushels each, allows the co-op to handle a number of different varieties of pulses that need to be segregated from each other.

“The bins give us a lot of puzzle pieces that we can put together to fit a lot in,” Egland said. “We end up with a lot of segregation and having a variety of smaller bins in crib houses makes (that segregation) possible.”

Uniontown Co-Op’s crib elevators are at least 50 years old — the oldest was built in 1916 — but they have been very well maintained. Like Palouse Grain Growers, Uniontown Co-Op ended up finding insurance through an outside company at an added cost.



“All of our insurance went up. It’s awful,” Egland said. “The cost of insuring facilities has gone up ridiculously across the board. It’s getting to be, if you want to build any more storage, it’s more expensive than it’s ever been.”

Alliant Insurance Services’ Lee Tilleman, a national broker for commercial ag insurance, said there are approximately two dozen wooden crib elevators in use in the Inland Northwest grain region that had issues getting insurance coverage this year. Tilleman, the insurance agent for both Palouse Grain Growers and the Uniontown Co-Op, said the problem is nationwide and stems from insurance carriers having to pay out more in claims than they are collecting in premiums.

“The carriers’ reaction to this is to increase premiums and restrict coverage,” he explained. “The crib elevators are high risk facilities in terms of fire, because, obviously, they are built of wood. Once they catch fire, they are usually a total loss. Insurance carriers are trying to reduce their exposure to high risk facilities, and crib elevators are considered high risk. The crib elevators are all being excluded by domestic insurance carriers.”

When insurance is found, it is costing anywhere from five to 10 times what elevators were paying before. In fact, Tilleman said underwriters are reducing coverage not only on crib elevators, but older facilities in general. Anything older than 1990 can only be insured for a stated value rather than the replacement cost.

“One thing that’s difficult in this situation, is these crib elevators are still a viable storage facility, and the segregation they provide for product is huge for these grain companies,” he said. “Unfortunately, they are a hundred years old. It’s a very difficult situation, Nobody did anything wrong. It’s just Mother Nature, inflation, the age of facilities that’s caused this. There’s no easy answer.” ■



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A world without glyphosate

NEW STUDY DETAILS THE POTENTIAL IMPACTS OF BANNING GLYPHOSATE

A recent study concludes that the loss of glyphosate as a viable tool for agriculture would result in doubled input costs for farmers, increased soil erosion, increased carbon emissions, and increased costs for consumers.

“We assess that if glyphosate were no longer available, markets would adapt through substitution and adjusted practices, but at a substantial cost to farmers and the environment. U.S. farmers would bear the burden of increased input and operating costs with small farmers disproportionately affected. Further analysis reveals a cascading chain of likely higher-order effects and unintended consequences, the most impactful being the rapid release of additional greenhouse gases and the reversal of decades of conservation and sustainability gains,” the study said.

The study was conducted by Ohio-based Aimpoint



Research, a global strategic intelligence firm specializing in agri-food.

Glyphosate, the active ingredient in Roundup, is a nonselective herbicide that blocks an enzyme essential for plant growth. Washington dryland wheat farmers mainly use glyphosate to kill weeds on fallow fields to conserve moisture for the next wheat crop. Glyphosate is an essential tool in direct seed and no-till production methods because it controls weeds without the need for tillage.

The chemical has been the target of numerous lawsuits, and various states have considered banning or restricting its use, despite Environmental Protection Agency studies showing no risks to children or adults when label directions are followed.

Aimpoint looked at how the loss of glyphosate would impact five key areas:

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- **Economic impact on agriculture.** Growers would switch to alternative chemicals that cost more, and they would increase tillage practices. Production costs would increase by over \$1.9 billion.
- **Environmental.** Alternative products could compromise water quality, wildlife, aquatic species, and overall health and safety. Increased tillage could also disrupt soil health and increase erosion and emissions, with a potential release of 33.72 million tons of CO2 equivalent. Farmers would likely decrease double cropping and cover cropping, reducing soil carbon capture and impacting renewable fuels.
- **Food prices.** The increase in production costs would add inflationary pressure on food prices and decrease consumer spending on proteins and increase the procurement costs of federal nutrition programs, such as SNAP.
- **Innovation.** Progress towards the development of future weed control technologies would stall due to limited return on investment and regulatory uncertainty.
- **Geopolitics.** China's burgeoning glyphosate market would likely continue growing, allowing their agriculture sector to benefit from increased production efficiency and conservation. The EU may face amplified challenges due to historic resistance to such innovations, while countries like Mexico might consider U.S. regulations as indicative of broader trends, despite an overall global shift towards accepting agricultural innovation.

To read the full report, visit report.aimpointresearch.com. ■

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KHEM FARMS. Kevin, Helen, Erin, Marla

The Paulsen family is still farming in the same township where the kin broke sod in southern Spokane County in 1887. The two on the left look familiar as they've always been smitten with the love of farming, but retired now: Arlin (left) after a career of professionally driving for Darigold, and Kevin (middle) with U.S. Trust and Spokane Seed. Marc Lundt (right) is still working hard with Granite Fuel Handling Systems.

The old truck met the two new ones, sniffed noses, and parted ways. The two newer trucks and trailers head to harvest, and the old-timer ... out to pasture.

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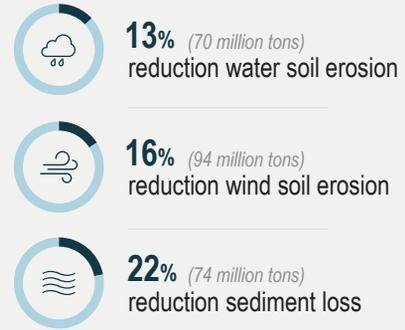
Aimpoint Research, an Ohio-based global strategic intelligence firm specializing in agri-food, recently released a study looking at the potential impacts of a ban on glyphosate.

Graphic reprinted with permission.

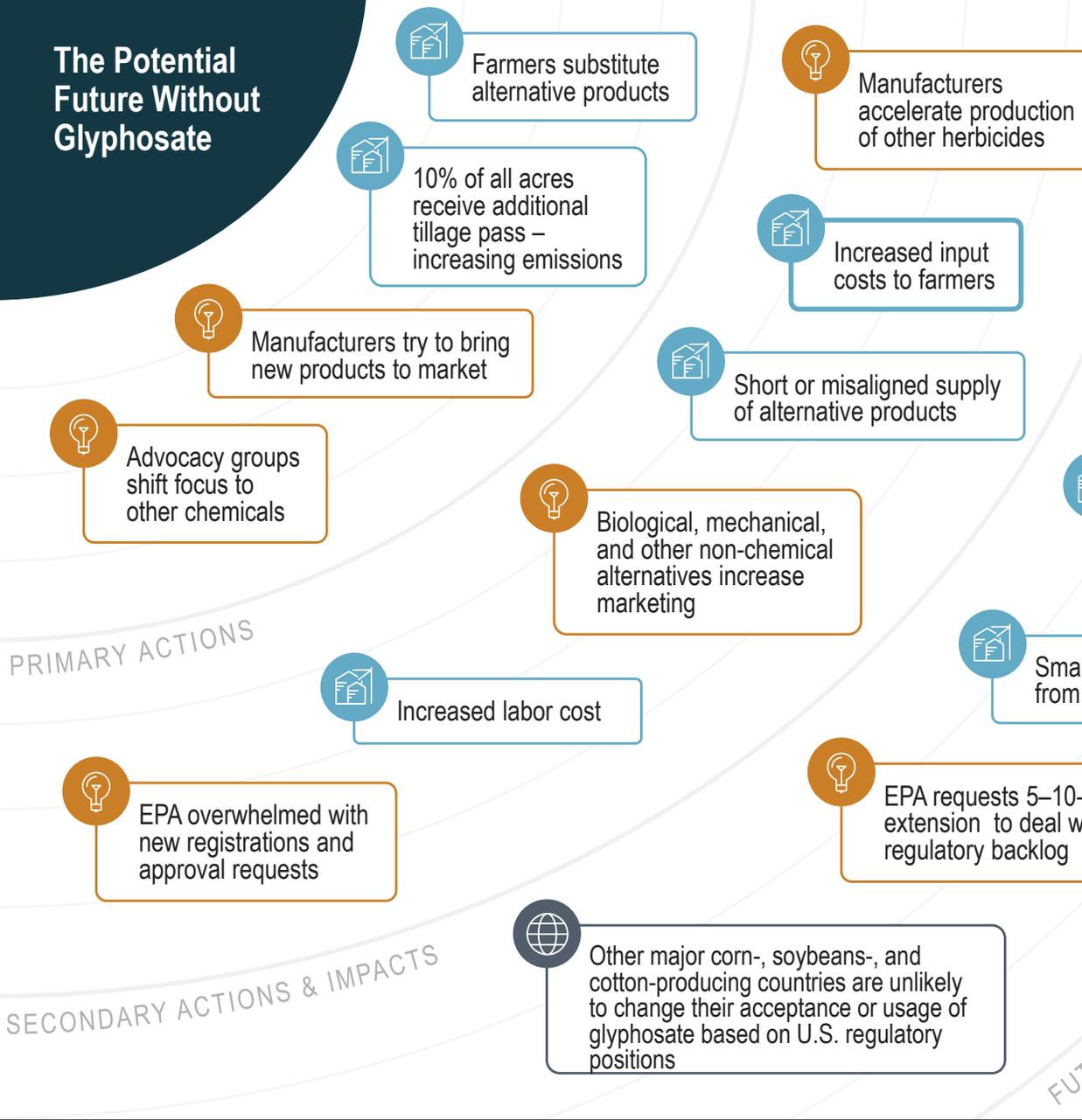
The Current State of Glyphosate

Glyphosate is the most widely used herbicide in the U.S. Glyphosate is used on an average of 87% of corn, soybean and cotton acres¹. It is effective in controlling weeds, cost-efficient compared to alternatives, and has enabled valuable on-farm conservation practices to be employed across millions of additional acres of U.S. farmland year after year.

According to a benchmark study by USDA NRCS in 2016, an additional 53.4 million farm acres came under conservation practices over the previous ten-year period, helping to secure:



The Potential Future Without Glyphosate



Environmental Impact

Over that period, glyphosate helped enable the reduction of tillage practices, yielding:

- **1.2 million tons fewer CO₂ equivalent emissions from farm machinery, as reduced tillage results in less fuel use**
- **32.495 million tons** per year of additional CO₂³ equivalent captured by farmland soil, as minimizing soil disturbance and maintaining crop residues helps store carbon

The total farm-level effect of more carbon capture and fewer carbon emissions equals² the effect of offsetting the yearly emissions from:



5.95 million
homes' electricity use

or



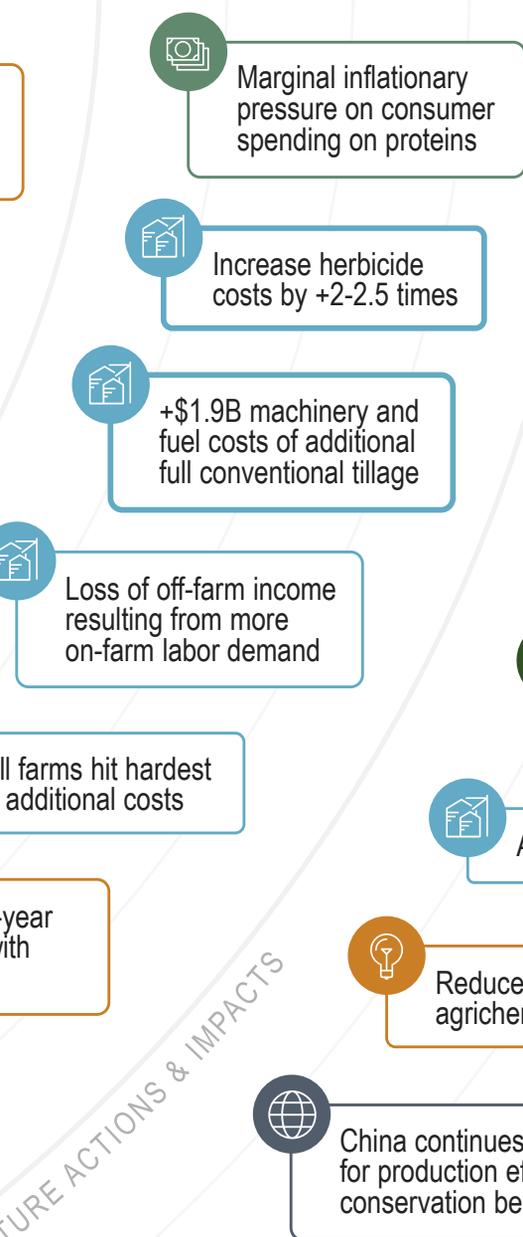
6.8 million
gasoline-powered passenger cars driven

or



36.48 million
acres of forests

... while still producing food, fiber, and feedstock for renewable fuel.



About the Research

Aimpoint Research conducted a study into a U.S. farming value chain without access to glyphosate as a pest control tool. For this study we leveraged several research and analytical methods to understand the complexities surrounding glyphosate, including

open-source research, economic modeling, subject-matter expert interviews, and military wargaming techniques. The actions and impact are categorized by key areas of consideration and assessed against the overall impact to the value chain.

IMPACT AREAS

-  Agriculture
-  Environmental
-  Innovation
-  Food Prices
-  Geopolitics

¹ Aimpoint Research based on EPA data

² USDA Natural Resources Conservation Service, Conservation Practices on Cultivated Cropland: A Comparison of CEAP I and CEAP II Survey Data and Modeling, March 2022

³ Greenhouse Gas Equivalencies Calculator | US EPA

Access the full report at www.AimpointResearch.com





Jordan Thayer

This is the third of four financial advice articles that will be appearing in the next few issues of Wheat Life. The information in this series is presented in partnership with Jordan Thayer, a financial advisor with Morgan Stanley who works with growers in Eastern Washington.

Thayer is scheduled to be a break-out session speaker at the 2023 Tri-State Grain Growers Convention in November.

Social Security, Medicare: Tips for navigating the system

By Trista Crossley
Editor, *Wheat Life*

For anybody, including farmers, approaching the traditional retirement age, social security and Medicare begin looming large on the horizon. These large government programs can seem overwhelming and confusing to navigate, leaving one wondering where to start.

“Navigating is an appropriate term as it can feel like you’re a bit lost in the system,” said Jordan Thayer, a financial advisor with Morgan Stanley. “Oftentimes, it simply involves a phone call with the local Social Security Administration (SSA) office or going to SSA.gov to begin filing.”

In addition, nearly all taxpayers receive a yearly social security statement three months before their birthday. This statement shows what the social security monthly benefit will be at each age between 62 and 70. As Thayer pointed out, that’s a valuable piece of information to include in a financial plan as one nears retirement.



Who is eligible for social security? Anybody who has earned a taxable wage in their lifetime. Taxpayers can begin collecting standard social security benefits at 62 or can delay collecting as late as 70. Having a financial plan in place as early as possible helps determine the optimal age to begin collecting social security, especially growers whose major assets often include land and equipment.

Thayer said the decision of when to begin collecting social security often comes down to a simple question: “Do I need the income to pay my monthly bills?” If a grower is earning sufficient income from crop share, rental income, or dividends, it may make sense to delay collecting. Each year a benefit is delayed, the social security payout increases roughly 8% per year. Social security must be collected starting at 70.

For Medicare, a taxpayer needs to have paid social security taxes for 40 quarters (the equivalent of 10 years) in their lifetime to qualify for Medicare. Workers can complete their Medicare application at medicare.gov. Basic Medicare includes parts A and B. Part A helps cover inpatient care at a hospital, skilled nursing facility, hospice, and some home health-care. Part B helps cover services from a doctor and other outpatient providers. Both of these come with limitations. There are also Medicare supplemental insurance packages that can be purchased to help ensure one can keep one’s preferred doctor and can have coverage for prescription drugs, vision, and hearing.

How big are these programs? In 2019, the Social Security Administration paid benefits to 69.1 million Americans. In 2022, over 65 million were on Medicare. As the baby boomer generation retires, those numbers will certainly go up. Thayer said it helps to be proactive and properly calibrate one’s expectations. Navigating these programs can involve lots of waiting and some inefficiencies, but they don’t have to be completed all at once. As Thayer pointed out, the process can be divided into sections and completed over time.

Farmers may have some special considerations when approaching these programs. For social security, they need to consider:

- Do you need the income immediately to pay your bills?
- What’s your confidence level in the solvency of the program long term? ▶

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- Consider your health and life expectancy.

For Medicare, consider:

- What is your current health condition?
- Do your current doctor(s) take Medicare?
- If not, does it make sense to shop for a supplementary insurance plan that will allow you to keep your doctor or gain extra coverage you may need? Any time you switch healthcare insurance plans, there can be issues with your doctor accepting them. The same goes for Medicare — some doctors accept it, and some do not.

“I’d say the number one worst thing to do would be to ignore the whole subject and continue to put it off,” Thayer said. “For Medicare, you’re eligible to enroll three months before you turn 65 and three months after you turn 65. If you are eligible, you may also sign up during general enrollment, which is between Jan. 1 and March 31 each year. If you are 65 and retired, and you don’t sign up and you are eligible, your monthly premiums will increase each month you delay.”

He added that delaying your social security enrollment is not nearly as critical, since delaying actually increases the benefits you receive.

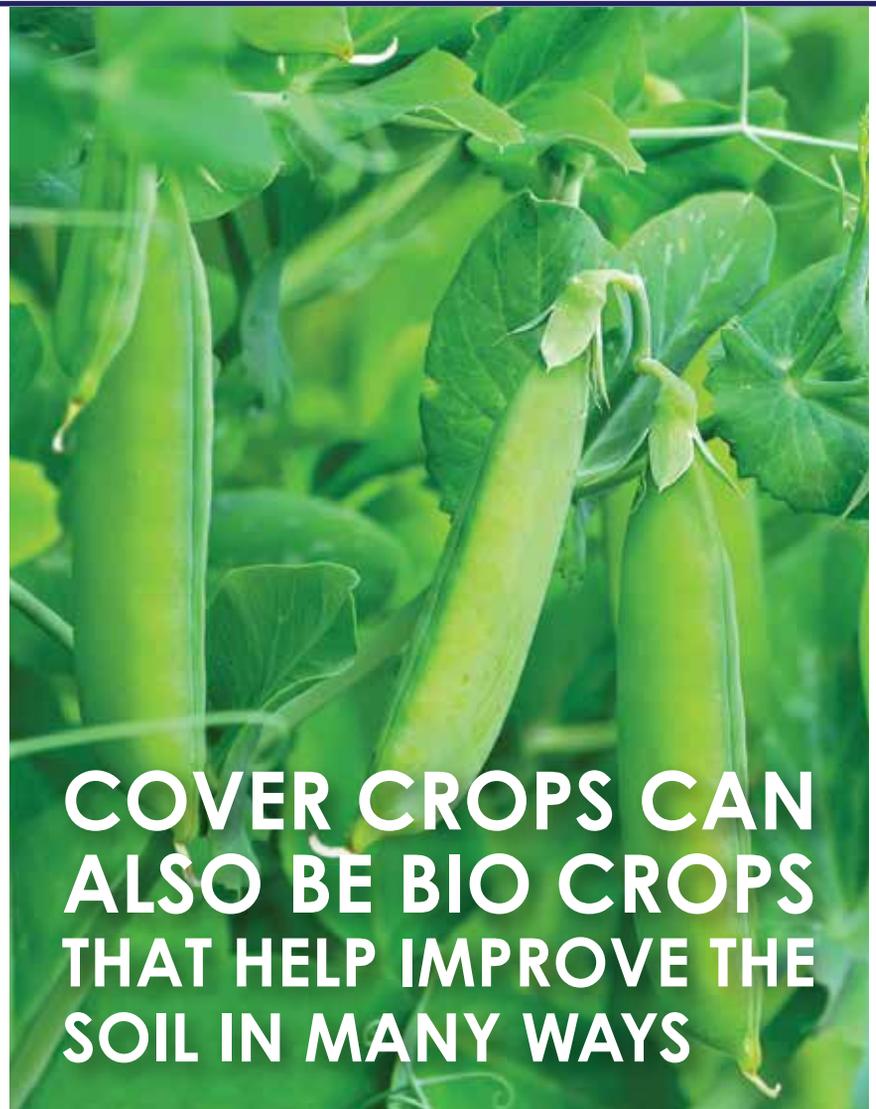
Once in the system, retirees should pay attention to any mailings received by the Social Security Administration or Medicare. If you’ve engaged a financial planner and have a comprehensive written financial plan, make sure any changes in social security benefits or Medicare are recorded.

“Both Medicare and Social Security can be intimidating tasks to tackle and evaluate. You don’t have to do it alone,” Thayer said. “If you have a thorough financial plan

Before retirement...

A checklist of the top three things to do as retirement age approaches:

1. Assess your retirement income and cash flow.
2. Assess your health status and visit your doctor.
3. Be proactive! Engage a financial planner or begin to map out the steps yourself. Waiting until after you are retired can lead to increased Medicare premiums or not receiving the optimal amount of social security benefits for your situation. ■



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on hand and a professional who has helped determine the optimal age to file for social security and gotten you started on the path towards Medicare, that provides tremendous piece of mind because it eliminates the doubt of, ‘Am I doing this right? Or Is this the right time?’ Find a reputable financial planner who you trust to help point you in the right direction so your time and effort are spent wisely.” ■

Jordan Thayer is a financial advisor with the Global Wealth Management Division of Morgan Stanley in Seattle, Wash. The information contained in this article is not a solicitation to purchase or sell investments. Any information presented is general in nature and not intended to provide individually tailored investment advice. The strategies and/or investments referenced may not be appropriate for all investors as the appropriateness of a particular investment or strategy will depend on an investor’s individual circumstances and objectives.

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The A, B, C, and Ds of Medicare

Medicare is a U.S. federal health insurance program for people 65 or older. Some younger people with disabilities and those with End Stage Renal Disease may also qualify for the program. Medicare is divided into four parts:

Part A - Hospital Benefits (Premium is \$0 per month for most people, but can be higher). This part pays for inpatient care, skilled nursing facility stays, hospice, and home health. Note that Medicare does not cover long term care.

Part B - Medical Benefits (Premium in 2022 is \$170.10 for most people, but can be higher). This part pays for doctor visits, lab work, preventive services, outpatient surgeries, ambulance service, cancer therapy, kidney dialysis, and durable medical equipment.

Part C - Medicare Advantage program or private insurance (premiums vary by type of plan, county of residence, and insurance company). Enrollment in Part C is voluntary. People can work with an independent agent to look at options. Requirements and benefits include:

- Must be enrolled in Medicare Part A and B.
- Is required to provide all the benefits of Original Medicare (Parts A and B) so that the member is not worse off than they would have been with Original Medicare.
- Can provide additional benefits not included with Original Medicare. Including dental, vision, and hearing benefits.
- Benefits are designed and claims are made by the private insurance company not Medicare,
- Has a network of providers.

Part D - Prescription drug plans (designed by Medicare, but administered by private health insurance companies). Enrollment in Part D is voluntary and covers prescriptions picked up at a pharmacy or mail ordered. Part D is the newest part of Medicare. Prior to 2006, Medicare did not offer a benefit for prescription drugs.

More information is at [achieve-alpha.com/overview-of-medicare/](https://www.achieve-alpha.com/overview-of-medicare/). ■



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Grant Miller, Washington Wheat Foundation

By Kevin Gaffney
Special to Wheat Life

Born in Ritzville and raised in Lind, **Grant Miller** grew up in a wheat farming family and has seen many changes to the industry over the past several decades. His father, Don, was an accomplished farmer and was active in the Washington Association of Wheat Growers (WAWG). This legacy likely helped lay the groundwork for Miller's many years of ag industry and community involvement.

Grant Miller attended school in Lind, Wash., graduating from high school in 1971. He headed down to Washington State University (WSU) and earned his degree in ag economics in 1975. He knew from a young age that he wanted to be a farmer. While attending WSU, Miller was one of the chosen few honored to be "Butch" handlers, tasked with running the live cougar and his cage around the football field during Cougar games. To help pay for his degree, Miller served as a resident assistant in the Goldsworthy dorm for two years.

Miller and his wife, Nancy, have three children: Amy, Matt, and Karlee. Getting a proper education for their progeny was important to the family.

"All three of my kids have college degrees, and they all live on gravel roads, which is something I'm very proud of," said Miller.

Miller took over full operation of the family farm sooner than originally planned when his father suddenly passed in 1986 at the age of 58. Due to years of pertinent preparation by his father and some mentoring from farm neighbor Art Mielke, Miller proved to be up to the task.

"I can't say it was easy taking over at that time, but my father's tutelage and my learning at WSU gave me the knowledge and tools I needed to succeed," he said. "Acquiring knowledge about how to run a business, including employee relations, were invaluable parts of my education at WSU."

Another learning experience Miller believes helped him greatly was his participation in Class 3 of the AgForestry Leadership Program in 1980-81.

Like many dryland farmers in Adams County, the



Miller farm employs a 50/50 summer fallow-winter wheat rotation. Miller noted that about 20% of their farm is in the Conservation Reserve Program (CRP). They concentrate on growing winter wheat exclusively.

When asked about alternative crops grown, Miller quipped, "Our only other crop is cheat grass."

Modern-day, large-acreage farmers sometimes complain about the federal farm program. Miller opines that it is far from perfect, but it has some excellent parts.

"I believe CRP is one of the best federal farm programs of all time. It provides farmers with an extra incentive to properly conserve the precious soil. It helps to improve wildlife habitat and reduces soil erosion. And wind erosion is a big issue in our dryland region. The soil is our most valuable asset.

"I believe there is quite a bit of farmland that probably should never have been broken out for farming," Miller observed. "The CRP program has enabled many growers to be able to remove unfertile land from production. Another benefit of CRP is that it has helped to boost grain prices due to supply and demand."

The Miller farm utilizes semitrucks for hauling grain directly to the Ritzville Warehouse unit train rail facility, except for some on-farm storage. His favorite wheat varieties are Xerpha and Piranha, both developed at WSU.

They still favor seeding with a long-time favorite of many dryland farmers in lower rainfall regions, the John Deere split-packer deep furrow drill in the 16-inch spacing



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format. To seed the winter wheat in a timely manner, they may have up to six drill units running each fall.

The Millers have stayed with conventional farming methods, but like virtually every other farmer, the size of the tractors, combines, and sprayers has grown larger. Their farm size has become larger along with the size of modern farm equipment. Asked about the major changes in wheat farming over his career, Miller came up with three: the conversion from gas to diesel-powered machinery, the development and use of Roundup herbicide, and precision ag technology, including the use of the Global Positioning System (GPS).

Miller noted that for his purposes, GPS is the acronym for “Grant’s Phenomenal Steering.”

Miller also reflected on how the larger sizes of farms has affected the small farming communities in the Pacific Northwest.

“It has changed the demographics of the towns and, obviously, the sizes of the schools in the communities,” he said. “Some communities are struggling more than others. The Lions Club Combine Demolition Derby has greatly helped Lind.”

While there is a lot more to Lind than just their annual Combine Demolition Derby, the identity of the farming town has, at least in part, become permanently identified with the annual June event. Attendees come from out of state to see the unusual spectacle of grain combines crashing into one another. Miller has been involved with the combine derby for decades and has the remarkable title of past champion, as does his son, Matt. Miller’s favorite part of the competition is probably the wheat truck races. Pickup trucks also compete.

“The Lind Lions Club raises thousands of dollars every year for charitable projects in the community. There were over 3,500 attendees for the 2023 event,” he said.

Miller cares deeply about his hometown community.

“Community service is the rent you pay for the rewards of living in a small town.”

Small town living is not always easy for the local businesses, with some residents often traveling to larger cities to shop. When the population dips enough, it can be impossible to keep a viable high school in operation.

“Losing our local high school was not an easy transition, but it was the right decision to make. At some point, there simply aren’t enough students to justify continuing to support a high school in many of our small communities. However, the consolidation with Ritzville, Washtucna,

and Sprague (sports only) has been a positive change for the better.”

Starting with the Adams County Wheat Growers Association, which Miller is still active in, Miller has served on the Adams County Conservation board, The Ritzville Warehouse Co. board, The Lind Alumni Association board, and as Lind Boy Scouts assistant scout master. He is also serving as the president of the Washington Wheat Foundation (WWF). He believes the most important mission of the WWF is to educate the public about agriculture and food production.

Miller obviously takes the role of the WWF very seriously. They have a substantial budget, and he understands the importance of putting the funds to the best use for providing the general public with a better comprehension and appreciation for where and how their food is produced.

“There is an immense lack of understanding in the general public about our food production,” said Miller. “The WWF is trying to educate people through many programs. We work with WAWG, Ag In The Classroom, the Northwest Renewable Resources Institute, KR Creative Strategies, and other groups to tell the true story of agriculture. Social media is a necessary part of this effort.”

Miller pointed to the issue of using farm chemicals, especially Roundup products, as one example of the lack of understanding in the general public.

“There has been so much skewed information, that there is a widespread misunderstanding about agriculture,” said Miller. “Farmers truly are the best conservationists. We want to leave our soil in better shape than when we were given the opportunity and privilege to manage and protect the resource. We truly strive to be good stewards of the land. We are simply using the most safe, effective tools available to us to efficiently produce food.”

The favorite part of Miller’s career as a farmer was watching his family grow, having them attain higher educations, and giving them all the opportunity to farm themselves, if they chose to do so. All three children and their spouses are involved with farming.

Miller is planning to “fully” retire soon, giving him the opportunity to travel to places like Charleston, S.C., Washington, D.C., and the New England states for a fall colors tour. Don’t worry about him getting bored, however. He will continue to serve on the WWF board, and when around the farm, he’ll still be a parts runner and handling other duties.

To learn more about the WWF, visit their website at wawheat.org. ■

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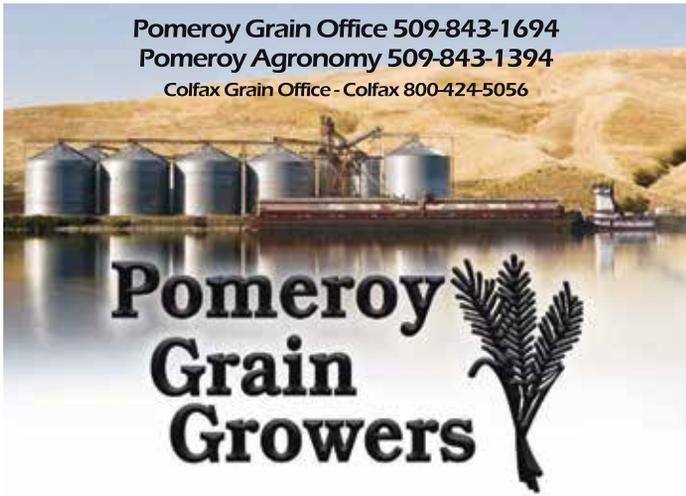
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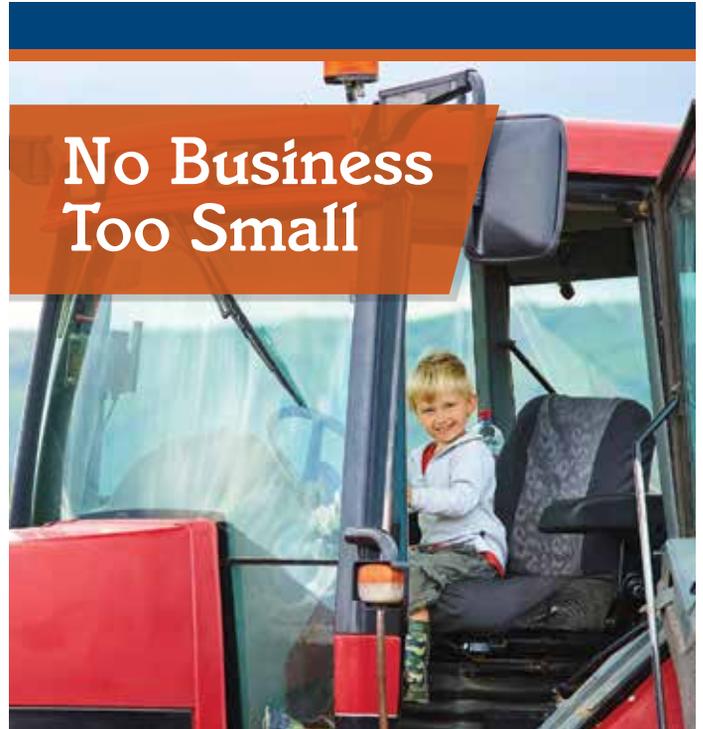
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WASHINGTON GRAIN COMMISSION

By Ben Barstow



Over the years since Abraham Lincoln signed the Morrill Act creating land-grant colleges, and Grover Cleveland signed the Hatch Act establishing the U.S. Department of Agriculture's Agricultural Experiment Stations, and Woodrow Wilson signed the Smith Lever Act creating the Cooperative Extension System, there has been a lot of public money poured into agriculture. It has been a good investment. The U.S. has led the world in developing ag technology to produce more human consumable calories per acre. Repeated studies have estimated the return on public investment in agriculture has been about \$20 for every dollar spent.

Reliable, unbiased information has always been one of the main benefits of publicly funded research. For all the public money spent so the public doesn't have to rely on information funded by the agricultural inputs industry, the public sure doesn't seem to pay much attention to those publicly funded scientists.

When U.S. Army Corps of Engineers fisheries biologists, who do nothing but study salmonids and dams, say fish and dams can co-exist, the public doesn't seem to listen. When the best available science from publicly funded biologists, geneticists, and plant physiologists — and 20 plus years of experience — all say that GMO corn or soybeans or other GMO crops are not going to cause catastrophic damage to the planet, it falls on a lot of deaf ears. It just seems like the American public spends a lot of money on advice and knowledge that we don't listen to.

All of that was on my mind as I started to write this column, which was to be something about the research and education that the Washington Grain Commission spends some of your money on. As background for that, I started to browse the Washington State University Small Grains Extension website, and then it hit me. The small grains extension website is a great example of educational material that your commission dollars have supported, but I have mostly ignored. Just like "the American public spends a lot of money on advice and knowledge that we don't listen to," I've been doing the exact same thing!

It really is a shame I haven't spent more time with this commission-supported resource because there is a lot of good stuff on there. That toolbox tab

has, among other things, a "straw removal calculator" that can help you estimate the value of the nutrients removed with the straw. I had looked at the variety selection tool, but it's even available as an app for your phone. The soil test interpretation software is useful, too, now that I've taken the time to explore it a bit.

I've been watching my soil pH since I started farming, and I know it is a growing problem, but the lime requirement calculator was sobering — actually startling, even frightening, and definitely depressing all at the same time!

Maybe that's why I haven't spent much time till now at smallgrains.wsu.edu. If I don't look at the cost of mitigating a couple generations of nitrogen fertilizer application, it makes it easier to ignore a very complicated problem. It keeps life so much simpler if I don't have to change. Likewise, baling or burning straw. I know there is a nutrient removal cost, but if I don't look at the actual numbers, the dollars going down the road with the straw are easily ignored or rationalized. It's so easy to ignore or refuse to look at what we don't want to hear or see.

It must be a human thing to do, because we all seem to do it, farmers and nonfarming public alike. For proponents of dam breaching, it is so much easier to ignore the dozens of interlocking factors that impact fish populations and focus instead on just four dams, a seemingly "simple" solution that has no obvious direct impact on the proponents themselves.

We are all human no matter which side of (insert any contentious issue here) you are on. Personally, I know my capacity to be shortsighted knows no bounds, and my resistance to change is stronger than I would like. My visit to smallgrains.wsu.edu was certainly educational. I learned that in the case of ignoring what science is telling me, I may have a log in my own eye as big as the log I want to remove from my neighbor's eye. I will strive to be always gracious to those with whom I disagree, and I am going to get serious about applying lime. The problem is not going away, and it will never be any cheaper or easier to deal with. ■



Numbers count when seeding

Trials suggest both rate, seed size impact winter wheat stand establishment and yield

By Clark Neely

*Extension Agronomist and Cereal Variety Testing Lead,
Washington State University*

By Aaron Esser

*Extension Agent and Adams County Extension Director,
Washington State University*

Seeding rate is one of the few factors within the control of wheat growers, yet uncertainty remains about ideal winter wheat seeding rates across environments, varieties, and seed size. Many growers still plant on a pounds-per-acre basis rather than seeds-per-acre basis; however, wheat seed size regularly ranges from 9,000 to

15,000 seeds per pound. At a rate of 75 pounds per acre, this means a variety with 15,000 seeds per pound would be planted at 1.13 million seeds per acre, while a variety with only 9,000 seeds per pound would be planted at 675,000 seeds per acre. If the goal is to plant at 900,000 seeds per acre (i.e. 21 plants per square foot), then variety A will cost an extra \$3.83 per acre in seed cost, while variety B will have five less seeds per square foot going into the ground than desired.

This article discusses findings from several seeding-rate trials and seed size treatments conducted across Eastern Washington over the past five years.



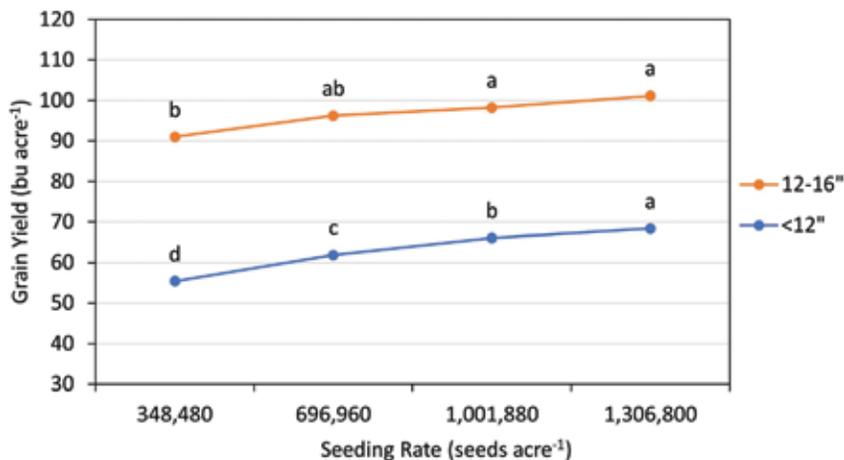
Washington State University variety test plot seeding near Walla Walla on April 6. Photo by Lori Maricle/Washington Grain Commission.

Seeding Rates

In 2018 and 2019, four seeding rates of soft white winter wheat were planted across eight environments. A very clear trend across all locations emerged indicating that higher seeding rates increased grain yield from 350,000 through 1.3 million seeds per acre, though there was a rate of diminishing returns observed as seeding rate went up (Figure 1). In general, seeding rate had limited impact on test weight. Only two site years showed differences where the lowest rate had the lowest test weight with no differences present among the other rates. Impacts on grain protein, heading date, and plant height were minimal or nonexistent at all sites. It is important to point out that 2018 was an above-average year for moisture and yield, while 2019 was closer to average. Abundant moisture may have allowed a higher plant population to take advantage of the additional moisture.

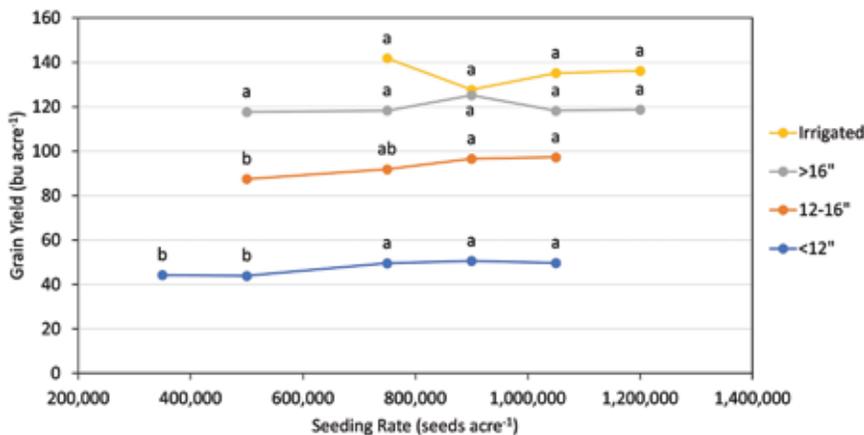
In 2022, the hard red winter wheat variety Keldin was planted at various seeding rates at all Washington State University (WSU) Extension variety trial sites. Only six out of the 14 sites showed a statistical difference among seeding rates. In zones receiving less than 16 inches of annual precipitation, there was a consistent bump in yield (four to six bushels) from 500,000 to 750,000 seeds per acre with no significant yield advantage observed beyond that rate (Figure 2). In the dryland sites receiving more than 16 inches of precipitation, along with the irrigated sites, there was no observed difference among rates. Yields in 2022 in the below-12-inch precipitation zone were closer to average for the area, and thus lower available moisture may have favored lower plant populations than in 2018. The 2022

Figure 1



Impact of seeding rate on grain yield of soft white winter wheat. Below-12-inch precipitation zone data averaged across varieties Puma and Otto during the 2018 and 2019 seasons at Connell, Lind, Ritzville, and St. Andrews, Wash. Data from the 12-to-16-inch precipitation zone averaged across Otto and Norwest Duet at Almira and Puma and Jasper at Creston in 2018.

Figure 2

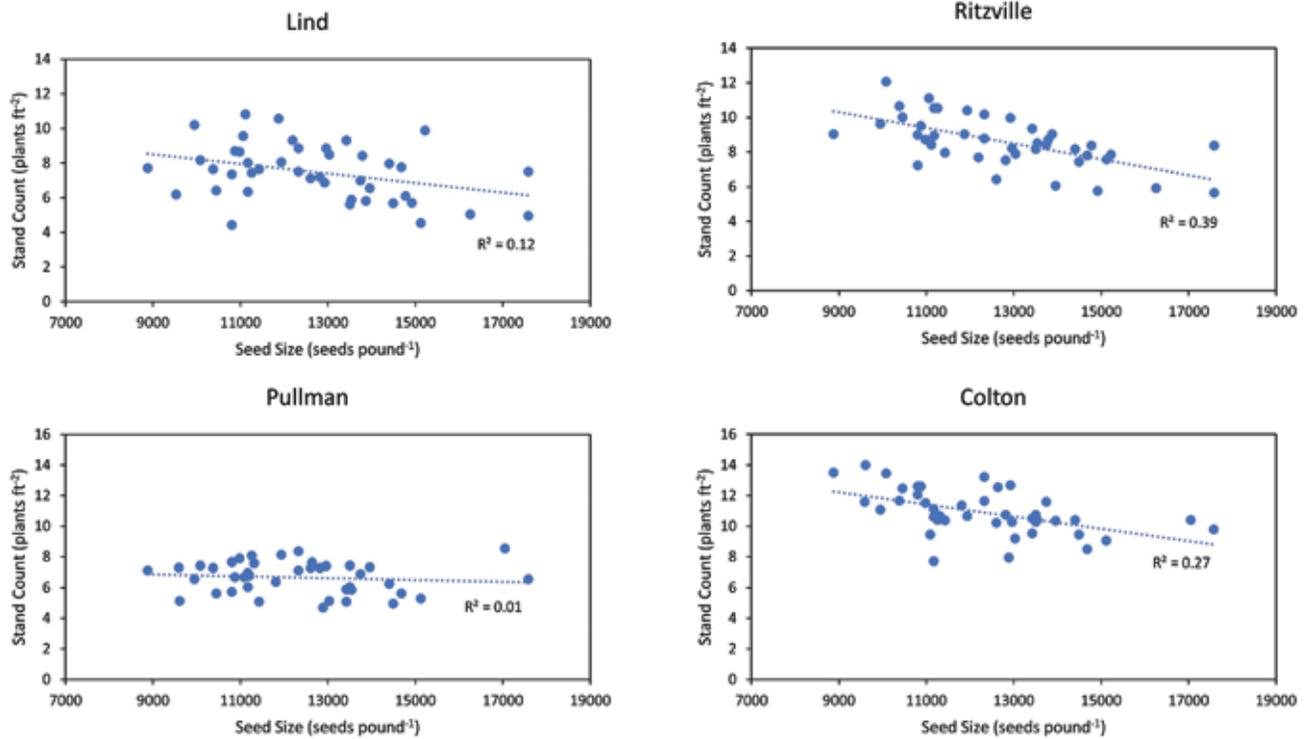


Impact of seeding rate on grain of hard red winter wheat variety Keldin when averaged across multiple locations within each precipitation zone during the 2022 season.

trials in the low rainfall zone were all planted late due to the dry fall in 2021, which limited fall tillering, but the long, cool spring in 2022 favored development of more productive spring tillers. Little difference was detected for test weight, grain protein, heading date, and plant height among the different seeding rates.

For winter wheat seeding rates, the most consistent finding was zero cases where higher seeding rates had a negative impact on yield. One possible advantage from going with higher seeding rates is to compensate for smaller seed size, which may have more difficulty emerging through heavy residue or dry soil conditions. Weed scientists will also tell you that a vigorous crop is one of the best tools in weed control or suppression. More seeds generally

Figure 3



Relationship between seed size and stand counts taken from Washington State University Extension winter wheat variety trials in fall 2022 at Lind, Ritzville, Pullman, and Colton, Wash.

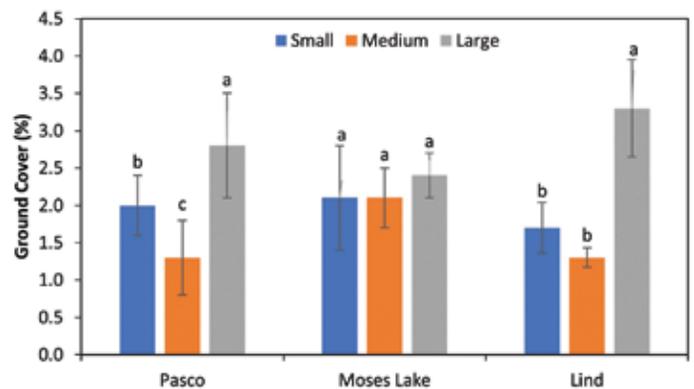
mean more plants and faster canopy cover to snuff out weeds and reduce dependence on chemical and mechanical control. Furthermore, with certified seed selling at roughly 25 cents per pound, an additional 250,000 seeds per acre (equal to 19 pounds of seed if you assume approximate seed size of 13,000 seeds per pound) only costs an additional \$4.81 per acre. One extra bushel of wheat will more than pay for this additional cost.

In the higher rainfall and irrigated zones, growers should be more hesitant to go with higher rates. There was no evidence that higher rates would increase yield potential, which suggests growers could save costs by cutting back seeding rates. Lodging was also a factor in some trials in 2022 where higher rates trended towards higher lodging potential.

Seed Size

In fall 2022, seed from soft white wheat variety LCS Shine was sifted into a “large” (10,810 seeds per pound) and “medium” (13,432 seeds per pound) seed size treatment from the same seed

Figure 4



Seed of soft white spring wheat variety Ryan was planted using three seed sizes at three sites in 2023. Different letters indicate treatment differences ($p=0.05$) within each location (small = 16,200 seeds per pound; medium = 13,150 seeds per pound; large = 9,400 seeds per pound). Error bars indicated one standard deviation.

source. These treatments were planted at Lind, Harrington, Ritzville (all deep furrow sites), and Horse Heaven (direct seeded with hoe drill). When averaged across all four sites, the larger seed size increased stand counts by 1.4 (22%) plants per square foot. At Lind, the larger seed size produced eight more bushels per acre.

As a follow up to this study, fall stand counts were taken for all varieties in the soft white wheat variety trials at Lind, Ritzville, Colton, and Pullman and were compared to seed sizes of each entry planted in those trials in fall 2022 (Figure 3). At Ritzville, stand count was reduced by 4% every time seed number per pound increased by 1,000 seeds. Lind showed a similar trend but had a weaker relationship. This is not overly surprising given these two locations are deep-furrow sites, and seeds rely on stored energy to push through six or more inches of soil before emerging. No trend was observed at the Pullman site, however, there was again a negative trend at Colton. Colton was a direct-seeded site planted with a hoe-opener-type drill, whereas Pullman was planted with a conventional double disk drill, which may have played a role in the differences between the two high rainfall sites.

While not a winter wheat, three seed sizes were planted in 2023 of soft white spring wheat variety Ryan at three locations. Results show that while stand counts did not differ by seed size, there was a significant bump in ground cover at Pasco and Lind with the largest seed size (Figure 4).

More information is needed to better understand these relationships in order to formulate more accurate recommendations for ideal seeding rates. An online calculator is also available on the WSU Small Grains Extension website (smallgrainscalculators.cahnrs.wsu.edu/SeedingRate/Converter) to help growers convert among pounds per acre, seeds per acre, seeds per square foot, and seeds per foot of row using seed size. Growers are encouraged to experiment with their own seeding rates to determine the best rate for their operation. While growers may have limited control over seed size, knowing the impact seed size can have on stand and ground cover may inform them on whether seeding rates need to be adjusted to compensate for small or large seed. This is particularly true under less-than-ideal planting conditions when smaller seed is more likely to result in reduced stands. ■

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- **District 7 Barley** (Lincoln, Spokane, Ferry, Stevens, Pend Oreille, Adams, Grant, Douglas, Okanogan, Chelan, Kittitas)

If so, nomination letters for upcoming commissioner elections will be mailed out at the end of September. Will you get your letter? Ask your grain dealer/handler how they are reporting your county of production to the Washington Grain Commission. Not sure which district your county of production is in? Check the map at <https://bit.ly/2UL0P5I>

You can email us at wgc@wagrains.org or call the office at (509) 456-2481 with any questions. ■

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Spicing up spring wheat

PEST AND WEED CONTROL, SOIL DEGRADATION, CLIMATE, QUALITY ALL ON RESEARCH RADAR

By Michael Pumphrey

Professor and O.A. Vogel Endowed Chair of Spring Wheat Breeding and Genetics, Washington State University

Production technology, grain markets, consumer preferences, growing conditions, pests, diseases, weeds, and economic realities continue to evolve. As the “staff of life,” wheat production with improved varieties must do the same. Some changes are gradual, with time to adapt that is more in line with the time it takes to develop, produce, and commercially release a wheat variety. Some issues are sudden and disrupt production or profitability in more short-term ways. A primary goal of the Washington State University (WSU) spring wheat breeding program is to look ahead to minimize the lows and take advantage of the highs.

For spring wheat in the Pacific Northwest (PNW), there are five primary concerns actively being confronted to prepare for the future:

- Pest and pathogen change — rust and Hessian fly resistance.
- Soil degradation — aluminum tolerance.
- Climate variability — heat and drought tolerance.
- Weed control and integrated weed management systems — herbicide resistance, competitive early vigor, alternate maturity.
- Grain quality and nutrition — milling and baking quality, stable falling numbers, specialty end-use

performance, nutrient content.

New tools and technologies are essential to make progress in each of these areas while continuing to make genetic gains for general productivity.

We are in a strong position to confront our primary pest and disease concerns due to the comprehensive team of WSU, U.S. Department of Agriculture’s (USDA) Agricultural Research Service, and University of Idaho (UofI) scientists on the front line of wheat crop protection. Our world-class wheat rust research scientists keep tabs on stripe and stem rust pathogen races, epidemiology, resistance genetics, and chemical control methods. This combination of information is used by people like me in wheat breeding to release varieties with proven resistance genetics.

Our partnership with UofI scientists on Hessian fly resistance provides similar information and has recently resulted in our ability to track resistance in varieties and breeding materials like never before. We have identified the genes that protect our varieties, developed tools to track resistance, and incorporated new resistance genes in elite breeding germplasm in a systematic way. The first Hessian fly-resistant spring club wheat, Roger, will be commercially available in 2024.

Soil degradation with lowering pH across the PNW has many impacts on wheat production, with tolerance to aluminum toxicity being a primary focus for wheat variety selection. The Emtman family has provided land



near Rockford, Wash., for over a decade now that allows us to screen all advanced breeding lines for aluminum toxicity tolerance under the most challenging conditions. Dr. Kurt Schroeder at the UofI has another high-quality screening site near Moscow, Idaho, that allows us to screen varieties and advanced materials. Knowledge on aluminum tolerance has changed from unknown to must-know over the past 10 years, and significant production increases have followed.

Seasonal climate variation has been striking the past several crop seasons. The uncontrollable timing and/or extent of soil temperature at planting, heat, drought, or in-season precipitation is a huge challenge for choosing optimal production practices and selecting varieties. We have several federally funded grants from the USDA-National Institute of Food and Agriculture and the Foundation for Food and Agricultural Research aimed at measuring and better identifying traits and germplasm with resilience to these climate extremes. A combination of genetic data, drone data, and various trait data are being assembled to better identify and predict breeding materials with early vigor, stability, and higher performance under uncertain conditions.

Looking to the future, we are currently conducting research aimed at exploring variation created by gene-editing technology, next-generation hybrid wheat systems, and predictive modeling to further enhance wheat variety development for climate resilience. A fundamental principle in our variety evaluation efforts is identifying spring wheat germplasm that is broadly adapted across variable microclimates, which is essential to capture the good conditions and persist in challenging environments.

Herbicide-resistant weeds, rotation restrictions, and

the timing of weed development in relation to spring wheat crop development are also major, long-term concerns. Spring wheat varieties with herbicide tolerance traits are needed for rotation and rescue situations, and we have now released three Clearfield+ spring wheat varieties, Butch CL+ soft white, Net CL+ hard red, and Hedge CL+ club, that improve productivity and production options in rotation with Clearfield winter wheat. CoAXium hard red and soft white spring wheat variety development is well underway with elite materials entering state-wide evaluation in 2024.

Variable early vigor, canopy closure, and maturity are also available with some of our newest varieties being among the earliest maturing varieties in the market while maintaining top-end yield and other agronomic performance. Planting at least two, well-adapted varieties with different growth and maturity characteristics is my preference given seasonal uncertainty.

Wheat contributes about 20% of the calories and protein humans consume globally. This presents a challenge in maintaining nutrition where hunger, malnutrition, and obesity are all at work. We are working to simultaneously make wheat more productive (calories and protein) while increasing nutrient density and develop some wheat varieties with modified starch properties to address human health concerns through multiple, extramurally funded projects. Excellent overall end-use quality is our continued goal, and all WSU spring wheat varieties that we have released in the past decade have Most Desirable quality rankings. The cookies, crackers, pastries, bread, pizza, bagels, tortillas, noodles, pasta, and other products made from our hard red, soft white, club, and hard white spring wheat varieties hopefully provide a little spice in life. ■





Ting Liu

U.S. Wheat Associates (USW) - China Regional Office, Beijing, China.

USW NEWS

Opening Doors in a Naturally Winning Way

Where and who we come from greatly impacts our lives. For Dr. Ting Liu, growing up as an only child in south-eastern China's Zhejiang province shaped her journey towards a doctorate in food science and her role at U.S. Wheat Associates (USW).

"My love of food started as I watched my grandmother form dough for the many different Chinese wheat foods she made and sometimes helped me make," Dr. Liu said.

Filled with the traditions of her grandmother's baking, Liu attended the University of Minnesota, Twin Cities, for graduate study and postgraduate research on whole wheat products.

▶ **More online**
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WGC Exclusive | Ting Liu

She's Going the Distance

to Bring Success to Millers and Bakers with U.S. Wheat.

Wheat is a staple food for more than 35% of the human population. You could say this small grain punches above its weight. With muscle-building proteins, energy-boosting carbs, and a whole lotta fiber, these grainy powerhouses will have you goin' the distance, like you're starring in a Rocky movie. And that means Ting Liu, a technical specialist for U.S. Wheat Associates (USW) based in Beijing, China, is the regional equivalent of the fictional Mickey Goldmill, Rocky's trainer (cue "Eye of the Tiger").

"I bring a strong theoretical knowledge of wheat and flour to design demonstrations of U.S. wheat's strengths to customers," Liu said. "But besides collecting solid data, it takes bilingual skills to translate technical communications between USW and Chinese customers in an easy-to-understand way."

Liu joined USW in 2016 after completing her doctorate program. "I decided to do my postgraduate research on whole wheat products because of my childhood memories and my understanding

Continued, next page



Highlight

U.S. wheat in China

Your wheat in action.



Steamed buns

These fluffy, yeasted dough "mantou" are the original Chinese bread, cooked with steam in large trays.



Nod for noodles

Very different than what you commonly see in the U.S., authentic Chinese chow mein is made with boiled, then fried, noodles tossed with shredded meat in a classic stir-fry sauce.

Growing Western food trends

Western-style foods like hearth breads, hamburgers, pizza, and baguettes are gaining popularity in China.

EXPERT PROFILE

MILLING NEWS Industry Insights - U.S. Wheat

New Trends in China's Flour Market

presenting an opportunity for the U.S., "since our wheats are bred and segregated for specific end uses," he said.

Chinese customers love information about the world of wheat, including crop progress and industry trends. Flour quality for frozen dough applications is the current hot topic, with frequent requests for technical support, reports Coey.

"There is a steady flow of milling and baking industry information and Chinese customers are keen to stay abreast of all that. When it comes to localizing technical information and explaining its importance, USW Technician Ting Liu has become a great resource for our customers, and they have come to rely on her and on USW. When it comes to working with our stakeholders in both the U.S. and China, it is her people skills that really shine," Coey said. ■

China has a centuries-old wheat-based food culture, but foreign baking applications are gaining popularity in the market. Jeff Coey, the U.S. Wheat Associates (USW) regional vice president in Hong Kong, states that China is importing more wheat for specific purposes,



High-quality U.S. wheat is well-suited for frozen dough applications, a trending category.

“We love soft white and club for cake flour.”

USW tech shares her love of wheat-based food with customers interested in all things wheat.

Continued from previous page.

of the health benefits of whole grains,” Liu said. “But it was my experience of working at the Wheat Marketing Center that really allowed me to see how we can use technology to solve real industry problems.”

Like any good coach, her idea of success is providing value. “Not only to be useful for myself, but also for others, so that others are willing to come together with you, and you can make contributions to society.”

Her aim is to contribute both to the U.S. wheat trade and to Chinese flour mills and bakeries by advancing their knowledge and solving their technical problems, all using U.S. wheat.

“I hope, in the future, relationships between U.S. and China can be more peaceful, and that the international wheat trade can proceed purely and simply,” she said.

While Liu hails from the southern part of China where rice is the dominant staple grain, she enjoys eating all kinds of wheat foods. “I love wheat-based food,” she said. “Food not only feeds people but also brings such happiness.” And speaking of happy, communicating and exchanging ideas with customers is one of the highlights of her job.

“It’s the best way for me to understand customer needs in the real world, which cannot



“USW’s good technical service can influence our purchase of specific classes of U.S. wheat, such as soft white wheat for making southern-style steamed bun products.”

— Ms. Xu Dongning (above), deputy general manager for Guangdong Kailan Flour Foods Company

be learned simply from books or the internet.”

This aligns with USW goals to earn trust with customers and develop a rapport as relevant experts.

“Nobody has to pay too much attention to us otherwise,” says Jeff Coey, who oversees Liu’s work and serves as USW vice president based in Hong Kong.

Coey affirms that the Washington wheat grower’s investment in breeding, the promotion of certified seed, and sustainable farming practices make for a compelling story for Washington wheat. “This is all inherently good and gives us much to talk about with customers,” he said. “As much as we love soft white and club for cake flour, if we could change one thing, it would be a reliable supply of hard white from the PNW to gain market share in Asian noodle uses. This would be a solid way to consolidate our position in many Asian markets.” ■

Greatest Strengths?

Ting’s communication skills are key. She also shows great empathy, tempered with a fun sense of humor. She represents us well.

— Jeff Coey/USW Hong Kong



8.3% Frozen and cold dough products, like ready-to-bake cookies, sweet rolls, and frozen pizza, are a

growing segment across the Asia Pacific region, driven by the increasing population and rising disposable income. Market reports project a compound annual growth rate of 8.3% for the Asia Pacific frozen dough market from 2023 to 2028. U.S. Wheat Associates (USW) partners with the Sino-American Baking School (SABS) in Guangzhou, China, to showcase the advantages of U.S. wheat

classes. Through the USDA’s Agricultural Trade Promotion (ATP) program, USW has updated SABS with modern technology, including new blast freezing systems and other commercial equipment upgrades, that promote the use of U.S. wheat. ATP funding enables SABS and USW to maintain influence in China’s baking industry and support future sales. ■

■ **Industry Insights - Guangdong Xinliang Company**

Customer Mindset.

to understand the market and make purchasing decisions. Secondly, the harvest reports and annual crop quality seminar keep us updated on new crop quality, which affects our purchasing decisions. Thirdly, technical seminars, training courses, and in-plant communications help to improve our staff’s technical knowledge and skills in milling and using U.S. wheat,” said a company representative. ■

What does the Guangdong Xinliang Company appreciate about USW customer service? “USW’s weekly price reports are helpful

USW NEWS

Tech Insights



USDA-FAS Agricultural Trade Office activities allow Liu to promote the functionality of U.S. wheat in the food and baking industries.

Technician Q&A: How this Expert Stays on Top of her Game

What do you do to destress?

Exercising can clear my mind and put the stress away for a while.

Who do you look up to?

Within USW, Mr. Roy Chung is the person I look up to and try to learn from. Every time I listen to his lectures or work with him, I marvel at his passion, keen observation, and ability to influence people.

Who are your heroes?

My parents are my heroes. They have worked so hard all their lives, fulfilling our material needs, and giving me enough freedom to choose my own life. Their down-to-earth attitude sets a good example for me to work hard and work smart.

What do you do to stay on top of your game?

Never stop learning.

USW NEWS

Regional Profile

Great prospects are on the horizon for U.S. wheat in China.

As pandemic restrictions ease, USW closely monitors the ongoing trends in flour consumption, growth in the baking sector, and increase in demand for specialty flours.

In early 2021, China’s state trading company COFCO imported 1.2 million metric tons of U.S. hard red winter wheat, followed by imports of hard red, soft red winter, and soft white wheat into 2022. With developments in China’s grain policy and tariff treatment of U.S. goods, USW is cautiously optimistic about the market. Overall perceptions of U.S. wheat remain strong. ■

WGC Exclusive | Wei-Lin Chou

BAKING NEWS | Industry Insights - U.S. Soft White Wheat

Technical Programming Takeaway: The Superpower of Starches

Starch molecules make up the largest portion of wheat flour. “After cooking, starch properties affect food applications a lot, especially for products made with soft white wheat flour,” Wei-Lin Chou said. “However, I found that wheat research focused more on the protein part, traditionally. I hope my starch experience can bring more new ideas to customers’ product development that help unlock potential value in U.S. wheat.”

In the Marvel Cinematic Universe, Ant-Man has the unique ability to shrink his size while retaining incredible strength and power. In the world of wheat, the role of Ant-Man is played by starch, and Wei-Lin Chou is a starch whisperer.

Chou joined the U.S. Wheat Associates (USW) Taipei Office in 2020 as an Asian products and nutrition technologist. He is a cereal scientist by training and has worked in the international starch business in Taiwan and Thailand.

His expertise includes numerous research projects at National Taiwan University and the China Grain Products Development Institute. Currently, Chou is charged with localizing the latest technical guidance for millers and bakers, as well as helping to guide special research projects to address specific customer needs.

One area that interests him is research in starch properties using Rapid Viscosity Analysis (RVA), which helps explain what happens to starch during the cooking and cooling process.

“This interest is what ultimately led me to wheat,” Chou said. “RVA helps us understand how batter-based foods can be produced with more control at volume with consistent results.”

Part of USW technical programming is providing education to customers based on their company’s goals or challenges. “I enjoy interacting with our customers. They are always interested in learning new things, and I consider it an honor to help them find and digest new information,” Chou said. “USW has many talented and dependable experts in various fields. To brainstorm with these talented people and to achieve targets together is always my favorite part of USW technical programming.”

“I also hope that others can build on my knowledge just as I have benefited from those researchers who have gone before me.” ■



Wei-Lin Chou

U.S. Wheat Associates (USW) - North Asian Region, Taipei Office, Taipei, Taiwan.

USW NEWS

Finding Harmony in the Wheat Industry

Wei-Lin Chou will tell you that wheat is the most fascinating food ingredient in the world, but his fascination with food science first started with starches. An elementary school science lesson showed him that almost all the foods he loved contain starches.

Chou grew up in New Taipei City, Taiwan. “My parents taught me to treat others with honesty and kindness, always feel grateful and cherish the things we have, and harm neither others nor our environment,” said Chou. “My family has really shaped who I am.”

These lessons carried Chou to National Taiwan University, where he started studying in the nursing department before transitioning to agriculture chemistry. Chou believes his experience starting in nursing has helped further his career.

“Although this is an unusual way to start in wheat science, it did teach me empathy, patience, and respect. In my interactions with colleagues and customers, it has helped me a lot to remember my experience with some very special nurses I trained with,” he said.

“For me, each wheat product is like a harmonious symphony composed of starches and glutes, so beautiful and kaleidoscopic.”

More online

<https://bit.ly/3K2whDn>



How does this expert stay on top of his game?

“I happen to like technical topics and reading and doing research, but not everyone has such an interest. Teamwork means that we can do what we do best, knowing that we rely on our teammates to support us where they can. This allows us to achieve much more than we ever could individually.”

But sometimes the learning can be had all around us. Every time I travel to a new place, the local supermarket is always a place I must go to.”

EXPERT PROFILE

Greatest Strengths?

Wei-Lin has a tenacity that is needed to design and execute research well, as well as to find answers for our customers.

- Jeff Coey/USW Hong Kong



Dependable People. Reliable Wheat.

U.S. Wheat Associates (USW) is the export market development organization for the U.S. wheat industry. USW promotes the reliability, quality, and value of all U.S. wheat classes to wheat buyers, millers, bakers, food processors, and government officials around the world.

Proving Value through SRC

Wheat Products Dominate in a Traditionally Rice-Forward Country

In a country that relies entirely on imports for its wheat foods requirements, a quality-conscious flour industry drives U.S. market share, which sits at approximately 80%. Taiwan is a traditional rice country, but wheat consumption exceeds rice consumption due to urbanized lifestyles, the sheer variety available in wheat products, and USW outreach activities funded by the USDA's Market Access Program and state commissions, including the **Washington Grain Commission**.

Wheat flour is a favored ingredient in both Western and traditional Chinese foods. Taiwan has been using Western White, which is a blend soft white (SW) and club wheat classes, for cakes, biscuits and pastries.

USW and the China Grain Products Research & Development Institute (CGPRDI) in Taipei hosted a seminar in December 2021 to provide an analysis of typical SW flour compared to the higher-protein 2021 SW crop, showing millers that the higher protein wheat flour maintained the desired weak gluten strength and baking characteristics. Testing included Solvent Retention Capacity (SRC) analysis, giving Taiwan millers a deeper understanding of the properties of high protein SW.

The SRC testing apparatus was donated to CGPRDI by the WGC in 2018 in the hope of supporting the research and development of soft wheat products. Without this equipment, USW Taipei and CGPRDI would not have been able to conduct the effective SRC analysis for Taiwan millers during the difficult period of high protein soft white (2021 drought) and the COVID-19 outbreak.

CGPRDI conducts flour analysis and testing for each U.S. wheat vessel purchased by the Taiwan Flour Millers Association (TFMA), which usually amounts to 20-24 vessels each year. The USW history at CGPRDI is a long one, having helped to establish the CGPRDI school and laboratory in 1967 to provide technical training for the Taiwan baking and milling industries. ■

U.S. wheat vs. other origins?

"Because of USW's reliable technical services, we have a higher confidence in the U.S. wheat.

Although the price of U.S. wheat is a bit higher than other origins, U.S. wheat is still our first choice in our purchasing strategy."

- Jassy Tung, Special Assistant, Top Food Industry Corp.



CUSTOMER EDUCATION

Above: Wei-Lin Chou demonstrates Solvent Retention Capacity (SRC) analysis to determine wheat quality at the Baking Science and Technology Course at USW/Singapore in Thailand.

"The close cooperation with USW/Taipei is the main reason why we choose grade No.1 U.S. wheat as our major wheat origin for the long term. It's our pleasure to supply the best U.S. wheat flour to our customers." – Bon Lin, R&D manager for Lien Hwa Milling Corp.

■ Tech Insights - Top Quotes

Behind the Scenes: Q&A with a USW Technician

Beyond the aroma of fresh pastries and the success stories shared through USW's Wheat Letter Blog, we are diving into the world of USW technical expert Wei-Lin Chou, to better understand where he draws inspiration and what motivates him.

Who are your heroes?

No one can just copy another's life. Therefore, I don't have a specific person as my hero. We can learn by example from people doing good things, but we can learn by counterexample when people do bad things.

What do you do to destress?

I enjoy eating, but really everyone in Taiwan enjoys eating. What is special here, I think, is that people love novelty in food. If you come to Taiwan, you will see that people here love to talk about food. It's a fun topic that anyone can relate to. It is something that we can share so it binds us together.

What are two inspirational quotes you try to emulate/live by?

"Quitters never win, and winners never quit." "To approach greatness, aim for the perfect."

What would you say to a Washington farmer?

We appreciate the steady supply of wheat, especially the soft white and club wheat that Washington farmers are known for. We'd like to thank them for that and for the quality that they ship every year. ■



Wei-Lin Chou presents with Peter Lloyd of USW/Casablanca about white club wheat.

WHEAT WATCH

WASHINGTON GRAIN COMMISSION

Geopolitics putting markets on high alert



By Tyllor Ledford
Market Analyst, U.S.
Wheat Associates

Over the past year, volatility has reverberated across the wheat

markets, and this month has been no different. Since the last Wheat Watch column, dryness throughout the Midwest — particularly in the Corn Belt — wreaked havoc on wheat and corn markets. Corn conditions hovered at their lowest rating since 1988. A surprising U.S. Department of Agriculture (USDA) acreage report, released on June 30, topped off the preexisting volatility. After markets cooled off from the bullish acreage report, the USDA World Agricultural Supply and Demand Estimates (WASDE) provided the first by-class look at the U.S. balance sheet.

To round off the month, the expiration of the Black Sea grain deal and subsequent escalations in geopolitical tensions put markets on high alert.

The acreage report made a significant splash on commodity markets. Though my focus is centered on wheat, corn and soybeans were arguably the most significant surprise in the report. USDA forecasted corn area at 94.1 million acres, the third highest corn area on record and up from the previous estimate of 88.6 million acres. Moreover, the soybean area was down 5% on the year and below trade estimates, hovering at 83.5 million acres. With no new fundamentals to trade, wheat prices found little insulation from movements in corn and soybean markets.

Chart 1: U.S. crop planted area comparison

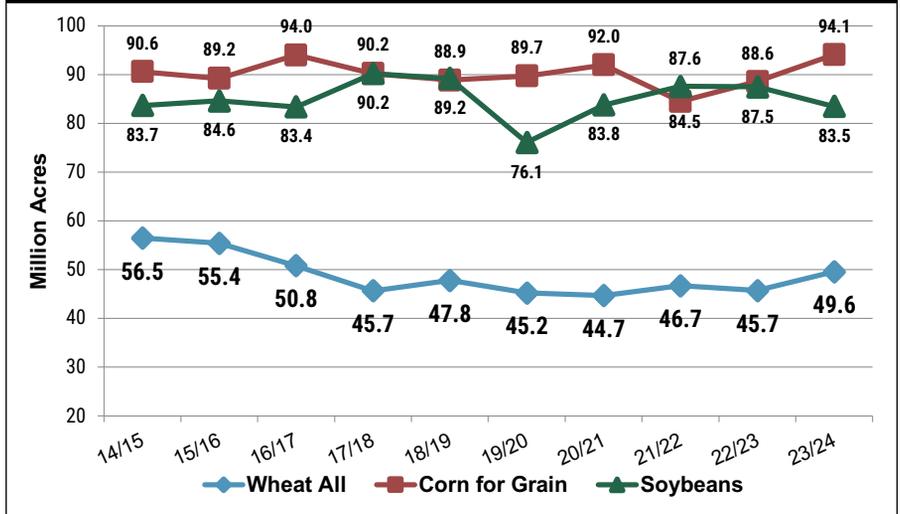
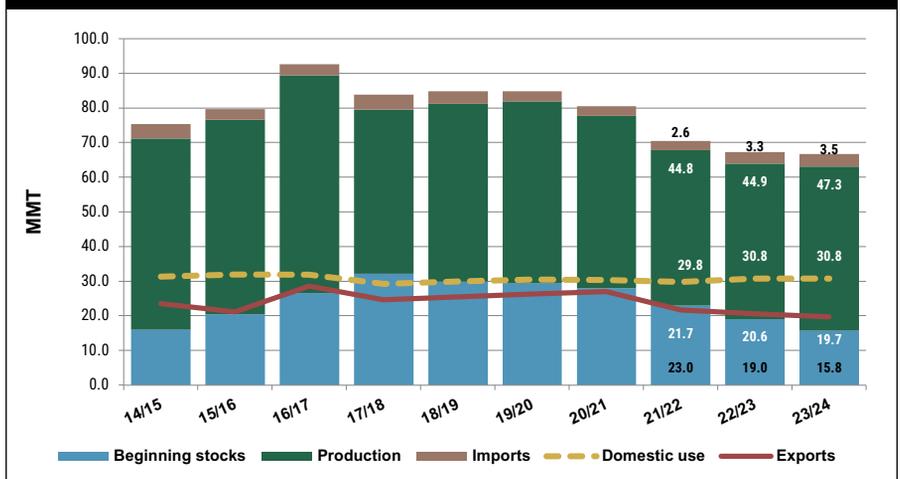
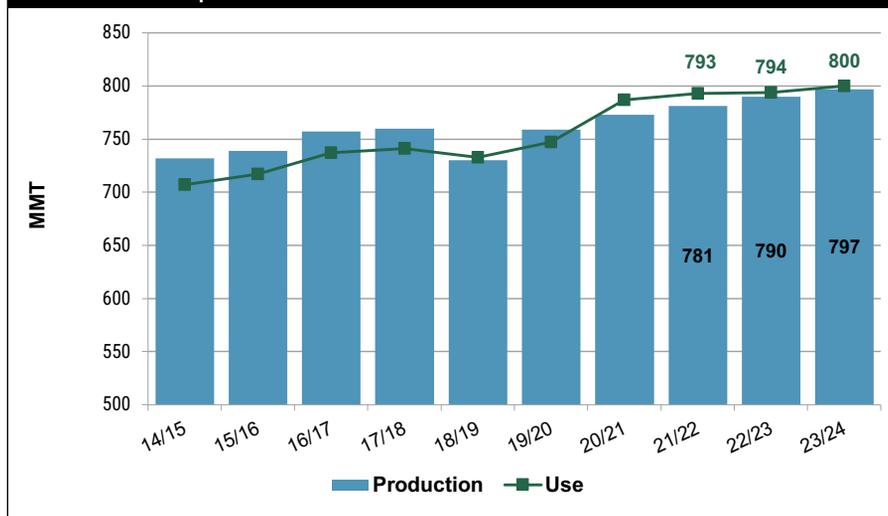


Chart 2: U.S. situation



Meanwhile, the wheat acreage estimates in the report were as expected, with the total U.S. wheat planted area reaching 49.6 million acres, up 9% from 2022 but 300,000 acres less than the March estimates. The 2023-24 wheat planted area still represents the largest acreage since 2016-17, as high prices in the fall of 2022 incentivized farmers to plant additional acres.

Little changed from the March estimates — the winter wheat area remains at 37 million acres, up 11% from last year. The most significant increase occurred in the soft red winter (SRW) wheat area, as it registered a 17% increase from the year prior. New to this report, the initial hard red spring wheat (HRS) area was forecast at 10.5 million acres, up 5% from the March estimates and 5% from 2022. Meanwhile, durum is predicted at 1.48 million acres, down 200,000 acres from the March estimates and 9% below 2022-23 (see Chart 1).

Chart 3: World production and use

Also released on June 30, the impact of the USDA Quarterly Grains Stocks Report was less pronounced but still important to note. USDA estimates that old crop wheat stocks are down 17% from 2022 at 580 million bushels, highlighting the incremental tightening of the U.S. balance sheet as U.S. wheat stocks hover at their lowest level since 2008-09. On-farm stocks are 124 million bushels, up 34% from 2022 but 22% below the five-year average. The larger on-farm stocks indicate that farmers hold a larger share of the wheat crop than years prior. Meanwhile, off-farm wheat stocks are down 25% at 473 million bushels.

Jumping ahead to July 12, the WASDE was slightly bearish, projecting larger production and relatively unchanged demand for the U.S. balance sheet. Despite the year's drought, USDA put U.S. wheat production at 1.7 billion bushels, up 74 million from the June estimates and 89 million above the year prior. U.S. ending stocks are up 30 million bushels from the June estimates and 12 million above 2022-23. Domestic consumption is up slightly, at 1.1 billion bushels, while exports are unchanged at 725 million bushels (see Chart 2)

The July WASDE also included the first by-class supply and demand estimates. Hard red winter wheat (HRW) production is up 9% from the year prior at 577 million bushels, though still 16% below the five-year average. HRS production is down 1% at 441 million bushels. SRW is up a whopping 25% at 422 million bushels, directly reflecting the increase in planted area. White wheat is down 10% from the year prior at 245 million bushels, while durum is down 16% at 54 million bushels. Ending stocks for the marketing year 2023-24 are projected to tighten even further for HRW, HRS, white wheat, and durum, decreasing by 2%, 2%, 15%, and 29%, respectively. Despite the continued erosion of ending stocks that tightens the U.S. balance sheet, light demand has allowed prices to drift lower, weighed by low global prices.

Zooming out to the global supply and demand situation, the July estimates put world wheat production at 796.1 million metric tons (mmt), down 3.5 mmt from the June estimates, as decreased production in Argentina, Australia, the EU, and Canada did not offset an increased projection for Russian production. As for demand, global consumption increased by 3.3 mmt to 799.4 mmt, outpacing production by 2.8 mmt for the fourth consecutive year. Global ending stocks sit at 266.5 mmt, a 4.2 mmt decrease from the June estimates. Stocks in

major exporting countries (the U.S., Australia, Argentina, Canada, the EU, Russia, and Ukraine) have also decreased by 8 mmt to 52.1 mmt, the lowest since 2012-13. Balance sheets are increasingly tight both in the U.S. and globally; however, ample supplies continue to weigh on global wheat prices. Russia remains the world's leading wheat exporter, driven by an enormous 2022-23 crop, historically large ending stocks, and a positive 2023 production outlook (see Chart 3).

Traditional fundamentals and reports aside, geopolitics have dominated recent discussions. As of this writing (July 19, 2023), Russia has officially withdrawn from the Black Sea Grain Initiative, and geopolitical tensions are rising as Russian airstrikes have been reported at the Ukrainian ports of Odesa and Chornomorsk. Until recently, the market was unconcerned with the expiration of the Black Sea Grain Initiative; however, the Russian missile strikes brought the war risk back into focus. Volatility will persist as long as Putin's war continues, and the recent developments confirm this trend.

Even in challenging market conditions, U.S. Wheat Associates is committed to developing markets for U.S. wheat and promoting the value and quality of U.S. wheat to customers worldwide. To learn more about our mission and subscribe to the latest market information, visit our website at ourstory.uswheat.org. ■

Tyllor Ledford is a market analyst for U.S. Wheat Associates, the industry's market development organization working in more than 100 countries. USW activities are funded by producer checkoff dollars and USDA Foreign Agricultural Service cost-share programs. For more information, visit uswheat.org.

The Farmer

Poem by Daniel Moore | Illustration by Rob Smith



The road, up the hill, came to a "T"
And I stopped at the red sign.
After judging it was all clear for me
I drove to my side of the line.

Straight ahead, the focus of my stare
Until the view on the horizon
Centered my thoughts on a fair pair
Of plots highlighted by the sun.

The left field was colored by light, green
Leaves marking the seeded wheat
Amidst the rich brown of dirt were seen
Mechanically planted ever so neat.

The right field was shaded gray by lean
Stones to mark where they lay
Amidst the dark green of grass were seen
Arranged in a thoughtful way.

I thought of The Farmer who toils
To scatter the sacred seed
Over all the four types of soils.
Many hungry souls to feed!

Ignorant guessing, from this distance,
Which lies beneath each shoot.
But The Farmer knows, in advance,
His soil favors the deepest root.

White for harvest and ready to reap
(A long, long season is best),
He gathers the kernels into a heap
And disperses all the rest.

The Farmer so loves the field He made
With the product of the seasons.
The goodness of His name is displayed
And the wonder of Him deepens.

THE BOTTOM LINE

Financial liquidity stress test

By Dr. Dave Kohl
President, AgriVisions, LLC

A common theme played out over the decades is that the lack of working capital and financial liquidity is often the choke point for financial and economic sustainability. This has been observed numerous times over the years in governments, households, and businesses. The financial stress of inadequate liquidity often comes very quickly.

The economic environment ahead in the agriculture industry has underpinnings of a possible financial liquidity crunch. Inflated input costs remain very sticky given the energy-centric agriculture industry. Interest rates have doubled and appear to remain elevated until the dragon of inflation is slain. A financial liquidity crunch for any agricultural enterprise could be quickly in the making with a sudden or prolonged price decline with elevated costs and interest rates. Mismanaged strategies or actions, coupled with a weather or black swan event, can quickly lead to an increased need for liquidity. What is the game plan for navigating these potential calamities?

Working capital plan

A high priority when monitoring financial statements later this year will be to analyze the top half of the balance sheet. Current assets are assets with a life less than one year, and current liabilities are obligations due within one year. This area of the balance sheet will be the first line of defense should a negative profit or cash-flow situation occur. Of course, the degree of severity and duration of the negative situation both need to be factored into the equation.

Then, one needs to examine the quality and quickness to cash of current assets in alignment with current liability obligations. For example, what is the quality of inventory? Can accounts receivable be collected? What amounts do you have in cash? What is being allocated to prepaid expenses, and how long are they committed?

To the other side of the balance sheet, one must determine the timing and obligation of debt service, paying down lines of credit, and accounts

payable. This is where a marketing and risk management plan review can be extremely useful in financial liquidity analysis. In this analysis, accrual expenses and income tax obligations need to be considered. Another factor some leave out of the equation is family living expenses and personal withdrawals.

Capital expenditure plan

A critical part of the working capital plan is an outline of capital expenditures, otherwise known as CapEx. The lure of tax savings at the end of the year with machinery or facility purchases can result in a liquidity crunch months or even years later if the purchase is not well thought out.

In this analysis, one needs to examine the needs versus wants. This is where an analysis of repair bills, technology obsolescence, and timeliness in crop and livestock management can provide data for objective, critical thinking. How will the payments of these capital expenditures occur? If a short or extended period of cash flow deficits were to occur, how would it draw down liquidity or working capital reserves, and what are the liquidity reserves available?

Working capital generation

Working capital can be generated in two ways. Building working capital reserves through profits and retained earnings after income taxes is the preferable method. If equity is available, some producers will restructure debt to build working capital. However, with a debt restructuring comes the obligation to provide a well-thought-out working capital plan to preserve a reasonable amount as a financial bridge until the business is in a position to generate working capital.

Through a spreadsheet analysis, simulations of profit and loss scenarios can provide a burn rate analysis. For example, if the farm or ranch has



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\$700,000 in working capital and \$350,000 in potential losses, the working capital burn rate would be two years. The closer this burn rate is to one year or less, the more a sense of urgency is needed in the working capital area.

How much working capital is enough?

Two key ratios can be utilized to assess your working capital readiness as a business. The current ratio is the standard metric used by most agricultural lenders to determine the sufficiency of working capital. Current assets are divided by current liabilities to calculate the current ratio. For example, if you have \$700,000 in current assets and \$350,000 in current liabilities, then the current ratio would be 2:1. This can be considered strong or a “green stoplight.” The yellow or caution light area would be greater than 1.25:1 and less than 2:1. Those with a current ratio of less than 1.25:1 will need to closely monitor cash flow and profits. Addressing deficits in working capital needs to be a high priority. In this analysis, a risk management plan and crop and other insurances need to be considered.

Another popular metric that is utilized is working capital divided into total farm expenses. For example, if working capital is \$250,000 and total farm expenses are \$1 million, then the ratio would be 25%. In other words, 90 days of yearly expenses could be generated within the business through working capital. If one examines the FINBIN data, published by the University of Minnesota, the top 20% of profitable producers maintain this metric above 40%. The bottom 20% of producers have just over 10% of total farm expenses as working capital. The “green light” area for this metric would be over 25%. A rating of “yellow light” would be between 10 and

25%. The “red light” area or a sense of urgency would be less than 10%.

Killers of working capital plans

Failing to execute and monitor a risk management and marketing plan can put working capital at risk. This could range from production risk to insurance coverages including crop and livestock, health, property, and other associated insurances.

The inability to develop and monitor the family living budget separate from the farm budget can drain working capital. Too many individuals living off farm and ranch earnings could be another issue. Nonfarm capital expenditures purchased in good times, otherwise known as killer toys or killer experiences, can also be an issue.

Complacency, as a result of government payments and increases in land values that can cover up mistakes, can lower the priority of working capital plans. Remember, when the tide goes out, one finds out who is naked or vulnerable!

Positives of a working capital plan

Working capital allows for the opportunity to take advantage of timely marketing and cash discount opportunities. All of the little things can mean a lot to the bottom line. Working capital is the shock absorber for pension and wealth gains knowing that you may not be required to sell long-term assets at a discounted value to generate working capital. A working capital plan can provide a sense of security to be able to sleep at night knowing that you have a backup plan or “Plan B.”

Navigating economic cycles requires prudence with a focus on working capital levels in both the business and household. Whether it is the weather or finances, the old adage “do not be scared, be prepared” is so appropriate! ■

Dr. David Kohl is an academic hall-of-famer in the College of Agriculture and Life Sciences at Virginia Tech in Blacksburg, Va. Dr. Kohl is a sought-after educator of lenders, producers and stakeholders with his keen insight into the agriculture industry gained through extensive travel, research and involvement in ag businesses.

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ages of all children.



Seeding Winter Wheat at Schorzman Farms JV near Marlin.
Photo By Kaedin Schorzman.



2022 Brock Ranch Partnership wheat harvest in Clyde. Fourth generation Preston Brock finishing a pass to come give 5th generation daughter, Madison, a ride. Photo by Jessica Brock.



Winter wheat in Hartline. Photo by Marlene Poe.



Heath (2) waiting to "help" dad Greg Moore cultiweed in Kahlotus. Photo by Lexi Moore.



Jacob Heitstuman (3) helping daddy, Brian, with spring farming in Pomeroy. A John Deere boy riding on a John Deere! Photo by Brian Heitstuman.

HAPPENINGS

All dates and times are subject to change.
Please verify event before heading out.

AUGUST 2023

3-5 MOXEE HOP FESTIVAL. Parade, beer garden, entertainment, food, games, BBQ cookoff. Moxee, Wash. evcea.org

4-6 KING SALMON DERBY. Up to \$20,000 in cash and prizes available. Registration required. Brewster, Wash. brewstersalmonderby.com

5 SCOTTISH HIGHLAND GAMES. Enjoy the traditional features of Scottish Highland Games, such as massed bands, pipe band exhibitions, individual piping, heavy athletics and highland dancing. 9 a.m. to 5:30 p.m. Spokane County Fair and Expo Center in Spokane Valley, Wash. spokanehighlandgames.net

9-12 YAKIMA VALLEY FAIR AND RODEO. PRCA rodeo, car show, parade, beer garden. County Fair Park in Grandview, Wash. yvfair-rodeo.org

10-13 OMAK STAMPEDE. Parade, carnival, art show, rodeo dances and vendors. Omak, Wash. omakstampede.org

12 SWIM THE SNAKE. Only .7 of a mile, lots of flotilla support. Participants are REQUIRED to preregister. Come watch the swimmers. Lyons Ferry, Wash. swimthesnakedotorg.wordpress.com

12 WATERVILLE PLATEAU FARMERS MARKET. 9 a.m. to 2 p.m. in Pioneer Park in downtown Waterville. A homemade/homegrown crafts and nonprofit info booths will be available. Restaurants and food vendors. Open to the public. historicwatervillewa.org/events

15-19 GRANT COUNTY FAIR. Ag exhibits, livestock competitions, carnival, arts and crafts, entertainment, food. Moses Lake, Wash. gcfairgrounds.com

18-27 NORTH IDAHO FAIR AND RODEO. Fireworks, demolition derby, entertainment, carnival. Kootenai County Fairgrounds in Coeur d'Alene, Idaho. northidahostatefair.com

19 NATIONAL LENTIL FESTIVAL. Stop by and see the world's largest bowl of lentil chili. Fun run, parade, softball tournament, beer garden. Pullman, Wash. lentilfest.com

19-20 PIONEER POWER SHOW AND SWAP MEET. See the equipment of yesteryear with vintage trucks and engines

on display and watch our popular equipment parade. Learn about blacksmithing and watch demonstrations of the turn of the century sawmill and the apple packing line. Enjoy the quilt displays, other historic exhibits and more. See wheat threshing done the old-fashioned way and then enjoy freshly baked bread at the Bread Shack. Central Washington Ag Museum, Fullbright Park in Union Gap, Wash. centralwaagmuseum.org/pioneer-power-show-union-gap.asp

22-26 BENTON FRANKLIN FAIR AND RODEO. Demolition derby, parade, live entertainment. Kennewick, Wash. bentonfranklinfair.com

24 NCW FAIR. Live entertainment, carnival, livestock sale, rodeo and horse. Waterville, Wash. ncwfair.org

24-26 LINCOLN COUNTY FAIR. Rodeo, exhibits, food and games. Davenport, Wash. lincolncountywafair.com

24-27 NORTHEAST WASHINGTON FAIR. Exhibits, parade, talent show, live entertainment, Colville, Wash. <https://www.stevenscountywa.gov/>

26 SPRINT BOAT RACING. Enjoy 5 grass terraces, two beer gardens and a great atmosphere to watch fantastic racing in St. John, Wash. Fun for the entire family! Bring the lawn chairs, sunscreen and blankets. 10 a.m. to 5:30 p.m. or until racing is finished. webbsslough.com or (509) 648-8900.

26-SEPT. 4 ELLENSBURG RODEO AND KITTITAS COUNTY FAIR. Carnival, midway, hoedown, pancake breakfast, parade. Ellensburg, Wash. ellensburgrodeo.com

30-SEPT. 4 PIG OUT IN THE PARK. Music and food. Riverfront Park in Spokane, Wash. spokanepigout.com

31-SEPT. 3 WHEAT LAND COMMUNITIES' FAIR. Rodeo, exhibits, entertainment, vendors. Ritzville Rodeo Grounds. wheatlandfair.com

SEPTEMBER 2023

2-3 METHOW VALLEY RODEO. Saddle bronc, bareback, bulls, barrel racing, team roping and junior events. Held at the rodeo grounds, about halfway between Twisp and Winthrop beginning at 1 p.m. methowvalleyrodeo.com

8-17 SPOKANE COUNTY INTERSTATE FAIR. Livestock exhibits, rides, food booths, rodeo and entertainment. Fair and Expo Center, Spokane Valley. spokanecounty.org/fair/sif/

9 WATERVILLE PLATEAU FARMERS MARKET. 9 a.m. to 2 p.m. in Pioneer Park in downtown Waterville. A variety of homemade/homegrown crafts and nonprofit info booths will be available. Restaurants and food vendors. historicwatervillewa.org/events

9 CONNELL FALL FESTIVAL. Parade, food, vendors, car show. connellwa.com/fallfestival/

12 WAWG BOARD MEETING. Meeting starts at 10 a.m. at Washington Wheat Foundation Building, Ritzville, Wash. (509) 659-0610, wawg.org

13-16 OHELLO FAIR. Adams County Fairgrounds in Othello, Wash. othellofair.org

14-17 DEUTSCHESFEST. German music, food and crafts. Parade. Biergarten, fun run. Odessa, Wash. deutschesfest.com

16 PALOUSE DAYS. Fun run, pancake breakfast, parade, car show, music, duck race. visitpalouse.com/palouse-events/

17 PIONEER FALL FESTIVAL. Tour the Bruce Mansion, see pioneer craft demonstrations, antique farm equipment and tools, and horse-drawn carriage rides. Food and vendors. 11 am-4 pm. Bruce Mansion, Waitsburg, Wash. waitsburgmuseum.org/fall-festival

22-24 SE SPOKANE COUNTY FAIR. Cornhole tournament, soapbox derby, parade, fun run. Rockford, Wash. sespokanecountyfair.org

22-24 GREAT PROSSER BALLOON RALLY. Sunrise balloon launches from the Prosser airport. Weekend also includes a harvest festival and farmers market. Prosser, Wash. prosserballoonrally.org

23-24 CENTRAL WASHINGTON STATE FAIR. Entertainment, beer garden, monster trucks, demo derby, food and carnival. State Fair Park in Yakima, Wash. fairfun.com

23-24 VALLEYFEST. Pancake breakfast, carshow, entertainment. Centerplace Regional Event Center and Mirabeau Point Park in Spokane Valley, Wash. valleyfest.org

29-30 OKTOBERFEST. Biergartens, food, music, vendors, kinderplatz. Leavenworth, Wash. leavenworth.org/oktoberfest/

29-30 OKTOBERFEST. Live entertainment, German food, arts and crafts, beer garden. Town Toyota Center in Wenatchee, Wash. oktoberfestprojektbayern.com

OCTOBER 2023

6-7 OKTOBERFEST. Biergartens, food, music, vendors, kinderplatz. Leavenworth, Wash. leavenworth.org/oktoberfest/

6-7 OKTOBERFEST. Entertainment, food, arts and crafts, beer garden. Town Toyota Center in Wenatchee, Wash. oktoberfestprojektbayern.com

7 FRESH HOP ALE FESTIVAL. Over 70 breweries, wineries and cideries, live music and food. SOZO Sports Complex in Yakima, Wash. freshhopalefestival.com

10 WAWG BOARD MEETING. Meeting starts at 10 a.m. at Washington Wheat Foundation Building, Ritzville, Wash. (509) 659-0610, wawg.org

13-14 OKTOBERFEST. Biergartens, food, music, vendors, kinderplatz. Leavenworth, Wash. leavenworth.org/oktoberfest/

13-14 OKTOBERFEST. Entertainment, food, crafts, beer garden. Town Toyota Center, Wenatchee, Wash. oktoberfestprojektbayern.com

21-22 HAUNTED PALOUSE. Haunted houses, food, fortune tellers, and street entertainment. Must be 12 or older. Downtown Palouse, Wash. hauntedpalouse.com

28-29 HAUNTED PALOUSE. Haunted houses, food, fortune tellers, and street entertainment. Must be 12 or older. Downtown Palouse, Wash. hauntedpalouse.com

Submissions

Email listings to us at editor@wawg.org. Include date, time and location, plus contact info and a short description.



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