



IDAHO WHEAT
Report to Legislature

February 26, 2019

Today's Briefing

- Report on budget and commission financials
- Excellent harvest in 2018
- World supply and demand
- New website
- Wheat commission building in Boise

About the Idaho Wheat Commission



- Self-governing state agency created in 1959
- Funded by a .035-cent assessment
- Board of five wheat producers

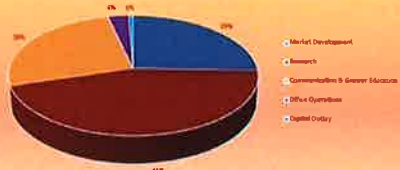
IWC Mission and Vision

Mission
Maximize profitability for Idaho's wheat producers by investing funds in market development, research and information & education

Vision
Working together to keep Idaho a premier wheat-growing state and to make Idaho wheat the preferred choice of domestic and export customers

IWC FY 2019 Budget Allocation

Idaho Wheat Commission 2018/2019 Budget \$3,448,461



IWC FY 2019 Budget Ten Largest Budget Items

University of Idaho	\$1,187,699
• Wheat Variety Research	\$341,190
• Pest & Disease Research	\$220,987
• Production Practices Research	\$327,242
• Wheat Quality Lab	\$121,270
Idaho Grain Producers Association	\$405,500
U.S. Wheat Associates	\$307,600
IWC Salaries & Benefits (4 people)	\$277,000
Wheat Marketing Center	\$173,111
Other Research	\$168,474
National Association of Wheat Growers	\$ 77,000
Equipment and Infrastructure	\$ 25,000

Ten Awesome Things About Idaho Wheat in 2018

- 100 million bushel harvest. 91.7 bu/acre yield
- Hosted five trade teams in Idaho
- Received over \$1.2 million dollars in royalties from seed sales
- New website, new communication vehicles, more impactful logo
- New Endowed Chair for Risk Management at University of Idaho

Ten Awesome Things About Idaho Wheat in 2018

- On-time robust funding for dredging, lock maintenance, and jetties on river system.
- Held top spot nationally in hard white production
- Updated legislation, more direct communication with growers
- Door opened with Taiwan for hard white
- New funding for ARS falling-number research position

Wheat-Buying Teams Visits to Idaho in 2018



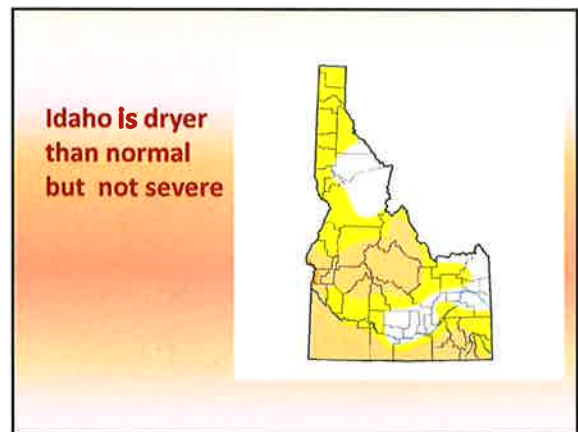
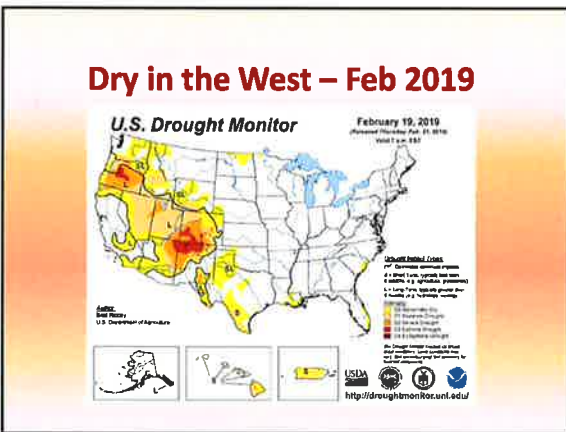
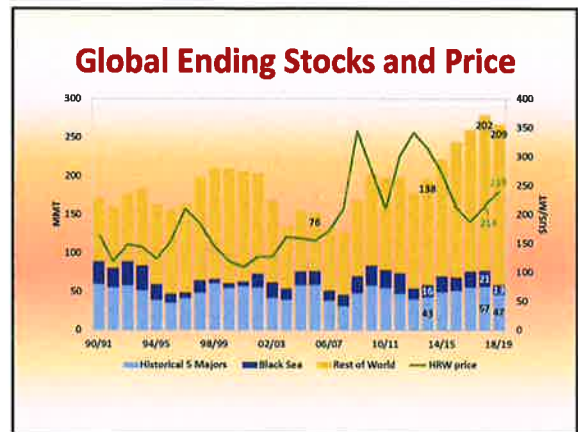
Idaho Hosts Wheat-Buying Teams in 2018



World Supply and Demand

World Production and Use





- ### Worries on the Horizon
- Market uncertainty due to TPP withdrawal and trade tariff talk.
 - Russia's drive to grow and export wheat.
 - Declining orca populations and new challenges to lower Snake River dams.
 - U.S. agricultural research dollars falling behind Chinese and private global companies.

Grower Communications Tools



- ### Content of New IWC Website
- Home
 - About +
 - Growers +
 - Buyers +
 - You & Wheat +
 - News
 - Contact

Study by National Institutes of Health

"Whole grains help prevent chronic diseases such as cancer, diabetes, and heart disease. Whole grains contain chemopreventive antioxidants such as vitamin E, tocotrienols, phenolic acid, lignans, and phytic acid. The antioxidant content of whole grains is greater than that of common fruits and vegetables (but lower than berries)."

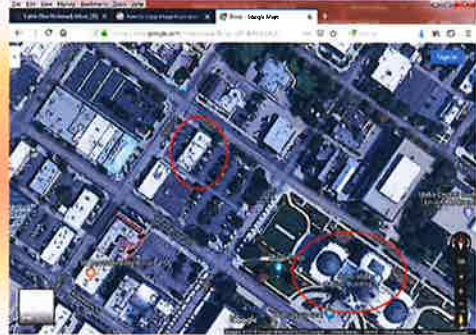
NCBI/NLB/NIH, Anand, Kunnumakkara, et. al. May 2008

Wheat Commission Building in Boise

IWC Building in Boise



IWC Building in Boise



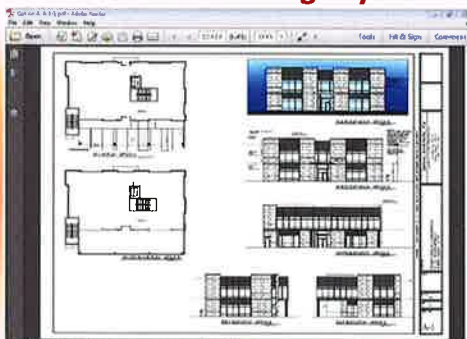
IWC Building in Boise



IWC Building in Boise



New IWC Building Layout



Thank You!

2019 Idaho Wheat Commission Report to Legislature

Approved 2019 Budget

Activities carried out by the Idaho Wheat Commission on behalf of Idaho wheat growers are funded by a \$.035 per bushel wheat tax. This tax is remitted quarterly. Revenue from the wheat tax during FY '19 is budgeted at \$3,035,000, although collections are running ahead of budget due to higher yields in 2018. Final collections in FY'19 are expected to be approximately \$3,300,000. Spending in FY'19 is budgeted at \$3,448,461. As of Jan 31, 2019, the IWC reserves are \$3,364,300.

Dollars remitted by Idaho wheat growers are invested on their behalf in foreign and domestic market development, variety development and other research, and information and education. The amount of the budget committed to administrative payroll and office operations is running at 2.5%, and Idaho continues to be among the most efficient of the wheat commission office operations among states. The wheat assessment in neighboring states range from \$.03/bushel to \$.06/bushel.

Projected FY '20 Revenue and Spending

Acreage in the current production year is expected to remain similar to last year and we will be fortunate to maintain current record yields. Spring plantings decisions are being made now, based on wheat prices compared to other competing spring crops. For planning purposes it is assumed that revenue from wheat tax will be around 3,200,000.

The Idaho Wheat Commission is providing substantial support to the University of Idaho wheat and other agricultural programs in order to keep the wheat industry in Idaho robust. Agriculture is a basic industry benefiting all Idaho residents and reinvestment in agriculture by industry and by the Idaho taxpayer will help grow Idaho's economy and employment faster than almost any other sector of the economy.

The Idaho Wheat Commission established a new \$2 million endowment at the University of Idaho in FY'18 focused on marketing of wheat and managing risk. It is jointly managed by the College of Agriculture and the College of Business.

Update on Wheat Production in Idaho

In the 2018 crop year approximately 1.2 million acres of wheat were harvested. The yield was an all-time record 91.7 bushels per acre. Sales were over \$490 million, and wheat continues to rank as Idaho's second largest crop, behind potatoes and ahead of hay.

Approximately sixty percent of Idaho's production is grown on irrigated farmland and forty percent is grown on dry land. Approximately two-thirds of the crop is winter wheat and the remaining one-third is spring wheat.

Soft White wheat makes up the largest amount of Idaho wheat grown. It is roughly 55% of the annual crop. Hard Red is the second most popular class, at 39%. Idaho's production of hard

white wheat rebounded last harvest year with 12 million bushels grown. Idaho is the largest hard white growing state.

Half of Idaho's crop goes to domestic mills and customers. This includes the GrainCraft (Pendleton) mill in Blackfoot, mills in Ogden, and customers in California. California is the largest wheat-milling state in the country and they dramatically increased purchases of wheat from Idaho. Roughly half of the crop is exported. Top foreign destinations include Japan, Mexico, Korea, the Philippines, China, and Taiwan.

Organic wheat has been strong and will continue to strong and is not expected to be a fad.

Further detail on Idaho wheat production is found in the Fall 2018 issue of Idaho Grain magazine.

Idaho Wheat Commission Offices

The Idaho Wheat Commission owns a building at 821 W. State Street that also includes other agricultural tenants, such as Idaho Barley Commission, Idaho Bean Commission, Idaho Wine Commission, Milk Producer's of Idaho, Idaho Grain Producer's Association, CALS, etc. The building was built in the 1940's and consideration is being given to tearing it down and building a new building.

Ten Awesome Things About Idaho Wheat Industry in 2018

- 100 million bushel harvest. 91.7 bu/acre yield
- Hosted five trade teams in Idaho, all interested in making purchases of Idaho wheat
- Received over \$1.2 million dollars in royalties from seed sales
- New website, new communication vehicles, more impactful logo
- New Endowed Chair for Risk Management at University of Idaho
- On-time robust funding for dredging, lock maintenance, and jetties on river system.
- Continued to hold top spot in country for hard white production
- Updated legislation to provide more direct and better communication with growers
- Door opened with Taiwan for hard white
- New funding for ARS falling-number research position

IWC Website

Updated information on the Idaho Wheat Commission can be found on an ongoing basis at www.idahowheat.org .

Rules of the Seed Game: It's Public and It's Protected

Seed Trade Law

Recently, Limagrain Cereal Seeds (LCS) informed the University of Idaho (UI) and the Idaho Wheat Commission (IWC) of two incidents of intellectual property (IP) infringement involving UI-developed varieties exclusively licensed to LCS (see side bar).

“Although the situations were resolved without litigation, it is troubling that both parties involved in the infringements claimed to be unaware the varieties were protected by the Plant Variety Protection Act (PVP) with Title V invoked, and exclusively licensed to Limagrain Cereal Seed,” noted Dr. Cathy Wilson, Director of Research Collaboration, IWC. Ignorance of the laws governing seed commerce is not a legitimate excuse for IP infringement, but it is often the truth. Many growers assume varieties developed by public breeders at land grant universities are not protected intellectual property. This was true at one time, but today all the varieties developed by UI are released as PVP and Title V.

What does that mean for you? PVP protects plants from being reproduced without the express written permission of the entity holding the PVP. “Under Title V of the Federal Seed Act, product can be sold as seed only if certified and properly tagged with the variety name. A grower can legally save a quantity of seed for the sole purpose of replanting on the farmer’s land in an area no larger than the area that was planted with the original certified seed purchased,” explained Karen Stevenson, attorney in the Office of Technology Transfer (OTT) at the University of Idaho.

“Seed Certification in Idaho is done by the Idaho Crop Improvement Association (ICIA),” explained David Hoadley, Manager of the Foundation Seed Program at UI. When asked about the excuse of growers not knowing a UI variety is protected, Hoadley responded, “Every bag of seed includes attached documents that pertain to the seed. In addition to purity analysis, seed treatments, and other information, the documents will also include information related to the Plant Variety Protection Act whenever the variety has PVP. Additionally, the delivery receipt also states “Plant Variety Protected” when applicable. People should understand that these are enforceable federal laws,

contained within the Federal Seed Act. A person or company could be putting themselves in a bad spot if they violate PVP laws.”

“Brown bagging” is the practice of reproducing wheat seed, without certification or legal labels, and providing it to others as wheat seed. Seed producers who are following the rules don’t like someone breaking the laws to gain an unfair advantage. Sooner or later someone reports the illegal practice to the authorities. Seed buyers must be careful to buy from certified seed producers. “When the seed price is too low and appropriate documents don’t accompany the seed, it is often because the pricing does not include the royalty or the seed is not certified.”

Why did UI start releasing new wheat varieties with intellectual property protection? The Office of Technology Transfer at UI knows the seed trade is complex. The most efficient way for OTT to get new wheat varieties in the hands of Idaho’s wheat growers is to partner with reputable seed companies through licensing agreements. Licensing not only protects intellectual property, it creates a stream of royalty income back to the University’s wheat research programs. The University retains ownership of the variety and holds the PVP certificate but gives permission, through the license, for the commercialization partner to reproduce and sell seed of the variety to make a reasonable profit. In return for the marketing opportunity, the seed company agrees to pay a royalty back to the University on every pound of seed sold. The royalty amount is stated in the license and the rate reflects the expected economic value of the variety to the wheat industry.

The commercialization partner is required to notify the University when they suspect potential infringement on the protected intellectual property or their license. The Office of Technology Transfer is responsible for potential enforcement under state and federal seed laws.

Limagrain Cereal Seeds holds several exclusive licenses for commercialization of UI wheat varieties (see listing). As a commercialization partner they have fast-tracked varieties such as the UI Clearfield Plus varieties,

Continued on next page

getting them planted in growers' fields in record time. Royalty from LCS topped \$1 million in 2017. "LCS has turned out to be a good commercialization partner for Idaho growers," said "Potlatch Joe" Anderson, Past President of Idaho Grain Producers Association. "They want to see the varieties widely available to all growers at a reasonable price. That happens through a network of legitimate seed dealers who are legally sub-licensed by LCS to market the varieties. LCS is responsible for collecting the royalty from their network and remitting it to the university."

Following the rules governing seed commerce benefits everyone, especially growers, who get access to the best genetics at competitive prices while reaping increased yields of high quality grain.



**Frank Curtis, COO
Limagrain Cereal Seeds**

"As the marketing agent for several UI varieties, we have noticed that not everybody is aware that varieties licensed for marketing by the University are protected by the Plant Variety Protection Act and that the varieties can only be sold as a class of certified seed. We have detected two infringements of the University's intellectual property rights: one by a seed company that was selling seed without a license; the other by a grower who was selling uncertified seed to neighbors. In both cases, their actions deprived Limagrain and the University of royalties amounting to more than \$40,000 in total.

"Both offenders have subsequently apologized for their actions and agreed to comply with license conditions in all future transactions. We are satisfied that these were genuine errors and not deliberate attempts to defraud the University. In return for their cooperation, we have allowed the infringers to remain anonymous.

"LCS will remain vigilant in protecting UI's valuable intellectual property and in future will not hesitate to bring enforcement actions against offenders."



**Clark Hamilton, Chairman
Idaho Wheat Commission**

"The seed business in Idaho is built on honesty and integrity. The Idaho Wheat Commission's role is to help growers understand the complexities of seed laws and encourage compliance with them. The commission's position is to remain neutral in seed law litigation."



**Dr. Mark McGuire,
Associate Dean & Director
of Idaho Agricultural
Experiment Stations**

"Federal and State seed laws protect the rights of both public and private plant breeders. The University of Idaho will enforce these protections as needed. Protecting intellectual property encourages continued investment in research and technology to create new wheat varieties. Wheat with new traits will solve production problems and increase yield."

Continued on next page



KNOW BEFORE YOU GROW



1. Read the seed tag and the loading ticket.
2. Is the variety protected by PVP, Title V, or licensing?
3. Are you producing commodity grain, wheat for seed, or saving seed back from your commodity grain?
4. Title V varieties can only be sold as a class of certified seed.
5. "Sold" is the transfer of ownership. Selling, trading, or giving ownership to another is prohibited under Title V.
6. Idaho Crop Improvement Association is the certifying agent in the State of Idaho.
7. Idaho State Department of Agriculture's Warehouse Inspection Division certifies both elevators and seed handlers and can audit if illegal activity is suspected.
8. Licensed varieties generally require a royalty back to the university.
9. Foundation seed tags will clearly indicate the variety is PVP Title V.
10. Make sure you have the legal right to reproduce a variety for sale as seed.
11. Seed buyers are responsible to make sure they are purchasing from a reputable seed producer.
12. The Office of Technology Transfer at University of Idaho can answer questions about who has a legal right to produce seed of a specific variety.

Continued on next page

University of Idaho

College of Agricultural and Life Sciences

UI Wheat Varieties with Intellectual Property Protection

*LCS= Limagrain Cereal Seeds

Hard Red Spring Wheat	License	PVP Status	Title V	Royalty Due
Jefferson				
Jerome		PVP	yes	
UI Winchester				

Soft White Spring Wheat	License	PVP Status	Title V	Royalty Due
Alturas		PVP	yes	
Cataldo				
Centennial		<i>expired</i>		
Jubilee		<i>abandoned</i>		
Twin				
UI Pettit				
UI Stone	Exclusive LCS	PVP	yes	yes

Hard White Spring Wheat	License	PVP Status	Title V	Royalty Due
ID0377s		PVP	yes	
Lolo				
Lochsa				
UI Platinum	Exclusive LCS	PVP	yes	yes

Hard Red Winter Wheat	License	PVP Status	Title V	Royalty Due
Bonneville		<i>expired</i>		
DW		PVP	yes	
Juniper				
Meridian		<i>expired</i>		
Moreland		PVP	yes	
SRG				

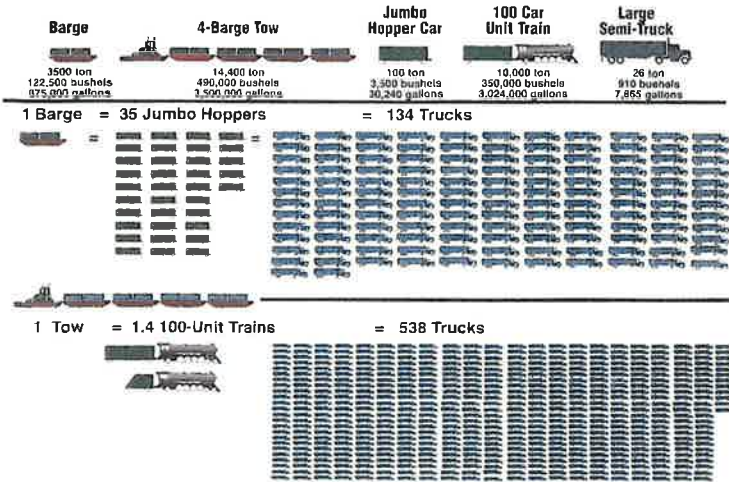
Soft White Winter Wheat	License	PVP Status	Title V	Royalty Due
Bitterroot		PVP	yes	
Brundage		PVP	yes	
Brundage 96		PVP	yes	
Bruneau		PVP	yes	
Hubbard		PVP	yes	
Idaho 587				
Clearfield®		PVP	yes	yes
Simon		PVP	yes	
UICF-Brundage				
Clearfield®		PVP	yes	yes
UICF-Lambert				
Clearfield®		PVP	yes	yes
UI Magic				
Clearfield Plus®	Exclusive LCS	PVP	yes	yes
UI Castle				
Clearfield Plus®	Exclusive LCS	PVP	yes	yes
UICF-Palouse				
Clearfield Plus®	Exclusive LCS	PVP	yes	yes
UI-WSU Huffman	Exclusive LCS	PVP	yes	yes
UI Sparrow	Non-Exclusive	Pending	Pending	yes

License Required

Hard White Winter Wheat	License	PVP Status	Title V	Royalty Due
Gary		PVP	yes	
UI Darwin				
UI Silver		PVP	yes	
UICF-Grace				
Clearfield®		PVP	yes	yes

Snake River Dams

Freight Comparison of Barges, Trains and Trucks



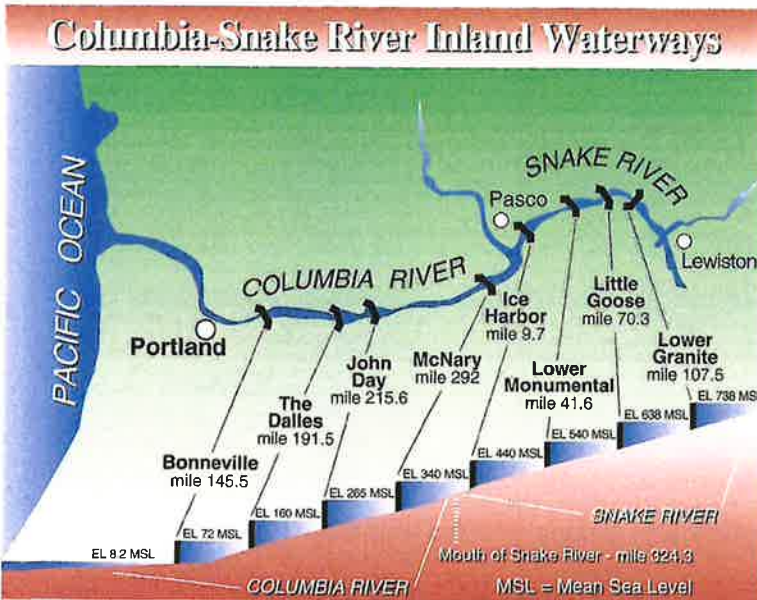
Barging is the most efficient and environmentally friendly mode of cargo transportation

In 2014, it would have taken 43,610 rail cars or 174,440 semi-trucks to move the cargo that went by barge on the Snake

The Columbia Snake River System is a 465-mile commercial waterway that provides farmers as far as the Midwest access to international markets



The Columbia Snake River System is the top wheat export gateway in the U.S.

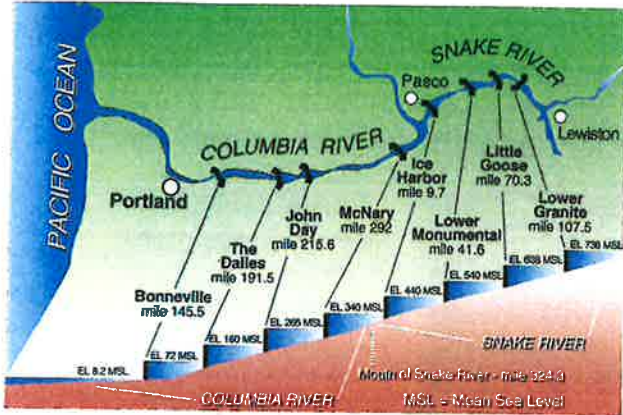


In 2014, nearly 10% of all U.S. wheat exports moved through the Snake River dams

Barging information courtesy of Texas Transportation Institute
Wheat information courtesy of U.S. Department of Agriculture and U.S. Army Corps of Engineers



COLUMBIA SNAKE RIVER SYSTEM FACTS



Deep Draft Channel Facts:

- 105 miles, 43 feet deep
- Over 49 million tons of international trade in 2014
- At least \$24 billion in cargo value
- 40,000 local jobs are dependent on this trade

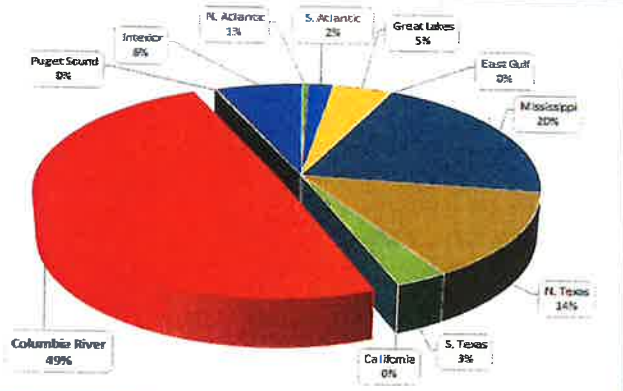
Inland Navigation Facts:

- 360 miles, 14 feet deep, from Portland/Vancouver to Lewiston, Idaho
- Over 9 million tons of commercial cargo in 2012
- Important gateway for Northwest wheat and forest products

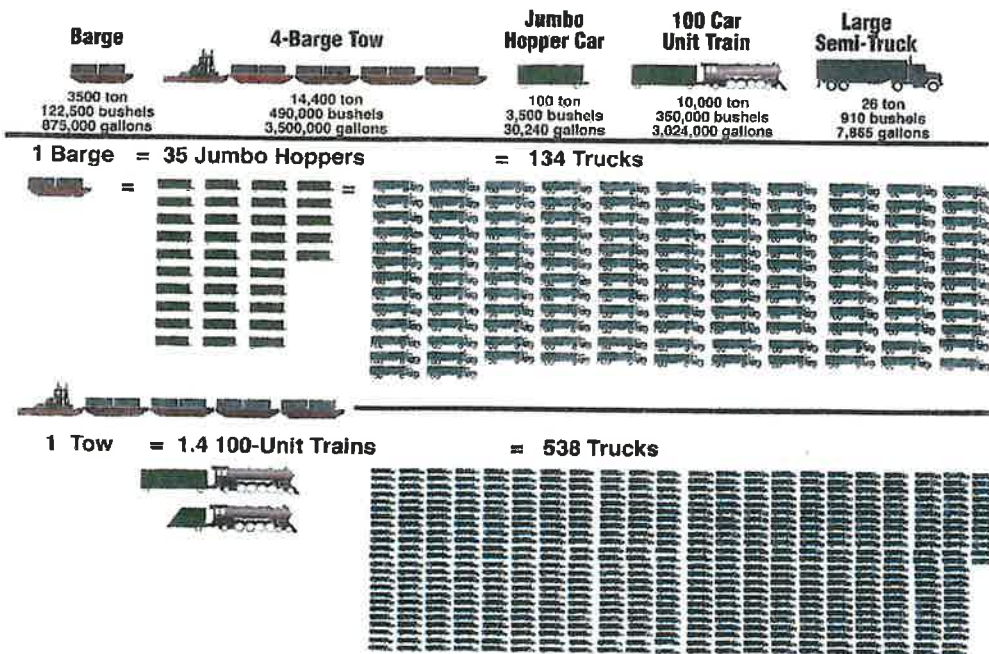
CSRS Highlights

- #1 U.S. wheat export gateway
- #2 U.S. soy export gateway
- #1 West Coast wood exports
- #1 West Coast bulk exports

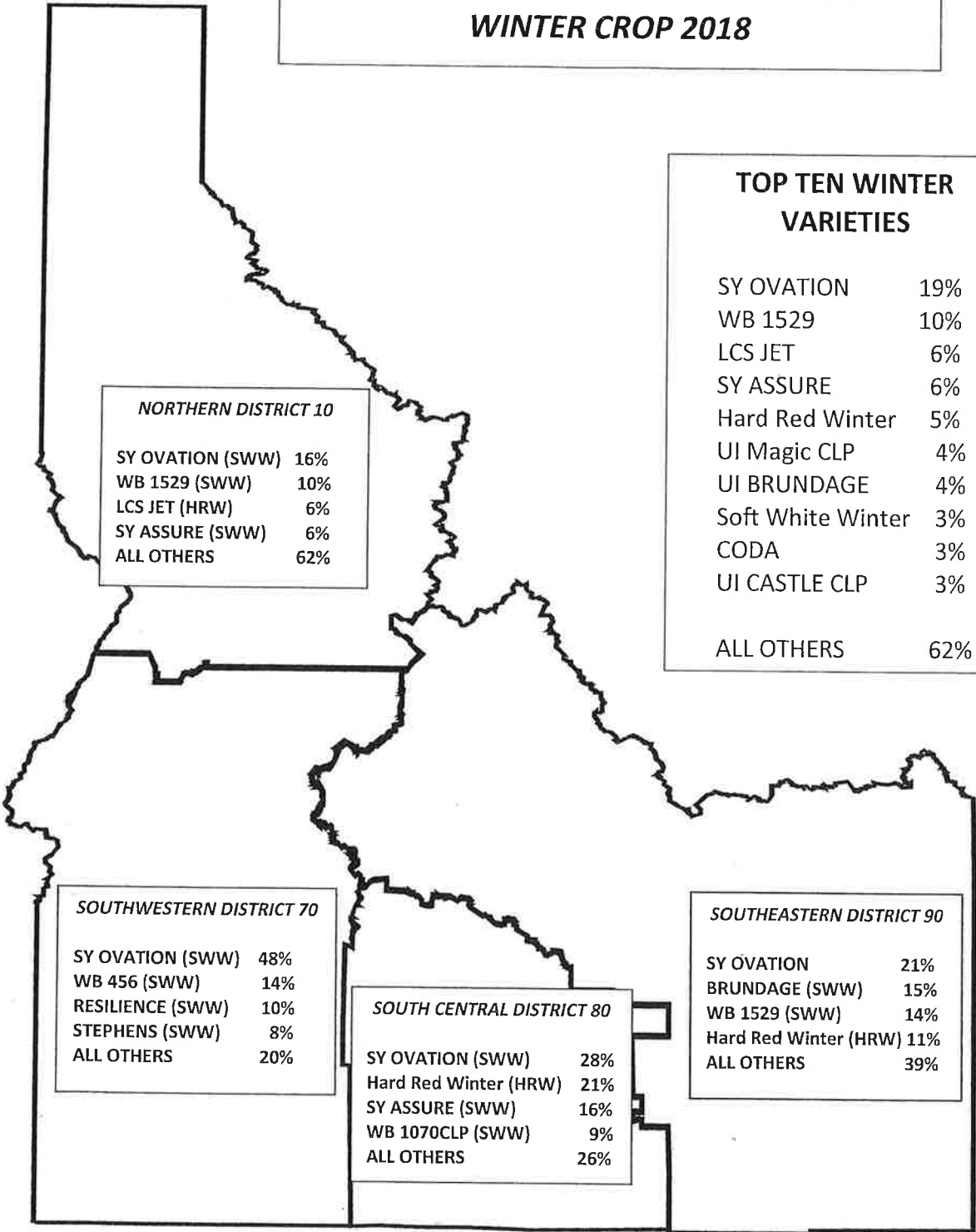
2015 U.S. Wheat Exports



Freight Comparison of Barges, Trains and Trucks on the CSRS



IWC WHEAT VARIETY SURVEY MAP WINTER CROP 2018



NORTHERN DISTRICT 10

SY OVATION (SWW)	16%
WB 1529 (SWW)	10%
LCS JET (HRW)	6%
SY ASSURE (SWW)	6%
ALL OTHERS	62%

TOP TEN WINTER VARIETIES

SY OVATION	19%
WB 1529	10%
LCS JET	6%
SY ASSURE	6%
Hard Red Winter	5%
UI Magic CLP	4%
UI BRUNDAGE	4%
Soft White Winter	3%
CODA	3%
UI CASTLE CLP	3%
ALL OTHERS	62%

SOUTHWESTERN DISTRICT 70

SY OVATION (SWW)	48%
WB 456 (SWW)	14%
RESILIENCE (SWW)	10%
STEPHENS (SWW)	8%
ALL OTHERS	20%

SOUTH CENTRAL DISTRICT 80

SY OVATION (SWW)	28%
Hard Red Winter (HRW)	21%
SY ASSURE (SWW)	16%
WB 1070CLP (SWW)	9%
ALL OTHERS	26%

SOUTHEASTERN DISTRICT 90

SY OVATION	21%
BRUNDAGE (SWW)	15%
WB 1529 (SWW)	14%
Hard Red Winter (HRW)	11%
ALL OTHERS	39%

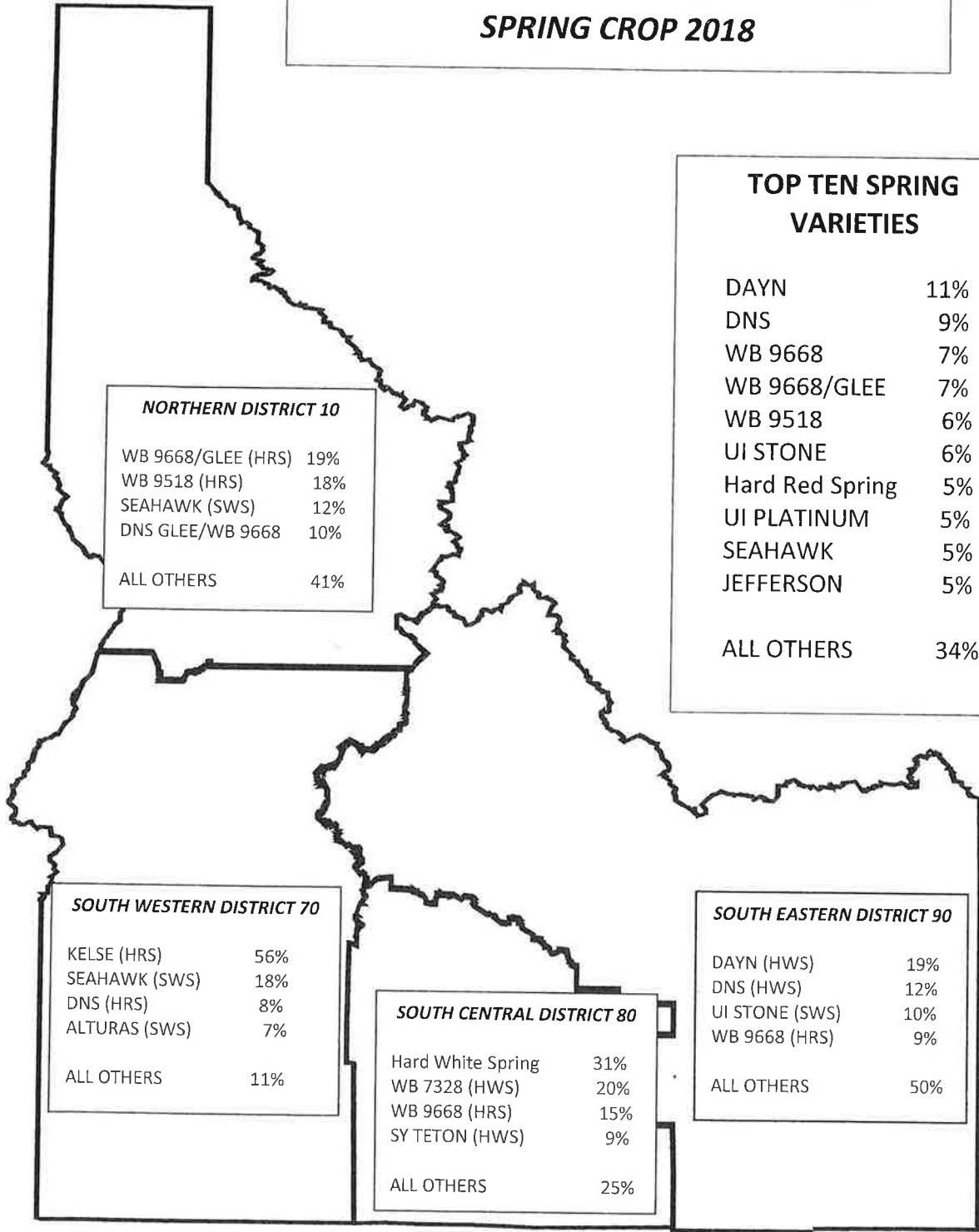
% OF WINTER WHEAT BY DISTRICT

Northern	67%
South Western	2%
South Central	6%
South Eastern	24%

NASS STATISTICS FOR IDAHO WINTER WHEAT

	2016	2017	2018
Acres (1K) Planted	770	720	720
Avg./bu/ac.	94	80	90
Yield 1K bu/ac	67,680	53,600	61,200

IWC WHEAT VARIETY SURVEY MAP SPRING CROP 2018



NORTHERN DISTRICT 10

WB 9668/GLEE (HRS)	19%
WB 9518 (HRS)	18%
SEAHAWK (SWS)	12%
DNS GLEE/WB 9668	10%
ALL OTHERS	41%

TOP TEN SPRING VARIETIES

DAYN	11%
DNS	9%
WB 9668	7%
WB 9668/GLEE	7%
WB 9518	6%
UI STONE	6%
Hard Red Spring	5%
UI PLATINUM	5%
SEAHAWK	5%
JEFFERSON	5%
ALL OTHERS	34%

SOUTH WESTERN DISTRICT 70

KELSE (HRS)	56%
SEAHAWK (SWS)	18%
DNS (HRS)	8%
ALTURAS (SWS)	7%
ALL OTHERS	11%

SOUTH CENTRAL DISTRICT 80

Hard White Spring	31%
WB 7328 (HWS)	20%
WB 9668 (HRS)	15%
SY TETON (HWS)	9%
ALL OTHERS	25%

SOUTH EASTERN DISTRICT 90

DAYN (HWS)	19%
DNS (HWS)	12%
UI STONE (SWS)	10%
WB 9668 (HRS)	9%
ALL OTHERS	50%

% OF SPRING WHEAT BY DISTRICT

Northern	35%
South Western	2%
South Central	7%
South Eastern	56%

NASS STATISTICS FOR IDAHO SPRING WHEAT

	2016	2017	2018
Acres (1K) Planted	410	430	460
Avg./bu/ac	84	86	95
Yield 1K bu/ac	34,365	35,260	42,275

