

WHEAT LIFE

The official publication of the Washington Association of Wheat Growers

MARCH | 2021

WAWG builds national road map

TRADE, CARBON, INFRASTRUCTURE TOP PRIORITIES LIST

Address Service Requested

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

ALSO IN THIS ISSUE:

AMMO recaps: Markets, seed treatments
and wheat yields

The 2021 Preferred Variety Brochure is here

The weed that dinosaurs ate

Returning to the old Hatton schoolhouse

WHEAT LIFE

Volume 64 • Number 03
www.wheatlife.org

The official publication of



**WASHINGTON
ASSOCIATION OF
WHEAT GROWERS**

109 East First Avenue
Ritzville, WA 99169-2394
(509) 659-0610 • (877) 740-2666

WAWG MEMBERSHIP

(509) 659-0610 • (877) 740-2666
\$125 per year

EDITOR

Trista Crossley • editor@wawg.org
(435) 260-8888

AD SALES MANAGER

Lance Marshall • lance@wawg.org
(253) 221-7000

GRAPHIC DESIGN

Devin Taylor • Trista Crossley

AD BILLING

Michelle Hennings • michelle@wawg.org
(509) 659-0610 • (877) 740-2666

CIRCULATION

Address changes, extra copies, subscriptions
Chauna Carlson • chauna@wawg.org
(509) 659-0610 • (877) 740-2666
Subscriptions are \$50 per year

WAWG EXECUTIVE DIRECTOR

Michelle Hennings

WAWG EXECUTIVE COMMITTEE

PRESIDENT

Ryan Poe • Hartline

VICE PRESIDENT

Howard McDonald • Coulee City

SECRETARY/TREASURER

Andy Juris • Bickleton

PRESIDENT EMERITUS

Jeffrey Shawver • Connell

APPOINTED MEMBERS

Ben Adams • Coulee City

Anthony Smith • Richland

Marci Green • Fairfield

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.

Contents of this publication may not be reprinted
without permission.

Advertising in *Wheat Life* does not indicate endorse-
ment of an organization, product or political candidate
by WAWG.

President's Perspective



Quick out of the blocks

By Ryan Poe

Where do I start? This year's virtual legislative session has been an active one, especially at the state level. The Washington Association of Wheat Growers (WAWG) has testified on several proposed pieces of legislation, actions that hopefully will have a positive impact for growers. Since all testimony is being given remotely, the number of participants signing in to testify has dramatically in-

creased. Unfortunately, this meant that WAWG was unable to testify on a low carbon fuel standard bill. However, we were able to submit written testimony. I testified on a carbon cap and trade bill, but they limited testimony to a minute and a half and cut off the speaker if he or she went over.

Another one of our priorities, a bill that would limit farmers' responsibility in paying retroactive overtime, saw a huge response from farmers signing in in support. Thank you to all who responded to our call to action and signed in in favor of the bill and submitted written testimony. I thought we had a tremendous response from farmers, but unfortunately, the other side also had a large response. Our lobbyist, Diana Carlen, has been doing a lot of work on this legislation, while Nicole Berg, a Benton County grower, testified on our behalf in that hearing. For more on WAWG's testimony in these hearings, see page 8.

The Snake River dams continue to be at the forefront of the challenges we are faced with, and one that staff and leaders of WAWG, the Washington Grain Commission (WGC) and the Pacific Northwest Waterways Association (PNWA) have spent a considerable amount of time on. Being included in some of what's been happening behind the scenes, I can say that the wheat industry has been very proactive and highly engaged with as many partners and legislators as possible in this fight. It is challenging to convey to our membership all that is being done, but I want to say there are a lot of people doing a lot of legwork on this issue.

Last month, Rep. Mike Simpson (R-Idaho) released a proposal that removes the four lower Snake River dams, which all have fish passage, but protects dams in Idaho that have no fish passage. This proposal provides no added habitat for salmon or steelhead in which to spawn. Meanwhile, 33 percent of the Pacific Northwest wheat that is transported through these dams' pools to export destinations near Portland would have to find an alternate route. Another staggering number I heard was 10 percent of U.S. wheat exports is put on the river in the last two pools of the Snake River that have navigation available. In a time when we are facing potential taxation on carbon by both the state and federal governments, this is just insanity to me, because barge transportation is the most efficient mode of transportation available to us from a fuel consumption standpoint. In addition, there is no infrastructure currently in place to move this much wheat by rail. And that doesn't even begin to address the renewable energy produced by these dams that is always on and immediately available because the river does not stop flowing. The same cannot be said about wind and solar power generation.

See page 23 for our response to Rep. Simpson's proposal.

As I'm writing this, freezing weather has settled over Eastern Washington. Like many of you, I'm anxiously watching my winter wheat, hoping it makes it through this cold snap despite no snow cover. We'll find out the answer to that in about two months, I guess. In the meantime, be alert for additional call-to-action emails from WAWG. Your voice does make a difference. ■

Cover photo: All photos are Shutterstock images or taken by *Wheat Life* staff unless otherwise noted.

Inside This Issue

WAWG President's Perspective	2
Membership Form	4
WAWG at Work	6
Policy Matters	20
Washington Wheat Foundation	26
WAWG's national priorities	28
Trade, carbon, infrastructure top list	
How to get wheat to yield	32
AMMO recap: Peter Johnson	
Using data to drive marketing	36
AMMO recap: Randy Fortenbery	
Unpacking seed treatments	40
AMMO recap: Syngenta	
Profiles	42
BioWest Ag Solutions	
WGC Chairman's Column	47
The quality beat goes on	48
2021 Preferred Variety Brochure is here	
Quality mission blasts off	50
Researcher to focus on falling numbers cause	
Virtual wheat week wins praise	52
More than 22,500 kits requested	
Smooth scouringrush	53
Dinosaurs ate it; farmers fight it	
Wheat Watch	56
School bells	58
Attending the old Hatton schoolhouse	
On Lease	64
The Bottom Line	66
Your Wheat Life	68
Advertiser Index	70



Contributors

Ryan Poe, president, Washington Association of Wheat Growers
Mike Carstensen, chairman, Washington Grain Commission
Scott A. Yates, communications director, Washington Grain Commission
Diana Carlen, lobbyist, Washington Association of Wheat Growers
Kara Kaelber, coordinator, Wheat Week

Drew Lyon, Endowed Chair Small Grains Extension and Research, Weed Science, Washington State University
Mike Krueger, president and founder, The Money Farm
Ruth Huse Wahl, former Lind, Wash., resident
Dr. David M. Kohl, president, AgriVisions, LLC

WAWG MEMBERSHIP FORM

Please check level of membership

- ☐ Student \$75 ☐ Family \$200 (up to 2 members)
☐ Grower \$125 ☐ Partnership \$500 (up to 5 partners)
☐ Landlord \$125 ☐ Convention \$600
☐ Industry Associate \$150 ☐ Lifetime \$2,500

Name

Farm or Business

Address

City

State

Zip

Phone

Fax

Email

County Affiliation (if none, write state)

Circle all that apply:

Producer Landlord Individual Industry Rep. Business Owner Student Other

Return this form with your check to:

WAWG • 109 East First Ave. • Ritzville, WA 99169.

Or call 877-740-2666 and use your credit card to enroll by phone.

Thank you to our current members

We fight every day to ensure that life on the family farm continues to prosper and grow.

WE NEED YOUR SUPPORT.

If you are not a member, please consider joining today.

LEVELS OF MEMBERSHIP

	Greensheet Newsletter	Wheat Life Magazine	National Wheat Grower Newsletter	Annual Harvest Prints	WAWG Convention Free Registration	One Vote per Member
Producer/Landowners (Voting Membership)						
Grower or Landlord \$125	X	X	X			X
Family \$200 (2 family members)	X	X	X			X
Partnership \$500 (1-5 family members)	X	X	X	X		X
Convention \$600 (2 individuals)	X	X	X		X	X
Lifetime \$2,500 (1 individual)	X	X	X	X		X
Non-Voting Membership						
Student \$75	X	X	X			
Industry Associate \$150	X	X	X			

WAWG's current top priorities are:

- ✓ Protecting agriculture from liability for complying with state overtime laws.
- ✓ Fighting mandatory carbon regulations that would raise prices on fuel and fertilizer.
- ✓ Maintaining a safe and sound transportation system that includes rail, river and roads.
- ✓ Protecting existing tax policy.
- ✓ Preserving the Snake River dams.

If these issues are important to your operation, become a member today and help us educate our legislators and advocate for agriculture.
We are making sure the wheat industry's voice is heard.

More member benefits:

- Greensheet ALERTS • WAWG updates
- Voice to WAWG through opinion surveys
- National Wheat Grower updates
- State and national legislative updates



**Washington Association
of Wheat Growers**

109 East First Ave. • Ritzville, WA 99169

509-659-0610 • 877-740-2666 • 509-659-4302 (fax)

www.wawg.org

Call 877-740-2666 or visit www.wawg.org



POTASSIUM THAT PERFORMS

More about the need for potassium in wheat crops:

Every year, a 100-bushel wheat yield can remove up to 29 pounds of potassium per acre and removed straw depletes an additional 120 pounds per acre. KTS® delivers essential potassium and Sulfur to your wheat in one highly soluble, clear form. Incorporating a foliar application of KTS® into your fertility program can be your source for delivering much needed nutrients to your crop at the right rate, time, and place.



Ag overtime, dams discussed at state board meeting

The question of agriculture's liability for retroactive overtime pay has been taking up a lot of oxygen in Olympia, and it was a main topic of conversation at last month's Washington Association of Wheat Growers' (WAWG) state board meeting.

Diana Carlen, WAWG's lobbyist, said since the Supreme Court decision, 32 lawsuits have been filed against Washington state farms in multiple counties seeking retroactive overtime pay. There is legislation (SB 5172), sponsored by Sen. Curtis King (R-Yakima), that would protect farmers from liability for retroactive overtime pay when the law did not require payment of overtime pay. While an amended version of SB 5172 moved out of the Senate Labor and Commerce Committee by the policy deadline, the legislation is a work in progress and negotiations continue.

"It is critical for the Legislature to take action on this issue. Failure to do so puts too many family farms at risk," Carlen said. "This is causing a lot of angst and concern for farmers. We are definitely concerned that due to the Supreme Court reasoning, future lawsuits will be filed across all sectors. I don't think (some legislators) recognize

how important this issue is, that they are jeopardizing a number of family farms. These businesses will go under if these lawsuits continue."

In November, the Washington State Supreme Court invalidated the overtime exemption for dairy workers, but the court didn't clarify whether or not dairy employers would be required to retroactively pay overtime. The state's agricultural industry, including WAWG, has banded together to prevent retroactive liability through the Washington Agriculture Legal Foundation. WAWG has provided testimony supporting Sen. King's legislation (see page 10) and will continue to monitor the situation.

In lieu of WAWG's traditional Olympia Days trip, the association has been sending out virtual meeting requests to legislators. Carlen said by meeting with legislators later in the session than normal, it gives wheat growers an opportunity to see which bills are more likely to move, so growers can concentrate their efforts more efficiently.

Another main topic of discussion was the recent proposal by Rep. Mike Simpson (R-Idaho) to breach the four lower Snake River dams and pay for the resulting transportation restructuring and salmon recovery with a \$32



Lower Granite Dam is one of the dams that Rep. Mike Simpson (R-Idaho) is proposing to breach.

% NITROGEN UPTAKE

100

80

60

40

20

0

PEAK
NITROGEN
DEMAND

Don't Throttle Your Yield

When the plant
NEEDS it most,

Rally™ accelerates your
crop **UP** the yield curve
with critical foliar nutrition.

START.

FEED.

FINISH.

Feed the **NEED.**

RALLY™ YOUR CROP.



WWW.MCGREGOR.COM

billion “Columbia Basin Fund.” WAWG is working with other river stakeholders, including the Pacific Northwest Waterways Association, to educate legislators and the public on why this proposal doesn’t make sense. See page 23 for WAWG’s response to Simpson’s proposal.

In national legislation, Michelle Hennings, WAWG executive director, presented the board with the association’s national priorities for approval. Those priorities include:

- Supporting full implementation and enforcement of existing trade agreements;
- Renewal of Trade Promotion Authority;
- Increased funding for market development programs;
- Supporting future farm bills that include agriculture and nutrition support programs;
- Maintaining the current structure of the crop insurance program and current cost-share levels;
- Supporting climate legislation that is voluntary and incentive-based; and
- Protecting the lower Snake River dams.

See page 28 for more on WAWG’s national priorities.

Nicole Berg, vice president of the National Association of Wheat Growers, reminded growers of the March 15 deadline to sign up for farm bill programs (see page 10). The U.S. Department of Agriculture has also extended the general Conservation Reserve Program sign-up deadline, but didn’t say for how long (see page 12).

Glen Squires, CEO of the Washington Grain Commission (WGC), said the commission has installed new officers—Mike Carstensen will serve as chairman, Ben Barstow as vice chair and Kevin Klein as treasurer. The WGC just finished reviewing their endowed chairs, and Squires said it was really amazing to recognize the amount of work that has been done despite all the challenges presented by COVID-19.

The board also heard short updates from the Natural Resources Conservation Service, the Farm Service Agency and the Washington State Department of Natural Resources.

The next state board meeting is scheduled for March 9. ■

Growers testify in carbon, agriculture overtime hearings

Leaders of the Washington Association of Wheat Growers (WAWG) have been busy since the start of the 2021 Washington State Legislative Session testifying in committee meetings on proposed legislation, including a

low carbon fuel standard, a cap and trade program, retro-active overtime pay for agricultural workers and legislation that would require the Washington State Department of Natural Resources to compensate growers when a lease is terminated early for reasons other than default.

HB 1091

Michele Kiesz of Adams County signed up to testify against HB 1091, a proposal to adopt a low carbon fuel standard (LCFS), in front of the House Environment and Energy Committee on Jan. 14. Unfortunately, the hearing ran out of time before she was chosen to testify. Instead, WAWG submitted her comments as written testimony, including the following:

“While we are appreciative of the exemption for dyed special fuel used for agricultural purposes, that is limited to diesel used on the farm itself and does not account for the fuel needed to transport our products to market. Every input I use has to be imported or transported into my area, and after I use these products, I then have to transport my crops out. This bill will continue to peck away at any profit that I may or may not get with the sale of those crops.

“An LCFS would raise fuel prices anywhere from the 19¢ (gas) to 21¢ (diesel) per gallon already seen in California to the 57¢ (gas) to 63¢ (diesel) per gallon estimated by Washington’s own Puget Sound Clean Air Agency.

“Wheat growers support carbon reduction policies that recognize agricultural practices as a benefit to the environment, complement existing policies, do not impose inefficient costs on Washington agriculture and do not make wheat growers less competitive in the global market. A LCFS does not meet those criteria.”

This legislation was passed out of the House Transportation Committee on Feb. 19.

You can read Kiesz’s full testimony at wawg.org/wawg-member-submits-testimony-on-hb-1091.

SB 5126

Ryan Poe, WAWG’s president and a grower from Grant County, has had a busy few months when it comes to testifying to state lawmakers. On Jan. 19, he testified against SB 5126, a proposal for implementing a cap and trade program, in front of the Senate Environment, Energy and Technology Committee. He told lawmakers that SB 5126 would disproportionately impact people living in rural areas, since they generally don’t have as much access to public transportation. He also pointed out that a cap and trade system would put Washington agriculture at a disadvantage.

“Agriculture is simply an energy intensive industry. It relies on energy for tractor fuel, fertilizer, livestock feed and more. Any increase in petroleum and natural gas

OPEN SEASON ON WIREWORMS

TERAXXA

OPEN SEASON ON WIREWORMS

With EPA approval, you'll be picking off these pests
like a hotshot arcade player hunting a high score.
Others only repel. Teraxxa™ Seed Treatment eliminates.
GAME OVER.



<<PLAY NOW!

Scan to learn more and play the awesome arcade
game that makes you the hero of wireworm
destruction. Or go to **Teraxxa-Wins.com**

Teraxxa™
Seed Treatment

Teraxxa™ F4
Seed Treatment

BASF
We create chemistry

Always read and follow label directions. Teraxxa is a trademark of BASF.
©2021 BASF Corporation. All rights reserved. Not registered in all states.



Nicole Berg waits in line for her turn to testify remotely on SB 5172, a bill concerning the retroactivity of overtime claims in agriculture in Washington state. Berg was only one of the Washington Association of Wheat Growers leaders who has testified since the start of the 2021 Legislative Session. Photo by Nicole Berg.

prices would have a direct effect on the cost of production. Unlike other industries, when the cost of doing business goes up, farmers cannot simply raise the price tag on our product. The price for most agricultural products is set by the global market over which we have no control.

“Wheat farmers across the state are committed to decreasing our carbon footprint because our livelihood depends upon a healthy environment and so does our future. We would like to work with you on adopting carbon policies that will not put Washington at a competitive disadvantage and recognize agriculture as a valuable climate solution. However, we believe this proposal needs more work to understand.”

This legislation was scheduled for an executive session in the Senate Committee on Environment, Energy and Technology on Feb. 25.

You can read Poe’s testimony on SB 5126 at wawg.org/wawg-president-testifies-against-cap-and-trade/

HB 1199

On Jan. 26, Poe also testified in support of HB 1199, a bill that would provide compensation to Washington State Department of Natural Resources (DNR) lessees whose leases are terminated for reasons other than default. The

bill was being heard in the House Rural Development, Agriculture and Natural Resources Committee. Sponsored by Rep. Chris Corry (R-Yakima), this legislation passed the House unanimously last year, but got held up in the Senate. You can read Poe’s testimony at wawg.org/wawg-testifies-in-support-of-hb-1199-dnr-lease-bill/.

This legislation was passed out of the House on Feb. 12.

SB 5172

Nicole Berg, a farmer from Benton County and vice president of the National Association of Wheat Growers, testified in support of SB 5172, a bill concerning the retroactivity of overtime claims in exceptional cases. More than 150 people were signed up to testify. She told the panel that it is “unfair and unethical” for farmers to be threatened with liability for retroactive pay when they were following a law that had been clearly established for more than 60 years.

“The agriculture industry needs clarity and leadership from the Legislature on this issue. We can’t wait while this issue is tied up in the courts for years without knowing our liability for retroactive overtime pay. Please pass this bill to help our family farms in the state stay open so that we can continue to do what we love—feed the world.”

This legislation was substantially modified, passed out of committee and sent to the Rules Committee.

You can read Berg’s testimony at wawg.org/wawg-past-president-testifies-in-support-of-sb-5172/ ■

ARC/PLC sign-up deadline quickly approaching

The Washington Association of Wheat Growers (WAWG) wants to remind producers that they have until March 15, 2021, to select and enroll in either the Agricultural Risk Coverage (ARC) or Price Loss Coverage (PLC) program for the 2021 crop year. Failure to make a valid election and enrollment for the 2021 program year by that date will result in ineligibility for the 2021 crop year payment. All signatures, including landlords, must be submitted by the March 15 deadline.

A new provision in the 2018 Farm Bill gives growers the flexibility to choose ARC or PLC for each crop year from 2021 to 2023. This was one of WAWG’s biggest priorities for the new farm bill, as the 2014 Farm Bill forced growers to choose one program to apply to all five years covered under that legislation.

Growers need to contact their local Farm Service Agency (FSA) office to schedule an appointment as soon

VARIABLE INTENSITY TILLAGE

FOR TILLAGE ON YOUR TERMS

INTRODUCING THE TERRA-MAX[®]

Create a seedbed-friendly finish, size residue, and remove chemically-resistant weeds – all with one tool!

- Achieve optimum soil penetration and breakout with the NEW TurboSpeed[™] blade.
- NEW 7-lip seal bearings enhance durability and simplify maintenance.
- Front and rear coulter gangs adjust for exceptional soil management.
- Add the NEW Implement Command[™] System to set, adjust, and monitor the Terra-Max from the comfort of your cab.



VERTICAL TILLAGE



HYBRID TILLAGE



CONVENTIONAL TILLAGE



5'-10' COMPACT DRILLS



NO-TILL & MIN-TILL DRILLS



FULL LINE OF PLANTERS



FINISHING TOOLS



COVER CROP TOOLS

VISIT ONE OF THESE GREAT PLAINS DEALERS OR GET MORE INFORMATION AT: www.GreatPlainsAg.com

FARM & HOME SUPPLY
Pomeroy, WA – 509-843-3395

CENTRAL MACHINERY SALES
Moses Lake, WA – 509-765-1257

MORROW COUNTY GRAIN GROWERS
Lexington, OR – 800-452-7396

WALTER IMPLEMENT, INC.
Odessa, WA – 509-982-2644

FARM EQUIPMENT HEADQUARTERS
Pendleton, OR – 541-276-6222

MORROW COUNTY GRAIN GROWERS
Wasco, OR – 800-824-7185

CENTRAL MACHINERY SALES
Pasco, WA – 509-547-8920

CENTRAL MACHINERY SALES
Sunnyside, WA – 509-837-3833

ST. JOHN HARDWARE & IMPLEMENT
Fairfield, WA – 509-283-2111

©Great Plains Mfg., Inc. 2237B-GPM

as possible as resources and staff are limited at this time due to COVID-19 restrictions. Farm owners cannot enroll in either program unless they have a share interest in the farm.

The financial health of your farming operation for 2021 may be greatly affected by the failure to elect and enroll in ARC/PLC by the March 15 deadline.

According to Kansas State University, if current prices hold through the end of the respective marketing years for each crop, there would be no PLC payment for corn, grain sorghum or soybeans, while wheat would have a 2020/21 PLC payment of \$0.44, the difference between the reference price of \$5.50 and the price of \$5.06. This payment, if realized, will likely take place in October 2021.

There are several online tools to help producers determine which program is best for their operation, but Washington State University and WAWG recommend the Texas A&M decision tool. That tool can be accessed at agrilifeextension.tamu.edu/solutions/farm-bill-decision-aid-tool/ ■

USDA extends CRP sign-up in order to review program

The U.S. Department of Agriculture (USDA) is extending the Conservation Reserve Program (CRP) general sign-up period, which had previously been announced as ending on Feb. 12, 2021. USDA will continue to accept offers as it takes this opportunity for the incoming Biden Administration to evaluate ways to increase enrollment. Under the previous administration, incentives and rental payment rates were reduced, resulting in an enrollment shortfall of more than 4 million acres. The program, administered by USDA's Farm Service Agency (FSA), provides annual rental payments for 10 to 15 years for land devoted to conservation purposes, as well as other types of payments.

Before the general CRP sign-up period ends, producers will have the opportunity to adjust or resubmit their offers to take advantage of planned improvements to the program.

All USDA service centers are open for business, including those that restrict in-person visits or require appointments. All service center visitors wishing to conduct business with FSA, Natural Resources Conservation Service or any other service center agency should call ahead and schedule an appointment. Service centers that are open for appointments will prescreen visitors based on health concerns or recent travel, and visitors must adhere to social

distancing guidelines. Visitors are also required to wear a face covering during their appointment. Our program delivery staff will continue to work with our producers by phone, email and using online tools. More information can be found at farmers.gov/coronavirus. ■

Don't forget deadline for quality adjustment program

Funded by the Further Consolidated Appropriations Act of 2020, the Quality Loss Adjustment (QLA) Program provides assistance to producers who suffered eligible crop quality losses due to natural disasters occurring in 2018 and 2019. The deadline to apply for QLA is March 5, 2021.

Eligible crops include those for which federal crop Insurance or Noninsured Crop Disaster Assistance Program (NAP) coverage is available, except for grazed crops and value loss crops, such as honey, maple sap, aquaculture, floriculture, mushrooms, ginseng root, ornamental nursery, Christmas trees and turfgrass sod.

Additionally, crops that were sold or fed to livestock or that are in storage may be eligible; however, crops that were destroyed before harvest are not eligible. Crop quality losses occurring after harvest, due to deterioration in storage, or that could have been mitigated, are not eligible.

Assistance is based on a producer's harvested affected production of an eligible crop, which must have had at least a 5 percent quality loss reflected through a quality discount; or for forage crops, a nutrient loss, such as total digestible nutrients. Losses must have been a result of a qualifying disaster event (hurricane, excessive moisture, flood, qualifying drought, tornado, typhoon, volcanic activity, snowstorm or wildfire) or related condition that occurred in calendar years 2018 and/or 2019.

Eligibility for drought-related losses is only applicable if the loss occurred in an area within a county rated by the U.S. Drought Monitor as having a D3 (extreme drought) or higher intensity level during 2018 or 2019. Producers in counties that did not receive a qualifying presidential or secretarial declaration or designation may still apply but must also provide supporting documentation to establish that the crop was directly affected by a qualifying disaster event.

To determine QLA eligibility and payments, Farm Service Agency (FSA) considers the total quality loss caused by all qualifying natural disasters in cases where a crop was impacted by multiple events. For more information, visit farmers.gov/quality-loss, or contact your local USDA service center. ■

\$100 MILLION FOR LOCAL BUSINESSES

AGRICULTURAL
COMMERCIAL
PERSONAL

Over the course of the last year, Wheatland Bank has helped more than 800 local businesses cut through miles of government red tape and stay afloat. A tough act to follow. But we're not done until everyone is back and strong as ever. That's why we've earmarked another \$100 million for commercial, industrial, agriculture and residential mortgage loans at historically low rates. So whether you're still digging out from all this, or you're fresh out of the woods and ready to grow, we'd like to help.

**Best
Rates
Ever!!**

**PPP 2.0
Loans Also
Available
Now!!!**

Get started today by calling
Rob at (509) 725-0211
or Roxann at (509) 647-5518.

 **wheatland bank**

 EQUAL HOUSING LENDER | Member FDIC

wheatland.bank

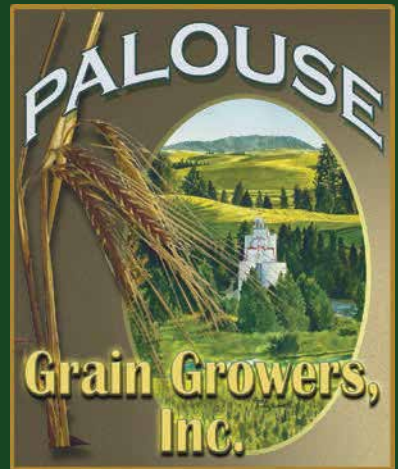
Perkins & Zlatich CPAs, P.S.

Certified Public Accountants
Ron Perkins & Danielle Zlatich

*Serving the farming community
with over 50 years of experience
of accountant and tax services for
individuals and business entities.*

Court Street Center

3616 W Court St. STE G Pasco WA 99301
tel 509-542-9700 fax 509-542-9702



Pearled Barley Barley Pellets

**PO Box 118
110 W. Main St.
Palouse, WA**

www.palouse.coop

**509-878-1621
800-322-1621**

**Email:
grain@palouse.com**

WAWG thanks members

The Washington Association of Wheat Growers would like to thank each and every member of our organization. You, the members, keep the organization strong. The grassroots WAWG is built on keep the leadership, committees and board members moving forward in a positive way. Without your support and activity, WAWG would not be the efficient and effective organization it is today. Thank you for your time and support.

CONVENTION

MELVILLE ACRES INC
SCHOESLER FARMS INC

FAMILY

41 RANCH LLC
A E KNOTT FARMS INC
A K FARMS INC
-TREVOR JANTZ
-ALICE KOCH
ABBEY FARMS INC
AMERY FARM
B & D FARMS INC
-BLAINE COCHRAN
-JEFFREY COCHRAN
BAHR RANCHES INC
BAR L RANCH
BAR STAR INC
BARING BUSHELS & BALDIES
INC
BARKER ENTERPRISES
BAUER COULEE FAMILY
FARM INC
BAUERMEISTER FARMS INC
BERNT LEHN FARMS INC
BETCHER FARMS II INC
BIG ROCK FARMS INC
BLAIR FARMS
BODONALD FARMS INC
MARK & SANDRA BOOKER
BRIAN BLANK FARMS
BROKEN WINDMILL FARMS
-DAMON SAUER
-JUDITH SAUER
BUGHI FARMS INC
C2S FARMS INC
-LEIF CLAASSEN
-STEVE CLAASSEN
CAMP FARMS INC
CARLTON FARMS INC
-DAVID W CARLTON
-LUKE MCNEIL
CARSTENSEN BOYS
CARSTENSEN FAMILY LLC
CHABRE BROTHERS
CHAD SMITH RANCHES
-CHAD W SMITH
-MARKUS W SMITH
CHVATAL FARMS INC
-ED CHVATAL
-DAVID FLOREN
CIRCLE H RANCH
DARREL W & NINA CLAASSEN
CLAASSEN AG INC
-CURT CLAASSEN
-SETH CLAASSEN
CORKRUM & DERBY RANCH
COULEE CREEK FARMS
COYOTE FLATS FARMS INC
CROW FARMS INC
D & P ELDER FAMILY LLC
DAVEY FARMS
DAVID B WILLIAMSON &
PAULA M WILLIAMSON
REVOCABLE TRUST
DAVIS FARMS
DBA KULM FARMS
DIAMOND PLUS INC
-DOUG ENSOR
-AARON WILSON
DINGMAN FARMS JV
-MARCUS & EMILY DINGMAN
-RUSSELL & JULIE DINGMAN
STANLEY & DORIS DORMAIER
DOUBLE D FARMS
DP JOINT VENTURE
DRB FARM INC
ROY L & CARLEY J DUBE
E & M WILLIAMS INC

ECKHART FARMS LLC
-CHRIS ECKHART
-SALLY ECKHART
ELMER C ANDERSON INC
ELSCO INC
MICHAEL P & CATHERINE
ENSLEY
ENYEART FAMILY FARMS INC
FIVE T FARMS INC
FOGED FARMS
FRANZ RANCH INC
-CURTIS FRANZ
-RANDY & BARB FRANZ
G & A SMITH FARMS
-BLAINE COCHRAN
-JEFFREY COCHRAN
BAHR RANCHES INC
BAR L RANCH
BAR STAR INC
BARING BUSHELS & BALDIES
INC
BARKER ENTERPRISES
BAUER COULEE FAMILY
FARM INC
BAUERMEISTER FARMS INC
BERNT LEHN FARMS INC
BETCHER FARMS II INC
BIG ROCK FARMS INC
BLAIR FARMS
BODONALD FARMS INC
MARK & SANDRA BOOKER
BRIAN BLANK FARMS
BROKEN WINDMILL FARMS
-DAMON SAUER
-JUDITH SAUER
BUGHI FARMS INC
C2S FARMS INC
-LEIF CLAASSEN
-STEVE CLAASSEN
CAMP FARMS INC
CARLTON FARMS INC
-DAVID W CARLTON
-LUKE MCNEIL
CARSTENSEN BOYS
CARSTENSEN FAMILY LLC
CHABRE BROTHERS
CHAD SMITH RANCHES
-CHAD W SMITH
-MARKUS W SMITH
CHVATAL FARMS INC
-ED CHVATAL
-DAVID FLOREN
CIRCLE H RANCH
DARREL W & NINA CLAASSEN
CLAASSEN AG INC
-CURT CLAASSEN
-SETH CLAASSEN
CORKRUM & DERBY RANCH
COULEE CREEK FARMS
COYOTE FLATS FARMS INC
CROW FARMS INC
D & P ELDER FAMILY LLC
DAVEY FARMS
DAVID B WILLIAMSON &
PAULA M WILLIAMSON
REVOCABLE TRUST
DAVIS FARMS
DBA KULM FARMS
DIAMOND PLUS INC
-DOUG ENSOR
-AARON WILSON
DINGMAN FARMS JV
-MARCUS & EMILY DINGMAN
-RUSSELL & JULIE DINGMAN
STANLEY & DORIS DORMAIER
DOUBLE D FARMS
DP JOINT VENTURE
DRB FARM INC
ROY L & CARLEY J DUBE
E & M WILLIAMS INC

KLC INC
KM COLUMBIA 3 LLC
-GREG MAHONY
-PETER MAHONY
KOPF FARMS
L.G. BLAIR FARMS INC
-LYNN BLAIR
-MATTHEW B SMITH
LANEFIELD FARMS INC
LANGENHEDER FAMILY LLC
LARITZ FARMS INC
LARRY CONOVER FARM
LMZ RANCH
JAMES KENT & LISA LUCAS
M & E FARMS
M & L CARSTENSEN FARMS
MADISON RANCHES
MAINS BROS
MARGARET A JONES TRUST
MARLER FARMS INC
MCDONALD-MOON FARMS
INC
-MARILYN MCDONALD
MOON
-JOHN M MOON
MCGOURIN FARMS INC
MEAD RANCH
-CHARLIE MEAD
-SKIP MEAD
MHB FARMS
-JOE GROSS
-PETER GROSS
MIX SR FAMILY TRUST
MOREL FARMS INC
MR STOCK & STUBBLE INC
N & L FARMS INC
NANCY GRANT FARM
NEFF RANCHES
-DAVID NEFF
-WALT NEFF
O'THE HILL FARMING
PED FARMS INC
PHILLIPS WINDY HILL LLC
-PALMER PHILLIPS
-REID M PHILLIPS
PLUCKER FARMS TWO LLC
QUIRK FARMS INC
R & J LYLE LLC
R & L RANCH INC
R & M AGRI-ENTERPRISES
R B K JOINT VENTURE
RAN-GAR FARMS
-LARRY KRAUSE
-RANDY KRAUSE
GERALD RAY
THOMAS RAY
RAYMOND MAYER FARMS INC
-MITCHEL MAYER
-RAYMOND MAYER
REDMAN RANCH INC
AARON & DANA REPP
REXEL FARMS INC
-REX BEAN
-JEFFREY KRAUSE
ROBISON FARMS CO
RUARK CENTURY FARM INC
-DAVID RUARK
-PAUL RUARK
FRED & JULIE SCHARFF
SCHOESLER FARMS
SCHUMER FARMS LLC
SCHWAB FARMS INC
-CHARLES SCHWAB
-SCOTT SCHWAB
SEED LOGIC LLC
SENEY LAND & LIVESTOCK
DENNIS & JULIE SIMMELINK
SITTON FARMS INC
-DEBRA SITTON
-ELIZABETH SITTON

SPOKANE HUTTERIAN
BRETHREN
-DAVID GROSS
-MARK GROSS
SUESS FARMS INC
SWANNACK FARMS INC
T D WALSH FARMS
-TIM WALSH
-DUSTY WALSH
TANKE FARMS INC
TANKE JOINT INC
TIMM FARMS INC
TODD SCHOLZ FARM
-TODD SCHOLZ
-LOIS SCHOLZ
TREIBER FARMS INC
W G MELCHER INC
W R FARMS INC
J L & JOANNA WANDLING
WARDEN HUTTERIAN
BRETHREN
-KEITH GROSS
-PHILLIP GROSS
WARREN FARMS INC
WARREN MORGAN ORCHARDS
LLC
WEBER RIDGE FARMS INC
WELLER FARMS
-JANICE FAIRCHILD
-MARK WELLER
WESTSIDE FARMS INC
WILLIAMS FAMILY FARM
-CINDY ROHDE
-HARVEY WILLIAMS
WINDSWEEP FARMS INC
WINDY KNOLLS RANCH LLC
WISWALL RANCH
WM R LYONS & SONS
-MICHAEL LYONS
-TIM LYONS

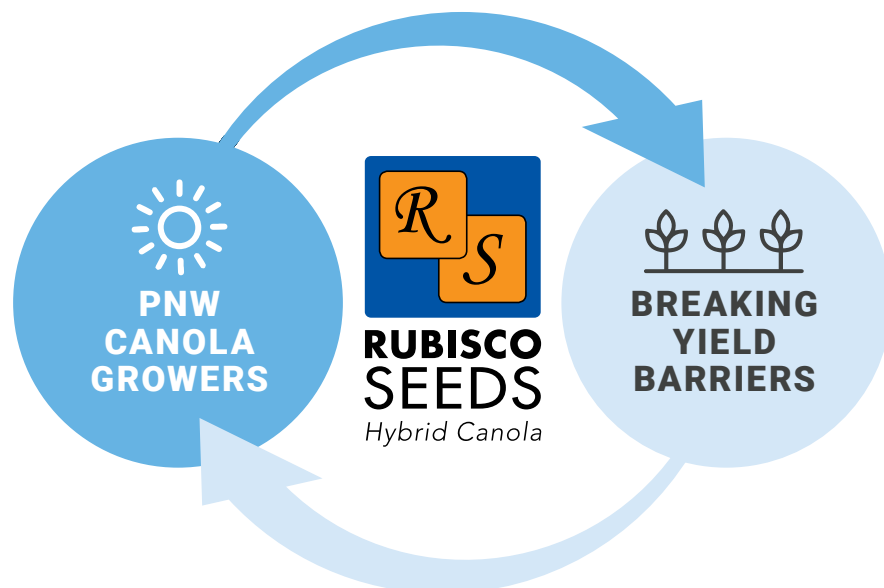
GROWER

2 A JACOBSEN FARMS
2M FARMS
3B'S PROPERTIES LLC
3T JV
4 S RANCH
5 M INC
5B FARMS INC
5N FARM LLC
7JK RANCH
7X FARMS
A & C VALLEY FARMS INC
AARON GFELLER INC
AHRENS FARMS INC
ALAN P. HIGGINBOTHAM INC
FRED ALDERSON JR
ALL JOY INC
ALM FARMING INC
AMBER FURROWS INC
AMBER LAKE FARMS INC
AMSCO INC
ANDERSON RANCHES
ANDERVILLE FARMS
ANDREWS & ROWELL
ANTE UP INC
ANTHONY J SMITH FARMS LLC
MARK APPLEFORD
MICHAEL E ARCHER
ARCHER FARMS
ART DRUFFEL FARMS
AUNE FARMS LLC
AURORA INC
B & B FARMS
B & P FARMS INC
B & T FARMS
B L & D HENNING LLC
BAFUS FARMS INC
BANRAC LLC
BAR TEN RANCHES
RICHARD BARRY





BASIN FARMING LLC
BAUMAN SISTERS
BECKER RANCH
BEE DEE FARMS
BEECHINOR FARMS
BEST ACRES LLC
BIG BUCK FARMS INC
BJK FARMS INC
BLACK DOG FARMS
BLAIN RANCH
BILL BLESSINGER
BO CO INC
BOB'S BOY INC
BOERSMA FARM INC
DAVID BOLENEUS
MERLE BOOKER
BOOKER & SON INC
BOW TIE FARMS INC
BRAUN FARMS INC
BRENT BAIR FARMS
BREWER BROS LLC
BROCK RANCH PARTNERSHIP
GARY F BROWN
BROWN & FORD
-ALLEN FORD
-SCOTT FORD
BROWNE RANCH
BRUCE & DIANA CARLSON INC
BRUCE HONN FAMILY LLC
MICHAEL D BUCKLEY
BUCKSHOT FARMS INC
BUOB FARMS INC
BURKHART FARM
BUSE CONNECTION
GARY BYE
C & C FARMS
C & E FARMS
C & L CLOANINGER INC
C BAR U FARM INC
CARGRAIN FARMS INC
CARICO HILLS INC
CARPENTER FARMS
HENRY P CARSTENSEN JR
NORMAN CAVADINI
CENTURY 2 INC
CHARLTON FARMS INC
DARYL CHESTERMAN
CHRISTENSEN FARMS
CLAASSEN FARMS INC
ASA CLARK
GAVIN CLARK
CLASSIC FARMS
CLAUSEN RANCH
CLERF FARMS INC
DAVID CLINTON
J RICHARD CLOANINGER
MIKE COCHRAN
COCHRAN FARMS
COCHRANE FARMS
COCHRANE SONS FARM
COCKING FARMS LLC
COLUMBIA VIEW FARMS
COULEE HITE ENTERPRISES
INC
COVELLO CELLARS
CRC FARMS INC
CROSSBY FARMS INC
CSI
CT MYERS FARMS INC
CUNNINGHAM FARM
ROBERT M CUTLER
D & D GILBERT FARMS INC
D & D ROBERTS JV
D & L BAUER FARMS
D & L FARMS INC
D & M FARMS
D & M LANGE JV
D & P FARMS
D-B FARM
D2 RANCH
DALKEITH FARM INC

DAVIS & DAVIS FARMS
DAVIS FARMS
DBO FARMS INC
DC FARMS
DEGON FAMILY FARMS JV
DEIFE FARMS INC
DENNY LAND & LIVESTOCK INC
DERUWE L&F INC
DESERT ACRES INC
DESERT GRAIN FARMS INC
DIAMOND T RANCHES
DIAMOND-S FARMS INC
DICK LEDGERWOOD &
SONS INC
DIRKS FARMS INC
DIXON LAND & LIVESTOCK
DODD FARMS
DOUBLE A FARMS
DOUBLE D RANCHES
DOUBLE I RANCH LLC
DOUBLE J RANCH INC
DOUBLE M RANCH
DOUBLE P RANCH
DOUBLE S FARM INC
DOUBLE T INC
DOUBLE Z FARMS
DOUBLETREE RANCHES INC
-ELLWOOD BROWN
-NEAL BROWN
DOWLING BROS INC
DREAM BIG ADVENTURES
DUANE LASHAW FARMS INC
DUANE WIDMAN FARM
RANDY DUNCAN
DUTCH FLAT ANGUS LLC
E & L FARMS INC
E & S APPEL FARM
E L & J H RAY FARMS LLC
EARTHBOURNE RESOURCES
INC
ELY RANCHES
EMERALD FARMS
TIM ENSLEY
ERDMANN FARMS INC
ESQUIRE FARMS II INC
ESLICK FARMS INC
EVANS & SON JV
F & S ROSMAN FARMS INC
F R W FARMS
FARM-RITE INC
FARMING ETC INC
DEAN C FARRENS
FARRENS FARMS
CRAIG FEENAN
FEUSTEL FARMS INC
ERNE FILAN
FINK AGAIN INC
FITZNER FARMS
DOUG FITZSIMMONS
WAYNE FITZSIMMONS
FLANSBURG FARMS INC
FLOYD FARMS INC
FLYING S CORP
BRAD FORGEY
FOUNDATION FARM INC
FRAZIER BLUFF FARMS INC
PHILLIP FRIEHE
FRIEHE FARMS
FROST VALLEY FARMS
-JERRY L SNYDER
-JASON SNYDER
G & D FARMS INC
G & J HAMILTON FARMS INC
DALE GALBREATH
GARY GALBREATH
GREG GALBREATH
GAR-RAN LLC
GAUNT FARMS INC
GENE MCDONALD FARMS INC
CURTIS GERING
GETZINGER FARMS LLC

GFELLER RANCHES INC
GIESCO INC
GJ FAMILY FARMS
GLEN-MAR FARMS
DIRK A GLESSNER
GMC JV
GOBLE FARMS
GREEN ESTATE INC
GOLDEN GRAIN FARMS INC
GOLDEN SCHELL FARMS
GOOD STALK FARMS LLC
ELLIOTT GOODRICH
GORDON & GORDON FARMS
L.P.
GORMLEY FARMS
GRAIN ACRES
GRANHOLM FARMS LLC
MARK S GRANT
GREEN ACRE FARMS INC
GREEN HOLLOW FARM INC
GREEN VIEW FARMS INC
GRIGG FARMS LLC
GROOM FARMS
DAVID GUMM
GUNNING FARMS INC
-JIM GUNNING
-LISA PATERNOSTER
KENNETH W GUST
GUSTY G RANCH INC
H & R FARMS
H JACOBS FARMS INC
H.T. REA FARMING CORP
HAIR LAND CO
HAMILTON GRAIN
HANNING CATTLE
HANSEN FARMS
HARDING FARMS
DENNIS HARDY
HAROLD HENNING'S FARM
HARVEST ENTERPRISES LLC
KYLE HAWLEY
HAYES INC
HELLBERG FARMS LLC
HENDRIX FARMS LLC
HENNING FARMS JV
HERRES LAND CO
HG ETC LLC
HI VALLEY FARMS INC
HIGGINBOTHAM
HOMESTEADS INC
HILL VIEW FARMS JV
HILLCREST FARMS INC
HOCTOR RANCHES LLC
HODGES 1905 INC
HOGUE RANCH
JEFF HOLDERBY
HOLLENBACK FARMS INC
HOLMES FARM
HOOD FARMS
HOWARD P SMITH RANCH
HOWE FARMS INC
HUDLOW INC
HUNT FARMS
-DEREK HUNT
-SCOTT A HUNT
HUNTLEY FAMILY JV
HYER FARMS
IVY FARMS INC
J & LAND & LIVESTOCK INC
J & M WHITMAN FARMS LLC
J & S MOON FARM INC
J & S MYERS INC
J BAR S INC
J R MILLER FARMS INC
J H FARMS INC
J T RANCHES INC
J VOWELS FARMS INC
J.H. MILLER & SON INC
J&B SHERWOOD INC
JAMISON AG ENTERPRISES
JANSON FARMS INC



Winter Canola Hybrids **MERCEDES | KICKER | PHOENIX CL | PLURAX CL**

-  Earn Non-GM premiums in addition to optimizing yields
-  All seed is certified Blackleg free
-  Organic growers, please inquire
-  Early Order Discounts available through your local retailer
-  All hybrids developed with a strong focus on shatter tolerance

PNWVT	2017	2018	2019	2020
Control Varieties	lbs/ac (rank)			
Athena	3,805 (14)	4,084 (10)	4,344 (18)	4,015 (15)
Dwarf Essex	3,678 (20)	3,413 (28)	—	3,698 (23)
Ericka	3,716 (18)	2,865 (30)	3,829 (25)	3,516 (25)
Rubisco Seeds' Hybrids				
Kicker	—	—	—	5,145 (1)
Mercedes	4,427 (1)	4,933 (1)	5,145 (1)	4,419 (6)
Plurax CL	4,397 (2)	4,708 (2)	4,959 (2)	4,717 (2)
Phoenix CL	—	4,636 (4)	4,900 (4)	4,611 (3)
PNWVT Mean	3,910	3,956	4,470	4,085
LSD (p=0.05)	285	326	287	253
C.V. (%)	15.0	14.7	12.4	12.3

*** Phoenix CL & Plurax CL compatible within Clearfield wheat rotations.**
Strong cross tolerance to Imi / SU herbicides. Can be sprayed post emergence with Beyond herbicide.

SU or SURT Canola cultivars are not viable in a Clearfield rotation. (50% yield reduction in soils containing IMI residues, independent research Caldbeck Consulting.)

Contact Us



(270) 903 - 4994
GENERAL INQUIRIES



(270) 316 - 4316
CROP PRODUCTION PROGRAMS



info@rubiscoseeds.com
EMAIL US



www.rubiscoseeds.com
VISIT OUR WEBSITE FOR HYBRID INFO

JBS FARMS INC
J C AGRICULTURE LLC
JDK FARMS INC
JE DOUGLAS INC
JENSEN FARMS INC
JERRY DORMAIER FARMS INC
JESKE FARMS JOINT VENTURE
JIM BAUER & SONS FARM INC
J K TEE FARMS
JOE MCCOWN SR TRUST
JOHN D INC
JOHN DRUFFEL FARMS INC
JON L OLSON RANCH
ALAN D JONES
GREG JONES
JORDAN FARMS
BETTY L JORGENSEN
KEITH JORGENSEN
JORGENSEN BROS JV
JORGENSEN FARMS JV
JR FARMS INC
JSJ FARM INC
JUST FARMS
JW & K FARMS LLC
K & K FARMS INC
K & S FARMS
K A LUFT FARMS
KAGELE ACRES INC
JERRY L KANE
KD DID INC
KEATTS FARMS INC
KHEM FARMS LLC
RYAN KILE
JAMES KILE
JUANITA KINZER
KISLER FARMS INC
KLAVEANO BROTHERS JV
ALLAN E KLEINBACH
KNIVETON FARMS INC
KNODEL & SON FARM INC
KONAG CO LLC
PAULA KRAMER
KREGGER FAMILY FARMS INC
MYRON KRUCKENBERG
L & D FARMS INC
-NOLAN VAN HOLLEBEKE
-WADE VAN HOLLEBEKE
L2 INC
LARRY DRUFFEL FARMS
LASHAW AG INC
LAWDOG FARMS LLC
LAZY B FARMS LLC
LAZY YJ FARMS JV
LCAT FARMS INC
LEE EICKMEYER FARMS INC
TRACY L LESSER
LESTER WOLF FARMS INC
LIBERTY RANCH
PHILLIP M LILLEGREEN
GERALD L LIPPS
LLEWELLYN FARMS INC
LNL FARMS
LOGEN INC
ERIC E LONG
LONG HOLLOW FARMS
LONGMEDO FARM
LTH FARM CORP
LUFT FARMS INC
LUTZENBERGER FARMS
LYMAN FAMILY FARMS
LYONS FARM OPERATIONS INC
M4 FARMS INC
MAC BROS INC
HARVEY MAC QUARRIE
BILL MALEY
MALONE FARMS
JOHN R MANN
MARCO RANCHES
MASTERSON RANCH
MATT LYONS INC
MCA FARMS
MCCARTY RANCHES
RONALD D MCCLURE
MCGREEVY BROTHERS
MCGREGOR LAND &
LIVESTOCK CO
PAUL MCKAY
MCKAY FARM & RANCH INC
PAT MCKEIRNAN
MCKINNEY FARMS
DAVID M MCNEILLY
MCRAE RANCH INC
MEADOWVIEW J.V.

MERCER DRYLAND FARMS
MERLE ARMSTRONG FARMS
INC
MERRITT FARMS
MESERVE FARMS INC
MGP FARMING LLC
MHB FARMS
MICHAEL HAND FARMS
MIDDLETON SIX SONS
FARMS LLC
MIELKE INC
MIKE RESER FARMS INC
DEAN MILLER
BRANDON MILLER
KEVIN L MOELLER
MOHS PROPERTIES LLC
JASON MONSON
MONSON BROTHERS INC
DEVIN MOON
MOON FAMILY FARM
CARL C MOORE
STEVEN D MOORE
TOM MOORE
MOORE-2 FARMS
MOORE FARMS
MORASCH FARMS
MPJ FARMS INC
MUD CREEK FARMS
MURISON FARMS JV
NANCY A. MCKINNON POA
NAUGHT RANCHES INC
NEACE FARMS
NEILSEN FARMS
NELSON FARMS INC
NIBLER FARMING
NICK & DALE DRUFFEL
PARTNERSHIP
NN BAR FARMS
NOLLMEYER FARMS JV
NORM DRUFFEL & SONS
NORRIS RANCHES INC
NSINC INC
NULL FARMS INC
NW FARMS INC
OCHLARE FARMS INC
ZEKE OCHOA
OVERTIME FARMS INC
PEARSON FARMS
JOEL PENFOLD
PENHALLURICK HEIRS G.P.
PENNELL FARMS INC
THOMAS M PETERSEN
KELLY PETERSON
JERRY W PETERSON
TOM PETTY
BRUCE H PETTY
PIERRET INC
-CLAUDE PIERRET
-MARTIN PIERRET
SHEILA PIPER
PLUCKER FARM
PLUCKER FARMS ONE LLC
PM ROSMAN FARMS
POE GRAIN & LIVESTOCK INC
H THOMAS POOLE
POTTRATZ & TIEGS FARMS
POWERS RANCHES INC
JASON PROUDFOOT
PROUDFOOT RANCHES INC
R & D ENTERPRISES INC
R & D FARMS INC
R & J FARMS INC
R & K FARMS INC
R & L LYONS FARMS
R & M MCHARGUE FARMS INC
R & R COX FARMS INC
R & R HALVORSON INC
R & R INC
R-J DORMAIER RANCH
R2 AG INC
LOUIS F RAAP
RADACH FARMS INC
RICHARD J RAMM
CHRIS E RAMSEY
RASCHKO FARMS
RCM FARMS LLC
RDF FARMS INC
REBEL CREEK FARMS INC
RENNIEWANZ FARMS LLC
REPP FARMS INC
RICHARDSON & SON INC
LORNA RICHMOND
RIDGELINE AG LLC

SUSAN RIDLINGTON
RKJK FARMS INC
ROBERT OR ANNA REA FARMS
ROCK ROSE FARMS INC
ROCKING MC
ROD HUBNER FARMS
RODGER LEHN FARM
RODRIGUES FARMS INC
ROECKS FARMS INC
ROGER ETTER FARMS
ROLLING MC
STEVE ROSBACH
ROSS RANCH
ROY KINZER FARMS INC
RYLAARSDAM FARMS
S & J SCHWARTZ INC
SABIN FARMS INC
SADDLE MT HOMESTEAD
SAGEBRUSH FLATS FARM
BRENDA SANCHEZ
SCHLEE FARMS INC
JOE A SCHMITZ
SCHOONOVER FARMS
SCHORZMAN FARMS JV
MICHAEL P SCHRAG
SCHREINERTUTTLE FARMS INC
SCHROETLIN BROTHERS
SCHU FARMS INC
TRAVIS SCHUH
TIM SCHULTZ
GREG SCHULTZ
SCOGGIN RIDGE RANCH LLC
SCOTT RANCHES INC
SCRUPPO INC
PHILIP M SEALOCK
MATTHEW SEIBLY
SEVEN-A FARMS INC
SHAWVER FARMS
TOM SHEER
JERRY SELLER
SHUTLER RIDGE FARMS
SID MAYBERRY INC
SIDEB INC
SIEG BROTHERS JV
-ROBERT SIEG
-ROBERT J SIEG
CORDE SIEGEL
SIERRA VISTA FARMS INC
SIEVERKROPP FARM INC
SIEVERKROPP GRAIN &
CATTLE
SILER FARMS INC
SILVER CREEK FARMS INC
ALTHA M SIMMELINK
SITTON FARMS INC
SJ FARMS
SLR FARMS INC
SMALL RANCHES
SMITH BROTHERS
SONRAY FARMS INC
SORGHUM HOLLOW SMITH
RANCH
SPRING CREEK ACRES LLC
SPRING CREEK ENHANCEMENT
SQUAW CANYON SHOOTERS
INC
FRANCES M STEEL
STEVE GFELLER INC
STEVE KRUPKE FARMS JV
STEVENS FARMS INC
STONE FARMS INC
STONECIPHER RANCHES LLC
JOHN F STRATTON
TOM STRYULA
STUBBLEFIELD RANCH INC
STUBBS FARMS LLC
-MICHAEL STUBBS
-TAMI STUBBS
SUKSDORF FARMS INC
SUN RIDGE FARMS INC
SUNNY A FARMS & SERVICES
SUNSET FARMS INC
CAROL SUNWOLD
DAVID L SWANNACK
NANCY LEE SWEARENGEN
T J FARMS INC
T.R. REAPERS INC
MATTHEW L TALBOTT
TALBOTT FARMS INC
STEVE TAYLOR
TEMPLIN FARM SERVICE INC
TERRY HARDING INC
BARB TETRICK

GUY THERRIEN
THOMAS FARMS
JOHN THOREN
BRIAN K TIEGS
TIM LEBER FARMS
TIMM-RUSH INC
TIN CITY FARMS
TLC RANCH INC
TMC FARMS INC
TODD KIMBALL FARMS
TOM DOWNS FARMS INC
TOM PERINGER FARM
TRIPLE S FARM PARTNERSHIP
TUCANNON AG PARTNERSHIP
LLC
LARRY TUPLING
TURNER FARMS
UNION CREEK NORTH LLC
URBAT FARMS INC
V W FARMS LLC
VALLEY VIEW RANCH
LEONARD R VAN BUREN
VAN HOLLEBEKE LIVESTOCK JV
BOB VENERA
VINTI FARMS
ALAN VOISE
W & D RANCH INC
W & L FARMS INC
W A L RANCH INC
W W FARMS
JEFF WAGNER
WAINSCOTT BROTHERS
REGIE WALDHER
DONALD E WALKER
WALLA WALLA RIVER
ESTATES LLC
WALTHER FARMS
PARTNERSHIP
WARDEN HUTTERIAN
BRETHREN
WARREN FARMS INC
WATKINS FARMS INC
NAT WEBB
LUCILLE WEBER
KELLI WEBER
WEBER FARMS INC
WEIR TRUST
WELLESLEY FARMS INC
WELLSANDT FARMS INC
WERNZ FARMING
WEST HILLS JOINT VENTURE
WEST WHITMAN FARMS INC
WHITAKER & SONS FARMS INC
WHITE FARMS
WHITE FARMS JV
MIKE WHITMAN
LES WIGEN
FRED J WILCOX
LARRY D WILCOX
WILEY RANCHES INC
FRED A WILKINS
WILLADA FARMS INC
WILLIAM HUGHES JR FARM
WILLIAM R DEIFE INC
WILLIAMSON FARMS INC
WILLRICH RANCH JV
CRANIG WILLSON
WINDY ACRES
WINDY PRAIRIE INC
RAY WOLF
WOLF CORPORATE FARMS INC
WOLFE HEREFORDS INC
WOLLWEBER FARMS INC
MIKE WOODS
WOODY GRADE FARMS LLC
WP FARMS
WWW FARMS INC
XB RANCH INC
Y2K AG VENTURES LLC
ZECCHINO FARMS
ZEILER RANCH INC
ZELL-CRON INC
MIKE ZIMMER

INDUSTRY SUPPORTER

ADAMS COUNTY FSA
AG ENTERPRISE SUPPLY INC
ALMOTA ELEVATOR CO
B & R AERIAL CROP CARE INC
BROCK LAW FIRM
CF INDUSTRIES INC
COBANK

COLUMBIA BANK
COLUMBIA BASIN
AGRICULTURAL RESEARCH
CENTER
COLUMBIA GRAIN INC
CORTEVA AGRISCIENCE
-KENNEWICK OFFICE
-SPOKANE OFFICE
COUNTRY FINANCIAL
ED POE AGENCY INSURANCE
FARM & HOME SUPPLY INC
FARMINGTON STATE BANK
FOUR STAR SUPPLY INC
GUINN ENTERPRISES INC
MEL HENKLE
HIGHLINE GRAIN GROWERS
INC
HILLE SPRAY SERVICE INC
INLAND EMPIRE MILLING CO
JESS FORD OF PULLMAN
JW & ASSOCIATES PLLC
KIRKCAID REAL ESTATE
KIRKPATRICK UTGARD &
PERRY P.S.
KONEN FARMS
L & G RANCH SUPPLY
LEFFEL OTIS & WARWICK P.S.
-DAVENPORT OFFICE
-ODESSA OFFICE
-RITZVILLE OFFICE
-WILBUR OFFICE
LEWIS CLARK TERMINAL INC
LIND DRYLAND EXPERIMENT
STATION
LLOYDS INC & BLUE
MOUNTAIN INSURANCE
MCDONALD ZARING
INSURANCE
MCGREGOR RISK
MANAGEMENT SERVICES LLC
-POMEROY OFFICE
MICRO-AG
MID-COLUMBIA INSURANCE
INC
NELSON IRRIGATION
CORPORATION
NIELSEN INSURANCE
NORTH PINE AG EQUIPMENT
INC
NORTHWEST FARM CREDIT
SERVICES
-COLFAX OFFICE
-WALLA WALLA OFFICE
NORTHWEST GRAIN
GROWERS INC
NORTHWESTERN MUTUAL
NUTRIEN AG SOLUTIONS
-POMEROY OFFICE
-WATERVILLE OFFICE
PAC INSURANCE GROUP
-AIRWAY HEIGHTS OFFICE
-PULLMAN OFFICE
PALOUSE GRAIN GROWERS
INC
PASSMORE AVIATION
PERKINS & ZLATICH CPAS P.S.
PLANT HEALTH
INTERNATIONAL
PNW FARMERS COOPERATIVE
POMEROY GRAIN GROWERS
INC
PORT OF DOUGLAS COUNTY
RITZVILLE WAREHOUSE CO
ROCK STEEL STRUCTURES INC
SCHMIDT INSURANCE
SERVICES INC
ST JOHN HARDWARE
STATE BANK NORTHWEST
STOESS MFG INC
SYNGENTA
-CHENEY OFFICE
-SPOKANE VALLEY OFFICE
T & S SALES INC
THE MCGREGOR COMPANY
-CLARKSTON OFFICE
-COLFAX OFFICE
-DAVENPORT OFFICE
-DAYTON OFFICE
-ELLENBURG OFFICE
-ELTOPIA OFFICE
-ENDICOTT OFFICE
-GARFIELD OFFICE
-KENNEWICK OFFICE

-LACROSSE OFFICE
-LEWISTON OFFICE
-LIND OFFICE
-MCGREGOR SEED
-OAKESDALE OFFICE
-PALOUSE OFFICE
-PASCO OFFICE
-POMEROY OFFICE
-PULLMAN OFFICE
-RITZVILLE OFFICE
-ROSALIA OFFICE
-ST JOHN OFFICE
-UNIONTOWN OFFICE
-WAITSBURG OFFICE
-WALLA WALLA OFFICE
-WILBUR OFFICE
TINA POOLE INS
TRI-CITIES GRAIN LLC
TRI-STATE SEED COMPANY LLC
USDA-RISK MANAGEMENT
AGENCY
WAGNER SEED COMPANY
WASHINGTON GENETICS
WASHINGTON STATE
CROP IMPROVEMENT
ASSOCIATION
WSU CO-OP EXTENSION
WSU CROP & SOIL SCIENCES

LANDLORD

3 G CORP
4-1 RANCH LLC
A & D LUST FAMILY LLC
A & P FARM LLC
JANET ABRAMS
ACT III LLC
L. CLIFFORD ADAMS
ALLAN LAND CO LLC
GEORGE ALLISON
APPEL VALLEY FARM
SYLVIA ARBELBIDE
ARCHER RANCH
ARLAND FARMS
MERLE E ARMSTRONG
ARMSTRONG FAMILY FARM
TRUST
ART/LINDA ZELLMER INC
ARTHUR MENKE FAMILY
TRUST
ASPEN CAMP RANCH
KEITH AUSMAN
ROBERT E AUVEL
AVELLA STONE LLC
B & D FARMS
B & L FARMS INC
GARY L BAKER
GERALDINE BALDWIN
BAR TEN RANCHES LLC
BARNES FAMILY PROPERTY
TRUST
BAUER FAMILY FARM
PARTNERSHIP
BAUMAN & SON
JOHN BAUMANN
BAYNE FARM
BEARD FAMILY FARM LLC
CLIFFORD D BERGERON
CATHY BERGERON RAMER
BERNICE LESSER IIV TRUST
BERRYMAN
GRANDCHILDREN'S RANCH
BEST ACRES
BETCHER FARMS II INC
BIG DADDYS FARM LLC
KURT BLUME
JOANNE BOLICK
BOWMAN FARMS
BREWER FARM
JANINE BRODINE
DALE BROECKEL
TERRY J BROWN DVM
BSJ SHIELDS FARMS LLC
CHARLES BUCH
BUOB FARMS
BARBARA BURT
BARRY BUTH
DONNA L CAMP
DICK CAMP
JANET CAMP
CARL M CANFIELD
CAP FARMS LLC
CARCO FARMS INC
CARLSON FARM LLC

BARBARA CARMACK
CECILE L CARPENTER
CBO-DE-JCM LLC
CJW FAMILY FARM LLC
CLAASSEN FARMS
CLARENCE BECHTOL FAMILY
HOLDINGS LLC
LAURIE CLARK
CLARK-COLLINS-CLARK
ALICE L CLAUSEN
CLINE CLYDE RANCH
CLINE FAMILY FARM
CLOANINGER FARMS
-FLORENCE SHERSEY
-JOANN C POWELL
COGSWELL FAMILY FARM LLC
PAUL COLLARD
COLLARD HEIRS FARM
AGENCY
COLUMBIA CO. RANCH
LANCE J COLYAR
CONOVER RANCHES
ANN COOK
COPELAND FARM LLC
CORDERMAN HILLS JV
EILEEN M COX
CRABTREE HOMESTEAD LLC
CREDIT SHELTER TRUST U/W
G M CROSSE
CROWS NEST AG INC
CT MYERS FARMS INC
CVENGROS FARM &
CVENGROS FAMILY LLC
D & D SOLBRACK LLC
D. & R.M. FARMS LLC
D.F. MORRHORST LAND
COMPANY LLC
DOLORES DAILEY
SHIRLEY DALING
JUDITH DALTON
DANAHER FARMS
BARBARA DANFORTH
DAVID CASPER RANCH INC
MARY LILLIAN DAVIS
LLOYD DECENNE
DEEP CANYON RANCH
DEIFE INC
DINGMAN FARMS
DK WHITE PROPERTIES
DON & NONA REINBOLD
FAMILY LLC
DON KAGELE FARMS INC
DON MCHARGUE FARMS
DONALD E MORTON INC
DONALD G HARRIS
TESTIMONIAL TRUST
DONEGAN FARMS
JULIE DONNELL
DONNELL FARMS
-BILL DONNELL
-LISA DONNELL
RANDALL DONOHUE
DOUBLE U RANCHES
DONNA J DOUGLASS
DRY CREEK FARMS
EILEEN DUNN
DURHEIM LLC
DWYLA DONOHUE
ENTERPRISES INC
MARJORIE DYCK
E & L COCHRAN JV
EDGAR L SMITH INC
EDNA ROSE CLOANINGER
FARMS LLC
EDNA SKOGLUND LLC
ELIE GANGUET FARM
-JUNE GANGUET MEINERS
-MARY F GANGUET
-DIANNE GANGUET RUGG
ELIZABETH JACKY REV. LIVING
TRUST
VALERIE ELLIOTT
EM-BREN FARMS
EMIL & JANNA LEITZ ESTATE
EMMA JOHN LLC
RICHARD EMTMAN
EUBANKS FARM
F & R INC
FAIRVIEW FARMS
KATHLEEN FARENS
KARL FELGENHAUER



STRONGER PLANTS HIGHER YIELDS

For higher, more productive yields, give your wheat crop the nutrition it needs. Tracite® Stand Xtra strengthens wheat production with a 12-0-2 formulation containing calcium and magnesium. The nutrients are formulated from chloride sources to help provide the solution to physiological leaf spot. In addition, Tracite Stand Xtra provides a market-leading nitrogen source paired with ENC® Formulation Technology for enhanced nutrient uptake and higher yield potential.

For more information, contact your local Helena representative or visit [HelenaAgri.com](https://www.HelenaAgri.com).

13 SR 27
Pullman, WA 99163
509-334-2591

 **TRACITE**® WITH **ENC**® | FORMULATION TECHNOLOGY
STAND XTRA



Important: Always read and follow label directions. Some products may not be registered for sale or use in all states and counties. Please check with your local Helena representative to ensure registration status. Helena, ENC, Tracite and People...Products...Knowledge... are registered trademarks of Helena Holding Company. © 2021 Helena Holding Company HPG0221W

FELGENHAUER FARMS
-AL ANDERBERG
-SALLY BAIRD
CHARLES FERGUSON
DORIS L FILAN
MAURICE FINK
FIVE-O LLC
CHARLENE FLANIGAN
SHANNON FLEMING
FORNEY FARM LLC
FRED FOSS
FOSTER CREEK RANCH
NANCY FRANZ
MARGARET FRANZ ROBINSON
FREDRICK A LITT FARM TRUST
MONA M FRERIKS
DONALD FRICK
FRICKE FARMS
DAVE FULFS
FULLER FAMILY FARM LLC
G.W. GAUGER FARM
GAFFCO FARMS INC
GANGUET FARMS LLC
GCA FARMS LLC
GECKO INC
MARIAN M GEIB
ECHO E GEISLER
KAY GENTRY
DEE LEE GIBSON
GOETZ FAMILY LLC
GOLDEN HILLS FARM
GOLDSWORTHY RANCH INC
GOODWATER ENTERPRISE INC
DAVID B GORDON
GORDON O KIESZ TRUST
GORMLEY FARMS
-BENJAMIN BROWER
-KATHLEEN G LOVELAND
GOSE FAMILY 1995 LIVING
TRUST
GRADWAHL FARMS
JOSEPH E GRANT
GRANT FARMS
GRAY FARMS
CURTIS GREENWALT
GROGAN LAND COMPANY LLC
GROOT-NYGAARD FARM
CARL M GRUB
GWINN ESTATE
H & D FARMS
H & E FAMILY ENTERPRISES
H & M FARMS LLC
RICHARD HAGWELL
HALF CIRCLE R ENTERPRISES
LLC
MARGUERITE A HALL
NANCY HANFORD
REX H HARDER
MICHAEL W HARDIN
HARLOW FARMS
JAMES HARRI
HARTLAND LLC
DAN HARWOOD
HAUGEN FARM TRUST
HEARTY ACRES INC
RODGER L HEIN
ROBERT M HEINEMANN
HEMINGWAY FARMS INC
HIDDEN VALLEY LTD PTR
JOHN HIGGINBOTHAM
HIGHLAND FARMS
JAMES C HILL
MARCIA HINMAN
HIT INC
HODGEN FAMILY TRUST
ROBERTA C HODGSON
PAMELA HOER CUMMINGS
ED HOFFMAN
ANN HOFMANN
HOLLWEG FARMS LTD
PATRICIA A HOLZMEYER
HOMEPAGE INC
LOUIS J HOPKINS
HORAK-KERN LLC
GARY HOUSER
HUDLOW ENTERPRISES CO
SANDRA HUNTINGTON
GARY M HYDE
JIM IMESON
MARY KIRWIN
J & J THERRELL FAMILY LLC
J FRANCIS MUNNS FARMS INC
J PHILLEO FARM LLC

J SMITH FARMS
J.L.S. PARTNERSHIP
JACK DAVIS FAMILY LLC
JACKAROO LLC
JACKSON & CAHILL FAMILY
FARMS
JACKSON ESTATE
DOUG JACOBSON
MRS JOSEPH JAEGER
JOANNE G JAMES
JAMES BAILEY INC
JAMES C LYONS SR FARM
JAMISON MANAGEMENT ACCT
JAN KRAMER FARMS
JANETT FARM
HELEN L JANSEN
GARY M JANTZ
LAURA JENSEN
JERRY HARDY FARMS
JERRY MALEY LIVESTOCK CO
JNJ FARMS INC
JO & HD TRAVIS LIVING TR
JOE THOMAS FARMS
JOHN KULM FARM LLC
JOHN R. THOMSEN
DAUGHTERS' FARM LLC
ROBERT K JOHNSON
JAY JOHNSON
ERIC JOHNSON
CHARLOTTE J JOHNSON
BARBARA JOLLY
JORDAN FARMS
PETER A JOSS
JRM & M FARMS
FREDERICK JUNG
JURIS FARMS INC
K D R RANCH
K-FARMS INC
CLARK KAGELE
PHYLLIS KAISER
ELVA M KANE
KAPUTA
KAYSON'S PARTNERSHIP
KCL FARMS
JOANNE KELLER
WESLEY P KELLEY
WAYNE KELLY
JIM KELLY
CATHERINE J KENNEDY
LUCIELLE KENOYER
KEYSTONE FARMS LLC
KIBLER FARMING INC
DELLA KIESZ
BERT KINMAN
LARRY KISON
KK 4 FARMS INC
KLB FARMS
KLETTKE FARM
KNODEL & SON FARMS
LAUREL KOCH BEALE
RANDY KOLLER
FRANKLIN J KOTH
GREG KRAMER
KROM ACRES 1919 LLC
KRUGER FARMS LLC
KSL WOODSIDE FARMS
KUCHENBUCH FAMILY LLC
L & A FARMS INC
L & J BUCKLEY FAMILY
FARMS LLC
L & K WALKER FAMILY LLC
L & M PEHA JV
MARK LAMBERT
LAMP BROS LLC
KURT LANDKAMMER
MILDRED B LANSING
LARGENT/ANDERSON FARM
LARRY & PHYLLIS THONNEY
TRUST
LARRY H KRUGER INC
FELICIA LAUTEN
STEVEN R LEDGERWOOD
MARY A LEHN
LELAND LAND & LIVESTOCK
LLC
-ROY LELAND
-WARD LELAND
ALLEN LEWIS
LIBERTY FIELDS LLC
LIGHTWOOD FAMILY TRUST
JIM LINSTRUM
SUSAN S LITTLE
LNK FARMS

LOGAN FARM
LONGS' OAKSDALE FARM
WILLIAM F LOSKOT
ROBERT J LOTHSPEICH
GLENN LUDAMAN
LYBECKER FARMS INC
JOHN LYONS
MATT LYONS JR
M & L MURPHY FARMS INC
JOYCELYN MADDEN
MALLOY FARM PARTNERSHIP
MALONE FARMS
LYLE MANN
MAPLE K ENTERPRISES LLC
MARCUSEN LAND LLC
EDWARD MARING
MARSHALL FARM
MARTIN FARMS INC
MATT LYONS FARMS
HAL MATTHIEN
MARY MCCORMACK
ELAINE B MCDANIEL
MCDONALD-MOON FARMS
INC
MARJATTA MCGOURIN
TIM MCKAY
L A MCKAY
JANICE MCKAY
MCKINLEY FARMS
EVAN MEHLENBACHER
DORIS MILLER
EILEEN MILLER
GEOFFREY W MILLS
MAC MILLS
GREG MILLS
MILLSTREAM FARMS
MOCKONEMA PARTNERSHIP
MARY MOLDENHAUER
MONNETTE FARM LLC
MOORE FARM
PHILIP E MOORE JR
MORDHORST FARM
PROPERTIES LLC
DAVID W MORGAN
MOUNTAIN TOP LLC
MOYER & MOYER LLC
DAN MYERS
DAVID NAUDITT
JAMES NEFF
NEFF RANCH LTD
NELSON STIRRUP T FARMS INC
NIEHENKE FAMILY LLC
NOSTAW FARMS INC
OLIN FARMS JV
DAVE OLSON
RICH OLSON
OSCAR OLSON
JOAN MARY ORTH
MARY OSBORN
OSCAR KUEST FARM
OSTHELLER FARMS INC
P&P FARMS
JUDY PACE
PATTERSON FARM LLC
PAUL GLASCO FARMS LLC
KATHLEEN PAYNE
DAVID W PETERSCHICK
LYNN PITTMAN
HOWARD PLATTER
JUDITH K POLENSKE
POMEROY NATIVE LLC
PORTER FARM
PRATT REVOCABLE TRUST
PRATT-CLIZER FARMS LLC
PRESCOTT PLACE LLC
TRAVIS PREWITT
CAROLYN PRIEST
THOMAS F QUIRK
CECELIA J QUIRK
JOHN QUIRK
R & B MEINERS TRUST
R-SIX FARMS LLC
KENNETH RADACH
RAY STORY FARMS INC
RED GOOSE INC
KERRY D REESE
VICTOR REEVE
JACKIE K REID
BERNADINE REID
RICH REMINGTON
BECKY RETTKOWSKI
GALE RETTKOWSKI
RF KIBLER FARM LLC

LILA RHODES
VERLA RIGSBY
EDWARD A RING
RING FARM
ROSSELL RING-EASTON
JIM RINGWOOD
RITCHIE RANCH LLC
RITZVILLE MOTOR CO
ROBERTSON INC
ROCK COULEE RANCH INC
ROCKY RIDGE FARMS LLC
ROLLING HILLS FARMS INC
JUNE M ROLOFF
JIM ROLOFF
ROSALIA FARMS LLC
RONI L ROSE
ROSENOFF HOMESTEAD LLC
ROSMAN ENTERPRISES INC
ROSS RANCH
KARA ROWE
DR STEPHEN A RUARK
RUBARB LLC
RUDOLF FARM LLC
LOREN J RUX
TOM RUX
S & B FARM
SAF KFI LLC
GALE E SALO
SANDRA CADIEU TRUST
SAR LLC
TOM SCHARFF
MARY SCHILLING
SCHLOMER FAMILY FARMS
DOLLIE SCHMIDT
CHARLES J SCHMIDT
DALE SCHMIDT
SCHMIDT FARMS
HOWARD SCHNEIDER
SCHORZMAN L & M
KAREN D SCHULTHEIS
SCHULTHEIS/DOUGLAS LLC
EDWARD L SCHULTZ
JOHN F SCHULTZ
THOMAS SCHULTZ
SCHUSTER FARMS LLC
IANTHA SCHUSTER SIDL
DEL SCHWISOW
BARB SCHWISOW
SCOTT FARM
SCOTT LIVING TRUST
SEAL SPRINGS ESTATE
SENKLER FARMS
NEIL SHENYER
SHEPHERD FARMS INC
SHILLING & SHILLING INC
MARY C SIEG
RAYMOND SIEVERKROPP
ORVILLE E SIMONS
SIMONSON FARMS INC
DAVID E SIMPSON
JERRY SIMPSON
THOMAS A SIMPSON
JOHN SKIMAS
SLACK FAMILY TRUST
SLEEPING LION FARMS
JEFF SMICK
STEVE SMITH
LEA SMITH
JEAN A SMITH
CORALIE F SMITH
BRENDA SMYTH
JANNIS SNOOK
SODORFF FARMS INC
JO ELLEN SOLMONSON
SORGHUM HOLLOW RANCH
SPEAR J RANCH
JAINIE SPRINGER
SPRINGER FARMS LLC
DONNA ST JOHN
SHIRLEY STAIB
WYNN STALLCO
PATRICIA STARTUP
ALAN STEIGER
STELZER FARMS
JOANNE STEWART
STEWART FARMS LLC
STODDARD FARMS
STOLP FARMS
STONE FARMS JV
STONECIPHER & SONS INC
STONECIPHER FARMS LLC
AL STROHMAIER
STUBBS FARMS

RICHARD P STUCKY
ERIC STUCKY
SUSAN TALBOTT
TALBOTT INC
TATE FAMILY CORP
LAWRENCE J TEE
KATHERINE TEEL
TEEL FARMS
THE SILZEL FAMILY TRUST
THE SNOW PLACE
TIMLAND INC
TOLANCO INC
JOHN KENNETH TOLONEN
GORDON TOMASKE
MARY GRANT TOMPKINS
MORAN TOMPKINS
TOMPKINS FAMILY FARM LLC
TOUCHET RIVER RANCH
TRIPLE D CENTENNIAL
FARMS LLC
RICHARD J UHRICH
HOWARD ULRICH
DONNA R UNDEBERG
V H ROGER FARMS
VAN AUSDLER FAMILY
PARTNERSHIP
VAN GINNEKEN AGRICULTURE
LLC
VAN LEUVEN FARMS LLC
VERNICE & HENRY MEINERS
TRUST
VIVIAN ZAGELOW LIVING
TRUST
ROD VON LEHE
AUDREY WAGNER
DANIEL J WAGNER
DALE WAGNER
WATSON FARMS INC
MARY ELLEN WAX
GREGORY G WEBER
DENNY WEITKAMP
WEIZLE-LENHART FARM
ROGER WESSELMAN
WHEAT FARMING
KEVIN WHITEHALL
WHITEHALL FARMS INC
WHITMAN GROUP LLC
WILKERSON RANCHES
WILLU INC
WINDY ACRES FARM INC
WM D & LINDA H
STONECIPHER FARM
JASPER WOMACK
JILL WOODWARD
WYBORNEY INC
YEOMAN RANCH PT
LOREN D YOCKEY
JAMES YONKO
GARY PAUL ZAGELOW
ZAGELOW FARM TRUST
ZEIMANTZ FAMILY LLC

LIFETIME

KAREN ALLYN
PAMELA AUSMAN
BEN BARSTOW
BRIAN BAUMANN
KENNETH BEALE
BRETT BLANKENSHIP
DAN BLANKENSHIP
MARILYN BURG
DENNIE L BYRAM
BRIAN COCHRANE
SETH COFFMAN
BRIAN & CONNY CONN
PAUL DASHIELL
TIM W DONEEN
PHIL R DRUFFEL INC
EDWARD ENSOR
MARIE FERYN
JON D FINK
THOMAS FRICK
LARRY GADY
MARILYN V GEARHART
CHRISTOPHER GERING
GAYLE GERING
JEFF HALL
DAVID HARLOW
MARYANN HARLOW

SUSAN HEGNEY
CHRIS HERRON
MIMI HERRON
BRIAN HOMBERG
GAYE VERREE HUNT
PHILIP ISAAK
RON JIRAVA
HAL R JOHNSON
NANCY JOY JOHNSON
JOHANNA JOHNSON-ELLIS
RICHARD JURIS
TOM JURIS
J P KENT
BRIAN KIESZ
RANDY KIESZ
WAYNE & LOIS KLINDWORTH
TERRY KRUPKE
MIKE KUEST
KARL KUPERS
GEORGIE LEINWEBER
MICHAEL MAHN
KATHRYN MAHONY
ALEX MCLEAN
TOM MCPHERSON
BERNICE MELCHER
GRANT MILLER
MATT MILLER
JAMES & ANN MOORE
CASEY NONNEMACHER
NORMA PAGE
SARAH LESLEY PALMER
SUE PALMER
SYDNEY LAUREN PALMER
LES PETERSON
CAROL ANN QUIGG
DALE QUIGG
MARK & KATHLEEN RICHTER
A JOSEPH & CANDI MOORE
ROACH
JACK H ROBERTS
DEREK SCHAFER
JERRY SCHAFER
JEFF SCHIBEL
GINGER SCHOESLER
MARK SCHOESLER
A. LANI SCHORZMAN
CATHY L SHEFFELS
DAVID W & JENAE SHEFFELS
JERALD SHEFFELS
MARK M SHEFFELS
JACK M SILZEL
J R SIMPLOT
GREGORY J SMITH
STACEY SMITH
TRAVERN SMITH
SULPHUR VIEW LLC
JAMES SWANNACK
JAMES R WALESBY
JAMES E WALTERS
DOUG WELLSANDT
JAMES WHITE
JARED J WOLLEWEBER
ROBERT ZORB
THOMAS G ZWAINZ

PARTNERSHIP

4-H RANCHES
A & J REPP FARMS INC
-DEANE N MUNGER
-JEAN REPP
-MAUREEN J SABOURIN
ADAMS FARM PARTNERSHIP
-BEN & JENNY ADAMS
-JOYCE ADAMS
-MORGAN ADAMS
-MARY L DUNKIN
BROUGHTON LAND CO
-JAY BROUGHTON
-DANIEL B MCKINLEY
CLONINGER FARMS LLC
D & M FARMS
-LICIA DUNCAN
-ANTHONY MARINO
-KELSEY NACHTIGAL
-MITCH & DIANE SORENSON
D.W. CORNWALL FARMS INC
DIAMOND J FARMS INC
-ANDY JURIS
-LINDA JURIS
EDWARDS FAMILY LLC
-BILL EDWARDS
-JOHN EDWARDS
-MIKE EDWARDS

-RICHARD EDWARDS
ELDEN FELGENHAUER
FARMS LLC
-DONALD FELGENHAUER
-KURT FELGENHAUER
-MARK FELGENHAUER
-NEIL FELGENHAUER
-PHIL FELGENHAUER
FRED HARRIS TRUST
-DONNA L HARRIS
-ROSE HARRIS
GLADE CREEK RANCH
-CODY J NICHOLS
-MICHAEL K & CLAUDIA
NICHOLS
GUSKE FAMILY LLC
GUST FARMS INC
H4 FARMS PARTNERSHIP
-WILLIAM HARDER JR
-WM. GEO & VIVIAN HARDER
HILLER FARMS LLC
-BARBARA CARLTON
-JIM HILLER
-JOHN HILLER
-LINDA HILLER
ISAAK LAND INC
KAP PRODUCTION
-CRAIG & DONNA
KLINDWORTH
-CULLEN KLINDWORTH
-JOHN & GAYE PIERSON
JAMES L & VICTORIA KNAPP
L & P FARMS INC
LASATER BBG INC
-BRIDGET BLOM
-BRITT GREEN
-LIZ JARVIS
-POLLY JOFIFEK
-GAIL SILVA
LEHNSKOV INC
NOLIN HILLS LLC
REH CO
-BRIAN HART
-ERIC HART
-GREG & JULIE HART
RICHARD DRUFFEL & SONS
RIDGELINE FARMS
-BEN TURNER
-BROCK WALTERS
-DOUGLAS & GAIL WALTERS
RIFLE RIDGE JV
-ERIC COCHRAN
-HAROLD & VALERIE
COCHRAN
S & B FARMS INC
S LIGHTNING FARMS
S&C RANCHING
SAC ENTERPRISES INC
SCHMITT FARMS
SCHORZMAN FARMS JV
-SCHORZMAN AG INC
-BRIAN SCHORZMAN
-LANI & MARY SCHORZMAN
TANNEBERG & SON JV
THE BERG PARTNERSHIP
-FRANK BERG
-MATT BERG
-NICOLE BERG
-STEVE BERG
TOMPKINS BROTHERS
-BRAD TOMPKINS
-BRENT TOMPKINS
WALKERS JOINT VENTURE
-PAUL & TAMARA WALKER
-PAUL H WALKER
-SETH C WALKER
WEYNS FARMS
-GERARD WEYNS
-JACOB WEYNS
-KEES WEYNS

STUDENT

GUNNAR AUNE
CRAIG CURRY ■

Breakthrough Performance AP Renegade

AgriPro®

AgriPro® Brand Hard Red Spring Wheat

Variety	<16" Precip.		>16" Precip.		Over Locations	
	Yield (Bu/A)	TW (Lb/Bu)	Yield (Bu/A)	TW (Lb/Bu)	Yield (Bu/A)	TW (Lb/Bu)
AP Renegade	42	60.1	78	60.6	60	60.3
Kelse	40	61.2	70	60.7	55	61.0
WB9662	36	60.7	57	61.1	51	60.9
WB9668	35	60.2	64	60	49	60.0
Trial Average	40	61.0	73	61	56	61.0

Three-Year Dryland Trial Summary

WSU Data, 2018-2020
<http://smallgrains.wsu.edu/variety/variety-2020-data/>

To learn more and book seed,
contact your local AgriPro Associate.

A list of AgriPro Associates is
available at AgriProWheat.com.

syngenta®

©2021 Syngenta. All photos are either the property of Syngenta or are used with permission. Some or all of the varieties may be protected under one or more of the following: Plant Variety Protection, United States Plant Patents and/or Utility Patents and may not be propagated or reproduced without authorization. AgriPro®, the Alliance Frame, the Purpose Icon and the Syngenta logo are trademarks of a Syngenta Group Company. 3-21

®

Tankmax Inc.
TANK SALES • PARTS • SERVICE

TAKE IT TO THE MAX

The ONLY Muncie Master
Distributor in the Inland NW!



PTO and Hydraulics at very competitive prices.

FULL SERVICE DRIVELINE SHOP



Weasler



- Trucks - Heavy to Light
- Agriculture & Industrial
- Automotive Parts & Components
- Custom Applications



SPOKANE N 216 Dyer Rd **509-534-8000**



PASCO 1206 E Lytle St **509-545-4600**

www.TankmaxNW.com

VISIT US ONLINE TODAY!

KENT 253-872-2274

PORTLAND 503-221-0335

POLICY MATTERS

Overtime, carbon bills still moving through legislature

Editor's note: This information was updated as of our printing deadline. To get the most up-to-date information we have on legislative activity, please check our website, wawg.org.

By Diana Carlen
WAWG Lobbyist

Feb. 22 was the second legislative cutoff date when bills had to make it out of their fiscal committees to remain alive. Now, the Legislature will largely cease committee action and focus on floor action, which entails the entire chamber (either the House of Representatives or the Senate) considering and voting on bills. Once a bill passes out of its original chamber, it moves to the other chamber, and the entire committee process repeats.

Normally, there are 2,000 to 3,000 bills introduced in a legislative session. This year, only 1,010 bills have been introduced—464 in the Senate and 546 in the House.

On Feb. 8, Gov. Inslee signed the first bill of 2021 into law. Senate Bill 5061 will mitigate the unemployment insurance tax increase hitting employers because of pandemic layoffs. The legislation will lower the expected tax hike for many employers and provide \$1.7 billion in unemployment relief for employers over the next five years.

Agricultural overtime

Negotiations continue on legislation dealing with the agricultural overtime issue. An alternative version of SB 5172 passed out of the Senate Labor and Commerce Committee by the deadline. Unfortunately, the amended bill is not supported by agriculture and came out of committee on a party-line vote.

The bill that moved out of committee eliminates the agricultural overtime exemption from the overtime law and requires agricultural employers to pay retroactive overtime wages for the past three years plus 12 percent to avoid penalties. Sen. Karen Keiser (D-Kent), the chair, stated that the bill was a work in progress and that negotiations would continue on the bill before it was ready for a vote of the full Senate.

Low carbon fuel standard

HB 1091 was voted out of the House Transportation Committee on Feb. 19 and is expected to pass out of the full House soon. The Senate has failed to take action on this legislation the past two years due to concerns that the

proposal raises gas prices, but does not generate revenue to the state. The Washington Association of Wheat Growers opposes this bill.

Cap and trade

On Feb. 19, the Senate Environment, Energy and Technology Committee held a work session on a new version of SB 5126, the Washington Climate Commitment Act, sponsored by Sen. Reuven Carlyle (D-Seattle). This bill would implement a cap and trade program in Washington state. The work session focused on the differences between the bill originally proposed by Gov. Inslee and Sen. Carlyle's proposed substitute bill.

Key changes to the bill include the addition of environmental justice provisions after environmental justice groups testified opposed to the original bill and argued instead to pass a carbon tax. For example, there is new language in the substitute version that provides that the Washington State Department of Ecology may adopt stricter air quality standards for overburdened communities.

One positive addition to the substitute bill was the designation of food processors as "energy intense, trade exposed" industries. The bill was scheduled for a possible vote out of the committee on Feb. 25.

Budgets

On Feb. 19, Sen. Curtis King (R-Yakima) unveiled his transportation proposal consisting of a \$10.1 billion, eight-year package of projects that relies on a reallocation of the sales tax on vehicles from the general fund for most of the revenue for his proposal. The plan also calls for a modest \$.03 increase in the state's gas tax and other assorted fees. Approximately \$5.1 billion of the proposal goes to fund highway maintenance and preservation while another \$2.3 billion would go into fish barrier removal. The proposal also includes five mega projects, including completing Snoqualmie pass projects.

In mid-February, House and Senate Republicans released budgets to show their priorities. Both budgets rely on no new tax increases to fill the current state deficit, a starkly different vision from state Democrats whose various bill proposals equate to a nearly \$8 billion revenue increase for Washington. ►



**MONITOR YOUR
MAGNUM™ FROM
ANYWHERE WITH
AFS CONNECT.™**



1802 E. James St. Pasco 509-547-9003
1201 E. Yonezawa Blvd. Moses Lake 509-765-1257
207 W. Southhill Rd. Sunnyside 509-837-3833

ASK US ABOUT A DEMO TODAY.



©2019 CNH Industrial America LLC. All rights reserved. Case IH is a trademark registered in the United States and many other countries, owned by or licensed to CNH Industrial N.A., its subsidiaries or affiliates.

Your Rural Property Specialist



realtordad@aol.com

Farmland, timberland, recreational properties, Lake Roosevelt and homes on acreage!

I work all over Eastern Washington. I am a farm land owner in Lincoln and Whitman counties; I know the markets! To BUY or SELL property, call me!

Contact Greg Schuster, Broker
Rural Property Sales
Coldwell Banker Tomlinson



509-993-2545



**CHEVRON DELO HEAVY DUTY
MOTOR OILS & TRACTOR
HYDRAULIC FLUID**

BULK FUELS



509-926-9595 • ELJAYOIL.COM

Budget proposals from the majority party are expected to be released this month.

Washington green constitutional amendment

On Feb. 8, Rep. Debra Lekanoff (D-Bow) introduced House Joint Resolution 4205, which would amend Article I of the State Constitution. The resolution states that Washingtonians have “the right to a clean and healthy environment, including pure water, clean air, healthy ecosystems and a stable climate, and to the preservation of the natural, cultural, scenic and healthful qualities of the environment.” The amendment is intended to ensure the right to a healthy environment is an enforceable legal entitlement in the state.

State constitutional amendments must pass both legislative chambers with a 2/3 majority vote and then would need to pass by a vote of the people. If HJR 4205 passes the Legislature, it would be included on the next Washington general election ballot. ■

NAWG leaders review industry priorities for growers

By Trista Crossley

Chandler Goule, CEO of the National Association of Wheat Growers (NAWG), and Josh Tonsager, vice president of policy and communications for NAWG, joined growers on a webinar last month to discuss the issues NAWG is working on for the wheat industry in the other Washington. The session was part of the 2021 Agricultural Marketing and Management Organization’s winter schedule.

NAWG is the national lobbying arm of the U.S. wheat industry. It works with 20 state grower organizations and represents approximately 77 percent of all U.S. wheat production across all classes of wheat. Benton County grower Nicole Berg is currently vice president of NAWG.

As the Biden Administration takes over, Goule said NAWG has been actively engaged with the U.S. Department of Agriculture’s (USDA) transition team and incoming secretary of agriculture, Tom Vilsack. In their meetings with the secretary and the transition team, NAWG has discussed implementation issues with the Wildfire and Hurricane Indemnity Program Plus (WHIP+); Conservation Reserve Program sign-ups and the importance of educating growers; staffing issues at USDA agencies; the impact of EU tariffs on nondurum wheat; the need for continued engagement on China World Trade Organization cases; and the importance of in-kind food aid in international food assistance efforts.

Along with the new administration comes new House and Senate ag committee leaders with different priorities and different focuses. Tonsager said that won’t change NAWG’s priorities.

“It hasn’t changed our need for talking with new members of Congress, especially those new members on the committees, and especially especially new members that have never voted on a farm bill before, ensuring they understand economic conditions, the state of the farm economy, and that they understand what the different needs and constraints are for wheat producers,” he said.

At the time of the presentation, Congress was considering additional COVID-19 relief, and NAWG was focusing on the resources available to USDA and ensuring that the department moves forward with implementation of the third round of the Coronavirus Food Assistance Program. NAWG has also been soliciting feedback from producers on COVID-19 impacts on production and markets.

Although the current farm bill doesn’t expire until 2023, work on the next farm bill is already gearing up. Tonsager said both House and Senate ag committees will likely start holding hearings to review current legislation, examine what producers’ needs are and to look for any holes in the farm safety net. There will also be some negative attention paid to the state of the current farm bill.

“I think a lot of that (negative attention) will come from new members of Congress who have not been through a farm bill process before and might examine the farm bill program as an opportunity for cutting spending. That’s going to require grassroots engagement in talking to members of Congress on why we need to maintain access to the current support programs we have in place,” he said, adding this could be an opportunity to argue for more baseline funding that provides sufficient support for producers, thereby avoiding the need for ad hoc-type support programs.

NAWG is anticipating the need to be engaged with both USDA and members of Congress on potential climate policy this year as there is increasing public and private interest in seeing incentives for producers to undertake activities that sequester carbon and are good for soil health. NAWG’s basic directives, when it comes to climate or carbon policy, include: any policy should be voluntary; it should be incentive based; and it needs to recognize that wheat is grown in a wide variety of conditions, meaning not all practices are feasible in all locations.

“We’ve been communicating that to the Hill to make sure it is acknowledged and accounted for in programs,” Tonsager said. NAWG is developing more specific direction from the board of directors on what a carbon trading system could and should look like.

The USDA transition team has said that a possible

source of funding for climate and carbon programs could come from the Commodity Credit Corporation (CCC). Farm programs, such as the Agriculture Risk Coverage and Price Loss Coverage programs, are also funded through the CCC. Tonsager said Vilsack has indicated that if the USDA uses the CCC to fund climate and carbon programs, farm bill programs won't be put at risk. Vilsack has also committed to gathering stakeholder feedback and making sure farm groups are at the table as these issues are discussed.

"We are looking to make sure we are engaged, and we are having discussions internally to know exactly how we should be engaged," he said.

Other policy issues that NAWG is expecting to engage on in 2021 include:

- FY 2022 budget and appropriation cycles;
- Regulation of pesticides;
- Navigable Waters Protection Rule (this is the updated Waters of the U.S. legislation);
- EU Farm to Fork policy;
- Market Access Program and Foreign Market Development funding;
- Reauthorization of Trade Promotion Authority; and
- Infrastructure legislation, including broadband.

A recording of this webinar can be found at youtube.com/channel/UCE3w4Xa7EmV8CxFjlt_UgQQ. ■

Congressman releases proposal to breach dams

From the Washington Association of Wheat Growers and the Washington Grain Commission

A southern Idaho Congressman who has more than a dozen dams within his state without fish pas-



Being a customer-member means a lot. This year it pays even more.

It's no secret that it pays to be a Northwest Farm Credit Services customer-member. This year patronage dividends total \$177 million. Because when we do well, our customers benefit. That's the Northwest Farm Credit difference.

800.743.2125 | northwestfcs.com

Equal Housing Lender
This institution is an equal opportunity provider and employer.

Here to Help You Grow®

sage has floated a plan to breach the four lower Snake River dams, dams that contain some of the world's most effective fish passage.

Idaho Rep. Mike Simpson, 2nd District, is proposing to establish a \$32 billion "Columbia Basin Fund" for salmon recovery and restructuring of the Pacific Northwest. There is a lot of work underway for salmon, and more committed funding for on-the-ground efforts is indeed important, for example, water quality work and better understanding of our oceans. However, a central piece of the proposal is the old familiar cry and extreme measure of removing four Snake River dams, which would eliminate wheat and other products barged from Lewiston downriver to the Tri-Cities. Critical crop inputs and other products moving upriver in barges would end as well. But the loss of wheat farmers' transportation corridor using the most environmentally friendly mode of transportation is only one consequence. The abandonment of the four dams' clean electrical generation would be hard to replace.

Simpson would be spreading around \$32 billion to eliminate the worst impacts of dam breaching and to address other salmon issues. Glen Squires, CEO of the Washington Grain Commission, said that sounds more like making everybody happy with money so they are less concerned with impacts elsewhere.

"First of all, if the Representative is so interested in dams and getting fish back to Idaho, I'd suggest he look at those within his state that were built without fish passage, cutting fish off from pristine habitat. Secondly, while a portion of the \$32 billion may attempt to address a slice of the economic pain that would result from breaching the four dams, it cannot begin to address the economies of businesses and communities dependent upon the Columbia-Snake River System," he said. "Making Simpson's proposal even worse is a self-serving call to place a moratorium on any type of litigation for public and private dams, including those that completely block fish migration."

The four lower Snake River dams have more than 95 percent fish migration survival, and the barge traffic they support eliminates millions of tons of CO₂ from the atmosphere during a period of time when the U.S., and especially Washington state, is committed to reducing greenhouse gases. The proposal looks more like an increased carbon plan and relies on uncertain investments and technologies.

Michelle Hennings, executive director of the



Washington Association of Wheat Growers, called Simpson's plan a pie-in-the-sky approach to what has been a serious effort on the part of the U.S. Army Corps of Engineers, the Bonneville Power Administration, NOAA Fisheries and many regional players for salmon and dams to coexist—at least at the dams with fish passage.

"It is frustrating and sad for the Representative to suggest that all of the work that has been accomplished to ensure salmon survival on the lower Snake River has been for nothing, and that his idea of forward progress is to breach four dams in Washington. This plan does not comprehend the devastation removing the four lower Snake River dams would have on industries, the environment, the economy, safety, reliability in moving crops and crop inputs, and our communities. Even if possible, the price tag is likely far beyond \$32 billion for the region and beyond. Rep. Simpson—who represents a large agricultural constituency in his district—should know better," she said.

Squires said Simpson's proposal is another of many efforts to breach the dams and should not stand. Aside from the fact that almost all of the political representatives from the Northwest have supported the dams and the congressionally authorized multiple uses, his proposal is inflammatory and would require multiple regulatory, budgetary, authorizing and appropriations changes that may never happen, not to mention the approval of Congress and the Administration.

"This is yet another instance of someone looking at successful Inland Northwest infrastructure as a way to take the pressure off their own inadequate facilities and operations and not even look at the most common factor impacting West Coast fish runs—the ocean," Squires said. "We expect and deserve better." ■

Scott, Stabenow to chair Senate, House ag committees

This year will see not only a new presidential administration, but major changes in the Senate and House agriculture committee chairs.

Rep. David Scott (D-Ga.) will head the House Agriculture Committee. Scott grew up on his grandparent's farm in South Carolina. He graduated from Florida A & M University before earning a master's degree in business administration from the University of Pennsylvania. He was first elected to Congress in 2003 and has worked on the last three farm bills. According to a press release, his priorities for the ag committee include trade, disaster

aid, climate change, sustainable agriculture, SNAP, crop insurance, small family farms, specialty crops and rural broadband.

Mike Conaway (R-Texas) is the ranking member.

Washington Rep. Kim Schrier was named again to the Biotechnology, Horticulture and Research Subcommittee of the House Agriculture Committee.

"The Biotechnology, Horticulture and Research Subcommittee is an important subcommittee to our district and Washington state, with jurisdiction over policies relating to tree fruit growers and research institutions like Washington State University," Schrier said in a press release. "Washington's agriculture community has been hit hard by the pandemic, with many market avenues closed off and products that cannot wait for the end of the pandemic to be picked. As the only member on the Agriculture Committee from the Northwest, I will continue to be an advocate for our farmers, growers and research institutions whose work has not stopped and is critical to the economy of our state and region."

On the Senate side, **Sen. Debbie Stabenow** (D-Mich.) is returning as chair of the Senate Agriculture Committee. She previously chaired the committee from 2011-2015. **John Boozman** (R-Ark.) is the ranking member. ■



How are we doing?

Like something you read in *Wheat Life*? Disagree with something you read in *Wheat Life*? Let us know by emailing editor@wawg.org or mail suggestions to 109 East First Avenue, Ritzville, Wash., 99169-2394. ■

McKay Seed Co., Inc.



Soft White Spring Wheat

Whit • WB 1035CL+ • Babe • Seahawk • WB 6121 • Ryan • Tekoa

Spring Club Wheat

JD • Melba

Hard Red Spring Wheat

Expresso • Kelse • Alum • WB 9662 • WB 9668 • AP Venom

Spring Barley

Oreana • Claymore • Stockford (forage) • Altorado

Spring Oats

Celsia

Rosalia, WA

 (Wilhelm)
509-523-3471

Almira, WA

509-639-2293
800-998-6694

Moses Lake, WA

509-766-9894
800-258-4599
(South of Wheeler Water Tower)

Driven by
ALBAUGH, LLC
SEED TREATMENT TECHNOLOGY



Rock Steel Structures, Inc.



Shops • Warehouses • Equipment Storage
Steel Buildings • Steel Stud Pole Buildings



Grain Storage For Farms or Warehouses
Grain Handling • Grain Bin Accessories



Water Storage Tanks • Aeration Systems
Hopper Bottom Bins • Catwalks, Ladders and Towers

Contact Scott Rock
scott@rocksteel.com

509-764-9700
Moses Lake, Wash.

WHEAT FOUNDATION AWARDS RESEARCH GRANTS

The Wheat Foundation Board met this winter and allocated funds to deserving applicants for this year's research grants. The Foundation's criteria for awarding grants is that we work to economically advance the wheat industry by building support for programs and activities that increase public awareness of farming's responsible approach to the essential production of our safe food supply and the development of new knowledge about environmentally sound farming practices. The 2020 grant recipients are:

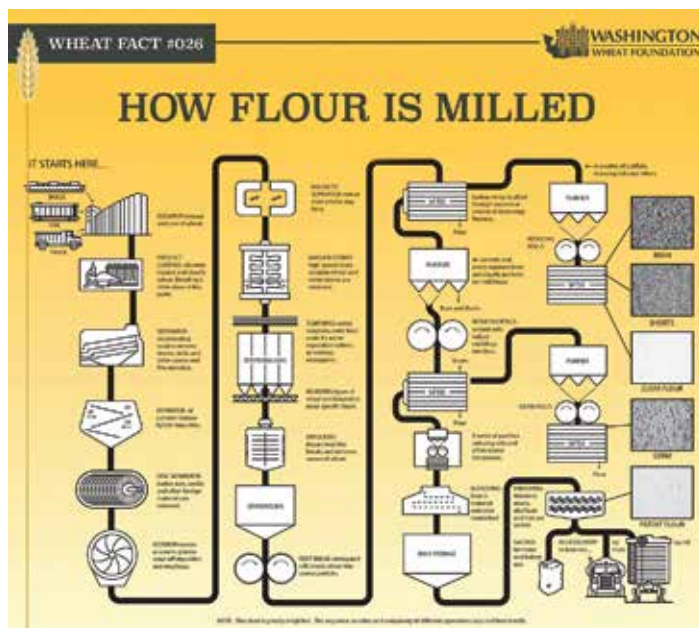
- Yang Hu is working on adding imagery and aerial devices to an existing drone field-imaging platform. Much of the project has been funded by the U.S. Department of Agriculture to use spectrum imagery of wheat varieties taken by drones to match satellite images of wheat fields planted by farmers. The funds this year will help purchase a drone to carry a camera, as well as a wide-range spectrum calibration panel to work with the camera. The goal of the project is to improve accuracy in identifying the varieties on satellite images and enhancing the accuracy for finding the right varieties in experimental fields.
- Bill Schillinger requested a small rotary mower for use on research plots at the Lind Field Station and at on-farm research sites. The mower is needed to manage stubble in field experiments. The narrower mower will be useful for maintaining plot borders and for cleanup for field days and other extension events.
- Clark Neely, an Extension agronomist with Washington State University's Department of Crop and Soil Sciences, purchased a new tractor and Trimble GPS system with faculty program funds and will top it off with a Wheat Foundation-funded, 20-foot boom sprayer. The sprayer will have additional capacity to what the department currently uses and will allow them to spray or fertilize more trials per day, while also having adjustable boom height and increasing the opportunity for more trial applications.

NXNW CREATIVE STRATEGIES UPDATE

The social media and outreach strategies for 2021 started off well, with January being a strong month in the social media world. The focus was on baking videos, historical pieces and some basic wheat facts.

People were active with comments, enough so that "rules" were put in place to establish a respectful and productive platform. Facebook earned more than 300 new followers, and YouTube videos brought 70 views on the channel. February's focus was on gaining more YouTube followers as well.

So, what's next? The Centennial Farm Project! Be on the lookout for blogs, articles and photos of Washington's Centennial Farms as 2021 rolls along. ■



Calendar:

Washington Wheat Foundation Meeting **June 14, 2021**, at the Wheat Foundation Building in Ritzville, Wash.

Washington Wheat Foundation Meeting **Dec. 2, 2021**, at the Tri-State Grain Growers Convention in Spokane, Wash.

Reminders:

- Like the National Wheat Foundation Facebook page.
- Remember the Foundation in your charitable giving. Go to wawheat.org to find out more about ways that you can support your industry.

Washington Wheat Foundation
P.O. Box 252
Ritzville, WA 99169
(509) 659-1987
wawheat.org

M⚡STRUCT

RESULTS ARE STRIKING

Phosphorus applications will quickly tie up and become unavailable to your crop.

Amplify phosphorus efficiency,
energize root growth,
and ignite heads per acre.

STRIKE back from the START.

Ignite your crop with **M⚡STRUCT** and **KICKSTARTER**.
Powered by M-STRUCT



WWW.MCGREGOR.COM

Washington Association of Wheat Growers' 2021 national legislative priorities

As in its state efforts, the Washington Association of Wheat Growers will be conducting national advocacy efforts virtually this year. Topping the list of priorities that wheat growers will be discussing with our federal delegation are trade, carbon policies and protecting the Pacific Northwest's transportation infrastructure.

PROTECTING OUR MARKETS

Recent trade agreements, such as the China Phase 1 agreement and the Japan trade agreement, have allowed Washington small grains farmers to remain competitive in their largest and most stable markets, while expanding sales in other markets. Already, the PNW has had record wheat sales to China in marketing year 2020/21. **WAWG strongly supports the negotiation of additional trade agreements to allow for further expansion of wheat exports.**

WAWG supports full implementation and enforcement of existing trade agreements to allow fair trade to occur within the export marketplace.

WAWG strongly supports the enforcement of sanitary and phytosanitary agreements with its trade partners.

Having Trade Promotion Authority (TPA) in place has been critical for approval of past fair trade agreements. **WAWG supports the renewal of TPA, which is set to expire July 1, 2021, in order to aid in the development of future fair trade agreements.**

Funding through the Agricultural Trade Program (ATP) has been a boost to USDA cooperators, such as U.S. Wheat Associates, to help them operate at the needed capacity to maintain robust market presence for U.S. wheat farmers in the face of well-funded global competitors. **WAWG supports continued strong federal funding through MAP and FMD to maintain the progress achieved with the increased support of ATP funds.**

PROTECTING OUR ENVIRONMENT THROUGH SUSTAINABLE PRACTICES

WAWG supports climate or sustainability legislation that is voluntary, incentive-based and recognizes the unique and varied landscapes and climates of wheat production. The wheat industry should be fully involved in discussions of any policy or legislation relating to climate change, and sound science demonstrating agriculture's environmental benefits should be considered.

OUR WHEAT INDUSTRY

- Approximately 90 percent of Washington wheat is exported, primarily to Asian markets such as the Philippines, South Korea, Japan and Indonesia.
- In 2020, Washington produced 53 percent of all the soft white wheat grown in the U.S.
- 92 percent of Washington wheat acres are insured. Average coverage level is 81 percent.
- Since 1980, soil erosion has declined by 63 percent, and U.S. wheat used 16 percent less irrigation water and had 35 percent less energy usage.
- 97 percent of farms in Washington are family owned and operated, accounting for 93 percent of farm production and 12 percent of Washington's economy.
- Improved agronomic practices result in higher yields (a 25 percent increase since 1980) with less inputs.



Your Voice Matters!

Moving production agriculture forward is what we do.

Tell us what agricultural issues are most pressing for your farm in the future. What will keep your family farming three generations from now?



Go to north40.com/survey
You could WIN a \$500 North 40 gift card.

Deadline for entry is May 1, 2021.

ENGINES FOR SALE

REBUILT & USED DIESEL ENGINES

Cat • Cummins • Detroit • IH • Case • John Deere

CUMMINS ISX, long block.....CALL
CUMMINS N14, Celect Plus, long block.....Exch \$8,000
CUMMINS BIG CAM, long block.....Exch \$7,000
CUMMINS M11E, take-out, 370-hp.....Exch \$3,500
CAT 3406E, short block, 2WS.....Exch \$6,600
AERVOE FLEET & ENGINE PAINT IN STOCK!



Yunker
DIESEL & TRUCK

(800) 362-2387 (509) 534-1112
N. 322 Eastern, Spokane, WA 99212

MEDIUM & HEAVY DUTY DRIVE TRAIN

REBUILD CENTER

Parts • Custom Repair • Sales • Service

- Transmissions
- Differentials
- Exchange Units



INLAND GEAR



(800) 366-5962 (509) 534-7818
6505 E. Valleyway, Spokane, WA 99212

**BOOST YOUR
BOTTOM LINE**

**EXPAND HERBICIDE
OPTIONS**

**SLOW HERBICIDE
RESISTANCE**

WINTER CANOLA

NON GMO

IMI-TOLERANT

ROUNDUP READY

**VARIETIES ALSO
AVAILABLE**

SUNFLOWERS

TRITICALE

PLOW-DOWN MUSTARD

START BUILDING YOUR SOIL HEALTH NOW!

Rotations increase yields, break disease cycles & reduce weeds.

SPECTRUM CROP DEVELOPMENT
RITZVILLE WA

Curtis 509-659-1757
Todd 509-641-0436



PRESERVING FOOD SECURITY

WAWG strongly supports future farm bills to continue to offer agriculture and nutrition support programs.

WAWG supports a do-no-harm approach, which includes maintaining the current structure of the crop insurance program and current cost-share levels. Crop insurance is a critical risk management tool for farmers. Farmers pay their portion of the crop insurance premium, and without cost-share support, coverage would be cost-prohibitive, and the system would not function effectively. Without the safety net, it causes uncertainty for the future of agriculture and for the safe, reliable and abundant food supply the American public currently experiences.

WAWG supports the reauthorization of the farm bill and to make necessary adjustments to PLC and ARC so they can function effectively.

The price and yield functions of ARC formulas should be adjusted so it can be a viable option for producers. The PLC wheat reference price should be increased to closer to \$6.50 per bushel to truly enable the program to function as an effective safety net.

WAWG supports prioritizing working lands conservation programs in the conservation title. Voluntary programs like CSP, EQIP and CRP have functioned well and provide an important incentive to producers to undertake practices that are good for the environment and good for their operations.

PROMOTING AND PROTECTING OUR INFRASTRUCTURE

WAWG supports keeping the lower Snake River dams intact as they are vital to Washington's and the nation's economy and transportation infrastructure. WAWG also supports funding for maintaining the Columbia River System. Removal of the four lower Snake River dams would significantly increase carbon emissions that contribute to climate change and jeopardize health, safety and livelihoods in already economically fragile local and regional economies. **WAWG supports the findings in the federal EIS and opposes any effort to remove or disrupt the Snake River dam system, including the proposal from Congressman Simpson.**

WAWG supports funding to maintain and improve Washington road, river and rail systems.

WAWG supports immediate action regarding the Columbia River Treaty, which protects the viability of U.S. navigation, hydropower, irrigation and flood control.

WAWG supports expanding and improving internet connectivity in rural, unserved and underserved areas. Broadband has become a critical service for daily business functions, economic development, education and health care.

PROTECTING FOOD SYSTEMS WITH SAFE AND INNOVATIVE PESTICIDES

WAWG opposes cancelling crop protection product labels or uses unless equivalent replacement products are available. We support science-based research in these products.

WAWG supports the professional use of pesticides and best management practices for their use.

WAWG opposes legislation that would restrict or limit the use of pesticides through bans or by setting residue tolerance levels not based on science.

INNOVATION, RESEARCH, SUSTAINABLE FOOD SYSTEMS

WAWG supports FY2022 funding for USDA ARS salaries and expenses at or above FY2020 levels and that also cover any mandated pay cost increases. Additionally, all USDA ARS and NIFA vacancies should be filled to help ensure that USDA meets their congressional directive.

WAWG supports the PNW Herbicide Resistance Initiative and a FY2022 programmatic funding increase of \$3 million for USDA ARS salaries and expenses.



- Quick and thorough kill
 - Replaces AMS
 - Replaces NIS
 - Contains Glyphosate's Favorite Surfactant--**At the Best Price.**
- Perfect with--glyphosate, paraquat, glufosinate, and their tank mixtures.

Get the
Best Burndown
Weed Control



For more information about GlyLoad™ or other great AgraSyst products, visit our website: www.agrasyst.com



***Political advocacy is something
many of us think we can never get involved in;
the Washington Wheat PAC is out to change that.***

Why Support the Washington Wheat PAC?

Washington farmers are losing ground politically! The ability to protect our interests is slowly dwindling. Washington wheat producers need elected officials who know and understand the industry. Without these relationships our ability to remain competitive is at risk. Now is the time for the industry to join together and proactively influence legislation that directly impacts the Washington wheat producer.

Please join our efforts by financially supporting the Washington Wheat PAC. Your contribution will strengthen the network of elected officials who understand the wheat industry's goals and objectives by fighting for what is critical to the livelihood of our members.

The Washington Wheat PAC is a nonpartisan political action committee that is dedicated to supporting ag-friendly candidates.

The Washington Wheat PAC pledges to promote and support elected officials from all parts of the state who positively influence agriculture.

DONATION PROMISE

Yes, I would like to join with the Washington Wheat PAC's vision and support their actions with my donation.

Name: _____

Address: _____

Phone: _____

Email: _____

Donation amount: _____

When you make a donation to the Washington Wheat PAC, you are investing in the future of agriculture in Washington State.

Fill out form and send, along with payment, to PO Box 184, Ritzville, WA 99169. Checks should be made out to the Washington Wheat PAC.

AMMO RECAP

Wheat College precursor focuses on yield

By Trista Crossley

Peter “Wheat Pete” Johnson made the first of two planned appearances in Eastern Washington last month to talk about the building blocks of yield potential. His “visit” was part of the Agricultural Marketing and Management’s 2021 schedule

Johnson is the resident agronomist with Real Agriculture, where he hosts a weekly podcast, “Wheat Pete’s Word.” He is also a regular on “Agronomy Monday” on Real Ag radio, Sirius Satellite Radio 147, and he owns a small farm in Ontario, Canada.

Although the January visit was virtual, Johnson will be the featured speaker at this year’s Wheat College, currently scheduled as an in-person event on June 15 in Ritzville, Wash. Johnson called the January session a “precursor” to Wheat College.

“Some of what we are going to talk about today will be a little bit back to the basics, because that’s what the building blocks of yield really are,” he said. “You give four or five growers the same weather, the same soil, the same inputs, and 27 percent of the final yield comes down to the grower and their ability to time things right and know how to do things differently. To me, that’s what makes the building blocks of yield so interesting.”

Johnson defined cereal yield components as the number of heads per square foot; the number of spikelets or head

size; the number of grains per spikelet; and the weight of each grain. In the January session, he focused on the following factors that help determine the number of heads per square foot.

GENETICS. According to Johnson, picking the right genetics is worth at least a 20 percent difference in yield.

SEEDING STARTS WITH THE COMBINE.

Specifically, growers need to spread harvest residue as evenly as possible to help ensure a uniform crop.

“It (residue) affects soil temperature, soil moisture, drill performance, early crop growth and potash. Most of the potash is in the straw rather than the grain,” he said, adding that a potash deficiency can develop in areas that don’t get enough residue.

SEEDING DATE. The earlier you seed, the higher yield you get. Johnson explained every day a farmer delays planting means a corresponding decrease in yield. He said wheat plants need 180 growing degree days (GDD) from emergence to producing one leaf and one tiller. For wheat planted in mid-September, that means it will generally take six days to get to that point. For wheat planted in mid-October, it will generally take 18 days to get to the same point.

“For yield, the risk of seeding too early is far less than the risk of seeding too late. You’ve got to play with it,” he said. ▶



Cereal Yield Components

- Number of heads/sq.m.
- Number of spikelets (head size)
- Number of florets (grains/spikelet)
- Weight of each grain

The scientific explanation.

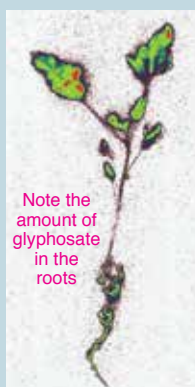
Superior translocation of post-emergent herbicides.



Only Oro Agri adjuvants contain TransPhloem® technology which quickens the movement of systemic herbicides throughout plants and roots for faster and more complete control of tough weeds.

University study of adjuvant translocation rates

A University of Illinois study concluded that WETCIT® adjuvant was absorbed into a leaf quicker and moved a greater amount of glyphosate to the roots faster than other types of adjuvants such as non-ionic surfactants.



University of Illinois phosphorescent image of a glyphosate/C-14 radioactive isotope + WETCIT application. Areas of green and red in the roots show that a high concentration of glyphosate was delivered to the roots within 12 hours.

Faster absorption is a key component to faster translocation



With WETCIT's unique OROWET® technology, the herbicide solution is absorbed into the leaf and moves into the plant's petiole in as little as 15 minutes after application. This leads to faster translocation and better rainfastness.

Benefits of WETCIT with post-emergent herbicides include:

- Delivery of more systemic herbicide to weeds' roots FASTER than other types of adjuvants
- A quicker kill means less nutrient and water lost to weeds
- Ensuring delivery of a lethal dose of herbicide can help reduce weed resistance
- Enhanced rainfastness due to rapid leaf absorption reduces application losses

Learn more at oroagriusa.com

WETCIT, TransPhloem & OROWET are proprietary trademarks of Oro Agri Inc. Always read and follow label directions.

Proof of Performance:



Better weed control.



THE POWER OF WE



WILBUR-ELLIS
AGRIBUSINESS



You're never alone
when you have the power of

WE



Successful seasons take teamwork, and choosing the right people for your team makes all the difference. That's why everything we do starts with partnership. Our team works hand-in-hand with you so we can deliver the right mix of innovative products and expert insights tailored to your exact conditions. Because at Wilbur-Ellis, teamwork isn't just something we talk about. It's the foundation for how we do business—and you'll find it right in our initials: W.E.

Find out what The Power of We can do for you at WilburEllisAgribusiness.com.



Growing is a give intake.

TILL-IT® helps your wheat take in nutrients and enhance efficiency.



Giving your wheat more necessary nutrients is

essential in generating just that: more. By utilizing TILL-IT and its built-in technologies, your crops can take in more of the nutrients they crave and grow even more from the energy they produce.

Start maximizing your wheat's – and your own – growth capacity today. Nourish your crops with TILL-IT for a more successful season.

WilburEllisAgribusiness.com

THE POWER OF WE  **WILBUR-ELLIS**
AGRIBUSINESS

For information only. Not a label. Prior to use, always read and follow product label directions. WILBUR-ELLIS logo is a registered trademark of Wilbur-Ellis Company LLC.

SEEDING RATE. This goes hand in hand with seeding date and how well the plants have established themselves.

"You are never going to be a high yield wheat grower if you aren't looking at actual population," Johnson said. "Seeding rate comes back to tillering. When you plant early, you'll get more tillers per plant. We have to do a better job of accounting for those tillers because it makes such a big difference in our head count."

According to studies, early-seeded wheat tends to get taller, so Johnson recommended that if growers move up their planting date, they need to consider reducing their seeding rate, otherwise, "you'll have all sorts of lodging problems."

STAND. "We want about 60 viable stems per square foot. If you can get in that range, you are probably in good shape for high yields," Johnson said. For dryland growers in low rainfall areas, they may need to back that number off to about 40 stems.

PLANTING DEPTH. Johnson advised growers to make sure they are planting their wheat at least an inch deep, so the crown forms at three quarters of an inch from the surface.

"The reason the crown forms at three quarters of an inch is the coleoptile, when it sees light, that's when it initiates the formation of the crown," he explained. "There's no point in seeding deeper, especially if you seed early, unless you need to go to moisture. All you do by seeding deeper is delay emergence. That means you don't have as many growing degree days to make tillers."

However, getting to moisture trumps that advice.

Johnson also advised spending some time with the planter to try to increase the planting uniformity in both seed depth and distance. He pointed to a new study that showed a 10 percent yield increase when the stand is uniform.

"If seeds aren't planted at the same depth, how do we expect uniformity?" he asked.

ROW WIDTH. Yield tends to come down when wheat is planted in wide rows.

"It's all about light interception," Johnson said. "When light hits bare dirt, you are losing yield. Full stop. When you intercept it with a leaf, you are making yield."

In dry climates with wider rows, he advised looking for a variety with a pendulum leaf that can arch out and intercept the light. In narrow row situations, look for a variety that is more upright so it won't shade neighboring plants.

WEED CONTROL. Johnson said he is a huge believer in fall weed control. A dense canopy also helps with weed control.

CROP ROTATION. "If you grow wheat on wheat, you just gave up an average of 17 percent on yield," he said.

PHOSPHORUS. Wheat is a huge phosphorus user, and if growers don't replace what is being taken off, it doesn't matter what else they do. They won't achieve a high yield.

"Invest in the soil, because if you invest in the soil in terms of maintaining a medium level of fertility, the interest from that investment will pay you back for years and years to come," he said.

Johnson closed out his presentation by answering questions from growers. More than 90 people attended the session. ■

AMMO RECAP

Use data to drive marketing decisions

By Trista Crossley

Successfully growing and then harvesting a wheat crop is only part of growers' battle to make a living. They also need to know how to get the best price for their grain. Dr. Randy Fortenbery, an economist from Washington State University, provided some strategic commodity marketing tips during a webinar last month.

More than 85 growers joined Fortenbery's Zoom presentation, which was part of the Agricultural Marketing and Management Organization's (AMMO) 2021 winter schedule. He began his presentation by telling growers that the objective of marketing is to earn a reasonable return on investment while minimizing the risk associated with achieving a target level of income.

"Often, producers are much more risk seeking when prices are high. They don't lock those prices in because they think they could go even higher. And they are more risk adverse, meaning they don't want to take on risk, when prices are quite low, meaning they are willing to lock in prices that are sort of at the bottom end of their historical price experience. That's backwards, from my perspective, of the way we really want to think about this," he said.

Fortenbery zeroed in on several important, "benchmark" pieces of information that he recommended growers track and use to evaluate price risk at any moment in time:

- Supply and demand numbers that predict where the wheat crop is going to go in the current marketing year. This comes from the World Supply and Demand Estimates (WASDE), a monthly report published by the U.S. Department of Agriculture.
- The relationship between different commodities, such as wheat and corn.
- International markets. Approximately 45 percent of all U.S. wheat goes overseas, so what's happening in other countries, like exchange rates, income growth and competitors' production and export levels, can have a huge impact on U.S. growers' price going forward.

Using 12 years of July soft red wheat future prices to illustrate his point, Fortenbery said you don't see a consistent pattern, and in fact, prices tend to stay flat through the year. He added that the futures market is pretty efficient in predicting where prices are going to be when a contract expires. Washington wheat prices generally follow this same trend.



Randy Fortenbery, an economist from Washington State University, discussed strategic commodity marketing tips during a webinar last month as part of the Agricultural Marketing and Management Organization's 2021 winter schedule.

"If I routinely decide to hold grain after Sept. 1 just hoping the price will go up, many years, I am going to be disappointed because that doesn't happen all the time," he said. "In fact, many times it doesn't happen, and we want to be able to make a more informed storage decision in each year and think carefully about what the real price risk is if I hold grain off the market moving forward."

Supply and demand data

Fortenbery said he cares about three things on the WASDE: export total; feed and residual demand; and the world carryout number.

To use the export number, Fortenbery takes the Foreign Agricultural Service's weekly export sales report and uses it to calculate if the U.S. is on track to meet the WASDE export total. He takes the total export number, divides it by 52 and charts both numbers (see Slide 1 on page 38). He said he wants to see the weekly sales number between 91 percent and 93 percent of the export estimate.

"If the weekly exports are lagging the amount of wheat we need to export each week to hit that target, price risk is being elevated, and we probably want to be careful about storing wheat much further into the marketing year. We might also be thinking more carefully about pricing next year's wheat because we might expect prices to react negatively in disappointment in the export market," he explained. "On the other hand, if those weekly exports exceed what we need to export each week to hit that annual forecast, that's a price positive situation. Price risk is minimal, and we might be rewarded for delaying pricing,

OFFICES:
Genesee
208-285-1141
Colfax
509-397-4381
Rosalia
509-523-3511
Oakesdale
509-285-4311
Fairfield
509-283-2124

- **Grain Marketing & Storage**
- **Pulse & Specialty Crop Processing**
- **Quality Pulse & Cereal Seeds**
- **Rail & River Shipping Terminals**
- **Country Hedging Futures & Options**



"A Family of Farmers"

1-866-986-2008
www.pnw.coop

► WHERE CHAOS MEETS CONTROL — THAT'S YOUR SWEET SPOT.

VIPER® 4+ AND CR7™ FIELD COMPUTERS

HAVE CONFIDENCE IN YOUR APPLICATION WITH A COMPLETELY INTEGRATED SYSTEM WITH RAVEN'S FULL LINE OF PRODUCTS INTO ONE NETWORKED PLATFORM.

Viper® 4+ is the powerful fourth generation Viper field computer powered by Raven Operating Software and a 12.1-inch customizable touchscreen. Easy job set-up, fewer touches, and greater efficiency allow for extraordinary data management capabilities.

CR7™ is a lightweight 7-inch field computer powered by CRX operating software with customizable in-job settings, and ISO Universal Terminal and Task Controller capabilities make this mighty unit an affordable, plug-and-play system.



RAVEN

Platinum
Partner

»» Learn more at ravenprecision.com

Get \$2000 value for your Envisio Pro when you upgrade to our premium Viper 4+ Kit. Includes free INW install. Call for details!

509-838-2209 www.spraycenter.com

**SCE SPRAY CENTER
ELECTRONICS INC.**

9721 W Flight Dr. Spokane WA 99224

either continuing to store wheat from last year or not pricing next year's wheat until we figure out exactly how much we are going to export."

Fortenbery cautioned that the export number's influence on wheat prices isn't a guarantee, because something else within the balance sheet could also affect prices.

Wheat as a feed grain

Fortenbery explained that wheat prices are closely aligned to corn prices. In general, when corn prices change by 1 percent, wheat sees a corresponding change of about .45 percent. At very high corn prices, more wheat tends to go into feed rations, which increases the demand for wheat. In addition, wheat and corn compete for acres, especially in the western Corn Belt.

Carryout of world wheat

As this number tends to go up, Fortenbery said it generally puts a limit on how far any individual country's price can go. The more world ending stocks, the larger the world's cushion that can be used to offset production concerns in individual countries.

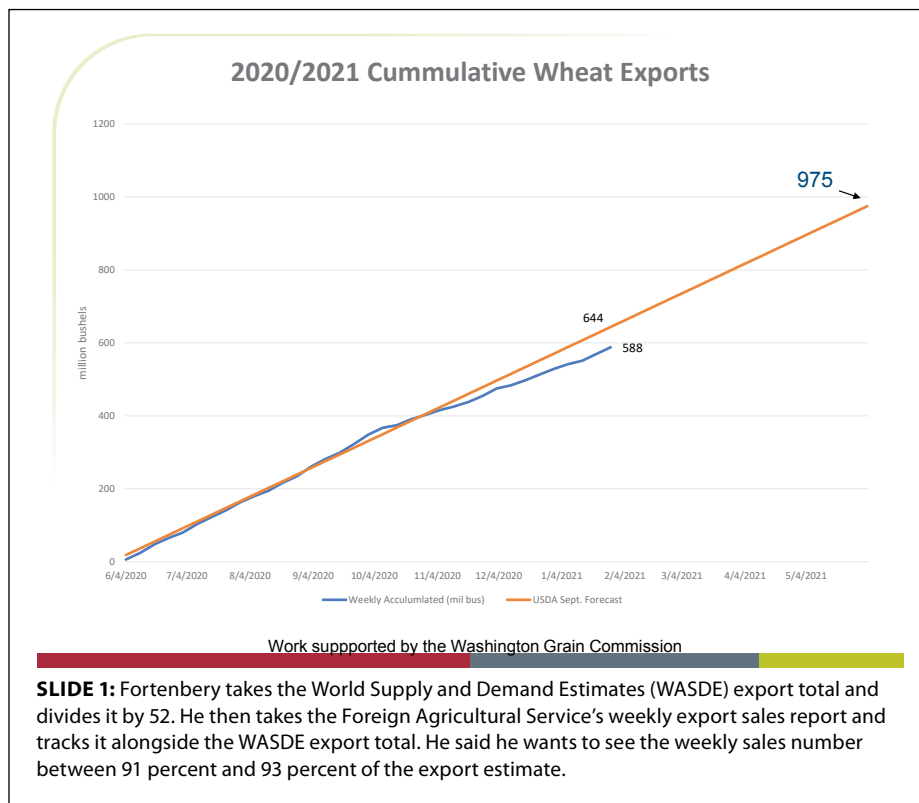
Fortenbery said another way to look at world carryout stocks is how much it represents in number of days of demand. He said when it gets around 90 days, markets are much more sensitive to production problems than when there's really high supplies.

"The bigger the cushion, the less responsive prices will be to any kind of a production disruption," he said.

Futures

How the market interprets this information is generally reflected in the futures market.

"The futures market for wheat is telling us what traders think a fair price would be today for delivery lat-



Using basis information to evaluate a storage decision.

Sept. 2, 2020

Today's cash price	\$5.35
March futures price	\$5.72
May futures price	\$5.75
July futures price	\$5.73

Expected cash prices for later delivery on Sept. 2:

Store Until:	February	March	April	May	June
Futures Price	\$5.72	\$5.75	\$5.75	\$5.73	\$5.73
Expected Basis	\$1.00	\$0.98	\$1.04	\$1.02	\$0.79
Expected Cash Price	\$6.72	\$6.73	\$6.79	\$6.75	\$6.52
Storage Return					
Expected Cash Price	\$6.72	\$6.73	\$6.79	\$6.75	\$6.52
minus Today's Price	\$5.35	\$5.35	\$5.35	\$5.35	\$5.35
minus Storage Costs*	\$0.18	\$0.21	\$0.25	\$0.28	\$0.32
Total Return	\$1.20	\$1.17	\$1.19	\$1.12	\$0.85
Per Month Return	\$0.24	\$0.20	\$0.17	\$0.14	\$0.09

* Storage costs are 3.5 cents per month.

SLIDE 2: Fortenbery showed how he uses basis information to determine if storage costs are worth it.

er, and as the information set changes tomorrow, that price is going to change," Fortenbery said. "We expect that later prices should be higher than prices for today. If I want farmers to store wheat, I need to offer them more money later, because it's going to cost them something to store wheat, than I'm offering them today."

Fortenbery's rules of thumb for the futures market are:

- To delay pricing, he wants to see a carry in the futures market. In other words, he wants to see a price for later delivery be higher than the price for current delivery.
- A strong storage signal is a carry of \$.05 per bushel per month.
- It is important to "localize" the national storage return by figuring out what a grower's basis is. Basis is the difference between a grower's price and the futures price. Generally, for white wheat, the basis is calculated by taking the cash price and subtracting the futures price of soft red winter wheat of the contract that is closest to maturity but not the maturing month's contract.

Fortenbery said if the cash price is low relative to futures, that's a weak basis. A weak basis is good for cash buyers but bad for cash sellers. On the other hand, a high cash price relative to futures is a strong basis, and a strong basis is good for cash sellers but bad for cash buyers. He advised growers to learn to monitor basis on a weekly or monthly level, record it and calculate a multiyear average. Growers can then use that information to help evaluate a storage decision (see Slide 2).

Finally, Fortenbery touched on farm program choice—Agriculture Risk Coverage (ARC) or Price Loss Coverage (PLC) programs. He believes that for 2021, there will likely be a PLC payment for wheat, based on USDA's current marketing year average price, despite nice storage returns since September and wheat prices that are higher than they have been for the past few years.

"This is kind of a best case scenario this particular year. Storage paid. We have nice prices in February, much better than in the past few years. We have better prices for next year's crop if we start forward pricing, and we still will receive a PLC payment," he said.

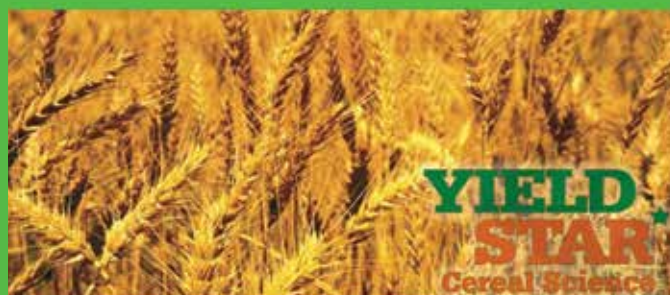
To watch a video of the webinar, go to youtube.com/watch?v=UgGmBfzm8Uo&feature=youtu.be. ■

Resources

- The World Agricultural Supply Demand Estimates (WASDE) can be found at usda.gov/oce/commodity/wasde.
- The weekly wheat export shipments from the Foreign Agricultural Service can be found at apps.fas.usda.gov/export-sales/esrd1.html. Growers will need to convert totals from thousand tons to match the WASDE. To do that, divide the accumulated weekly exports by 1 million divided by .027216. That converts wheat from tons to bushels. ■

Boost Your Yields!

With Wagner Seed



We are your full-service seed cleaning and processing plant. Top-quality, weed-free seed! Wheat, triticale and other seed products to raise or contract. We also facilitate seed research.

YS-603: (SWS) Awned - Tolerant to foot rot. Good falling numbers, good protein. For dryland or irrigated.

YS-801: (HRS) Awned - Good test weight, good protein. Best performance under irrigation.

YS-802: (HRS) Awned - Good test weight, good protein. Dryland or irrigated.

YS-5001: (Triticale) Awnless - Good forage quality, good grain yields, good protein.

Now selling Sureflex
Conventional corn
varieties!



WAGNER SEED
(509) 349-8094 WagnerSeedCo.com

20600 Rd 1 SE • Warden, WA 98857 • 1 mile off exit 188, I-90

BigIRON **HEAVY EQUIPMENT and AG REPAIRS**

COMPLETE MOBILE REPAIR SERVICE

-We Also Do Portable Line Boring-



Scott & Eddy Carroll
509-770-5560



BigIronRepair@odessaoffice.com

AMMO RECAP

Unpacking seed treatments

By Trista Crossley

Seed treatments are an important tool in growers' toolbox to help them combat pests and disease. In the first session of the Agricultural Marketing and Management Organization's 2021 winter schedule, representatives from Syngenta pulled back the curtain on their seed treatment division.

"Today's discussion is on what goes into seed treatments. How do we hang big roots on these plants to overcome stressors?" **Ric Wesselman**, integrated account lead and seedcare specialist for Syngenta, said to the 74 participants of the Zoom presentation. "Clearly, this is a diverse environment, and having a big root system under these plants is critical."

Joining Wesselman in the presentation, also from Syngenta, were Shawn Potter, head of seedcare product marketing; John Wells, seedcare application lead; David Belles, seedcare technical product lead; and Josh Kelley, cereal seedcare product marketing lead.

Potter addressed today's regulatory environment and some of the challenges facing chemical applications. He said it is important for Syngenta to show the public that it is a good steward of the products it produces and to highlight the environmentally friendly aspects of seed treatments. To that end, he asked growers to follow five steps when using seed treatments:

- Follow label directions;
- Eliminate weeds in the field;
- Use advanced seed flow lubricants that minimize dust;
- Cover with soil or remove any spilled seed; and



- Be aware of honeybees and hives located near the field.

Wells discussed Syngenta's seed treatment development process, telling growers that the company wants everyone to have confidence in Syngenta's seed treatments. The company optimizes its formulations and tailors them to local equipment and environments. It tests its seed treatments for safety and to make sure the treatment stays on the seed. Syngenta also tests the treatments to make sure they aren't detrimental to nitrogen-fixing bacteria. Finally, it tests the plantability of the seed to maximize planting efficiency and to mitigate dust.

"We go to a whole other level in terms of making sure our products are being used correctly, and that at end of day, we have the freedom to operate," he said.

Belles covered some of the primary seed and seedling diseases growers in the Pacific Northwest face, including Fusarium, Rhizoctonia and Pythium, all of which limit yield potential; restrict root health; limit crop growth, development and vigor; and reduce yield. He said many pathogens are ubiquitous in Eastern Washington fields, but the weather is the main factor in whether or not disease develops. He also touched on aphids and wireworms.

"You never know for sure what environment you are going to have in a given year, and you never know what viruses are going to pop up. It's important for us to look across our portfolio of technologies and put together packages to control diseases and insects," he said. "What we are trying to do with our portfolio is bring together different products that have specialization on different diseases and put them into packages that control all the things you might face in a year, so whether you plan to have an issue or not, you are protected."

Kelley rounded out the presentation by discussing one of Syngenta's newest chemistries, Trebuset, a molecule for broad spectrum protection against soil-borne Fusarium diseases. They've also got a potential wireworm treatment in the pipeline. ■

ONLINE OR IN-PERSON...

AUCTIONS MEAN ACTION!

AG LAND OR SURPLUS EQUIPMENT TO SELL?

Scheduling 2021 dates now!

C.D. BUTCH BOOKER
MANAGING BROKER/AUCTIONEER
LICENSED IN WA & ID

KINCAID REAL ESTATE
809 N. MAIN, COLFAX, WA 99111
KINCAIDRE@COLFAX.COM
509.397.4434
KINCAIDREALESTATE.COM

KINCAID Real Estate
RESIDENTIAL
COMMERCIAL
EVALUATIONS
FARMLAND

SPECIALIZED
ONLINE
AUCTION PLATFORM

CURT MCNEILLY & ANNA SCHLUNEGGER
WA BROKERS

Booker2Bid.com

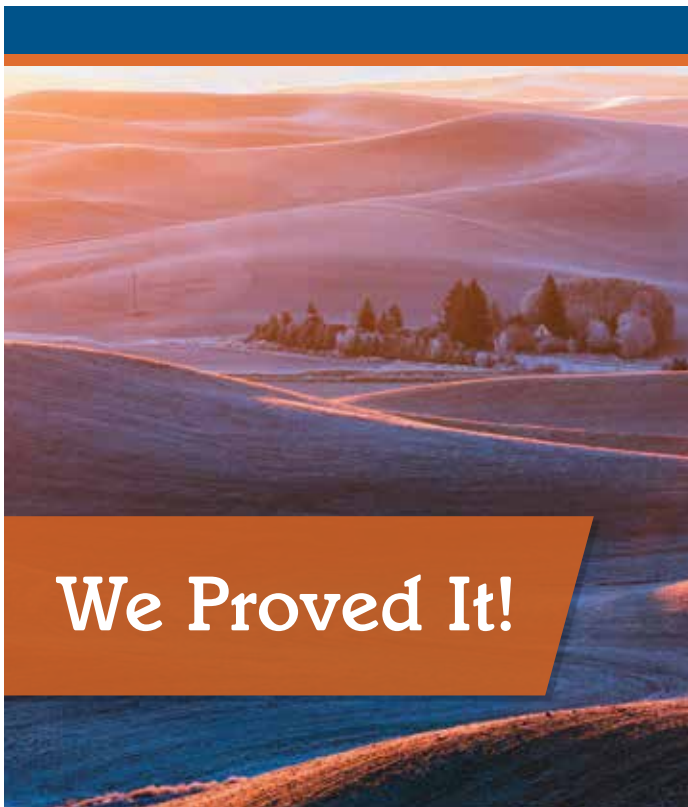
CORRELL'S SCALE SERVICE

INSTALLATIONS • SERVICE • REPAIR • RENTAL • LEASE • SALES



Specializing In Truck Scales!

509-765-7754 4300 Rd. K NE, Moses Lake
800-572-0426 www.correllsscale.com



We Proved It!

...by being available - IN PERSON - to help farmers, ranchers and businesspeople with their PPP loan and forgiveness applications. Need the personal touch of a local bank? Give John Widman a call at 509-635-1361.



Garfield Branch, 301 W. California St. 509-635-1361
Northpointe Spokane Branch, 9727 N. Nevada 509-464-2701
Spokane Valley Branch, 12902 E. Sprague, 509-789-4335

www.statebanknorthwest.com

EQUAL OPPORTUNITY LENDER MEMBER FDIC



HIGHLINE GRAIN GROWERS INC.

SERVING OUR MULTI-GENERATIONAL FARM FAMILIES

2021 SPRING SEED

WITH 7 CONVENIENT LOCATIONS

SOFT WHITE SPRING VARIETIES
AP Mondovi CL2 Louise Ryan Seahawk Tekoa

SPRING CLUB VARIETIES
JD Melba

HARD RED SPRING VARIETIES
Alum Glee Net CL+ WB9668

BARLEY VARIETIES
LCS Opera Lenetah Stockford Survivor

ALTERNATIVE CROPS AVAILABLE
Triticale Canola Oats Forages Pulses

CUSTOMIZED SEED TREATMENTS AVAILABLE

CALL US TO DISCUSS YOUR SEED NEEDS
Geoff Schulz 509-796-2575 or
Ryan Higginbotham 509-796-4141

Almira
509-639-2431

Davenport
509-725-7081

Farmer
509-745-8551



Harrington
509-253-4604

Odessa
509-982-2691

Reardan
509-796-2575

Wilbur
509-647-5510



New product targets some familiar weeds

BioWest Ag Solutions

Being “in the weeds” is seldom a good thing, and there’s a new product on the market that could help get farmers out of them.

BioWest Ag Solutions, based in Caldwell, Idaho, is marketing a new bioherbicide based on research done by U.S. Department of Agriculture’s Agricultural Research Service soil scientist Ann Kennedy, who worked in Pullman, Wash., before she retired. The product targets cheatgrass (also known as downy brome), medusa-head and jointed goatgrass.

Drew Lyon, weed scientist at Washington State University, said out of the three weeds, cheatgrass is the biggest problem Eastern Washington farmers face. He said for the last two decades, farmers have been able to control it pretty well with post emergence applications, but resistant populations are appearing. Jointed goatgrass, while not as widespread as cheatgrass, is still found throughout the region, and medusahead has been found in Eastern Washington, especially near the Idaho border, but it isn’t currently a big problem for wheat farmers.

“Cheatgrass is one that is on everybody’s radar because it’s so widespread, and they are having difficulties controlling it with products that used to work,” Lyon said. “Everybody is aware of jointed goatgrass, and medusa-head is something to watch out for.”

Brett Huse, a consultant with BioWest Ag Solutions, answered a few questions provided by *Wheat Life* to better acquaint growers with the company and their new product.

Tell readers a little bit about BioWest Ag Solutions.

BioWest Ag Solutions has provided liquid fertility products and services for more than 30 years. BioWest manufactures biologically based fertility and specific-use microbial products to growers across the western U.S. We also provide crop consulting services, fertility management plans and deliver our products directly to our customers. Our approach combines our formulations and practices with conventional fertilizers to revitalize the biodiversity of soil, increase water-holding capacity, increase



Brett Huse, a consultant with BioWest Ag Solutions.

plant-nutrient uptake and stimulate plant growth.

You recently received approval for a new bioherbicide from the Environmental Protection Agency. What is a “bioherbicide?”

Bioherbicides are biologically based control agents for weed suppression. In contrast, herbicides are synthetic compounds used to inhibit weeds. Bioherbicides are microbes such as fungi, bacteria (such as our product, Battalion Pro) or other organisms. Bioherbicides can also be compounds derived from microbes, phytotoxic plant residues, extracts or plant species.

What is this bioherbicide, and what makes it unique?

Battalion Pro contains the naturally occurring soil bacterium, *Pseudomonas fluorescens* strain ACK55, that suppresses the growth of the invasive annual grass weeds cheatgrass/downy brome, medusa-head and jointed goatgrass. This product suppresses weed roots during the winter when the weed is increasing its competitive root growth. The product inhibits weed root elongation, and the weed is not able to produce the roots needed for water and nutrient uptake. Battalion Pro works at the seed bank level by suppressing seedling growth and killing the seedling.

Most synthetic herbicides work at the plant level and do not affect the seed bank of the weed. They are also more expensive and require annual applications.

How does Battalion Pro work?

The bacterium inhibits the growth of cheatgrass/downy brome, medusahead and jointed goatgrass. It does no harm to economically important plants nor does it injure any native plant species. The bacterium works at the seed bank level, inhibits root growth and tiller initiation of these weeds. Battalion Pro suppresses weed roots at a time when the weed is increasing its competitive root growth. It is a novel means to reduce the invasive weeds.

How and when is it applied?

Battalion Pro is applied from late fall through early



Blaine Bickelhaupt, Owner/Broker has over 25 years of proven land acquisitions. Whether you are looking to buy or sell Farm, Ranch or Recreational properties in Washington or Idaho, or if you are just wanting to know the current value of your property, give Blaine a call.

Blaine Bickelhaupt

Licensed in Washington and Idaho
Accredited Land Consultant
blaine@bluemountainrealtors.com
509.520.5280



YOUR ONE-STOP AG SOURCE!

- Sales & Superior Service -



**Tractors • Combines • Tillage • Drills
Sprayers • Precision Ag**

"JTI, Your Agricultural Hub of the Inland Empire."



**JONES TRUCK
& IMPLEMENT**



Evenings:

Terry Largent 509-336-1344
Dan Hebling 509-336-1346
Rena Olson 509-956-3110
Nic Mayer 509-385-3895
Tyler Elstad 509-540-9009

Colfax, WA
Located on Hwy 26
509-397-4371
1-800-831-0896

Walla Walla, WA
304 N 9th Street
509-525-6620
1-800-525-6620

www.jtii.com
jti@colfax.com



HANDLE BULK SEED THE EASY WAY



WESTFIELD

- Easy-on-off with one pin
- Fast efficient handling of bulk
- Remote controlled hydraulic motor
- Spring assisted lift for easy operations
- Long reach 6" auger and 14.5' telescoping spout

T & S Sales
INC

509.535.1177
NwGrainAugers.com

**Serving All Your Seed Cleaning Needs
Plus Grade Improvement For Specialty
Crops - On-Farm Service Since 1967!**



**WHEAT • BARLEY • OATS
SPECIALTY CROPS**

Plan Ahead - Call NOW Reserve Your Cleaning Date

Teraxxa Trebuset™
wireworm treatment when available
Other Brands of Seed Treatment Also Available

Custom Seed Conditioning
Frank Hager & Son Elk, WA
509-292-2506 Cell: 509-998-5590

spring. Mid-October is usually the earliest that application of Battalion Pro could begin. Air temperatures need to be cool. Soil needs to be moist with rain or a moisture event in the near forecast, such as frost thaw with moist soil. Battalion Pro can be applied aerially, by ground rig, through irrigation or soil incorporation and can piggyback with most herbicides, fungicides, insecticides, fertilizers or seed coatings. Battalion Pro can be sprayed over existing crop or desirable plant foliage. There are no plant-back restrictions for reseeding crops or desirable plants. BioWest crop consultants will be available to help make further decisions about application.

What do you anticipate is the long-term effectiveness of Battalion Pro?

Research field studies showed that application of Battalion Pro resulted in almost complete suppression of these annual grass weeds five to six years after application, when the application guidelines are followed, and desirable plants (winter wheat, perennial bunchgrasses, natives) were present to over canopy and further reduce growth of existing weed plants. Additional applications of the product may be needed in three to six years to ensure success. An integrated weed management approach including the bacteria, herbicides and a healthy crop is recommended for success.

Is this a product made with genetic engineering?

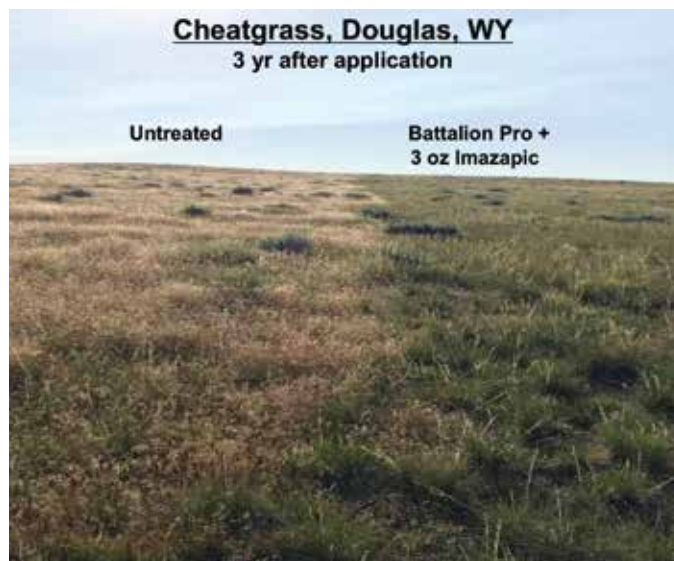
Battalion Pro's active ingredient is a naturally occurring bacterium. No genetic modifications are used in the development or production of Battalion Pro. Battalion Pro was selected from the existing microbial populations in soil.

There's a lot of attention right now on pesticide safety. What are the safety concerns of this bioherbicide, both in application and over the long term?

Battalion Pro is a naturally occurring bacterium selected to inhibit the three weeds and cause no harm to any other living things. It is at a near neutral pH. There are no plant-back restrictions for reseeding an area. No residual herbicide is present in the soil solution with this bioherbicide. Minimal personal protection equipment and a short worker re-entry period are required. Safety precautions should always be used when applying any product for agriculture or rangeland.

Are there environmental concerns with this bioherbicide?

The product does not harm native plants, crops or living organisms. The product has no residual, a zero preharvest



PHOTOS COURTESY OF BIOWEST AG SOLUTIONS

interval and no plant-back restrictions. Battalion Pro does not maintain high numbers during the growing season as it is a cold-loving organism. It has a short re-entry period after application. We recommend that there be no grazing for 24 hours after application. This grazing recommendation is not because Battalion Pro will harm the animals, but so the product gets into the soil where it needs to be to work.

How do you see wheat farmers using this product?

Battalion Pro can be easily integrated into fall seeding of wheat or fall and early spring working of fields to successfully reduce the three weeds within three to six years. Battalion Pro can be applied throughout the winter and into early spring if proper climatic conditions are present and certain practices are used. Battalion Pro is cost effective and can be applied every three years. The crop consultant and producer can discuss and decide upon further use of Battalion Pro.

Has this been used much in Eastern Washington, and what kind of results have you seen?

For more than 20 years, annual field studies with Battalion Pro were established in central and Eastern Washington. The first field studies established the application requirements of this bioherbicide. Once the application requirements (cool air temperature, overcast skies, wet soil, moisture event in forecast) were met, Battalion Pro was successful at reducing cheatgrass/downy brome, medusahead and jointed goatgrass populations to below economic levels in three to six years. Battalion Pro and wheat crop or Conservation Reserve Program (CRP) can compete with the three weeds and reduce their presence to below economic levels. The bacterium suppresses seedling growth in the seed bank and the crop or CRP competes with weeds for soil, water and light. Often, after some time, the three weeds are no longer found in the weed-seed bank.

Producers who are interested in learning more about BioWest Ag Solutions can visit their website at biowest.ag. Growers can also contact Brett Huse at bhuse@biowest.ag or (208) 2221-4515. ■



BULK FUEL & LUBRICANTS
STORAGE TANKS
FREIGHT HAULING

Convenient locations to serve you:

Pendleton, OR 513 S.W. 6th 514-276-3361	Walla Walla, WA 1205 N. 11th 509-527-3400
LaGrande, OR 804 21st Street 541-963-4932	Baker City, OR 2885 13th Street 541-523-4779

1st SOURCE
Chevron Lubrication Marketer

www.byrnesoil.com



LANDMARK
TURF & NATIVE SEED

Lawns | Turf | Forage | Pasture | Hay | CRP | EQIP | SAFE
 Cover Crops | Custom Blends | Prompt Service

Sales Contacts: RJ Schmitt - rj@turfandnativeseed.com
 Orlin Reinbold - orlin@turfandnativeseed.com
 Harold Wood - hwood@turfandnativeseed.com
 800-268-0180 | turfandnativeseed.com



BARBER
ENGINEERING COMPANY

DRY FERTILIZER EQUIPMENT

- Nurse Boxes
- Belt Loaders
- Truck Spreaders
- Hydraulic Drill Fills
- C-200 Cleaners/Treaters
- Brush Augers

509-535-3051
 1404 N. Regal Spokane, WA
barberengineering.com

CLASS 8 TRUCKS

521 N. EASTERN • SPOKANE, WA
 (509) 534-9088 • class8trucks@aol.com



Damon Sauer (left) and friend, Kevin Klein (resembling a former wheat president), standing in front of the "Chosen One."

Lots of gravel moving by toe and thinking on this one...what fun! It's soon to be working on the Broken Windmill Farm near Sprague, WA.

About 90 years ago, George and Ruby Smith established the original farm in the 1930s. Alvin and Judy Smith Sauer added the Broken Windmill Farm in the 1990s.

Son, Damon, is now farming, raising dryland soft white wheat. It should be a little easier with the "Chosen One" this summer, Damon!

Thanks for taking the time to look at what we have in the shops and on the lots. Please call if you're selling or looking for trucks and/or trailers.

Marc B. Lange (509) 991-9088
Scott Lund (509) 995-5024
Jeff Miller (509) 599-9926
NOT JUST TRUCKS, TRAILERS TOO!
www.class8trucksales.com

Pomeroy Grain Office 509-843-1694
Pomeroy Agronomy 509-843-1394
Colfax Grain Office - Colfax 800-424-5056

Pomeroy Grain Growers



*Offering a complete range of service levels,
from Cash & Carry to Specialized Custom Services*

Seed Sales | Certified Crop Advising | Soil & Tissue Sampling

Grain Sales - Truck & Barge Shipping
Custom Seeding & Cultivating with Variable Rate Technology
Custom Spraying & Stream Jetting with Variable Rate Technology

Serving Area Growers for 90 years
www.pomeroygrain.com

A CONNELL OIL INCORPORATED COMPANY

BRONCO ★ FARM SUPPLY ★



Your Supplier of Quality Fuels and
Lubricants In Eastern Washington

Pumps • Sprayers
HiQual Livestock Equipment

Livestock Feeds • Smartlic Supplements
Stock Tanks • Gallagher Fencing • Pet Supplies



Online orders: www.conelloil.com

1302 W. First Ave. Ritzville WA
509-659-1532 broncofarmssupply.com

*Stop in and let us show
you all we have to offer!*

Our Roots Run Deep

NORTHWEST FIRST REALTORS FARM AND RANCH
LICENSED IN WASHINGTON AND OREGON.



MIRIAM GRANT
Owner/
Designated Broker
(509) 520-5220



MARK GRANT
Owner/
Designated Broker
Accredited Land Consultant
(509) 520-1906



MARK KLICKER
Broker
(509) 520-7370



MICHAEL GRANT
Broker
(509) 520-0895



317 N Colville, Walla Walla, Washington
(509) 524-9055 | info@northwestfirstrealtors.com
www.NWFRFarmAndRanch.com

CHAIRMAN

WASHINGTON GRAIN COMMISSION

By Mike
Carstensen



Heading into Almira the other day, looking at the snow-covered winter wheat fields along both sides of the highway, it came to me once again how important it is to watch where you're going. Don't get me wrong, I check my rearview mirrors, but concerning our present circumstances as a country, focusing on where we're heading has got to be the priority when it comes to staying between the lines and out of the ditch.

As I look to the future, there are things that make me hopeful, and there are things that have me concerned. On the hopeful front, President Joe Biden's selection of Tom Vilsack as secretary of agriculture is near the top of the list. As someone who has held the job before, he knows what it takes to get things done—from the farmer level, to the congressional level, all the way to the White House. We could have gotten someone much worse, that's for sure, and knowing the system means he's hitting the ground running.

Also in the hopeful column—I believe a Biden Administration will ultimately be good for exports, which isn't to say I think Trump was bad. A lot of the things Trump did, especially with China, had to be done, and even the new administration is not reversing course. But a different political landscape means there could also be more opportunities for cooperation among our allies.

The new negotiator at the U.S. Trade Representative's Office, Katherine Tai, is no pushover when it comes to China. As a former top trade lawyer, however, she is more interested in multilateral trade approaches and working with the World Trade Organization than simply imposing tariffs. I sincerely hope the tremendous exports we are currently seeing to China continue.

One of agriculture's big concerns is where the New Green Deal is going, and its implications for the future. My crystal ball is murky, and the road ahead can only be seen as far as my headlights reach, but I'm hopeful President Biden will hew to the center line and not oversteer to the left. As much as most people like to eat, many have no clue what it takes to grow the food they put in their mouths.

As someone who served on the Lincoln County Conservation District for years, I know that telling farmers what to do is not a winning approach. Offering carrots helps encourage adoption of new practices, but at this point, I don't even know what color the carrot might be. Obviously, it's got to be edible.

Take carbon sequestration. Even if farmers get paid for

storing carbon through direct seeding, that doesn't mean it will work everywhere. And those who use the practice today are already fighting herbicide weed resistance. Of course, pulling iron (the alternative to resistance issues) will let loose all the carbon that's stored. And then there's the question of glyphosate, which direct seeders especially need to make their system work and which a certain segment of lawyers have gone after tooth and nail despite the Environmental Protection Agency (EPA) saying the herbicide is safe.

After two terms as governor, we know Jay Inslee's priorities, but then he knows agriculture's, too, thanks to a strong agricultural coalition in the state. And he does listen. I can't thank him enough for including \$8 million in his budget for the Johnson Hall demolition at Washington State University, money that was overlooked when figuring for the \$105 million construction of the Agricultural Research Service's Plant Biosciences Building on the Pullman campus.

Our industry's concerns at the state level include transportation, preferential tax treatment, labor issues, regulation and others. I'm hopeful that through advocacy, we can continue to help shape the outcomes and keep us out of the ditch. Given that Washington State Department of Ecology regulations are already much stiffer than EPA standards, we're already operating under stiffer rules than many farmers elsewhere. Again, I'm hopeful we can continue to negotiate the environmental initiatives that may come our way.

On the federal level, I'm optimistic our excellent working relationship with all of our representatives and senators, Republicans and Democrats alike, will carry on. Working together these last four years, they've proven their support for Washington agriculture.

With the windshield of the future before us, ensuring that farmers have the wherewithal to continue to farm is where the rubber hits the road. Just as with wheat farming, however, we have no control over the crop we've just harvested. There are no do-overs. What's done is done, and we must look forward. But, if you're like me, I'm sure you have as many hopes as you do concerns.

I encourage all of you reading this to help our industry advocate for that which is hopeful and argue against that which is troublesome. It is only by working together, united, that we can move forward, raising our families, making a living, planning for a better future...and staying out of the ditch. ■

And the quality beat goes on...



The 2021 Preferred Variety Brochure will be the last that **Doug Engle** puts his imprimatur on as the 37-year veteran of the Western Wheat Quality Lab (WWQL), part of the Agricultural Research Service, retires to go R/Ving with family and full time downhill skiing.

Engle, who has a master's degree in environmental science from Washington State University, wasn't supposed to have a career evaluating flour quality. After graduating into a difficult economic environment in 1984, however, he put in an application to the federal government to work as a hydrology technician. Although he didn't get the job, his application remained active and was seen by the then-director of the WWQL. One thing led to another, and a profession he didn't know existed became Engle's life's work.

For those who have met Engle, you know he is tall, 6 foot, 7 inches to be exact. Perhaps because he knows his height can be intimidating, he has learned to compensate by making the shorter world around him feel comfortable. Kind as well as tall, he has always been eager to help—and share the reasons behind the region's quality success story.

"The improvement of end-use quality in the PNW is really a combined effort that begins with breeding programs making quality a priority in variety release decisions. That, in turn, has been influenced by wheat commissions, private companies and universities. Ultimately, the region's excellent reputation for growing high quality milling and baking wheat is a group effort," he said.

The 2021 Preferred Variety Brochure (PVB) is new and improved in several ways. First, besides 17 new varieties being added to the brochure, a total of 25 older varieties have been deleted. These include former standbys like ORCF102 and WB528 that were once grown widely, but have fallen by the wayside as newer, higher quality varieties supersede them.

For the first time in many years, there are also two new companies that will have varieties rated in the PVB.

The McGregor Company's entry is M-Press, a soft white "desirable" variety, which the company licensed from a breeder. Yield Star, part of the Wagner Breeding Co., based in Warden, Wash., has the soft white winter entry YS201, which has a "most desirable" rating. This year also, WestBred will be identified as being part of Bayer, rather than Monsanto.

The 2021 brochure marks another effort to improve the quality analysis of varieties. A measure approved by the Pacific Northwest Wheat Quality Council imposes a new grading format for hard wheat that judges dough mixing strength to better reflect a variety's suitability in commercial bakeries.

Varieties may be in commercial production before they are included in the PVB. That's because three years of quality data are required for a variety to be listed. The PVB, which includes varieties grown in Washington, Oregon and North Idaho, are evaluated on six components. Ten percent of the score is assigned to a variety's test weight and protein, while milling attributes receive 30 percent of the focus. The heavy hitter is end-use functionality where 60 percent of a variety's score is assigned.

The Washington Grain Commission is lauded around the U.S. as having started the first quality-oriented publication for varieties more than 20 years ago. Since then, other regions have established their own quality rankings. The brochures aren't just a way for farmers to see the rankings of the region's varieties. The list is also used as a marketing tool that is closely studied by overseas traders, millers and bakers. Download a copy at wagrain.org/publications/.

The evolution of the quality of varieties is obvious when reviewing the numbers. Take, for instance, Madsen, once the most widely grown variety in the Northwest. In the 2001 PVB it was ranked in the top 10 varieties grown for quality. Today, it ranks a lowly No. 38.

Joining the Washington Grain Commission in financing the quality analysis work supporting the PVB is the Idaho and Oregon wheat commissions. These organizations sincerely appreciate the many years of wheat quality expertise Doug Engle has brought to the industry. ■

2021 Quality Rankings

Varieties are listed by statistical quality rankings by class. When making a decision between varieties with similar agronomic characteristics and grain yield potential, choose the variety with the higher quality ranking. This will help to increase the overall quality and desirability of Pacific Northwest (PNW) wheat.

Most Desirable (MD)—These varieties generally have high test weights, appropriate protein content (kernel properties), and excellent milling and end-use properties.

Desirable (D)—The kernel, milling, and end-use qualities of these varieties range from good to very good. The quality attributes of these varieties are desirable in international trade.

Acceptable (A)—The kernel, milling, and end-use qualities of these varieties range from acceptable to good. Individual varieties may possess minor flaws. The quality attributes of these varieties are acceptable in international trade.

Least Desirable (LD)—These varieties have displayed low quality characteristics for this class of wheat. The intrinsic quality of PNW wheat will be improved if these varieties are not planted.

Unacceptable Except Customer-Specific Uses (UCS)—One or more critical flaws in quality are present in these varieties and will not make suitable products for this class of wheat. Production of these varieties should be targeted to specific end-uses and kept strictly segregated from general commercial channels.

SOFT WHITE WINTER

VI Frost	LCS/UI	MD
Bobtail	OSU	MD
UI Castle CL+	UI	MD
Sockeye CL+	WSU	MD
Kaseberg	OSU	MD
Bruneau	UI	MD
Jasper	WSU	MD
LCS Shine	LCS	MD
YS201	YS	MD
LCS Ghost	LCS	MD
Nixon	OSU	MD
UI WSU Huffman	UI	MD
Puma	WSU	MD
SY Command	AP/SY	D
VI Bulldog	LCS/UI	D
Mary	OSU	D
LCS Shark	LCS	D

Piranha CL+	WSU	D
LCS Biancor	LCS	D
SY Ovation	AP/SY	D
LCS Drive	LCS	D
UI Magic CL+	UI	D
UI Sparrow	UI	D
Eltan	WSU	D
Devote	WSU	D
LCS Blackjack	LCS	D
SY Assure	AP/SY	D
M-Press	TMC	D
Stingray CL+	WSU	D
LCS Sonic	LCS	D
Norwest Duet	OSU/LCS	D
SY Raptor	AP/SY	D
Otto	WSU	D
Resilience CL+	WSU	D
Stephens	OSU	D
LCS Hulk	LCS	A
SY Dayton	AP/SY	A
AP Dynamic	AP/SY	A
LCS Artdeco	LCS	A
WB1532	WB	A
Madsen	ARS	A
WB1604	WB	A
Purl	WSU	A
Curiosity CL+	WSU	A
Norwest Tandem	OSU/LCS	A
Mela CL+	WSU	A
Rosalyn	OSU	A
WB1529	WB	A
Xerpha	WSU	LD
WB1376CLP	WB	LD
WB1783	WB	LD

SOFT WHITE SPRING

Tekoa	WSU	MD
Diva	WSU	MD
WB 6341	WB	MD
Louise	WSU	MD
AP Mondovi CL2	AP/SY	MD
Alturas	UI	MD
Whit	WSU	MD
Seahawk	WSU	MD
Ryan	WSU	MD
WB 6121	WB	D
AP Coachman	AP/SY	A
WB-1035CL+	WB	UCS

HARD RED WINTER²

Scorpio	WSU	MD
SY Clearstone CL2	AP/SY	D
Keldin	WB	D
SY Touchstone	AP/SY	D
WB 4311	WB	D
Sequoia	WSU	D
LCS Jet	LCS	A
WB4623CLP	WB	A
WB 4303	WB	A
LCS Rocket	LCS	A
LCS Evina	LCS	A

HARD RED SPRING²

Jefferson	UI	MD
SY605 CL	AP/SY	MD
Net CL+	WSU	MD
SY Selway	AP/SY	MD
Glee	WSU	MD
SY Coho	AP/SY	MD
Alum	WSU	MD
SY Gunsight	AP/SY	MD
Chet	WSU	MD
AP Renegade	AP/SY	D
Kelse	WSU	D
WB 9668	WB	D
Buck Pronto	LCS	A
WB 9662	WB	LD

HARD WHITE WINTER¹

UI Silver	UI	MD
Irv	OSU	MD
Earl	WSU	A

HARD WHITE SPRING¹

UI Platinum	UI	MD
WB Hartline	WB	D
Dayn	WSU	D

CLUB

Castella	ARS	MD
ARS Crescent	ARS	MD
Cara	ARS	MD
ARS Pritchett	ARS	D
Bruehl	WSU	D

SPRING CLUB

Melba	WSU	MD
JD	WSU	MD
Hedge CL+	WSU	MD

AP/SY AgriPro/Syngenta
ARS Agricultural Research Service
LCS Limagrain Cereal Seeds

TMC The McGregor Company
OSU Oregon State University
UI University of Idaho

WB WestBred/Bayer
WSU Washington State University
YS Yield Star Cereals

¹Hard white wheats are scored for export quality requirements such as bread quality and potential noodle quality.

²Analysis parameters for dough mixing strength have been modified to better reflect suitability in commercial bakeries. Quality designations of the strongest and weakest mixing lines have changed because of this.

Quality mission blasts off

ARS SCIENTIST PLANS TO USE BIOCHEMISTRY TO EXPLORE CAUSES OF LOW FALLING NUMBERS

By Scott A. Yates

An irony of **Ashley Cannon's** career is that her goal of becoming an astronaut returned her to earth to investigate some of the most basic mechanisms of plant biochemistry.

Cannon, who has a Ph.D. in plant biology, was hired by the Agricultural Research Service (ARS) of the U.S.

Department of Agriculture to fill a new wheat quality position located on the Pullman campus of Washington State University. Specifically, Cannon will research the mechanisms that cause low falling numbers in wheat. Both preharvest sprout (PHS), which is the phenomenon that occurs when rain falls on ripe crops, and late maturity alpha-amylase (LMA), induced by a cold shock in the spring, have been identified as culprits.

But while PHS is something farmers can see occurring in real time when rainstorms and cool weather occur before crops can be harvested, LMA only raises its head when the crop is sampled after harvest and a falling number test is conducted. In 2016, when it appeared a bumper crop would help heal farmers' bottom lines, millions of dollars were lost to a discount farmers could neither see nor anticipate. Although Cannon will be responsible for investigating both triggers, LMA is by far the phenomenon that farmers most want to avoid. And Cannon believes she's up to the job.

"I come with a new perspective and a pretty big tool kit, and I'm really interested in the problem. I had a plan to approach the problem the day I interviewed," she said.

With a father who was in the military, Cannon moved among his various assignments as a youth, most of which were in Texas, along with five years in Nevada. Because of her interest in becoming an astronaut, she focused from a young age on math and science and even got to work with plants grown on the International Space Station. Her undergraduate degree was in chemistry with a minor in math. Her Ph.D. dissertation, which she completed at the University of Texas in Austin in 2016, investigated how gravity directs plant growth both on earth and in space.



Given the fact that long space voyages will require food to be grown while on route, figuring out the biology of plants in an environment without gravity is paramount. On earth, a sprouting seed knows the direction to grow based both on gravity and light, which bears asking a question on the minds of many biologists today—are plants intelligent? Some scientists have recently suggested they are. Cannon is more circumspect, saying that while she believes plants can sense and respond to their environment, they do so at a level different from people.

"A plant doesn't know if it's sad, but it definitely knows it's cold. We have many different types of intelligence, so I don't think plants have what we describe as human or animal intelligence, but they have evolved sensitive tools to sense what is going on around them. On the question of plant intelligence, I'm in the middle," she said.

Cannon comes across as a person for whom satisfying her own scientific curiosity is, at least, part of the goal. After receiving her Ph.D., she did postgraduate work at the University of North Texas. There, she kept her focus on plant-signaling pathways, but instead of looking at the effects of gravity, she began to investigate lipid signaling. Without going into too much detail, a lipid is



Ashley Cannon at 18 months old with two of her biggest supporters, her parents, Roger and Susan Gravelle.

a molecule that can store energy, signal and even act as a component of cell membranes. A lipid messenger can affect specific cellular responses.

Or, as Cannon put it, “There are so many things that plants use that have versatile functions and can provide signals to neighboring cells, or within the cell itself, that helps the cell react to a particular change.” Put another way, if you thought gene expression was the only important thing going on in plants, think again.

Although there were many individuals who applied for the new ARS position, Cannon believes she was the successful candidate because, “I brought a new perspective, a special skillset that others working on this issue don’t have. I think (the hiring committee was) looking for a broad background as a molecular biologist and a biochemist, which is a skillset not many have. I’m a molecular biologist that, instead of using genomics, uses chemistry.”

Cannon has prepared her own analysis of the PHS and LMA phenomenon, highlighting how plants sense and respond to their environment, and how these signals regulate plant development. A large part of her effort will be to determine how to identify susceptible wheat lines far earlier in the breeding process by identifying molecular markers that can be used by breeders to avoid the lines that are susceptible. At the same time, she hopes to develop tests that differentiate between PHS and LMA, as some studies have shown the latter has less impact on end-use quality.

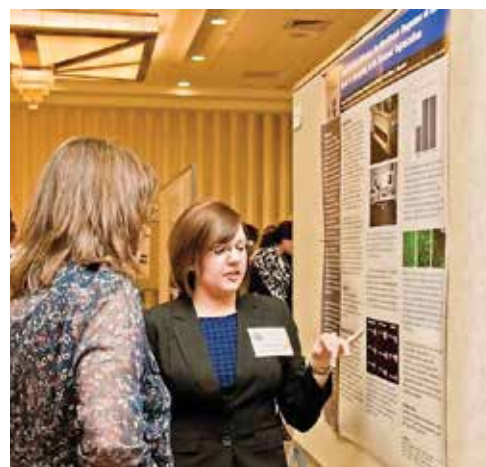
“The first thing I want to do is figure out what is actually leading to low falling numbers in the plant,” she said. “What proteins in the grain are causing low falling numbers, and do these proteins actually decrease end-use quality. That has to be addressed.

“I think LMA is caused by a combination of both genetic and environmental causes, but what is happening is happening at the molecular level. I’m hoping to identify regions within the wheat genome that may be different in a variety that is susceptible from a variety that is resistant. It all starts with the genome. Molecules are derived from products of the genome. They’re not different. I’m just looking at it from a different point of view.”

But is it really necessary to know at the molecular level the plant signals that lead to LMA? Isn’t another approach simply to ensure that no new varieties are released that are susceptible to the phenomenon, a practice which is followed in Australia by using cold shock to induce the phenomenon, and not releasing any varieties that fail?

She agrees that is one approach, but it only finds the bad actors near the end of the breeding cycle. Developing molecular markers to identify LMA-susceptible lines, on the other hand, allows much higher and faster throughput, and as any breeder will tell you, breeding is all a numbers game. Not to mention, LMA hasn’t always existed at the level it exists now.

“We need to be proactive so we can begin to develop lines that aren’t susceptible. I think what we will discover is that there are many things in a plant that can lead to low falling numbers. Continuing our study may solve the current problem, but by being proactive, we will be able



Ashley Cannon (right) presenting her undergraduate research work on how plants sense and respond to the force of gravity at the annual American Society of Gravitational and Space Research Conference.



Professor and graduate mentor, Dr. Stanley Roux, with Ashley Cannon after she received an outstanding teaching award at the University of Texas at Austin.

to identify issues that may come up in the future. Consider the pandemic. A lot of people said it came out of nowhere, but what it came out of was people not staying proactive and continuing to monitor whether we have coronaviruses in particular areas of the world. I’m interested in staying ahead of the problem, instead of what happened in 2016 when there was a massive problem we are now trying to fix,” she said. ■

Virtual Wheat Week wins praise

EDUCATORS HAVE REQUESTED MORE THAN 22,500 KITS



By Kara Kaelber

In the spring of 2020, the Washington Grain Commission-funded, hands-on science program, Wheat Week, ground to a halt when schools were closed due to the COVID-19 pandemic.

Of course, as education director of the Franklin Conservation District and developer and coordinator

of Wheat Week, I was devastated. I had no idea what the future held. Initially, I spent the spring working with my Wheat Week educators preparing for schools to re-open in the fall. But by June, it was apparent that was not going to happen.

Wheat Week is a fourth- and fifth-grade, hands-on program offered to schools throughout Washington. It is a series of one-hour science lessons taught through the lens of the wheat industry for five days by Wheat Week educators. In the 2019/20 school year, more than 18,000 students throughout the state were touched by the program before it was shut down in March.

The summer was spent trying to figure out how to take a week-long, hands-on science program and make it virtual. Meeting virtually ourselves during professional development trainings, my staff and I quickly discovered that the traditional program had to be completely revamped. Instead of a curriculum that took 300 minutes of classroom instruction, we recognized the need to pivot and pivot hard.

We decided to whittle the program down to five-minute videos. But while my head told me this was the appropriate approach, my heart struggled with how we could make a meaningful, hours-long program in mere minutes. That was the challenge my team and I faced as fall instruction loomed.

But before that, I decided it made sense to survey teachers who had included Wheat Week in their curriculum in the past. Was there even an interest in a pared-down program? I knew we had done something right

when the overwhelming response was YES!

My Wheat Week educators and I spent hours debating the new content. Then, curriculum was drafted and videos were created. Along with the video content, hands-on kits were designed to be delivered to students via their teachers. Each kit contains materials for students to grow their own wheat in a small terrarium, as well as a wheat head for them to thresh between their hands. We had no idea if what we were creating was going to work, or even be good. Like so many others around the country, we had never done anything like this before. It was a bit scary.

Virtual Wheat Week was launched at the end of September, and teachers quickly signed up. I would have been excited if 5,000 students in Washington participated in the virtual curriculum, so I was pleasantly surprised when more than 8,500 requests for student kits were received on the first day. By the end of December, more than 22,500 kits had been requested.

We were all blown away with the initial response and then by the feedback we received from teachers using the virtual program. One email from a teacher in the Olympia School District made our hearts swell. "We had a phenomenal experience with Wheat Week!" she wrote. "The videos were informative, fun and well done. Students were engaged and learning the full five days. The whole process was stellar. Kids are, of course, excited to see the growth inside their wheat terrariums, but they were also genuinely excited to learn about systems and purpose."

Where I was so fearful to begin with, I now see that a virtual Wheat Week can become a permanent offering for teachers who we can't reach with the traditional Wheat Week program due to location (they're out of our service areas) or timing. And in the past, when testing in May has interfered with teaching, we can now offer virtual Wheat Week to teachers on their own timeline.

While teaching virtually was the norm in 2020 and into 2021, my instructors and myself are raring for a return to normal. Because as good as virtual Wheat Week has been as a stand in, nothing can replace face-to-face interaction with students. ■

Dinosaurs ate it; farmers fight it

By Drew Lyon

Dinosaurs, such as the *Brachiosaurus*, which grew nearly 100 feet in length and weighed up to 88 tons, were among the largest animals ever to walk on the planet. And yet, these sauropods were herbivores.

How did these long-necked, long-tailed, four-legged creatures survive eating only plants? A group of researchers at the University of Bonn in Germany recently suggested an answer: *Equisetum*.

Commonly referred to as horsetails, *Equisetum* is the only surviving genus of the vascular nonflowering plant family *Equisetaceae*, which dominated the forest understory of the late Paleozoic period (542 million to 251 million years ago). Although earlier research considered *Equisetum* a poor fodder based on carbon combustion tests, Carole Gee and her colleagues at the University of Bonn found that after fermenting the plants for three days (to simulate the passage through a sauropod's gut), *Equisetum* produced more energy than any other plant group, including 16 modern grasses. In fact, *Equisetum* was much more nutritious than all other plants of the era and would have provided sauropods, especially young ones, "a plentiful, accessible and extremely nutritious food."

Now, jump ahead more than 250 million years to Eastern Washington. Three *Equisetum* species are found on or adjacent to farm ground: field horsetail (*Equisetum arvense*), scouringrush (*Equisetum hyemale*), and smooth scouringrush (*Equisetum laevigatum*).

Smooth scouringrush is problematic in no-till fields from wet bottom ground to dry hillsides. *Equisetum* was not on my radar when I arrived in Washington from Nebraska in 2012. It was Tom Zwainz, then a commissioner on the Washington Grain Commission (WGC), who first showed me the extent of the problem on his farm outside of Reardan in 2013. I soon began to hear from other farmers from Omak to Dayton about the problems they were facing with smooth scouringrush in their no-till systems.

In 2014, with financial support from the WGC, my Washington State University (WSU) weed team initiated field research to look for effective management options for smooth scouringrush in no-till wheat systems. The first

field study ran from 2014 through 2016 on the Spokane Hutterian Brethren farm northeast of Reardan.

Herbicide treatments were applied in late July 2014 in summer fallow. While several treatments reduced stem density by the following May, only Glean (chlorsulfuron) + MCPA ester maintained low density following harvest in August. Herbicide treatments were reapplied to half of the study area in August 2015 and followed through the 2016 spring wheat harvest. The best treatment by far was Glean + MCPA ester applied in both 2014 and 2015 (Figure 1). Unfortunately, Glean has a long half-life in soil, which limits crop rotation flexibility.

The results made me wonder how frequently chlorsulfuron needed to be applied to maintain control. We initiated a long-term study on the Townsend Farm near Omak in June 2017 in summer fallow. Fallow herbicide treatments were either Finesse (chlorsulfuron + metsulfuron) or MCPA ester. Winter wheat treatments were either Amber (triasulfuron) or MCPA ester. Final treatments were applied in the 2020 winter wheat crop and will be assessed in the 2021 fallow period.

Throughout the study, one treatment received an ALS-inhibiting herbicide every year (Finesse in fallow and Amber in winter wheat); one treatment received MCPA ester every year; and the other four treatments had various combinations of ALS-inhibiting herbicides and MCPA ester. Results through 2020 indicate that maximum control of smooth scouringrush requires an application of Finesse every fallow year, but applying it every other fallow year may provide some control and increase crop rotation flexibility (Figure 2). We initiated similar

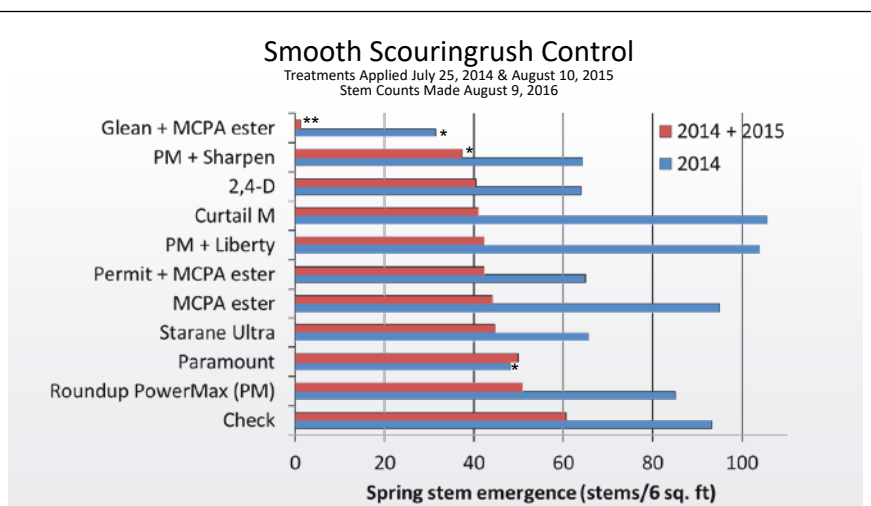


FIGURE 1. Smooth scouringrush stem density one year following two consecutive years of herbicide applications (red bars) in summer fallow or two years after a single year of herbicide application (blue bars) near Reardan, Wash. Bars followed by an asterisk are significantly different than the check treatment at the 95 percent (*) or 99 percent (**) probability level.

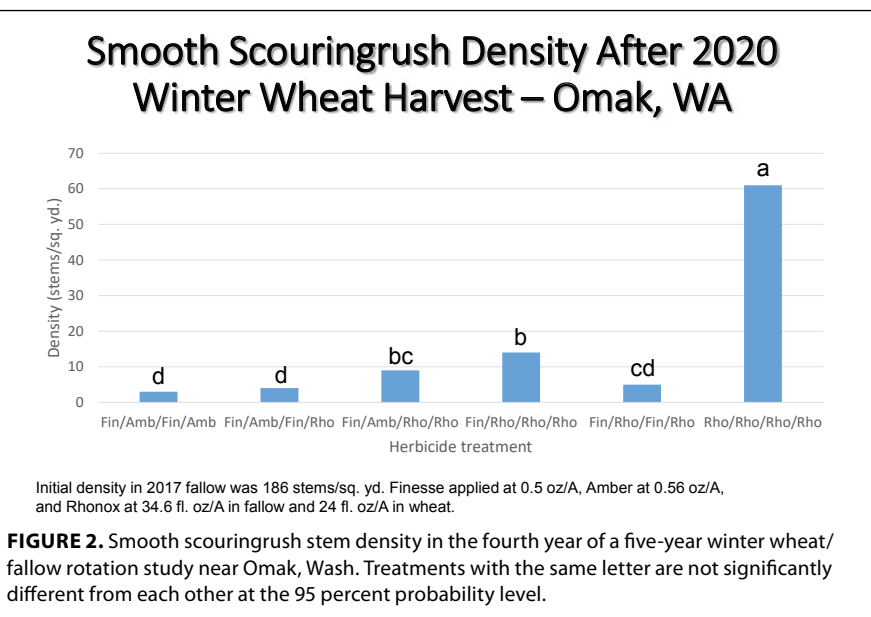


FIGURE 2. Smooth scouringrush stem density in the fourth year of a five-year winter wheat/fallow rotation study near Omak, Wash. Treatments with the same letter are not significantly different from each other at the 95 percent probability level.

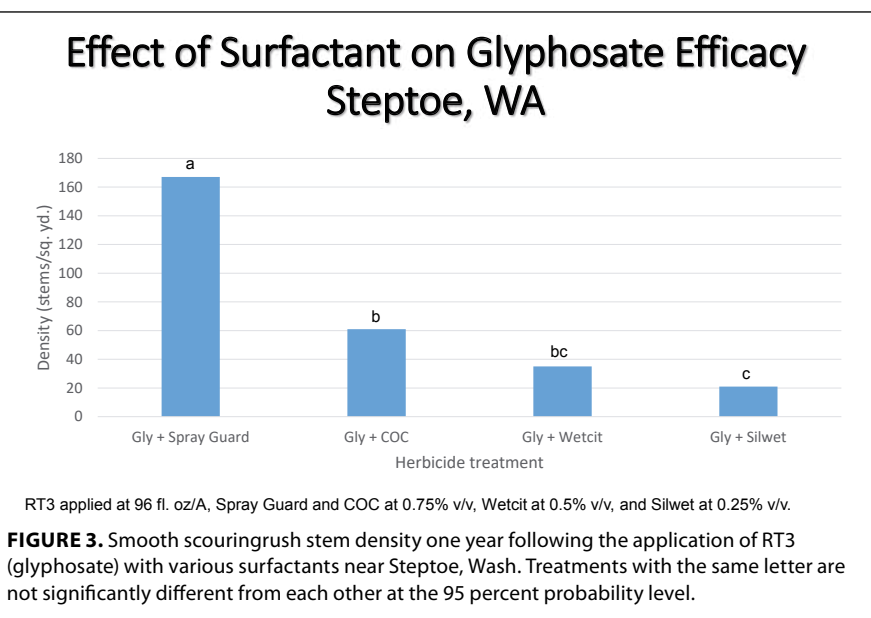


FIGURE 3. Smooth scouringrush stem density one year following the application of RT3 (glyphosate) with various surfactants near Steptoe, Wash. Treatments with the same letter are not significantly different from each other at the 95 percent probability level.



Smooth scouringrush research plots north of Reardan, Wash., one month after the late July application of herbicide treatments in fallow. Herbicide treatments containing MCPA ester turned stems black, but blackened stems were not correlated with reduced stem density one year after herbicide application.

studies in Edwall and Steptoe in 2019 in winter wheat/spring wheat/fallow production systems.

In addition, we conducted several preliminary studies using 96 oz/ac of RT3 (glyphosate) in fallow and found it to provide inconsistent results unless it included an organosilicone nonionic surfactant (Silwet L77). We hypothesized the high silica content of smooth scouringrush may inhibit glyphosate uptake and initiated a study in 2019 on the Hall Farm near Steptoe to compare surfactants.

Silwet L77, Spray Guard, Crop Oil-M and Wetcit were added to RT3 at 96 oz/ac. Spray Guard is a water conditioning and deposition aid that contains ammonium sulfate and phosphoric acid. Crop Oil-M is a petroleum-based surfactant, and Wetcit is a citrus, alcohol-based

surfactant. All surfactants, except Spray Guard, increased control of smooth scouringrush by RT3, but Silwet L77 and Wetcit surfactants provided the greatest control (Figure 3).

We currently have several ongoing field studies on smooth scouringrush control. You can learn more about these by visiting the WSU Weed Control Report located on the WSU Wheat and Small Grains website at smallgrains.wsu.edu.

Equisetum has survived more than 250 million years, including heavy grazing by the largest land animals ever to walk on the face of the planet. With smart, persistent management, we can keep it under control, but it has proven to be a survivor that is bound to be with us many, many more years. ■

WHEAT WATCH

WASHINGTON GRAIN COMMISSION

Markets are looking up despite USDA



By Mike Krueger

The February U.S. Department of Agriculture (USDA) World Agricultural Supply and

Demand Estimates (WASDE) crushed the bull market in corn and soybeans, at least temporarily.

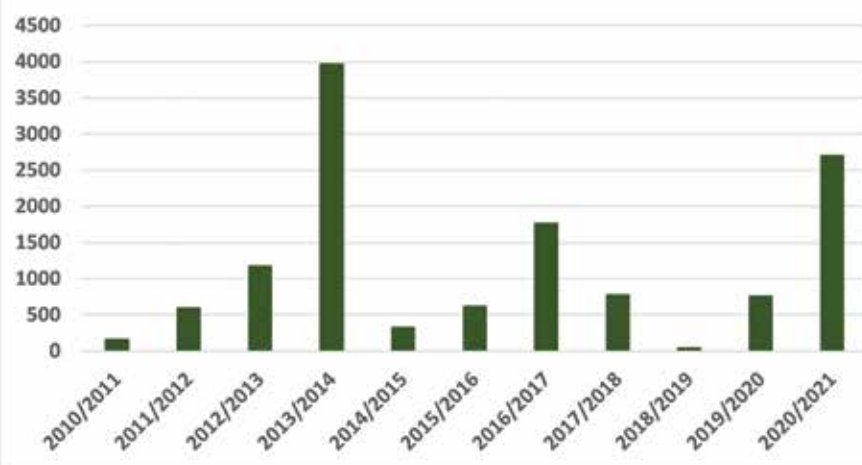
The problem was USDA made only very modest adjustments to the export forecasts for corn and soybeans and, therefore, only modest downward adjustments to corn and soybean ending supplies. The markets wanted more and had legitimate reasons to expect more.

Corn export sales on the books as of early February were already at 90 percent of the USDA's annual objective. And China has bought a record amount of corn from the world, led by huge purchases from the U.S.

Just a few months ago, USDA was forecasting total China corn imports of just 7 million metric tons (mmt). It now appears certain that China's corn imports will exceed 20 mmt easily. USDA export sales reported that China had purchased 17.5 mmt of U.S. corn as of Feb. 11. There was another 8 mmt of corn listed as sold to "unknown," most of which will likely go to China as well.

Those are massive sales. The USDA raised the corn export forecast by 50 million bushels. The market was looking for an increase of 200 to 300 million bushels (5 to 7 mmt). The USDA also failed to recognize the increase in activity by

U.S. wheat exports to China, in metric tons



SOURCE: U.S. DEPARTMENT OF AGRICULTURE

southern Plains feed lots that have been aggressively buying new crop hard red winter wheat to replace corn in summer feed rations. They are concerned about the availability of corn during the last quarter of this marketing year.

The last thing the USDA didn't do is reduce the level of China's corn reserves. It is clear those reserves are not nearly as large as believed and probably never were. Some private analytical groups have recently cut their estimates of China's corn reserves by 50 to 60 mmt. Instead, the USDA ignored the obvious and increased total world corn supplies. Although "punt" is a football term, the general consensus following the February USDA report was that they "punted."

U.S. soybean ending supplies were dropped from 140 million bushels to 120 million bushels. Most analysts think the number will be closer to 100 million bushels. It really doesn't matter whether the USDA puts soybean ending supplies at 100, 120 or 140 million bushels. They all represent bin-bottom levels. We never clean all the bin bottoms. Prices must ration demand to prevent ending supplies from getting that small, and that hasn't happened yet.

U.S. soybean sales to China now total 35 mmt. More importantly, 33 mmt had already been shipped by mid-February. You can't cancel export sales that have already been shipped. Just 3 mmt of sales remain in the "unknown" category. That is insignificant. Total U.S. soybean export sales now total 60 mmt. The USDA's goal for the marketing year that ends Aug. 31 is 61.2 mmt, of which 50 mmt have already been shipped. The USDA numbers say we will only sell another 1.2 mmt (44 million bushels) in the next 6 ½ months. The U.S. will be a soybean importer by mid to late summer.

The USDA made no changes to the U.S. wheat numbers in their February WASDE. Remember that the wheat marketing year ends on May 31, while the corn and soybean marketing years end on Aug. 31. That means any increase in

wheat feed consumption will be reflected in the 2021/22 marketing year that starts June 1.

U.S. wheat export sales as of mid-February totaled 23 mmt. China has purchased 2.7 mmt of U.S. wheat. The USDA's objective for the marketing year is 26.8 mmt. Weekly wheat export sales have been slowly improving. China has purchased 780,000 metric tons (mt) of white wheat, but had only loaded 60,000 mt as of mid-February. China has had most of these white wheat purchases on the books for several months now. One theory on why they've been slow to load it is that they've been concentrating on soybean imports. Export capacity from the U.S. will now shift to corn plus the wheat (see chart).

The big question that remains unanswered is what is China's real appetite for grains and oilseeds? They've been big buyers of soybeans and corn from the U.S. and wheat from Australia, Canada and the EU. They have also, reportedly, been significant buyers of new crop feed barley from almost any source they can find. We also know they've been significant buyers of rapeseed/canola. Will they start to buy more U.S. wheat over the next several months? No one knows.

In the meantime, we are close to the time the world's Northern Hemisphere winter wheat crop breaks dormancy. Remember that last fall, significant areas of the Ukraine and Russia planted their wheat crops into very dry soils. Winter moisture has been more widespread, but snow melt won't carry a crop.

Roughly 40 percent of the U.S. southern Plains' hard red winter wheat crop also went dormant under very poor conditions, again because of drought. Winter precipitation has been very limited. Temperatures as far south as Oklahoma dropped to as low as -10 to -20 F in mid-February. That is cold enough to damage a winter wheat crop already in poor condition. There was light snow cover in some areas, but that might not have provided enough insulation with temperatures so low. We won't know the extent of any damage until the crop in this region fully breaks dormancy. The EU, meanwhile, has had a very wet winter season, alleviating lingering concerns about last year's dry conditions.

The last political situation that could impact wheat

prices is the chatter from Russia about the possibility of a wheat export tax. Russia is experiencing food price inflation and views a variable export tax as a method to hold domestic wheat prices down. The specifics of this export tax were still in flux as this was written, but it will be triggered whenever Russia's wheat export prices exceed \$200/mt (\$5.44/bushel). Prices have been far above that level for the past six months. Export taxes will make Russian wheat less competitive in world markets and could help U.S. wheat exports. Of course, the size of Russia's 2021 wheat crop will be the biggest factor in whether or not export taxes are actually imposed. Export taxes based on Russia's wheat prices also mean the country will have to develop a much more reliable price reporting system.

So where does that leave markets? March is a big month for USDA reports. They start with the normal monthly WASDE the second week of the month and conclude with the quarterly stocks estimate and planting intentions on the last day of the month. The quarterly stocks numbers will be the most important numbers. They will verify (or not) the looming tightness in soybeans and maybe corn and wheat.

Weather in Brazil and Argentina the balance of February and March will also be important. Brazil has been wet, and their soybean harvest has been delayed. This will also delay the planting of their second crop corn (Safrinha). Argentina has had a dryer growing season than normal because of La Niña.

There is a lot left to unravel in these markets. It seems unlikely highs have been placed considering the steep decline in soybean, canola, corn and wheat ending supplies coupled with China's appetite. The initial and minimum new crop price discovery periods for all spring-planted crops are being calculated during the month of February. They will be much higher than the past several years. ■

Mike Krueger is president and founder of The Money Farm, a grain advisory service located in Fargo, N.D. A licensed commodity broker, Krueger is a past director of the Minneapolis Grain Exchange and a senior analyst for World Perspectives, a Washington, D.C., agricultural consulting group.



SCHOOL BELLS

Washington native recalls attending class in old Hatton schoolhouse

This was written sometime between 1985 and 2005 by Ruth Huse Wahl (nee Rickman). She was born in Missouri in 1913 and moved to the Hatton area when she was 2 years old. She graduated from Lind High School in 1930 and married Harold Huse in 1933. They farmed for many years in the Lind area. Eventually, Ruth became a schoolteacher in Washtucna and Connell, retiring in 1975. After Harold's death in 1981, she married Albert Wahl in 1985. Ruth died in 2005. This recollection was published with the permission of the Adams County Historical Society and is part of the Washington Rural Heritage database (washingtonruralheritage.org, adamschs0083).

By Ruth Huse Wahl

I was asked to write some of my memories of going to school in Hatton. I suppose that our schooling was very similar to that of hundreds of other children who went to small town or country schools in those days. It seemed very large to me when I started to school. There were three classrooms, and several small rooms that served as libraries and storerooms. The front hallway had a sink and cold water piped in, which we knew was more than some of the country schools had. There was a dipper hanging by the sink that we all drank from, and a roller towel, which I suspect that the teacher had to wash.

Sometimes, there were enough children for three teachers. Each teacher cleaned the room he or she used and kept the fire going when it was needed. Our big old stoves had jackets around them and sat in one corner of the room, so the tempera-



The students and teacher gathered for a group portrait in front of the Hatton School some time between 1915-1929. Photographer unknown. Photo courtesy of the Adams County Historical Society and the Ritzville Public Library. (adamschs0080, washingtonruralheritage.org)

ture was never very even in the room. At one time, before I started to school, there had been a home economics department in the high school. All that was left of it when we were little were some big boxes of dishes and pots and pans that were stored in the bell-tower room. Those boxes intrigued us, but we were never allowed to get into them. I have often wondered what became of those things. They would probably be valuable as antiques now.

I started to school when I was 5 years old, in the fall of 1918. I was all alone in the first grade. I had the same teacher, Mrs. Mina Crossland, for the first three years of school. Her desk sat on a raised platform at the front of the room, and she would have me come and stand beside her there to read to her. I can remember some of the older girls helping me with the big phonics charts, which we did over and over again. I can remember her telling me toward the end of the year that she didn't know what she was going to do with me—I had read every reading book and story book that was in the building that first graders were supposed to read. I was worried that she was going to make me quit coming to school. The books were fascinating to me, even though they were all in black and white and were filled with fables and stories from Greek and Roman mythology.

When I started school, World War I was still going on, and all the older children were busy in their spare time knitting socks for the men in the armed services. Even my older brother, who was in the fourth grade, learned to knit. I was insulted because no one thought I was old enough to learn how. ►

RELIABLE, DURABLE

BOURGAULT

AND BUILT TO LAST

3320



The 3320 Paralink Hoe Drill comes in 3 configurations. One just right for your farm.

3720



The 3720 Disk Drill has 7.5", 10" or 12" spacings available with 30 ft. to 70 ft. widths.

5810



The 5810 Air Hoe Drill-A Floating Hitch Drill with a range of packer options.

Bourgault Drills have many options, including automatic lift controls and packing pressure, precise seed depth adjustment and nutrient placement.

Match Bourgault Drills with a 6000 Series Air Seeder Cart for maximum efficiency various models available, with up to 4 product carry configurations.

www.odessatrading.com

Don Strebeck 509-988-0433

Jason Thomas 509-988-0342

Sam Whitman 509-660-3210

Odessa WA 509-982-2661

Coulee City WA 509-632-5413

Ritzville WA 509-659-0269

WEED-IT

THE NEW GENERATION WEED-IT QUADRO



Robb Soliday

(509) 988-7018 Ritzville

Jason Emerson

(509) 681-0466 Coulee City

info@agritechamerica.com

WEED-IT QUADRO FEATURES

SAVE UPTO
90%
CHEMICALS



40" Sensor Spacing

Improved detection on small plant increased power efficiency.



Blue Light

Improved detection on small plant increased power efficiency.



Full PWM Application Control

Controlled dosage per weed - speed and turn compensating.



50% Less Weight

1.5lbs per sensor places less stress on your sprayer.



In-Crop PWM

Control Rate & Droplet size for all applications.



**AGRITECH
AMERICA**

Students and teacher stand outside the Hatton School in Hatton, Wash., in 1921. The author of this article, Ruth Huse Wahl (nee Rickman), is shown at bottom right. Photographer unknown. Photo courtesy of the Adams County Historical Society and the Ritzville Public Library. (adamschs0081, washingtonruralheritage.org)



Late in the second grade, I was joined by another Ruth, and we were together through the ninth grade. Sometimes, someone would join us for a year or two, but most of the time, it was just the two of us until we started to school in Lind when we were sophomores.

In the very early days, there were quite a few children from farms who came to school on horseback or in buggies. I can remember thinking that it was a really great way to get to school.

Our desks in those days were mounted on long boards, so that a whole row of them could be moved at once. I'm sure it made it much easier to sweep the old wooden floors. I can still remember the smell of the red oily shavings of some sort that they used to sprinkle on the floor to keep the dust down when they swept. The seats were also moved back against the walls to make space for the circle games that were played by children and adults at the community parties that were held in the school several times a year.

At Christmas time, the Methodist Church and the school worked together on a community Christmas program that we held at the church. Santa always came with an orange and a sack of hard candy and nuts for each child in town. By the time I started to school, I was beginning to have some serious doubts about Santa, even though the big kids tried to convince me that he was for real. We always had a big Christmas tree at school, which

we decorated with paper chains and ornaments that we labored over diligently. On the day we got out for Christmas vacation, we would have a party, and the teacher would light real candles all over the tree. It scares me now to think how dangerous that was, but we never did have one catch on fire.

One of the things that was a big event in our school year was the county school meet that was hosted each spring by a different school in the county. Each child had a chance to compete with children from other schools in whatever area they thought they could do well in. There were track and field events that the boys loved, and declamation, spelling, penmanship and arithmetic competitions. My brother and I were always in the spelling contests, and we spent hours in the evening drilling each other on spelling words. One year that stands out in my mind, I had practiced penmanship until I thought I could write as well as A.N. Palmer himself. The morning we were to go to Lind for the special day, I got up broken out with chicken pox and didn't get to go.

When I was in the seventh grade, a young man fresh out of college in Missouri named Carl Ferguson came to teach seventh and eighth grades and three years of high school. In those days, our small-town schools were not accredited to teach 12th grade and to graduate students from high school. Families had to make arrangements for their children to go somewhere else for that last year of school. ▶



Who Are Your Beneficiaries? Don't Leave It to Chance

If you want to make sure your assets are distributed according to your wishes when you pass away, it's important to review your beneficiary designations regularly.

Major changes to tax laws or major life events, such as marriage, divorce, birth or adoption of a child, or a death in the family, could mean a change is needed.

Why is it important to designate beneficiaries?

Designating beneficiaries is one of the easiest and most direct ways to get your assets to the people and/or organizations you desire. Beneficiary designations may also help avoid probating your assets upon your death.

Please call or stop by today to schedule an appointment.

Edward Jones, its employees and financial advisors are not estate planners and cannot provide tax or legal advice. You should consult your estate-planning attorney or qualified tax advisor regarding your situation.



Terry A. Sliger
Financial Advisor
1329 Aaron Drive
Richland, WA 99352
509-943-2920
888-943-2920



Ryan Brault CFP®
Financial Advisor
3616 W. Court St. Ste. I
Pasco, WA 99301
509-545-8121
888-545-8126



Brian E. Bailey AAMS®
Financial Advisor
303 Bridge Street Ste. 3
Clarkston, WA 99403
509-758-8731
866-758-9595



Chris Grover AAMS®
Financial Advisor
1835 First Street
Cheney, WA 99004
509-235-4920
866-235-4920



Hank Worden
Financial Advisor
109 S. Second Ave
Walla Walla, WA 99362
509-529-9900
800-964-3558



Greg Bloom
Financial Advisor
Professional Mall I I
1260 SE Bishop Blvd. Ste C
Pullman, WA 99163
509-332-1564



Jay Miazgar AAMS®
Financial Advisor
609 S. Washington
Ste. 203
Moscow, ID 83843
208-882-1234



Joy Behen
Financial Advisor
6115 Burden Blvd. Ste A
Pasco, WA 99301
509-542-1626
877-542-1626

www.edwardjones.com
Member SIPC

Edward Jones®
MAKING SENSE OF INVESTING

FARM & HOME SUPPLY

888-643-3395 • 509-843-3395

www.fhsupply.com Pomeroy, WA

2012 CASE IH Patriot 4430 sprayer, 100' booms w/20" spacing, Aim Command \$149,999
2001 CASE IH 2388 Combine Hilco Leveler, 3,382 Sep. Hrs/CASE IH 1010 Header 30 ft/Cart. \$78,500
2000 CASE IH 2388, Hilco Leveler, 4,492 sep. hrs/Case IH 1010 30' header/cart..... \$74,750
2016 CASE IH 580 QUADTRAC 36" tracks, PTO, Guidance \$295,750
1998 CASE IH 9370 Quadtrac, 2 NEW 30" tracks..... \$49,500
1989 John Deere 8760 wheel tractor, 6 newer tires..... \$25,500
New Great Plains 3000 Turbo Max/Harrow..... CALL
20 Great Plains FLEX HARROW 51-inch, 16-bar HD CALL
NEW Schulte FX-530 30' Rotary Cutter CALL
NEW Kioti PX1153 Tractor, Power Shuttle, cab & self-leveling loader, 115-hp CALL



Iron Star Truck Beds & Trailers

Truckbeds
Aluminum
and Steel



Flatbeds, Dump, Skirted, and
Tradesman



Trailers

Livestock, Cargo, Dump, Skid Steer,
Gooseneck Flatbed, Utility

IRON STAR

Building Truckbeds to Make Your Life Easier

**Diamond
Distributing**

Jim Larsen • 509-595-1572

23731 Endicott Rd • Colfax WA
diamondequipmentdistributing.com

Many could not afford that, so they quit after 11 years. Some didn't make it that far.

Mr. Ferguson had learned something about sanitation along the way, and it wasn't long before he had turned the faucet upside down over the sink and made us a drinking fountain of sorts. The dipper disappeared. That worked well until the water pipes froze in the wintertime, and we had to go back to the bucket and dipper for awhile.

At that time, we had to take state exams to be promoted from the seventh and eighth grades. We thought we were pretty smart when the teacher let us take the eighth-grade exams at the end of the seventh grade. We got excellent grades on them, so we didn't have to take them at the end of the eighth grade.

In the fall of 1927, the enrollment had fallen so low in Hatton that the school board decided to send

the seventh and eighth grade and high school students to Lind to school. They bought their own bus and hired a driver. The bus had long seats along the side and was inadequately heated in winter by exhaust pipes that ran under the seats. We traveled over rough, graveled roads in every kind of weather. I remember when it snowed six inches one night and seven inches the next night, and both mornings, we broke a trail with the bus all the way to Lind. No one ever thought about the possibility of staying home for a day or two. In the spring flooding time, we sometimes had to go out to what was old Highway 395 to get to school. They kept the first six grades in Hatton for several years and then finally consolidated with Lind.

When we drive by it now, that "big" schoolhouse looks very small and forlorn sitting up there on the hill, surrounded by tall weeds. The old yellow rose bushes, which have been blooming every spring for so many years, are still there. I don't know what year it was built or how many children attended there, but I do know that it was a very important part of many lives. ■

**Stay informed on the
Washington wheat industry
and WAWG's advocacy efforts
at wawg.org**



**Marketing And
Manufacturing Inc.**

**AGPRO
CONSERVATION
DRILLS**



Independent Opener Suspension
With In-Cab Control

Rental Units Are Now
Available - Buy Or Lease

AgDirect Financing With Low
Rates & Flexible Terms OAC



agproinc.com

Proudly Serving Our Customers Since 1987
1112 Airway Avenue Lewiston ID 83501
208-746-2212
Fax: 208-746-9913



800-492-2212

Est. 1991

JESS AUTO

Family



SAY YES TO JESS!

WHERE A HANDSHAKE

Still

MEANS SOMETHING



509.334.6000

JessAuto.com

WASHINGTON WHEAT FOUNDATION ANNEX (IN RITZVILLE, WASH.)



Rental Includes:

Under COVID-19 restrictions, can seat 30
Full service kitchen • Wi-Fi
Free coffee and tea • Pull out wall divider
2 large screens • Free parking
18 x 22 lobby to gather or serve buffet

\$50 (0-4 HOURS) OR \$100 (4+ HOURS)

Contact Chauna Carlson
at the Washington Wheat Foundation rental line
(509) 659-1987

J&M FABRICATION MOBILE WELDING & SERVICES



Dogbones for CaseIH Combines

1470 and 1670 Models
Built to last - Better than OEM quality

Clean Grain & Return Elevators

12 Gauge Construction 2.5 X Stronger than OEM
For newer model CaseIH Combines

Custom Welding • Industrial Machinery Guards
• Custom Truck Bodies and Flatbeds •
• All Types of Custom Design Work •

CALL JUSTIN MILLER TODAY!

509-235-5711 OR 509-993-2890 (cel)

16716 W. SR 904 Cheney, Wa

www.jandmfabrication.com

Miller
Since 1899

Nitro 7000 Series

- Spray later into the growing season
- Adjustable Chassis With Up to 76" Clearance
- Quick, Easy On-The-Go Adjustments
- Cover More Acres In Less Time
- FPT® Cursor 9 – 8.7L Tier 4B – 382 hp
- Spacious Ultra-Quiet Cab
- Chemical Injection Option Allows use of up to 3 injection pumps and 4 separate mid-mount tanks. When used with the main water tank, you can easily vary applications.
- Optional Auto Rinse allows you to clean out the tank and boom with the press of a button.

It climbs hills!
One in stock
w/1600 gal. tank
and 132' boom!



Miller

NITRO 7410

Your Miller NITRO Dealer in the West

Please call 877-253-WEST (9378) or Greg at 541-786-1000

10200 Wallowa Lake Highway
La Grande, OR 97850
541-963-9378

206 W Main St
Dayton, WA 99328
509-382-3022

PIONEER
West
AGRICULTURAL SOLUTIONS

Ties binding family to farm are growing stronger

By Trista Crossley

It's a question faced by most nonfarming landowners at some point—who's going to take over the farm when I'm gone? Sherman Snow thinks he knows his answer to that question.

Snow's family farm, located in Whitman County near LaCrosse, Wash., was purchased by his father, Harold, in 1934. Snow grew up on the farm, helping his father from a young age. After college, Snow and his wife, Barbara, briefly returned to the farm for a few years, but then left when he became a minister. After that, the farm went through several changes in management. For a time, Snow's parents farmed it, then leased it out, then took over farming it again. In the mid-1980s, the parents sold the farm to Snow and his sister who then leased the land back to their father. Eventually, the land was enrolled in the Conservation Reserve Program (CRP). In the early 2000s, Snow retired, settling on the west side of the state. He and his three sons bought out his sister's share of the farm, transitioned most of the land out of CRP and leased it out. The farm has about 1,600 acres of dryland wheat and 800 acres of pasture and is operated under a crop share agreement with their tenant.

"He has been one of the finest tenants that I've ever known. He communicates very, very well, and he's also an excellent farmer. It's just worked out really well for the past six or seven years. We hope to continue that," Snow said. "Fortunately for me, two of our three sons are very interested in the place. Our grandson, who is graduating from high school, is taking a real inter-



When he's not on his family's farm in LaCrosse, Wash., Sherman Snow can remind himself of its beauty from this photograph that sits in his Puyallup home. Photo courtesy of Sherman Snow.

est in it. He worked an extended summer down there last year. Our intent is to keep the farm in the family. I think it will go on to the next generation."

While Snow may live in Puyallup, he and his wife make several trips a year to LaCrosse and stay on the property.

"I don't get up those steep side hills and dig out scotch thistle anymore," he said, laughing. "But while I am there, I participate in whatever level is appropriate. The tenant is very kind to always talk to us and always asks our opinion, which he doesn't need to do."

When Snow isn't in residence, his tenant calls several times a month. He said the tenant takes care to let him know how the crop is growing, what varieties he's planting and what activities he's doing. The tenant also provides detailed written reports several times a year for the family.

"I wish we could be there more often. The day is coming when we won't feel comfortable driving over there. Then we will have to turn it over to the boys," Snow said.

Under the family's current agreement, Snow and his wife own 75 percent of the farm while the three boys split the other 25 percent. The family doesn't have a written agreement or operate under a legal structure, such as an LLC or a partnership, but they take care to discuss the management of the farm and make sure everybody is in agreement before any big actions are taken.

"If we can't agree on something, we usually don't do it," Snow explained.

While the family, so far, has been working together successfully under this arrangement, he doesn't recommend it for everyone.

"If you can't work together loosely like we do, it's better to have a structure of some kind in place. They should definitely have things in writing," he said, adding that leases should always be in writing. "Find people that are cooperative that you can work with, particularly the tenant. I would certainly advise them (landlords) to carry liability insurance."

Snow and his wife currently live in a retirement home, and he said it's been a blessing to be involved in the farm as a landlord and to be able to spend time on the land.

"To have that release is really important in my life," he said. ■

THE EXPERTS ON RADIATORS IN SPOKANE



Call us today!
509-533-9442
 ...
 4715 E. Trent Ave.
 Spokane, WA 99212
 ...
wayne@nwradiator.com

"Your Complete Manufacture & Repair Specialist"
 Auto, Truck & Industrial



Bank of Eastern Washington

Growing Generations Together

**OUR BANK WAS FOUNDED
 BY FARMERS & RANCHERS IN 1945**

who saw a need for banking services in Rural areas. We remain Independent and are Committed to the success of Our Rural communities. We are deeply rooted in Agriculture and *we love being a part of Growing Your Generations Together.*

**YOUR WASHINGTON LENDERS
 are just down the road.**

Todd Wood
 DAYTON, WA
 509-382-2557

Russell Seewald
 PASCO, WA
 509-545-6360

Fred Zack
 POMEROY, WA
 509-566-4057

Daniel Rehm
 PASCO, WA
 509-545-6360

MEMBER FDIC EQUAL HOUSING LENDER



Give us a call today!

800.828.8873

www.rainierseeds.com

YOUR CRP HEADQUARTERS

**General CRP Enrollment signup ends soon.
 Secure your seed and lock in pricing today.**

Questions about CRP? Give us a call!

THE BOTTOM LINE

Decisions, decisions, decisions

By Dr. David M. Kohl

The decade of the 2020s will be one of accelerated change for owners and managers of farm and ranch businesses. The COVID-19 pandemic has resulted in market changes that have produced extreme volatility in commodity prices, costs and bottom-line outcomes. These changes and volatility require producers to manage controllable variables with additional focus on the business. At the other end of the spectrum, a strategy to manage around the uncontrollable variables such as weather, geopolitics and the political landscape, will often call for adaptive and innovative management strategies. This being said, both small and large capital investments must still be made for the business regardless of the economic environment.

Whether it is the purchase of machinery, equipment, a storage facility or farm real estate, an objective decision-making process can be effective. Years of teaching farm business management courses at both

Virginia Tech and Cornell University allowed me to dust off the old decision-making process that requires questions for crucial conversation and assessment. What are some of the variables that go into the decision-making process during a period of accelerated change?

The first step is to define or revisit one's vision for the business. What are the specific goals for the business, family and personal life, and will the purchase align with these goals? To ensure that everyone is on the same page, this often requires the goals of spouses and business partners to mesh. How will the acquisition fit the short-term and long-term needs of the business?

Next, determine if the purchase is a want or need. Interestingly enough, my associate's daughter learned about this from her kindergarten teacher prior to the holidays. If this analysis can be conducted at the beginning of education, the wants and needs can also be identified in a business setting.

A good method to prioritize capital expenditures is to complete the stoplight exercise. Green-light purchases would be major expenditures that are a high priority need. Next, both needs and wants would fall into the yellow-light range. A red-light purchase would be a lower priority and classified as a want. When planning capital purchases, remember to be proactive by building in 10 to 20 percent additional capital for those large, emergency expenditures such as a motor going out on the grain truck or a large repair bill on the combine.

Next, gather the information necessary to determine the acquisition's impact on the balance sheet, income statement and cash flow. Using a spreadsheet, conduct a "what if" analysis to see whether the purchase results in a positive final outcome. A partial budget that analyzes changes in costs and revenue can be a quick and dirty tool for the analysis. Stress test potential effects on the financials. For example, what happens if the capital acquisition is 25 percent over budget, or it takes 25 percent more time for the acquisition to break even? Do not forget the nonfinancial factors such as management capacity for expanded operations or companion equipment or facilities if upgrades are being considered.

Capital purchases usually require the use of term debt with loan amortizations of three to five years for equipment and 10 to 20 years for real estate. Next, take your total term debt, including any additional debt incurred for the new purchase, and divide it by EBITDA (an acronym for earnings before interest, taxes, depreciation and amortization). After the purchase, is this ratio under five to one using a three-year historical trend or your financial projections? Working capital and cash are often used for down payments on capital purchases. If this is the case, after the draws on working capital for the capital purchase, can the business maintain five dollars of working capital for every one dollar of total principal and interest payments? This quick analysis can establish the financial boundaries that can keep you out of the capital expenditure ditch.

Financing the acquisition of capital assets is often a balance of paying cash, term loan financing and leases. Cash is imperative to manage volatility. Credit terms should also match the life of the asset. Leases can provide flexibility, particularly in a rapidly changing high technology world, as well as tax and

**Sponsored by the
Agricultural Marketing
& Management
Organization.**

For more information and
a schedule of classes visit
wawg.org/ammo-workshops/



cash flow advantages. The bottom line is the situation is different for every operation, regardless of business size or maturity.

The key in the decision-making process is to put your vision and goals down on paper. Utilize a business record-keeping system that provides the data for objective decision-making. Use spreadsheets and budgets with "what if" analysis and input from your team of advisors to assist in weighing the variables in the decision-making process. ■

Insurance for Whatever You Grow

Whether you raise cattle or grow nursery stock, row crops, grain, hay or fruit, COUNTRY Financial® has got you covered. Your local financial representative can help balance your need to protect what you have with your desire to build for the future. We offer great coverage for farm vehicles, too. Grow your own way with COUNTRY Financial.

James Penning LUTCF

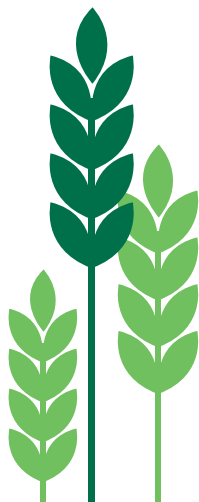
Yakima

(800) 741.6135

Paul Koethke LUTCF

Moses Lake

(800) 689.9259



AUTO | HOME | LIFE | BUSINESS | RETIREMENT

Policies issued by COUNTRY Mutual Insurance Company®, Bloomington, IL.

1114-511HO

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. He has traveled nearly 10 million miles; conducted more than 6,500 workshops, speeches and seminars; and published more than 2,250 articles for leading publications. Dr. Kohl's involvement with ag businesses and interaction with key thought leaders provide a unique perspective into future trends of the ag industry and economy. This content was provided by



509-534-9088 class8trucks@aol.com

CLASS 8 TRUCKS

NOT JUST TRUCKS, TRAILERS TOO!

New & used DEMCO grain trailers in stock. Available for purchase or rental.



PLEASE CALL for additional details on pricing.

521 N. Eastern Spokane WA www.class8trucksales.com

BATTERY SYSTEMS

The Single Source Solution!

Thank you to all the farmers, big and small, that produce our food and provide thousands of jobs in our region.








Batteries - Alternators - Starters - Accessories

Can't visit our booth this year but you're welcome to visit us at any of our branch locations.

SPOKANE - 601 N NAPA - (509) 534-7879

MOSES LAKE - 400 E BROADWAY - (509) 765-8246

WENATCHEE - 921 N MILLER ST - (509) 886-9033

KENNEWICK - 1922 N COLUMBIA CTR BLVD - (509) 248-4874

Visit us and get 10% OFF. Mention discount code: ***wheat2021**

www.batterysystems.net

Your wheat life...



Near the McKay Elevator in Waitsburg. Photo by John McCaw.



The old Sherman Church northeast of Wilbur. Photo by William Bell.



Unloading near the Ruark century farm in Garfield County. Photo by Savannah Ruark.



Merritt Heitstuman (2) watching his dad take off the header in Pomeroy. Photo by Hannah Heitstuman.



An early morning service call in Eureka. Photo by Kevin Chabre.

Please email pictures to editor@wawg.org. Please include location of picture, names of all people appearing in the picture and ages of all children.

Advertiser Index

AGPRO	62	Edward Jones	61	Perkins & Zlatich PS	13
AgraSyst	31, 71	Eljay Oil	21	Pioneer West	63
AgriPro	19	Farm & Home Supply	61	PNW Farmers Cooperative	37
Albaugh Inc.	72	Great Plains Equipment	11	Pomeroy Grain Growers	46
Bank of Eastern Washington	65	Helena Agri-Enterprises	17	Rainier Seeds	65
Barber Engineering	45	HighLine Grain Growers	41	Rock Steel Structures	25
BASF	9	J & M Fabrication	63	Rubisco Seeds	15
Battery Systems	67	Jess Auto	62	Spectrum Crop Development ...	29
Big Iron Repair	39	Jones Truck & Implement	43	Spray Center Electronics	37
Blue Mountain Realtors	43	Kincaid Real Estate	41	State Bank NW	41
Butch Booker	41	Landmark Native Seed	45	T & S Sales	43
Byrnes Oil Co	45	McKay Seed Co	25	Tankmax Inc	19
Central Machinery Sales	21	North 40 Outfitters	29	Tessengerlo Kerley	5
Class 8 Trucks	45, 67	Northwest		The McGregor Company	7, 27
CO Energy	46	Farm Credit Services	23	Vantage-PNW	59
Coldwell Banker Tomlinson	21	Northwest First Realtors	46	Wagner Seed	39
Correll's Scale Service	41	Northwest Radiator	65	Wheatland Bank	13
Country Financial	67	Odessa Trading	59	Wilbur-Ellis	34
Custom Seed Conditioning	43	Oro Agri	33	Yunker Brothers	29
Diamond Distributing	61	Palouse Grain Growers	13		

Barges being loaded in Lewiston, Idaho, just above the confluence of the Clearwater and Snake rivers. Photo by Michelle Hennings.

Start your Field off Right with—



Full Load Complete™—CONFIDENCE in a jug.

Full Load Complete™—the hardest working, all in one adjuvant.

- Replaces AMS
- Hard Water Conditioner
- Glyphosate's favorite surfactant
- Fully loaded NIS surfactant blend--"Works well with almost everything."
- Built in Drift Reduction
- Built in Volatility Reduction
- Great for Fungicide applications

Add confidence to your tank mix. Add Full Load Complete™

Full Load Complete is patented technology you can't get anywhere else.

Full Load Complete™ contains everything you need to make your herbicide application work its best.

- All in one jug!

Questions? Contact Chase Boman--801.791.7186



For more information about Full Load Complete™ or other great AgraSyst products, visit our website: www.agrasyst.com

DO YOU KNOW WHAT YOUR FIELD WIREWORM PRESSURE IS?



Regardless of your wireworm pressure Albaugh has your seed treatment needs covered with a brand new and novel 2-way combination of:

- Lumivia® CPL (New Mode of Action)
- Resonate® 600 ST



Albaugh is committed to delivering a complete seed treatment solution for insects and disease control based on performance targeting wireworms, aphids and suppression of Hessian Fly.

Lumivia® CPL

INSECTICIDE SEED TREATMENT

Resonate®
600 ST

Contact your local seed retailer for more information on using Albaugh's complete pest management seed treatment offer.

Refer to each product label for complete use directions and restrictions. Resonate® is a trademark of Albaugh, LLC. Lumivia® CPL is a trademark of Corteva Agriscience. Always read and follow label directions. EPA Reg. No. 42750-133 AD No. 110316. EPA Reg. No. 352-841.