

AUGUST 2018

OREGON WHEAT

An Official Publication of the Oregon Wheat Industry

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Keeping Employees Safe During Oregon's Summer Heat

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A Different Perspective on Russia's Wheat Trade

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**Cover: Wheat is ripening early in Morrow County.
By Clint Carlson, Ione**



Brent Cheyne
President

Here in Oregon, as well as other areas, the 2018 wheat harvest is rapidly approaching. Growers are getting combines ready to roll, cleaning bins, monitoring their fields and watching the weather. A few have already had to fight some rangeland fires, so far with little damage to their fields.

It is interesting how different things are in dry land versus irrigated areas. In my operation my son and I {mainly my son} have readied our swather. The rakes, balers, stacker and hay squeeze have been serviced and the first cutting of alfalfa is harvested and is being shipped. The combines, at this point in time, are a forgotten item in my life. That will change suddenly in about 50 days.

Scouting my crops is not only important for me to do, but it also allows me to feel like the Caesar of my own little empire. As I have grown older it has become easier to be content with what I have. While growing up I often heard the saying "learn to know when you are well off". Maybe, just maybe I am getting there. I now have the luxury of having my grandchildren accompany me on these scouting trips, giving it the flavor of a small-scale safari. Having



Club wheat harvest, Umatilla County.
Photo by Jim Williams.

Harvest on the Horizon

them with me reminds me, without a doubt, that I am truly well off and life is good and getting better. My family's business looks like it has a very bright future. Agriculture in general is a great way to make a living.

The water issues here in the Klamath Project continue to keep all hands busy worrying about our fate. The Endangered Species Act and Tribal Trust are

"It is hard to get ahead when you spend all your time getting even."

just two of the things that I feel growers in other areas of the state need to be better informed about. I know it takes some time away from the other numerous problems we are already fighting but being better educated will pay dividends down the road.

Whether farmers are faced with a good or poor crop this year, around the nation growers of all kinds continue to monitor the progress of the 2018 Farm Bill. While this bill will not create ten-dollar wheat, we are hopeful that it will maintain the crop insurance and conservation programs that have become so important to our operations.

Oregon Wheat Growers League officers and staff have been very involved in helping the wheat industry's voice be heard on Capitol Hill. As I write this column things are happening at a rapid fire pace in Washington DC. The National Association of Wheat Growers staff is very capable and competent, and they are doing an awesome job of keeping us up to speed. As of this writing I am reasonably confident we will have a farm bill that will work well for our growers and the wheat industry as a whole.

I hope that everyone has a very safe and prosperous harvest... Remember to be safe out there and enjoy life.



The A-B-C's of Trade Teams for Oregon Wheat

Blake Rowe, CEO, Oregon Wheat



Connecting with international trade teams is a key part of our efforts on behalf of Oregon's wheat growers. Many growers might wonder why we put so much effort into trade teams every year. Part of the answer is that it is important for our international customers,

government, and trade association representatives to have and trust the information that we can provide. They need to know what kind of information we can supply and that they can contact us with questions. Probably more important than the information, is that we are building relationships and leaving them with visual images they will always remember. Long after they forget how many bushels per acre we grow, they will remember what a wheat farm looks like, the technology used in precision agriculture, the care we give to both our crop and the environment, and the quality and safety of our wheat. These are the things that translate into expanded sales.



USW/Korean Baking Team evaluates bagels made with different blends of U.S. wheat in the lab at Wheat Marketing Center.

Starting in about April and running through September we typically interact with a dozen or more teams at some level. Our involvement can range from

a short presentation to a dinner to an afternoon tour to a multi-day trip to look at wheat farms and the supply chain to a trip to DC to help customers work on a trade issue. However, there are common threads like providing accurate information on our wheat crop, customer service, education, and relationship building, but beyond those generalities, every team is different. Like many efforts (growing and harvesting wheat, planning a convention, or Thanksgiving dinner for the extended family), the closer you get to it, the more complicated it gets.



Members of the USW/Taiwanese Frozen Dough Technology Team demonstrating morning roll making for Director General Yao from the Taipei Economic and Cultural Office in Seattle.

We are fortunate in that we probably see more trade teams than many, if not all, wheat states. Bringing an international wheat team to Oregon, specifically to Portland, offers many advantages. To start with, while PDX may not be the biggest airport around, it is relatively easy to get here from anywhere on the Pacific Rim and to connect from here to anywhere in the US. A team can visit US Wheat Associates (USW) for the latest information on wheat supplies and international trade, Wheat Marketing Center (WMC) for hands-on technical help with all aspects of wheat quality and product formulation, Federal Grain Inspection Service to learn about our system of grading and inspecting wheat for export, and the Oregon Wheat Commission office for information on the wheat industry in Oregon and current crop conditions, all without leaving the Albers Mill Building.

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Korean Team visiting the Padgett Ranch in 2016. Logan Padgett, second from right, hosted the group.

it is easy to see wheat arriving by barge, train, and truck and going out on ocean-going bulk carriers. We can visit a westside wheat farm in under an hour and a dryland operation on the eastside in about two hours, as well as upcountry elevators, barge terminals, and parts of the Columbia-Snake River Navigation System. I'm not sure there is anyplace else where a visiting team can get more wheat "stuff" in a short time than right here.

Trade teams are rarely a solo effort; we work with great partners. The teams most focused on wheat, usually come to Oregon via USW or WMC, usually with a very specific agenda and schedule, although we typically can provide our input before plans are finalized. We also work with some general interest teams hosted by the Oregon Department of Agriculture or WorldOregon. We usually see several self-sponsored teams, from specific wheat customers, who want to tour the PNW producing areas to get their own take on the current crop conditions.

The program designed for each trade team is a function of a team's interests and expertise, whether they have been to the US before, the desires of the team's host/sponsor, and what is planned at other points in their trip. For example, a presentation for a team of first time visitors would probably include some history of wheat in Oregon, the attributes and uses of soft white wheat, how our Commission works, basic crop information, and our wheat quality program. In contrast, a team of customer executives that have visited us many times over the years might get a presentation more focused on current events, latest research, global wheat supply and demand, trade policy or other specific questions. There is also a big difference in what you can do if presentations will be translated. We work closely with team sponsors,

especially USW, on all these details to insure we are addressing the questions and concerns of each team.

Where we take a team is driven by how much time they have, what they want to see, and what other opportunities they will have at other stops in their trip. For example, we might focus our time on visiting a local export elevator if a team will be visiting another state that can do a farm tour but that doesn't have an export facility. Going to the eastside to visit a wheat farm and a barge loading terminal takes most of a full day.

Working with trade teams isn't rocket science, but it does require effort and diligence. It's more than just repeating the same stuff for every team. We couldn't do it effectively without cooperation and communication with our partners and great support from our growers, handlers, and exporters.



Sometimes there is time for a bit of sight-seeing. This Korean team visited Multnomah Falls on the way to the farm tour (with Blake Rowe, Oregon Wheat CEO, right).



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Industry Mourns the Passing of a Leader



Earl Pryor

farmers and ranchers nationally and internationally”.

Born and raised in Condon, Earl left after high school graduation to serve in the U.S. Navy and attend Oklahoma State University. He returned to the farm in 1947. He passed away on May 11, 2018.

Earl was a strong advocate for Oregon agriculture. He served with distinction at the local, state, and national levels on many public boards and committees, including his service as President of the Oregon Wheat Growers League in 1979, and many years on

A 1980's biography on Earl Pryor began with the following statement, “Earl Pryor is an Oregon wheat and cattle rancher, a hands-on producer who has used his faith in America's agricultural community to address the concerns of

the Oregon Wheat Commission, including two stints as Commission Chair. He also served on the National Association of Wheat Growers board, culminating as president of NAWG in 1984, helping the wheat industry weather some very tough economic and market conditions.

Following his tenure at the state and national levels of the wheat industry, Earl served on the Council for Economic Development in Oregon, the National Commission on Ag Trade and Export Policy, Agricultural Political Action League, and many other organizations and efforts. He used his knowledge and influence to impress the importance of agriculture on state legislators.

Longtime friend and neighbor, Wally Powell, remembers Earl fondly. “I have a tremendous amount of respect for Earl, and for his wife Laura. The dedication shown by Earl and Laura toward improving the lot of the wheat producer, and beyond this, the lot of rural Oregon, will likely not be soon duplicated”.

Earl's early commitment to public service set the tone of his career in the wheat industry in Oregon and the nation. He believed that anyone worth their salt should voluntarily contribute ten percent of their time in activities designed to benefit their industry.

We extend our deep appreciation for his service and our condolences to his family.



Photo credit: CHS Inc.

Safety Reminder: Keeping Employees Safe During Oregon's Summer Heat

Amanda Dalton, OWGL Lobbyist



The Oregon Occupational Safety and Health Administration (OR-OSHA), a division of the Department of Consumer and Business Services, has launched an important and timely reminder campaign about the challenges and risks of working outdoors

during Oregon summers. OR-OSHA's "Local Emphasis Program" is intended to raise awareness among all industries with workers exposed to heat-related illness. As part of this effort, OR-OSHA staff will be required to include an assessment of employers who have workers at risk for heat-related illnesses during farm visits.

The goal of the campaign is to prevent heat-related illnesses and deaths in Oregon by raising awareness among workers and employers about the health risks associated with working in hot environments. Part of the campaign includes compliance assistance and outreach to employers.

OR-OSHA defines heat-related illnesses to include:

Heat rash (sweat rash or prickly heat). Skin symptoms usually resolve by cooling the skin and avoiding exposure to the heat that caused it. However, symptoms that last longer than a few days, or a rash that gets worse may require medical treatment.

Heat exhaustion can be prevented by being aware of your physical limits related to a hazardous environment on hot, humid days. The most important factor is likely to be drinking enough clear fluids (no alcohol or caffeine) to replace those lost to perspiration. Signs and symptoms of heat exhaustion typically include:

- Profuse sweating
- Weakness, fatigue
- Nausea, vomiting

Why Does This Matter?

- ▶ Safety is always a priority
- ▶ Heat illness prevention plans are required
- ▶ OR-OSHA will review prevention plans during inspections

- Muscle cramps (associated with dehydration)
- Headache
- Light-headedness, fainting or "heat syncope" (Fainting or loss of consciousness is potentially serious and should be referred for medical advice. Any loss of consciousness must be recorded on the employer's 300 log).

Heat stroke. This is a life-threatening condition that requires an immediate emergency medical response. The person typically stops sweating, becomes confused or lethargic and may even have a seizure. The internal body temperature may exceed 106 F (41 C). Signs and symptoms of heat stroke typically include:

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Heat Index	Risk Level	Protective Measures
Less than 91° F	Lower (Caution)	Basic heat and safety planning
91° F to 103° F	Moderate	Implement precautions and heighten awareness
103° to 115°	High	Additional precautions to protect workers
Greater than 115°	Very High to Extreme	Triggers even more aggressive protective measures

Figure 1. US Dept. of Labor Occupational Safety and Health Administration “Heat Index”.

- Absence of sweating
- Dry skin
- Agitation/strange behavior
- Dizziness/disorientation/lethargy
- Seizures
- Signs and symptoms that can mimic those of a heart attack

Employers of crop-production agriculture with workers exposed to hot weather are required to have a heat illness prevention plan. OR-OSHA staff will review this plan during regular and/or complaint or incident-initiated inspection activities they conduct between June 15 and October 1. The plans are required to address heat exposure and prevent heat-related illnesses at outdoor worksites and at indoor facilities where potential heat-related hazards may exist.

According to OR-OSHA, elements of an effective heat illness prevention program should include:

- Employee training about the hazards of heat, steps to prevent heat-related illnesses, how to recognize the symptoms of dehydration, and how to respond to suspected heat-related illnesses in others.
- Providing adequate amounts of cool, potable water in work areas.
- Providing employees frequent opportunities and encouragement to stay hydrated by drinking water.
- Providing a cool, climate-controlled area where heat-affected employees may take their breaks and for recovery when signs and symptoms of heat-related illnesses are recognized.

- Providing adequate space in shaded areas for affected employees at hot worksites where they may take their breaks and cool off.
- Implementing a work/rest regimen if necessary to keep employees safe.
- Implementing a heat acclimatization program for new employees or employees returning to work from absences of three or more days.
- Acclimatization and training about health conditions aggravated by heat.
- Implementing specific procedures to be followed for heat-related emergency situations and training on the first aid to be administered immediately to employees who show symptoms of heat-exhaustion or heat stroke.

OR-OSHA relies on the “Heat Index” utilized by the US Dept. of Labor Occupational Safety and Health Administration (see Figure 1) to determine the risk to heat-related illness. In their reviews, employer’s response will be linked to the index. As temperatures increase, employer’s required response is also evaluated.

While OR-OSHA hopes to focus on prevention and education, and remains committed to working with employers towards compliance, citations can be part of this enforcement effort. No new authority or regulations have been adopted, OR-OSHA does have existing enforcement authority under the Worker Protection Standards (requiring awareness training about heat-related illnesses for pesticide handlers), Agricultural Field Sanitation rules (requiring employers to notify employees about the importance of drinking after and to allow the “reasonable use” of sanitary facilities), general rules about “extraordinary hazards” (requiring extra steps be taken to protect employees during situations that could affect the employees’ health or safety) and the general industry Environmental Control rules (that require “Temperature Provisions: Where processes create harmful or hazardous temperature and humidity conditions, measures shall be taken to control the conditions or to control the effect on the employee”).

Reasonable measures can be taken to ensure a safe summer on your farm, such as:

- Provide adequate amounts of and access to cool, potable water in work areas.
- Provide training and information to your employees about heat stress, including how to recognize the symptoms of dehydration, and how to effectively respond to suspected heat-related illnesses in others.
- Provide workers with water, rest and shade.
- Allow new or returning workers to gradually increase workloads and take more frequent breaks as they acclimate or build a tolerance for working in the heat.
- Plan for emergencies and train workers on prevention.

- Monitor workers for signs of illness and be diligent in monitoring your own physical condition and heat stress symptoms when working alone.
- Develop an illness prevention plan for outdoor work based on the heat index.

Following the above easy guidelines will help ensure you and your workers have a safe summer on the farm!



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Wally Powell, Chair, Oregon Wheat Commission



One of the challenges involved in writing these columns is that the material being discussed can become stale by the time the magazine is distributed. For instance, who will care by the end of July whether our team took third place

in the Morrow/Gilliam Golf Tournament. I mean, "Old News".

A discussion not likely to get stale in the next month is one on tariffs and trade; whether discussed in general, or specific to a particular industry. A person can take news in this arena in any of several ways. I guess part of my response has been to treat the subject as an opportunity to learn. As a topic is presented, I move to source additional material in order to gain a more informed opinion. Education is seldom a waste of time; and Commission members are certainly receiving a fair amount of tariff and trade education.

I will also add that I will be asking one of our more educated (in economics) members to prepare a column for the next magazine to go into greater depth on trade and the resulting impact on a nation's economy; should they care to take the resulting fire. Clinton and Tom, are you ready? (Editor's note... Say what!?!)

Odd Stuff-The Chicken War (1962-1964)

Cutting to the chase, in 1962 the six members of the European Common Market (a forerunner of the European Union) raised the tariff on poultry to 13.43 cents per pound from Germany's original tariff of 4.8 cents per pound. After discussions held under the General Agreement on Tariffs and Trade, the United States responded with a 25% tariff on brandy, light trucks, vans, and other items (article from Forbes link below). I touch on the "Chicken War" for a few reasons.

- The first is that the ramifications from both the Common Market decision and that of the U.S. were long lasting with impacts that went far beyond poultry. Volkswagen's pickup and van

exports to the US collapsed long ago. Toyota eventually shifted assembly and manufacturing of its trucks to America (including the Toyota Tundra and Tacoma, constructed in San Antonio, Texas). To remain competitive, GM and Chrysler shifted light truck production to Canada and Mexico to take advantage of NAFTA provisions (NAFTA excludes the 25% tariff from production based in Canada or Mexico, at least as long as NAFTA remains in force). At times, vans and pickups have been shipped by other manufacturers to the United States, taken apart, and reassembled in order to qualify as manufactured in the United States.

- The second reason I touch on this is that even after more than 50 years, I hear little today about the tariff on light trucks. I hear the European Union has a 9%, I think, tariff on automobiles and we have a 2% tariff on automobiles. I also don't hear about the chicken tariff even though it is still on the books.
- A third reason is an apparent quid pro quo. We will accept a tariff protecting your valued industry as long as you accept a tariff protecting our valued industry. At least until we don't accept a tariff on your valued industry, in which case, you will react against our favored industry.

End of the World, Part Whatever

We apparently are living in a world where context and depth are stripped from conversation and removed from reality. The risk of stripping context and depth is obvious. Without the Chicken Tax (outrageous by the way); the 25% tariff on light trucks appears to be outrageous. A consumer might view both as inflationary; and feel both are outrageous. Dairy industry protection in Canada appears to be outrageous. But perhaps not so much if compared to the protection of dairy industries in other countries.

I will end with a comment from Ray Dalio related to the opening tariff salvos between the United States and China. Mr. Dalio is a founder of Bridgewater and Associates, an investment management firm. "Right now, these numbers are very small in relation to the U.S.'s nearly \$20 trillion economy and China's economy, which is of comparable size in purchasing power terms, so that the shots that have been fired have been more of symbolic and political significance than of material economic significance."

If context and depth are not restored to conversations related to tariffs and trade, Mr. Dalio is going to be proven wrong, and all of us are going to pay the price. No one wins a war without significant pain being placed on unintended parties; and one of the unintended parties appears to be the wheat producer.

See you after harvest,
Wally

<https://www.forbes.com/sites/brycehoffman/2018/03/03/if-you-arent-worried-about-a-trade-war-you-dont-know-about-the-chicken-tax/2/#1b67860b7550>



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Breeding Wheat for a Fluctuating Climate

Bob Zemetra and Kali Brandt

One of the challenges of breeding wheat for producers in Oregon is the diversity of environments where wheat is grown. These environments vary in temperature during the winter, temperature during the growing season and amount and timing of rainfall. The variation in amount of moisture also leads to different needs in terms of disease resistance. While all new varieties from the OSU wheat breeding program are developed to have high yield potential, high level of stripe rust resistance, and superior end-use quality, additional traits are needed to match specific growing conditions. In the low rainfall regions, taller and earlier wheat varieties are desired, while shorter wheat varieties are needed for the high rainfall and irrigated regions to reduce the potential for lodging. Resistance to different diseases, such as soil-borne wheat mosaic virus and strawbreaker foot rot, may be needed in the higher moisture regions, while tolerance to diseases such as Cephalosporium stripe and Fusarium crown rot may be a priority in the low rainfall regions. In response to these

Why Does This Matter?

- ▶ **Good progress on taller and earlier varieties for drier areas**
- ▶ **Two gene Clearfield releases expected this year**
- ▶ **Developing varieties adapted to more variable climate**

concerns, the breeding program has created sub-projects to develop wheat cultivars that meet the specific needs of the various wheat producing areas of the state.

There is one environmental condition, however, that is difficult to breed resistance for or tolerance to, and that is a lack of rain during flowering or grain fill. Moisture stress in late May and June can greatly decrease yield in all areas, but especially in the low rainfall areas where available soil moisture may also be low by late spring. This has become more of an issue with the increase in climate fluctuation that is resulting in shorter winters and increased variation in the amount of rainfall in late spring and early summer. While it is not possible to breed for resistance to drought, it is possible to breed for avoidance of drought. This is done by breeding varieties that flower earlier in the season, so that flowering and grain fill occur prior to drought stress.

There are two primary ways to make wheat flower earlier: eliminate the requirement to undergo low winter temperatures (vernalization) prior to flowering or remove the necessity of reaching a specific number of hours of daylight (photoperiod sensitivity) prior to flowering. Eliminating the need for vernalization would cause it to flower earlier, but could lead to the wheat becoming sensitive to low temperature winter injury such as occurs in the variety Goetze. The other option would be to reduce a variety's photoperiod sensitivity, which would allow the wheat to flower early, while maintaining an average level of winter-hardiness. Due to the continued need for winter-hardiness, the breeding program is taking this second approach to develop earlier flowering wheat varieties, especially for the low rainfall regions of eastern Oregon.



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Figure 1. The variety Cara (left) next to the club wheat line OR518096 (right) showing difference in flowering at Corvallis, OR May 23, 2018

One example of such a variety is Norwest Tandem, a recently released variety from a collaboration between Oregon State University and Limagrain Cereal Seed. It is an earlier flowering variety that has a similar level of winter-hardiness to the variety Skiles, one of its parents. Norwest Tandem has performed well in western Oregon and is a potential replacement for Goetze because of its early maturity and superior resistance to stripe rust. Norwest Tandem has also performed well in eastern Oregon and eastern Washington.

Potentially of greater interest to wheat producers in eastern Oregon are the new, early, two-gene Clearfield lines targeted for release this year and next year. The first two lines, ORI2160244 and ORI2160250, flower three to seven days earlier (depending on location) than UI-Magic. These lines have ORCF-101 in their backgrounds and in addition to being earlier than UI-Magic have better stripe rust resistance and equal or

better yield potential than UI-Magic under lower rainfall conditions. Additionally, they are slightly taller and have better straw strength, making them well adapted to low to intermediate rainfall regions in the state. One of these two lines will be released this fall based on yield performance in the breeding and statewide extension nurseries.

Looking into the future, the move to earlier flowering types is occurring in all the market classes that are being developed by the OSU breeding program. Of particular interest is the progress being made in developing earlier club wheat cultivars for eastern Oregon. Started in 2016, the OSU club wheat project has targeted developing earlier heading club wheat varieties that would be more adapted to the low to intermediate rainfall regions of eastern Oregon. As can be seen in Figure 1, the club wheat project now has lines that head seven or more days earlier than Cara, a current club wheat variety from the USDA-ARS club breeding program in Pullman, Washington. Earlier heading club wheat varieties should allow club wheat to again be an option for eastern Oregon wheat producers.

While earlier flowering addresses one aspect of climate fluctuation, there are other concerns that will need to be addressed to maintain productivity of the wheat fields in Oregon. One aspect expected to be the most severe for the region's wheat crop, is unpredictable winter temperatures. Overall average winter temperatures will likely be warmer and the season shorter, but within

each winter period, the temperatures are predicted to fluctuate from extremely low to extremely high, with no way to know the direction or severity before planting. To address this issue, the OSU breeding program is conducting research led by Kali Brandt, a Ph.D. candidate in the breeding program (Figure 2), to identify genetic combinations that address these unpredictable future winter temperatures.

Wheat has been bred for centuries to be able to live through cold winters by delaying its reproductive growth and not heading until after the threat of frost has gone. The mechanism by which growth is delayed is called vernalization, in which the plants need six to eight weeks of cold temperature before the flowering/reproductive growth genes are activated. Attaining this full vernalization period is no longer guaranteed as winters become shorter and warmer on average. For

- continued on page 16

example, a mild reduction in the total number of cold days, may cause heading to be delayed, putting wheat at a higher risk of not completing seed fill before the rains stop and the heat sets in. This can lead to significantly lower yield and reduced end-use quality. If there is an extreme reduction in the number of cold days, the wheat may never head or flower at all. Both scenarios pose a major threat to winter wheat growers. While some work has already been put into avoiding this fate by breeding for early heading types, these varieties usually don't have the cold hardiness of true winter varieties, as mentioned previously, and can be a gamble to have in the field if the weather turns extremely cold during the winter. It is this problem that inspired the OSU wheat breeding project to find a truly facultative variety: one that has the winter-hardiness to survive a long, cold winter, but also has the ability to head without a major delay after a mild, warm winter that does not fully satisfy the vernalization requirement.

To find this facultative variety, a cross between the varieties Goetze and Skiles was made nine years ago. Goetze is a vernalization facultative, photoperiod sensitive line that does not have winter-hardiness, while Skiles is a line that requires vernalization with photoperiod insensitivity, that is winter-hardy. Two hundred progeny of that cross have been grown for the past two years in full-sized, replicated plots in Corvallis, Moro, and Pendleton, Oregon. They have been monitored for heading date, winter-hardiness, disease resistance, height, yield, and quality traits. They are also being grown as a spring trial in the greenhouse at Oregon State University, with a number of lines heading without any vernalization. These lines all survived the winters in the three planting locations and headed in a normal time frame in the field after a full vernalization period, indicating that there is a wide range of vernalization and photoperiod control within this population. All lines will also be subjected to further vernalization tests with cold treatments of two weeks, four weeks, six weeks, and eight weeks, followed by growth in the greenhouse, with days to heading being recorded. Genetic marker discovery will be implemented in order to link these facultative traits with DNA markers that can be used in the lab to assess young plants and speed up the breeding process



Figure 2. Kali Brandt, OSU Ph.D. candidate, discussing her research at the Moro Field Day at the Sherman County Research Station, June 13, 2018.

for facultative lines in the future. All of this work will lead to the release of a quality, locally-adapted variety that will be able to thrive in the winter, whether it is freezing or mild, and still yield as expected at harvest without any damaging delays, thus further shielding Oregon wheat production from damaging climate fluctuations.



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Keni Thomas, Keynote

As a member of Bravo Company of the 3rd Ranger Battalion, Keni was deployed to Mogadishu Somalia. The firefight that ensued would later be recounted in the book and movie *Blackhawk Down*.

Now a Nashville recording artist, Keni will share his story and redefine your understanding of what it means to lead the way.



Dr. Randy Fortenberry, Saturday Keynote

Dr. Fortenberry will provide a wheat market analysis and outlook during the Saturday breakfast.

Friday Breakfast Keynote Speaker—
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- 2018 Farm Bill
- Whole Farm Revenue Protection
- PNW Navigation Systems
- Leadership & Communications
- International Trade
- Conservation Programs
- And More!

Wheat Industry Tour (*optional*):

Wheat Marketing Center Tour – Friday, November 16,
8:00—9:30 am. *Maximum of 30—first come, first serve*

Things to do in Portland:

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visit www.wawg.org/convention or call 877-740-2666

A Different Perspective on Russia's Wheat Trade

Submitted by U.S. Wheat Associates

U.S. Wheat Associates (USW) President Vince Peterson traveled to Australia in March to speak to an Australian farmer organization about what the future might hold for wheat farmers around the world. His message was far more upbeat than might be expected at a time when U.S. wheat planted area is historically low and Russian wheat production and export demand is on the rise.

Before we review Peterson's analysis, some background on the remarkable increase in Russian wheat production and export sales provides important perspective.

Russia produces roughly the equivalent of U.S. hard red winter (HRW) wheat at 11 percent protein (on a 12 percent moisture basis) for the export markets. Though its quality has been improving with better seed and production practices, flour from Russian hard wheat does not perform as well as HRW flour in pan and artisan bread making. Russian wheat does perform well, however, in flat breads and other products that don't require the strong, stable gluten in HRW. That means nearby markets such as Egypt, other Middle Eastern and North African countries that are very price sensitive could reduce costs by importing Russian wheat at lower freight rates than from the United States to produce subsidized staple bread products for its citizens.

Russian wheat has also consistently been priced to export markets (FOB) at significantly less than comparable HRW and, in some years, compared even to U.S. soft red winter (SRW) and U.S. soft white (SW) wheat classes. Here are export price comparisons per metric ton (36.74 bushels) in late April from 2014 to 2018, from reports by the International Grains Council (see Figure 1).

Farming in Russia is mainly in private hands, but the government can be quite heavy-handed when it comes to supply management. The last four years, Russia's main wheat production regions have seen near perfect

Why Does This Matter?

- ▶ Russian wheat production has more than doubled and exports tripled since 2012/13
- ▶ Future growth in Russia shifting more to other crops
- ▶ US wheat still has a quality advantage

weather and yields have dramatically gone up. Production costs are significantly lower in Russia compared to the United States, so with several years of very good weather supporting yields and the government remaining on the sidelines with no fear of domestic shortages, the farms were seeding more wheat and building profit potential.

Russian wheat production has grown every year since a low of 37.7 million metric tons in marketing year 2012/13 (June to May) to an amazing 85 MMT in the current marketing year. These abundant supplies, relatively good functional quality and attractive prices also sparked a similar run-up in Russian wheat exports from 11.3 MMT in 2012/13 to USDA's current estimate of more than 38 MMT this marketing year. SovEcon, a leading consultancy in Russia, believes exports will be somewhat less at 32.4 MMT, which would still put Russia as the largest volume wheat exporting country in the world.

It is important to remember that selling at a lower price returns significantly less revenue. According to the website World's Top Exports, U.S. wheat exports in

2016 returned \$5.4 billion to farmers and the grain trade while Russian wheat exports returned \$4.2 billion (see Figure 2).

	U.S. Hard Red Winter (11% Pro) FOB	Russian Milling Wheat FOB	Difference per Metric Ton
2014	\$340/MT	\$291/MT	\$ 51/MT less
2015	\$234/MT	\$206/MT	\$ 28/MT less
2016	\$200/MT	\$191/MT	\$ 9/MT less
2017*	\$189/MT	\$187/MT	\$ 2/MT less
2018	\$245/MT	\$214/MT	\$ 31/MT less

Figure 1. *In marketing year 2016/17, U.S. HRW export sales doubled compared to 2015/16, primarily due to this price difference.

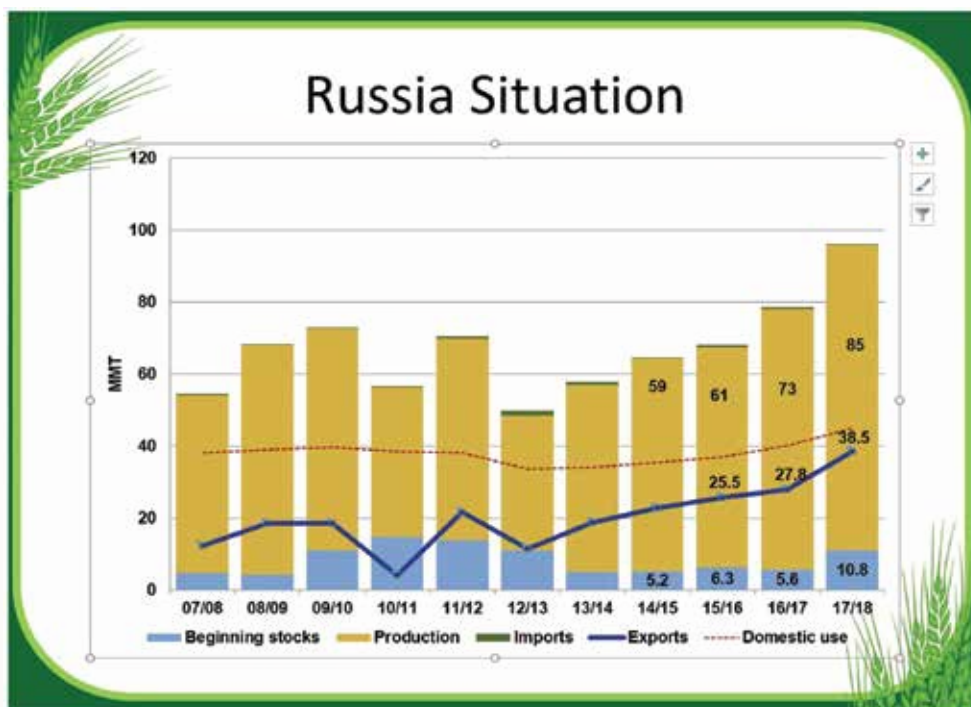


Figure 2. Source: USDA, U.S. Wheat Associates Global Wheat Supply and Demand Report, April 2018

We respect what Russia has accomplished, but are less concerned in the longer-term, ten to 20 years out.

Peterson told the Australian farmers that there is no doubt Russian wheat has benefited from record yield after record yield for the last five years leading to an 85 million metric ton (MMT) year in 2017. That yield was about two-thirds of a metric ton per hectare greater than its trend line projection. Digging deeper, though, it is interesting to note that Russia has not increased its wheat planted area all that much. It is about 3 million hectares on the trend line. Its farmers have increased land area planted to “other crops” at more than double the rate they increased wheat. Russian farmers and investors, like their counterparts around the world, will be looking for the best possible return on that land. As the cropping trend continues, it implies a shift in future growth away from a wheat concentration to broader diversification of crops.

Russia is producing for price buyers in the Middle East, North Africa and other neighborhood markets.

Buyers and other industry analysts also need to remember that Russia has, on average over the past five years, sold more than 80 percent of its wheat exports to buyers in Africa and the Middle East, Peterson said. Those regions are wheat production deficient — and per capita wheat consumption in many of those countries is very high. Population in those regions will grow by 1.3 billion people who will collectively eat at least another 60 MMT of wheat every year. About 50 MMT of that increased demand will likely need to be imported.

In addition, the final cost of imported wheat, rather than end-product quality, weighs most heavily in these same markets. The signals from these buyers back to Russian wheat farmers will continue to be: “we need your low to moderate protein wheat at very low, delivered prices.”

Rightly so, markets in Russia’s “backyard” will represent its most profitable export opportunity for Russian farmers. In turn, these market factors offer limited incentives for Russian farmers to produce high performing wheats for far off markets, such as in Asia and Latin America (see Figure 3).

Increasing freight costs matter, too.

Peterson showed that the cost of moving wheat has shifted

- continued on page 20

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wildly over the past 15 years. The commodity spikes in 2007 to 2012 in both prices and trade volume, fueled by the price of petroleum reaching \$140 per barrel, pushed ocean freight rates to outlandish numbers about 10 years ago. That provided an incentive for ship building and expansion that more than doubled the dry bulk carrier fleet.

The growing cargo fleet capacity peaked in 2015. In 2016, for the first time in a dozen years, the fleet capacity began to decline. Ocean freight rates quickly hit bottom so Russia could afford to move wheat almost



Figure 3. Inexpensive Russian wheat delivered on shorter freight routes will remain attractive to governments such as in Egypt (above) that subsidize food for its people.

everywhere. That pendulum is now starting to swing back. Oil prices have moved back up; the ship supply will continue to shrink with fewer new commissions and increased demolition/scraping. It is likely the next cycle will “normalize” with freight rates back at least at moderately higher levels that are profitable for ship owners.

The next cycle is going to make it far more expensive, and far less economical, for Russia (and any origin, for that matter) to be shipping their wheat half way around the globe into a competitor’s backyard. Particularly if those supplies provide only moderate to fair quality parameters (see Figure 4).

A Different Future

Peterson’s sees in his crystal ball the conclusion that Russia’s influence in the global wheat market is not done growing, but the long-term outlook for U.S. farmers and other global suppliers is much



Figure 4. Perdue Export Elevator, Norfolk, VA. Bulk freight rates are expected to “normalize” with freight rates back at least at moderately higher levels, which would make it far more expensive for Russia to ship wheat half way around the globe.

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more positive. Russia's wheat industry is here to stay as a main player in the world market, he believes, but it will behave more responsibly to these changing market signals in the next 20 years, making this next cycle far different for the United States, Canada, Australia and other suppliers than it has been in the past 20 years.

Oregon wheat farmers and farmers across the United States produce the highest quality and widest range of wheat classes in the world. They have earned a reputation for backing this wheat for every end-use need with unmatched service and value through their support of U.S. Wheat Associates. The Pacific Northwest's emphasis on soft white wheat, customers who place a premium on high and consistent quality, and on Pacific Rim markets where they will have a transportation advantage should continue to provide future rewards to the region's wheat producers.

June 2018. For additional information:

<http://www.uswheat.org/supplyDemand>

<http://www.blackseagrain.net/novosti/grain-by-grain-from-russian-ports>

https://www.usda.gov/oce/forum/past_speeches/2017/2017_Speeches/Swithun_Still.pdf



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Oregon Legislators Working for Wheat

Blake Rowe, CEO, Oregon Wheat

The Oregon Wheat Growers League works closely and continuously with our Congressional delegation on a variety of national issues important to our growers like the Farm Bill, trade policy, regulations, and funding for research and local programs. While we don't always agree, we are diligent about communicating with each office and making sure they know our priorities and perspectives. We are very appreciative of the all working relationships we have with our delegation, but we wanted to acknowledge a few particularly important recent events and efforts by Congressman Greg Walden and Senator Jeff Merkley.



Congressman Greg Walden

On April 20th, Congressman Walden visited the Sherman Station office in Moro and spent



Senator Jeff Merkley

almost two hours in a very focused conversation with a group of our wheat growers on the next farm bill, trade policy and a variety of regulatory issues. We were represented by OWGL officers, including Clint Carlson and Alan von Borstel, Board members, and local growers. It was a great

opportunity for a more personal discussion with the Congressman in a relaxed setting, to get into details of critical programs, without the time pressure and distractions of visits in Washington, DC.

During the week of May 20th, Senator Merkley was successful in including funding for the Resilient

Dryland Farming Initiative in the Senate's Finance Committee's 2019 Appropriations bill. This 5-year project could bring \$2 million in funding to the ARS program in Pendleton if the Senator can keep this funding in the bill as it moves forward through to passage. This research will be beneficial to growers across the Columbia Basin in Oregon, Washington, and parts of Idaho. Senator Merkley will be visiting the CBARC/ARS facility in July to learn more about this important wheat research work.

Senator Merkley also joined with 12 other Senators on June 25th to support increased funding in the Farm Bill for key export promotion and market development programs. This funding will be very important to our efforts to maintain markets and customer relationships during this time of increasing tension in the trade policy arena.



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What does the OWGL do for you?

- Serves as your voice at the State and National levels of government during the creation and implementation of new laws and regulations.
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- Represents Oregon's interests on the NAWG Board of Directors and NAWG committees. (www.wheatworld.org)
- Builds relationships with state and federal agencies to bring favorable changes to administrative rules and/or the creation of new programs.
- Partners with other organizations such as Oregonians for Food and Shelter, Associated Oregon Industries, PNW Waterways Association, and many others on agriculture and business policies.
- Member of the Wheat Foods Council, the national wheat education association, to promote the benefits of wheat based foods (www.wheatfoods.org).
- Publishes regular member communications: the bi-weekly newsletter, and the bi-monthly magazine (which is also mailed to all assessment-paying wheat growers, regardless of membership status).
- Identifies and trains future industry leaders.
- Organizes educational seminars and county grower meetings, and partners with Idaho and Washington for the Tri-State Grain Growers Association.
- Provides staff support for the Oregon Wheat Foundation and Oregon WheatPAC.
- Maintains the industry website and social media sites.



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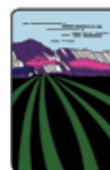
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We all know agriculture is vital to our lives, our economy, and our state. To share an insider perspective from a younger generation, we're asking for your help. Please consider making a short video to share a bit about who you are and what you do.

5 Easy Steps:

1. **Pick a location** on the farm, ranch, winery, fishing boat, or any place that is connected to the work that you do in agriculture.

2. **Take a video** of yourself using your phone or have someone else take the video for you. Shoot for 1 to 2 minutes in horizontal format.



3. **Introduce yourself**, your location, and a bit about what you do!
Face the camera and speak loud and clear.



4. **Answer at least two questions** (you choose):

- What motivates you to work in agriculture?
- What is one technology that you use, that was not available 20 years ago?
- What is one misconception people have about agriculture or your job in ag?
- Why is your job in agriculture important?
- Why is agriculture cool?

5. **Send your video to: ebееles@oda.state.or.us** – Include your name, title or position, and your location (e.g. Jane Doe, farmer at Smith Farms in Corvallis, Oregon) in the email. We'll post it on social media!

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Farm Bill Facts

1933 — First Farm Bill

17 Farm Bills passed since 1933

September 2018 — current Farm Bill expires

1/2 of all land in the U.S. is used for agriculture — crops, forest, pasture, and range.

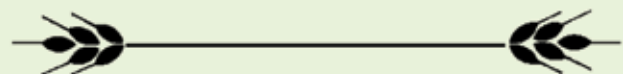
Farm income has been cut in half in the last **5 years**.

The farm bill is **ONE** of the most important pieces of legislation that Congress deals with.

80% of the Farm Bill supports the S.N.A.P. program (food assistance)

ALL of the rural population in America is affected by the Farm Bill.

Source: Stewart Truelson—Capital Press, July 6, 2018



Bacon Ranch Pasta Salad

RECIPE



Cool and creamy, this pasta salad is so versatile! Use chicken instead of (or along with!) the bacon, or change up the pasta, to add your own touch to this summer winner!

- Prep: 10 m
- Cook: 15 m
- Ready In: 1 h 25 m

Ingredients:

- 1 (12 ounce) package uncooked tri-color rotini pasta
- 10 slices bacon
- 1 cup mayonnaise
- 3 tablespoons dry ranch salad dressing mix
- 1/4 teaspoon garlic powder
- 1/2 teaspoon garlic pepper
- 1/2 cup milk, or as needed
- 1 large tomato, chopped
- 1 (4.25 ounce) can sliced black olives
- 1 cup shredded sharp Cheddar cheese

Directions:

1. Bring a large pot of lightly salted water to a boil; cook rotini at a boil until tender yet firm to the bite, about 8 minutes; drain.
2. Place bacon in a skillet over medium-high heat and cook until evenly brown. Drain and chop.
3. In a large bowl, mix mayonnaise, ranch dressing mix, garlic powder, and garlic pepper. Stir in milk until smooth. Place rotini, bacon, tomato, black olives and cheese in bowl and toss to coat with dressing. Cover and chill at least 1 hour in the refrigerator. Toss with additional milk if the salad seems a little dry.

Recipe By:
Wilemon, www.allrecipes.com

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