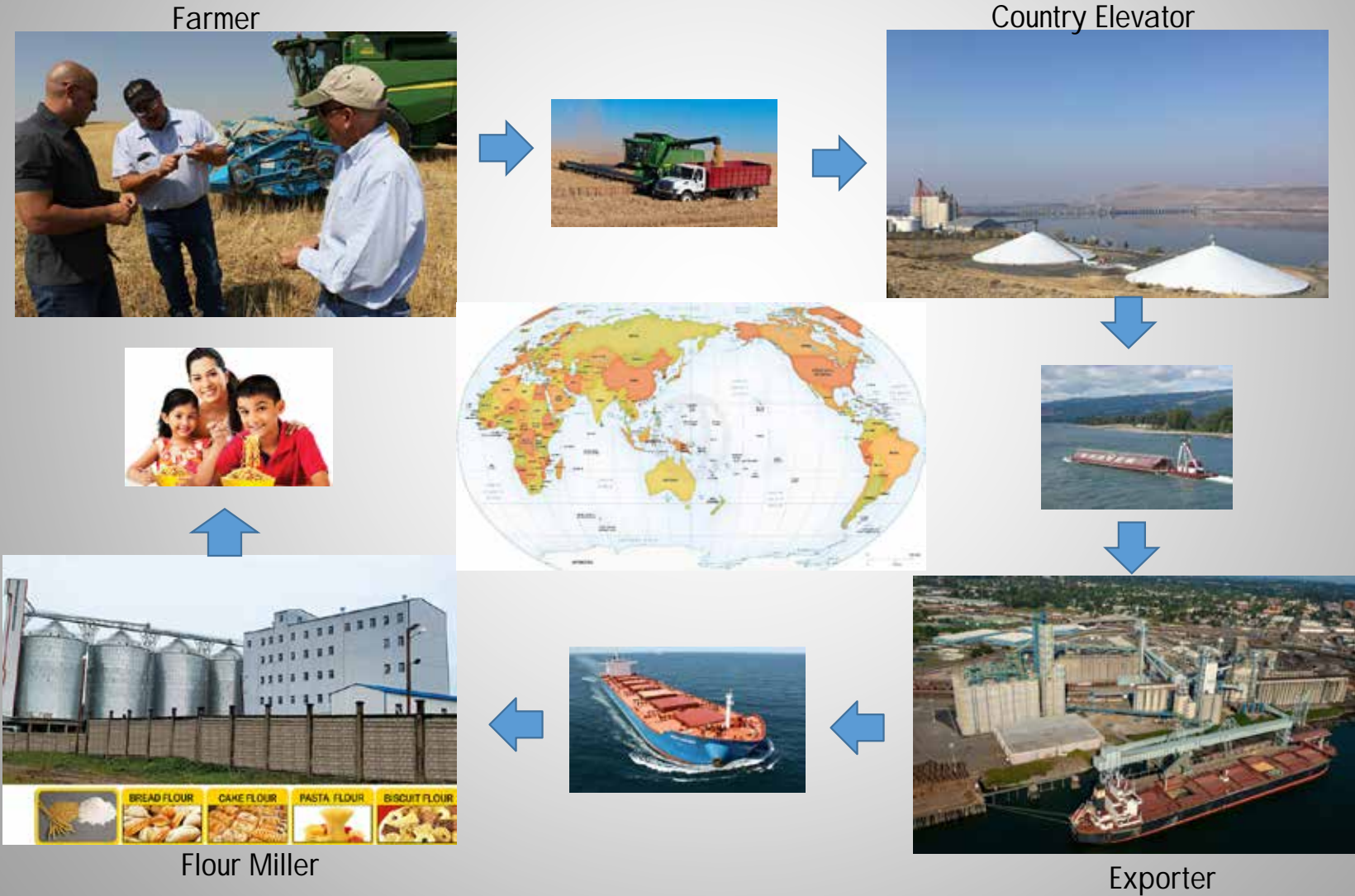




THE CHANGING DYNAMICS OF AGRICULTURE IN THE PNW

What will supply chains look like and what role will PORTS play in this new era?

GRAIN INDUSTRY LOGISTICAL SUPPLY CHAIN



COLUMBIA/SNAKE RIVER SYSTEM

Port of Umatilla



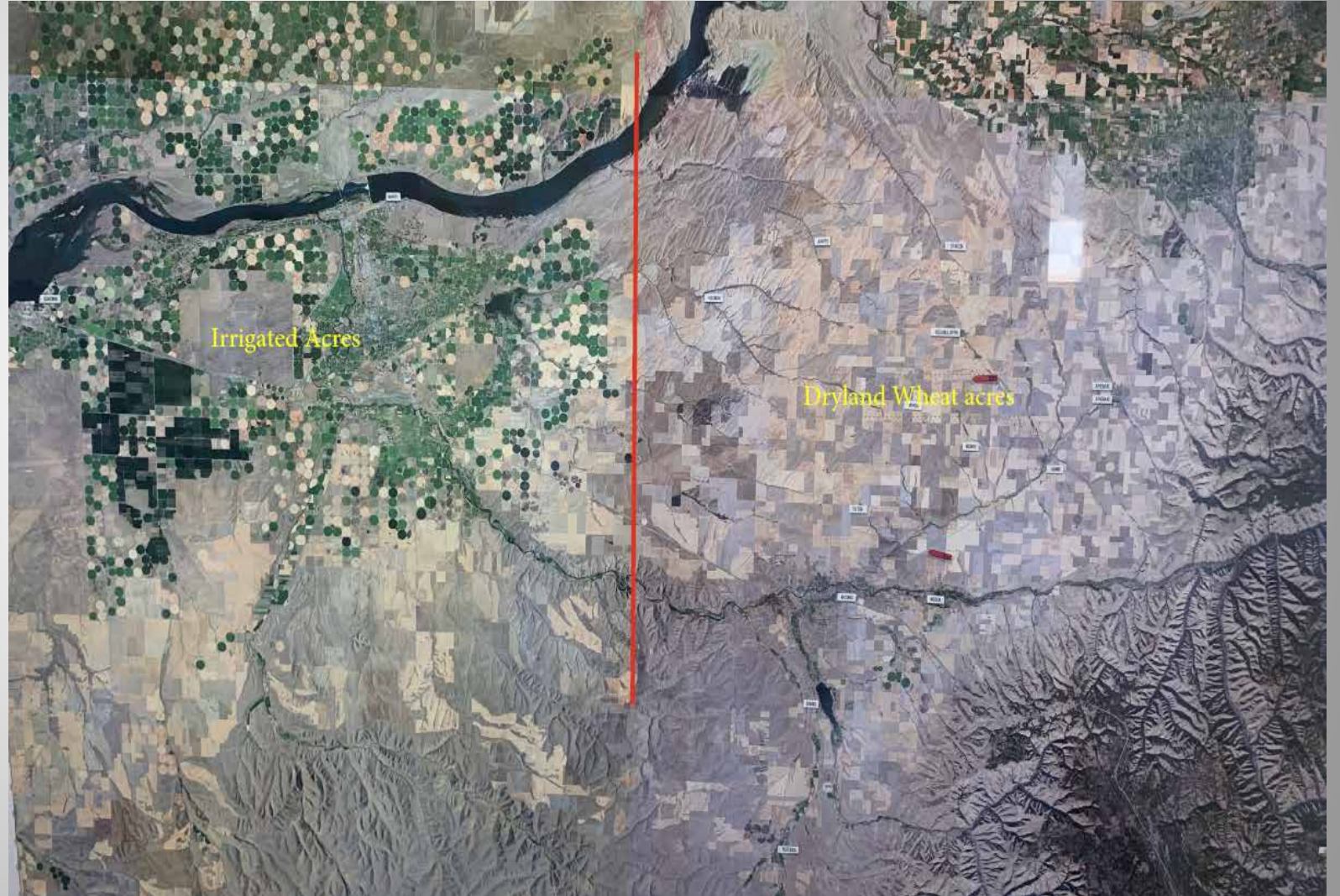
McNary River Terminal



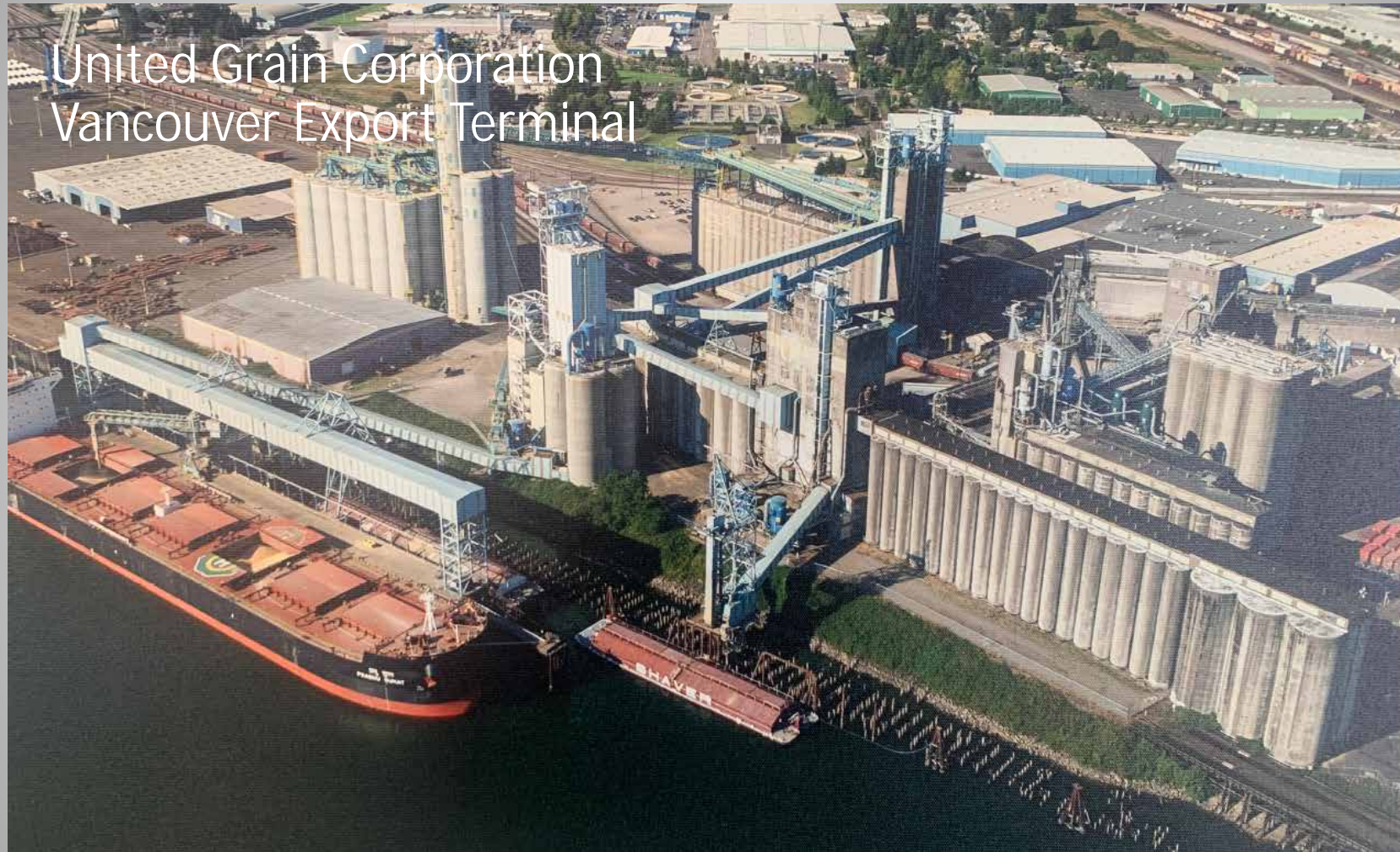
The river system is the economic driver for the entire Pacific Northwest corner of the United States. It is one of a very few geographical wonders that has transformed our human existence, not only regionally but globally.

COLUMBIA BASIN AGRICULTURE REGION

- Umatilla County is 30% of Oregon Wheat production - with most of the county being dryland and very dependent on rainfall for revenue. Wheat points at the export market as the only viable option
- Irrigated acres grow crops that are mostly focused at domestic markets with higher margins
- Port of Umatilla assists in the movement of crops and product to domestic and export markets. In addition, the Port provides supports for energy, internet fiber, data centers, and more.



PORT OF VANCOUVER



OLD METRICS... HOW RELEVANT ARE THEY?

- Historically, the stocks/use ratio has carried a lot of weight when thinking about price trends and budgeting for current and future marketing years.
- Changing global fundamentals and the fluid nature of supply chains today... have made forecasting that much more difficult.

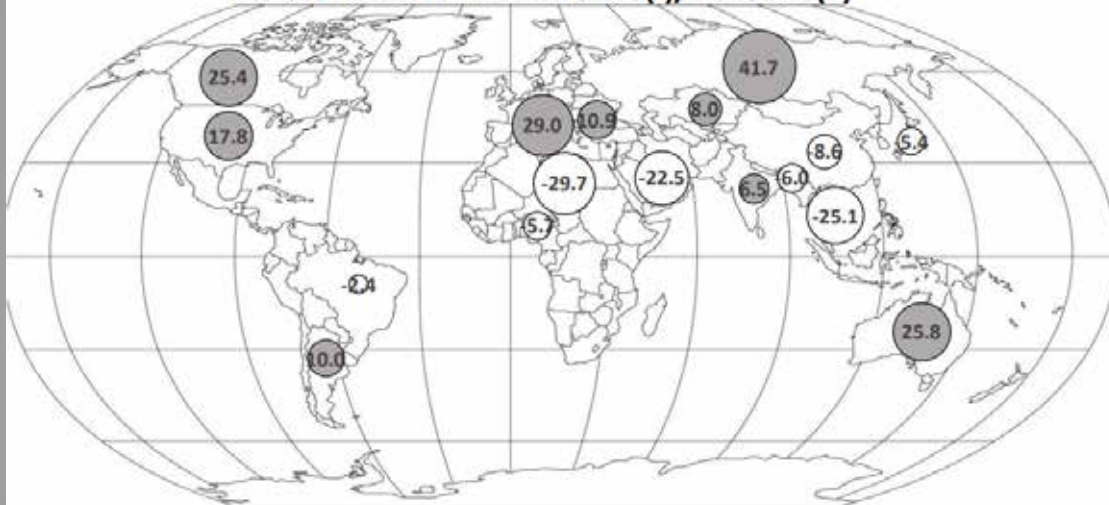
Million Bushels/Million Acres

	/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 USDA	2019/20 Informa
Planted Acres	14.4	14.8	14.8	13.2	13.0	13.3	14.4	12.7	13.4	12.6	12.9	11.6	11.7	10.9	12.2	12.6	10.9	10.5	12.7	-	12.2
Harvested Acres	13.6	13.8	12.6	12.8	12.4	12.9	13.4	12.4	12.8	12.3	12.5	11.3	11.5	10.7	12.0	12.3	10.6	9.7	12.4	-	11.9
Yield	17.0	34.5	27.9	39.1	42.3	36.0	32.3	36.3	39.9	44.5	45.0	35.2	43.9	45.8	46.3	46.0	46.3	39.8	47.3	-	47.8
Carryin (Jun 1)	218	210	230	145	157	159	132	117	68	142	234	185	151	165	169	212	272	235	191	-	205
Production	502	475	351	500	525	467	432	450	510	546	564	396	503	491	556	568	491	384	567	566	572
Imports	56	61	23	9	8	12	50	48	45	41	28	43	57	93	78	62	67	88	69	-	61
Total Supply	776	746	605	654	690	638	614	615	623	729	826	624	712	749	802	842	830	707	847	896	898
Food Use	267	250	215	223	228	227	236	233	224	239	247	223	230	267	266	251	250	254	252	-	268
Seed Use	20	23	20	19	21	21	19	20	17	17	14	19	13	16	24	17	15	19	19	-	19
Feed & Residual Use	49	26	-33	-19	-38	-21	-9	-7	32	29	49	-15	82	37	29	63	14	18	48	-	30
Feed Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Residual Use	49	26	-33	-19	-38	-21	-9	-7	32	29	49	-15	82	37	29	63	14	18	48	-	30
Domestic Use	337	299	202	223	211	227	246	246	273	284	311	226	325	320	319	330	279	290	319	314	316
Exports	229	217	257	273	321	279	251	301	208	211	330	247	222	260	271	240	316	226	263	265	265
Grain Exports	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Flour Exports	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Product Exports	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Total Use	566	516	460	497	531	506	497	547	481	495	641	473	547	580	590	570	595	516	582	579	581
Carryout (May 31)	210	230	145	157	159	132	117	68	142	234	185	151	165	169	212	272	235	191	265	-	317
Stocks/Use (%)	17.1	44.6	31.5	31.6	29.9	26.1	23.5	12.4	29.5	47.3	28.9	31.9	30.2	29.2	35.9	47.7	39.5	37.0	45.5	-	54.5
Outstanding Loan	15	47	22	20	30	16	8	1	11	36	8	4	4	6	14	31	12	8	24	-	9
Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0
CCC	8	7	5	4	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0	-	0
Government	22	54	28	24	34	20	12	1	11	36	8	4	4	6	14	31	12	8	24	-	9
Non Government	188	176	117	133	125	112	106	67	131	198	177	147	161	163	198	241	223	183	241	-	307
MGE Futures (\$/Bu)	1.20	3.07	3.95	3.90	3.57	3.84	4.93	9.58	7.32	5.49	3.85	4.95	8.72	7.16	5.93	5.22	5.29	6.37	5.65	-	5.25
Farm Price (\$/Bu)	1.91	2.88	3.83	3.63	3.51	3.70	4.48	7.16	7.39	5.26	6.54	8.38	8.27	6.73	5.73	4.75	4.56	5.83	-	-	-

USDA US White Wheat Revisions

	2021/22			2022/23		
	12-Jan	8-Feb	Change	12-Jan	8-Feb	Change
	<i>-Million Bushels-</i>					
Beginning stocks	70	70	0	54	54	0
Production	201	201	0	272	272	0
Supply, total	276	276	0	331	331	0
Domestic Use	75	75	0	96	96	0
Exports	148	148	0	180	190	10
Use, total	222	222	0	276	286	10
Ending stocks	54	54	0	56	45	-11

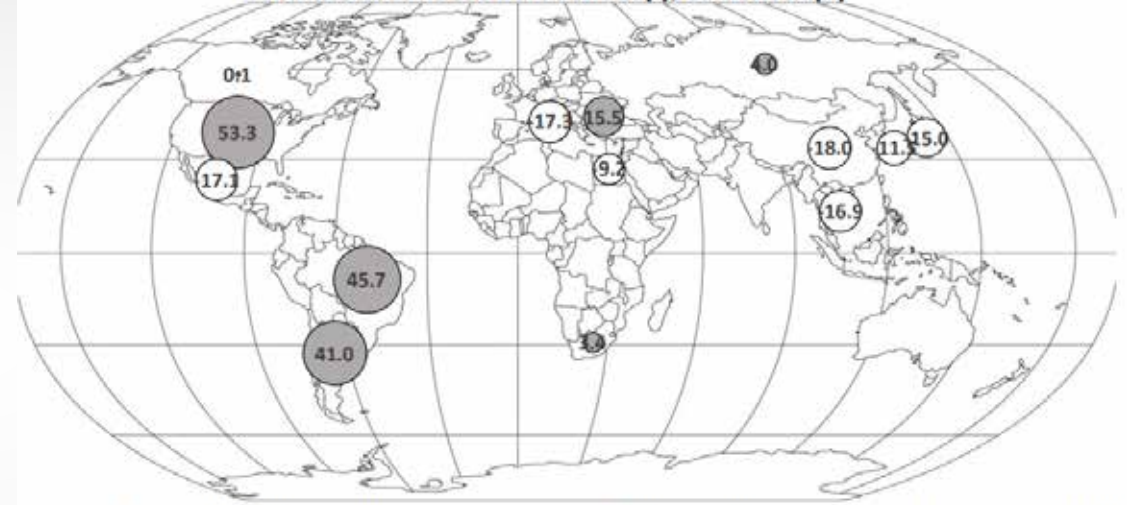
WORLD WHEAT NET IMPORTS(-)/EXPORTS(+)



Exporters	2022/23	2021/22	2020/21	Importers	2022/23	2021/22	2020/21	Other	2022/23	2021/22	2020/21
United States	17.8	19.2	24.3	Bangladesh	-6.0	-6.3	-7.2	India	6.5	8.0	2.5
Argentina	10.0	16.2	11.5	Brazil	-2.4	-3.3	-5.5	Kazakhstan	8.0	5.6	7.2
Australia	25.8	27.3	23.6	China	-8.6	-8.7	-9.9				
Canada	25.4	14.6	25.9	Japan	-5.4	-5.3	-5.2				
European Union	29.0	27.3	24.4	NAfrica	-29.7	-26.4	-27.7				
Russia	41.7	32.7	38.7	Nigeria	-5.7	-5.6	-6.0				
Ukraine	10.9	18.7	16.7	Mideast	-22.5	-22.2	-17.1				
				Southwest Asia	-25.1	-25.7	-24.7				

Net Imports(-)/Exports=Exports-Imports
Data Source: USDA-WAQB, WASDE

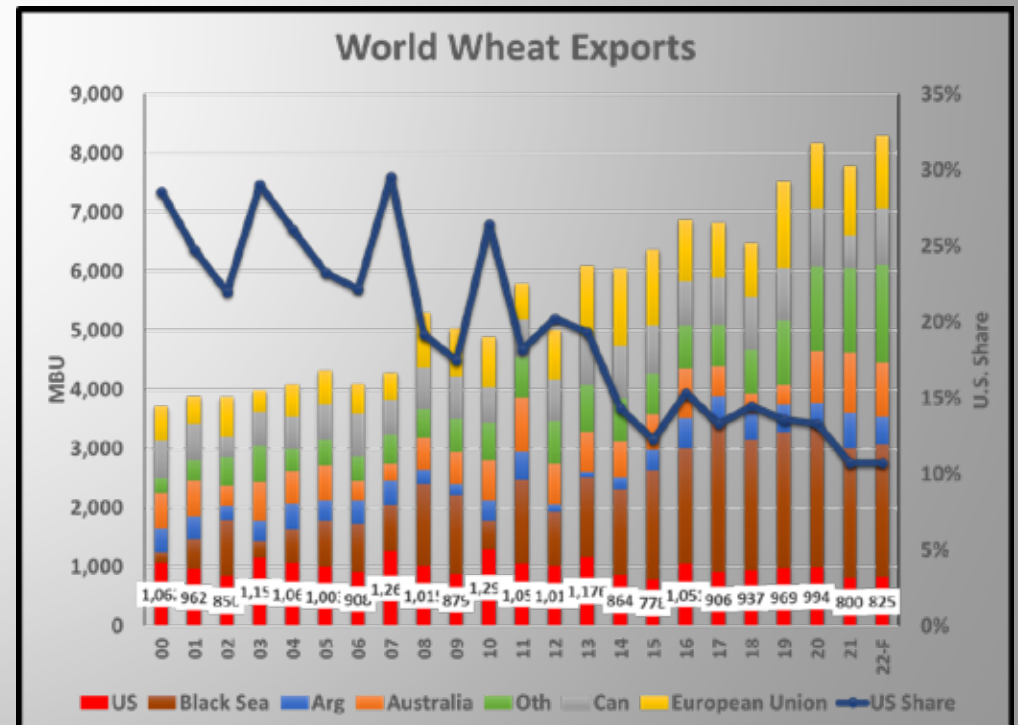
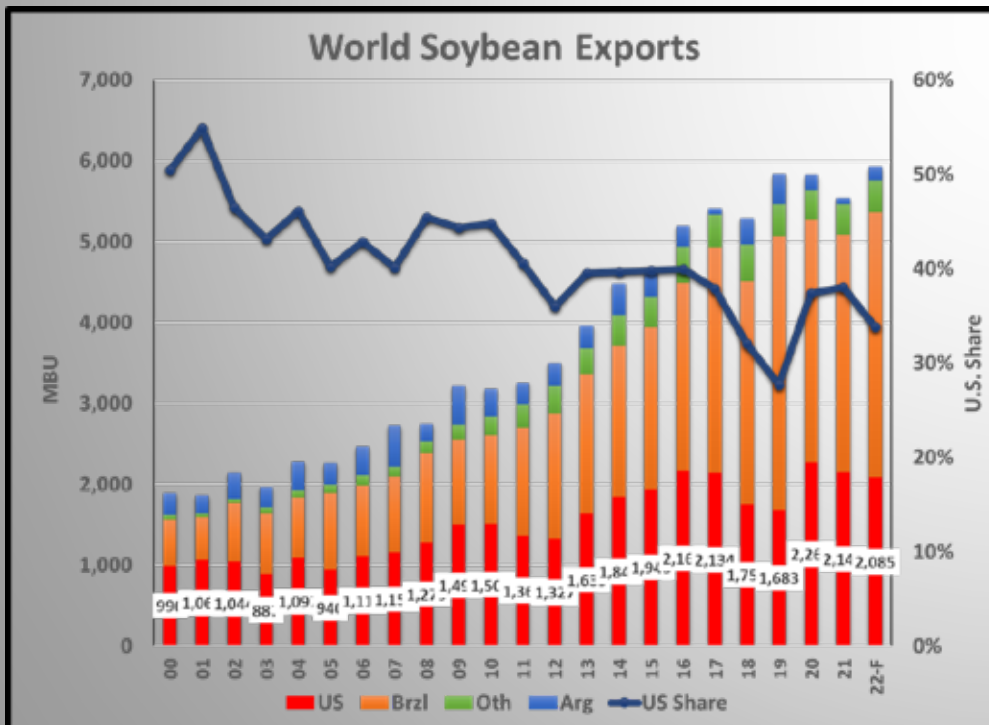
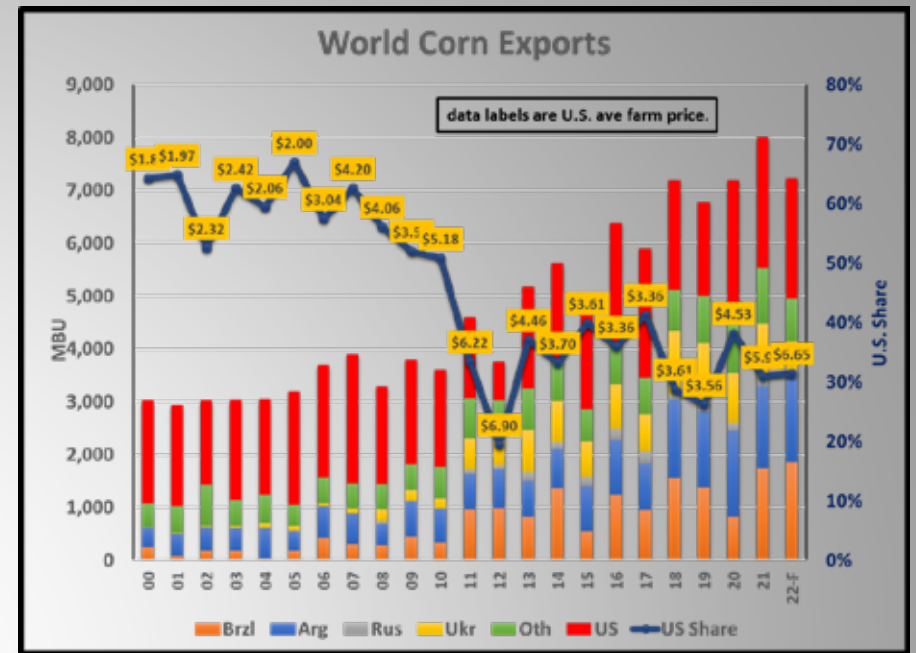
WORLD CORN NET IMPORTS(-)/EXPORTS(+)



Exporters	2022/23	2021/22	2020/21	Importers	2022/23	2021/22	2020/21	Other	2022/23	2021/22	2020/21
United States	53.3	62.2	69.2	Egypt	-9.2	-9.6	-9.6	Canada	0.1	-4.0	0.0
Argentina	41.0	36.5	40.9	European Union	-17.3	-14.0	-10.8	China	-18.0	-21.9	-29.5
Brazil	45.7	42.2	18.2	Japan	-15.0	-15.0	-15.5				
Russia	4.0	4.0	4.0	Mexico	-17.1	-17.3	-16.0				
South Africa	3.4	3.2	3.7	Southeast Asia	-16.9	-15.5	-20.1				
Ukraine	15.5	27.0	23.8	South Korea	-11.5	-11.5	-11.7				

Net Imports(-)/Exports=Exports-Imports
Data Source: USDA-WAQB, WASDE

VISUALIZING THE DECLINE OF U.S. SHARES



STATE OF THE UNION FOR THE PNW GRAIN INDUSTRY

- Average Soft White price at the river terminal is \$5.40bu... which equates roughly to a FOB Farm price of \$4.75bu
- Average cost of production per bu is \$6.50... which has the producer losing \$1.75bu
- Have not had a crop failure globally for at least 4 years... which has the world wheat stocks/use ratio pretty wide at 27%. Current winter wheat crop in the U.S. looks like it will be another well above average yield.
- U.S. Gov has deregulated GE wheat for cultivation... so we will most likely have GE wheat in our supply chain by the fall of 2026. This will likely increase supply by at 20% globally
- Consolidation continues in the farming sector... another 7% of our farms have ceased operating from 2017-2022.
- Recent disaster relief sitting right around \$31.80/acre for wheat... equates to just shy of \$100k for a 3000-acre wheat ranch

PNW AGRICULTURE IN THE NEXT DECADE

WHAT ROLE WILL OUR INLAND PORTS PLAY?

- Of the trillions of dollars printed since 2020... how much has been sitting on the sidelines? Where/how will it enter the agricultural sector?
 - Will oilseed crushers, flour mills, and or pulse processing facilities be built where the crops are grown?
- Will there be a safety net available to farms affected by the changing global dynamics?
- Will there be a replacement for wheat/barley/canola in the 9-12" rainfall areas of the PNW
- Corn growers have ethanol... what will be the silver bullet for wheat?
- What will trade relations look like between the US/Canada/Mexico
 - Short-sea-shipping... ocean going barges loading at the Columbia River Ports?
 - Shuttle-train loaders/unloaders originating from the Columbia Basin?

I am bullish in regard to
American Ingenuity and the American Farmer,
and our ports will have a vital role to play.
No matter what happens in the next few years...
it will be an exciting time to be a part of
Supply Chain Business!

THANK YOU FOR YOUR TIME!