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Agenda

- Spring Wheat overview
- Market disruptors
- Canadian competition
- Global wheat overview Key Marcos

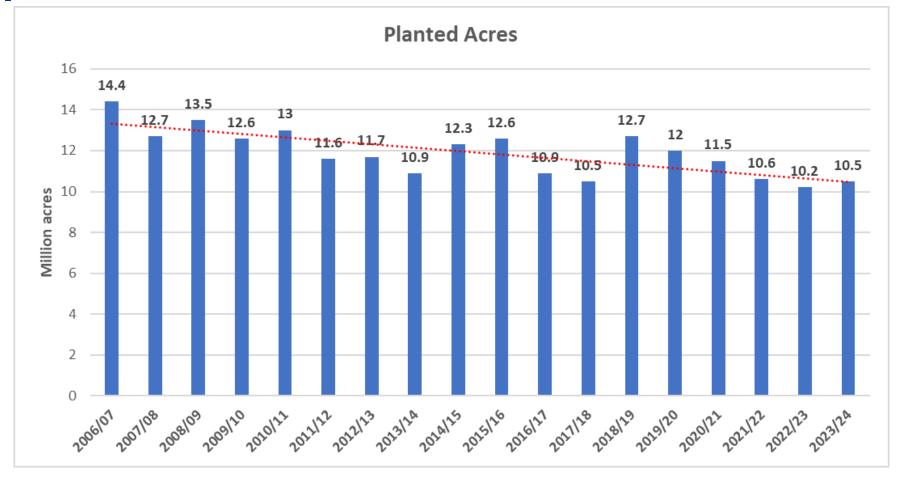
Balance Sheet – heavier than it seems?

Hard Red Spring Wheat (Millions Bushels) - INPUT SECTION USDA						CHS
	19/20	20/21	21/22	22/23	23/24	23/24
Planted Acres	12.01	11.53	10.6	10.21	10.51	10.65
Harvested Acres	10.98	11.33	9.38	9.83	10.32	10.13
Yield	47.37	46.91	31.69	45.41	45.4	49.75
Beg. Stocks	263	280	235	146	158	158
Production	520	531	297	446	468	504
Imports	52	47	43	56	60	50
Total Supply	835	858	576	648	686	712
Food Use	265	263	245	266	260	270
Seed Use	18	17	12	17	18	17
Feed+ Residual	3	58	-35	-7	10	-10
Total Domestic Use	286	337	222	276	288	277
Exports	269	286	208	214	225	215
Total Use	555	623	430	490	513	492
Ending Stocks	280	235	146	158	173	220
Stocks/Use	50.40%	37.70%	34.00%	32.30%	33.70%	44.70%



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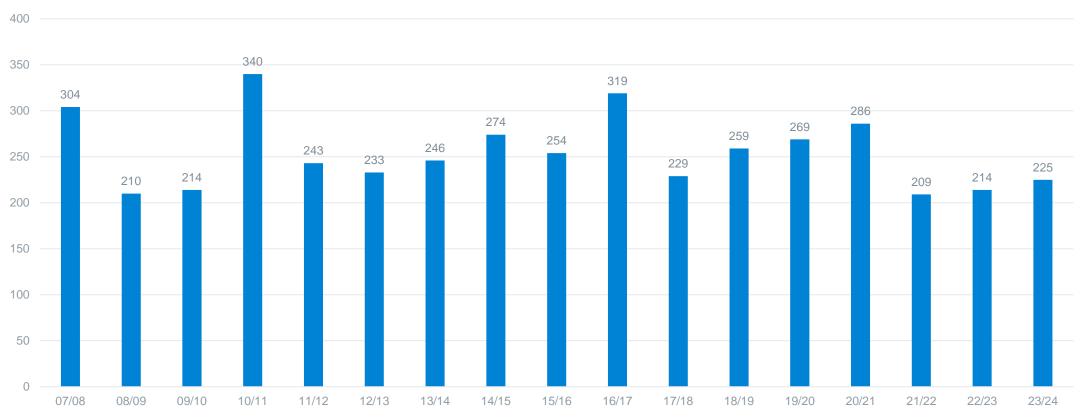
Spring wheat acreage in a downward trend. 2022/2023 was smallest since the USDA started tracking by class back in 1986.





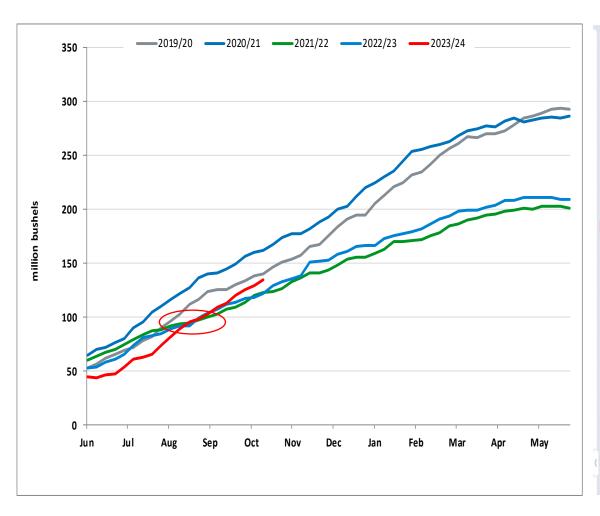


Spring Wheat Exports





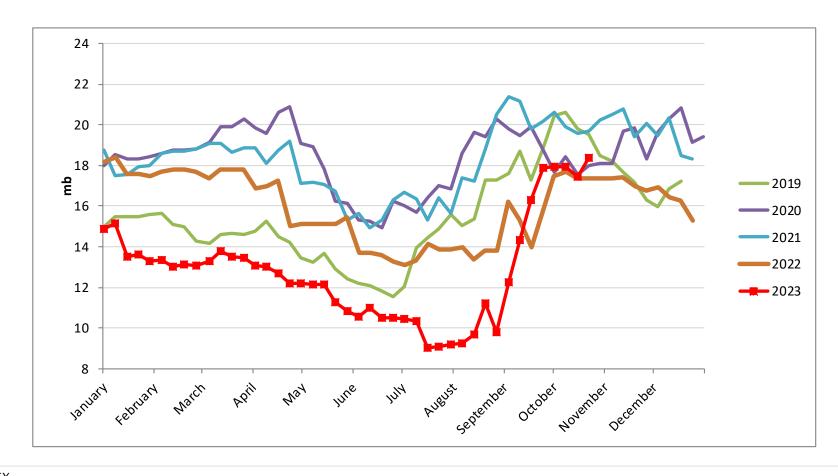
HRS Export Commitments







Wheat stocks in Duluth rebound to near normal levels – should help maintain carries on the board



Source: MGEX



The Protein Story

- Crop is below average
 - Approx 13.3-13.7 pro
- Protein is available but what do we do with the sub 13.5 protein?
 - MW/KC at 70c premium has maxed HRW inclusion in blends
 - 13.0-13.5 protein about 60c noncompetitive vs similar HRW protein at destination
 - HRS will continue to fight for inclusion, but board/basis needs to do some work
 - Anticipate local protein discounts to be a fight all year until a market is found while premiums should remain healthy

The Protein Story cont.

- 2022/2023 domestic grind
 - 50% 14 protein
 - 30% 15 protein
 - 20% 13.5 protein
- 2023/2024 domestic grind
 - 80% 14 protein
 - 10% 15 protein
 - 10% 13.5 protein
- Millers have been reluctant to change grinds as bakers have grown accustomed to readily available protein

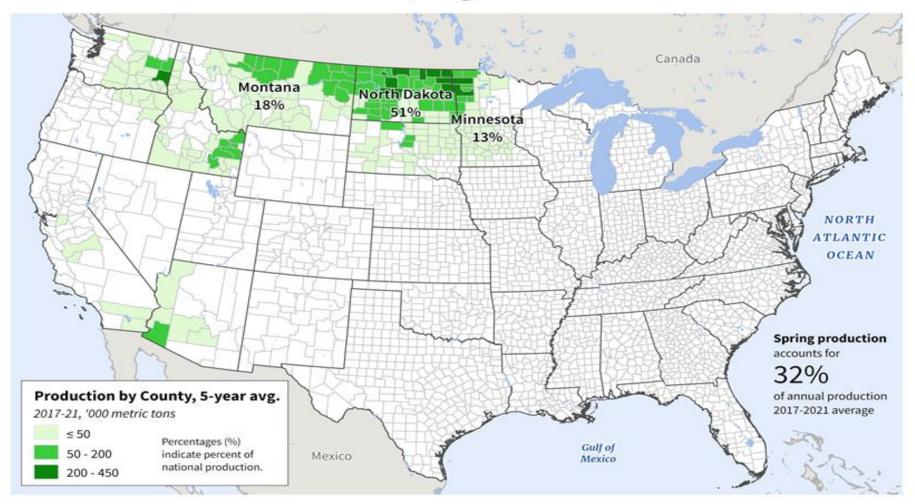
Domestic Milling coverage

- Q4 2023 80%
- Q1 2024 25%
- Q2 2024 15%
- Q3 2024 5%
- Since pandemic, global millers/bakers have changed buying habits from deferred to hand to mouth coverage.
 - Is this the new norm??
- Do we have enough protein to satisfy the markets both domestic and global?
 - All eyes will be on Q2-Q3 as protein continues to be consumed at a high rate with no signs of slowing down today

US Northern Spring wheat disruptions

- Challenges from row crops
- Increasing crush capacity
- Canadian competition
- MW/KC spread approx. 70c premium
 - HRW maxed in blends
 - Feed-Residual negative as we continue to see HRW blend into NS

United States: Spring Wheat Production





Source: U.S. Department of Agriculture, National Agricultural Statistics Service



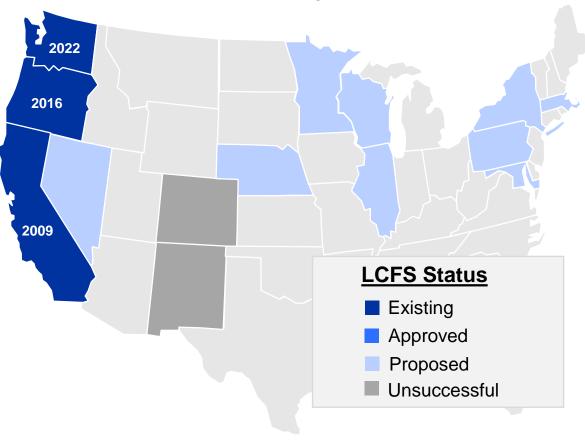
Acres shifting

- Increases in soybean crush capacity in North Dakota will challenge wheat acres
- Wheat acres will be pushed further west into North Dakota and Montana, facing stiff competition from pulse crops/hrw
- Losing acres in the Red River Valley and replacing them with Montana/Western North Dakota presents a challenge to maintain trendline yields
- Average protein and quality of the crop should improve

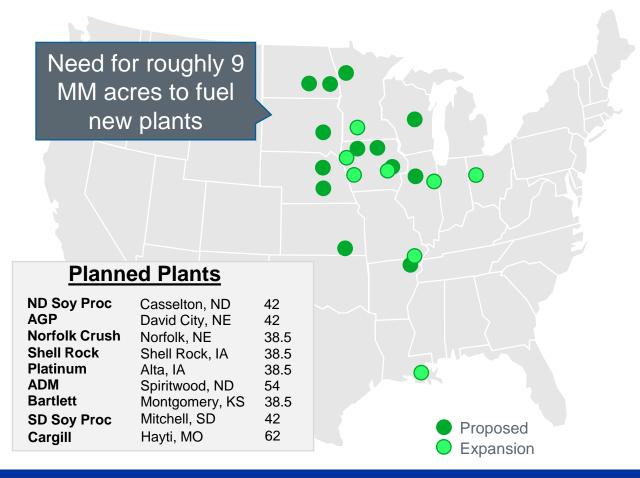


Renewable diesel – new kid on the block





Will there be enough beans to pull this off?

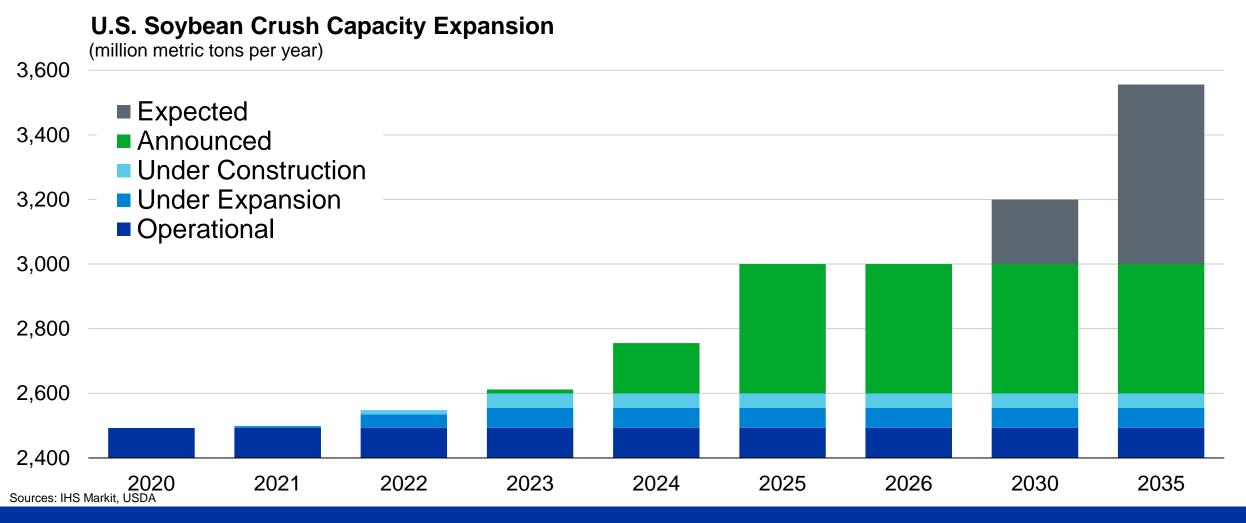


Source: IHS Markit



U.S. soybean crush capacity outlook

State by state probabilities of low carbon fuel standards are driving significant investor interest in new crush capacity

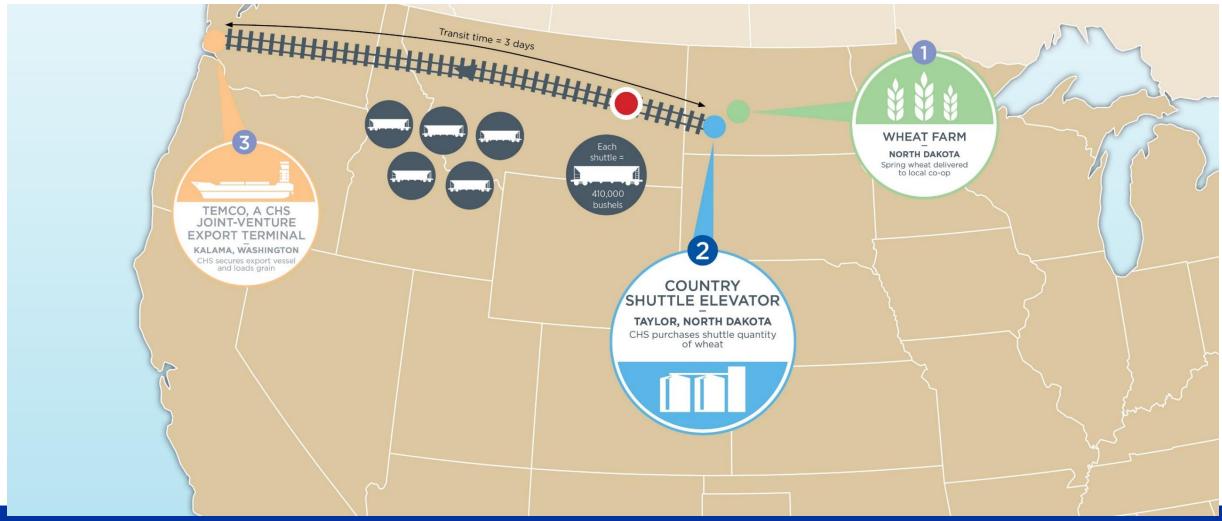




Impact on interior freight

- ADM crush plant in Spiritwood, ND opened this fall
- Will crush 150k bushels per day, 4.5 million bushels per month
- 4.5 million / 420k bushels per shuttle = 10.7 shuttle trips per month lost
- US currently not set up to ship large quantities of soymeal off the PNW, so nothing to replace those trips with

IMPACT OF INCREASED CRUSH ON INTERIOR FREIGHT





The Canadian story – where were we 3 years ago?

- CWRS represented lower quality 20 to 30 cents
- NS would remain competitive vs CWRS 10-11 months out of the year
- G3 terminal opening June of 2020, massively increasing export capacity
- If export values dropped vs US domestic markets, grain would flow into the US

The Canadian story – where were we 2 years ago?

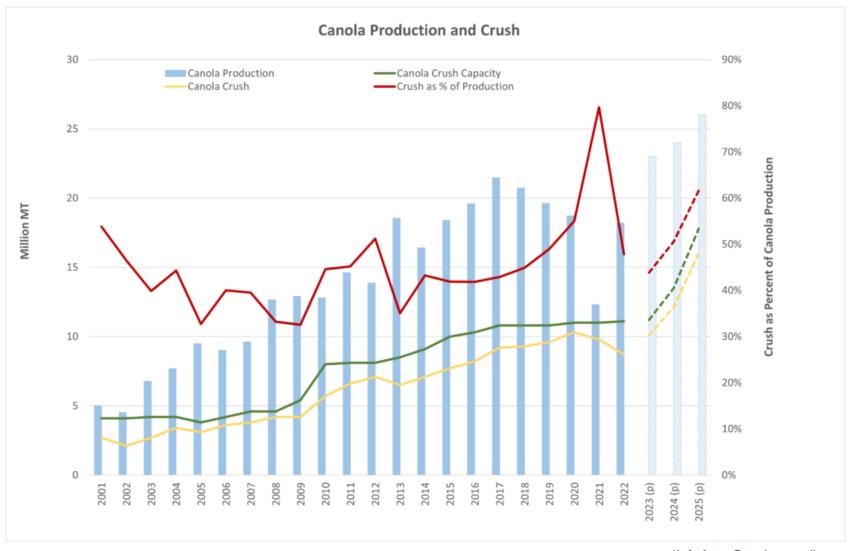
- CWRS still represented lower quality 20 to 30 cents
- Hurricane disruption in the Gulf of Mexico pushed sorghum and soybeans off the PNW, pushing elevations significantly higher
- The fob price spread between NS and CWRS widened with expensive interior freight and higher elevations to nearly \$1/bu
- With challenging world markets from covid, NS became highly uncompetitive vs CWRS during soybean shipping season (Oct-Jan)
- Taught the global end user that they could make the same products using CWRS at a much cheaper value
 - Hard to turn back the clock

The Canadian story – where are we now?

- Canadian grain shippers were in a race to the bottom stabilizing now
- Freight operating on a "take or pay" model
- With extremely low fob prices, much less grain flowing into the US domestic channels than you would expect

The Canadian story – where are we going?

- Likely reduction in wheat acres in favor of canola
- Decreased wheat acres and more domestic use of canola likely to reduce Canadian exports
- Capacity will be readily available
- With less exportable grain available, will Canadian shippers purchase less freight?



*Info from Canolacouncil.org



How will the US compete?

- Increased crush capacity will lower soybean exports
- High corn prices has made US corn non-competitive vs SOAM
- This weighs on US PNW elevations and on interior rail values
 - Will cheaper rail values and elevations allow us to price back into these elastic demand markets? (Vietnam, Indo, Philippines, China)

How will the railroads respond?

- Rate changes?
- Change number of running sets?



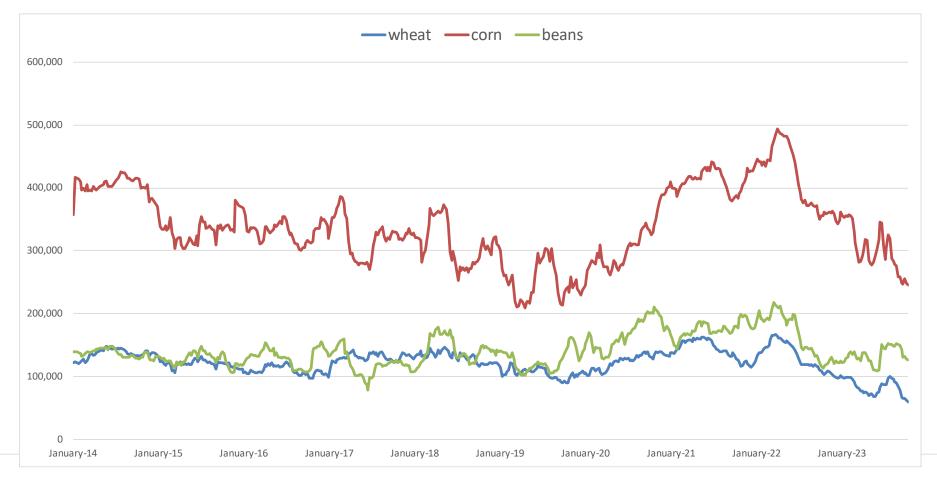
Key Macros:





Commodities as an asset class

As the index category has dropped off, large outflows continue to be seen in the grain space. Wheat investments at a record lows.

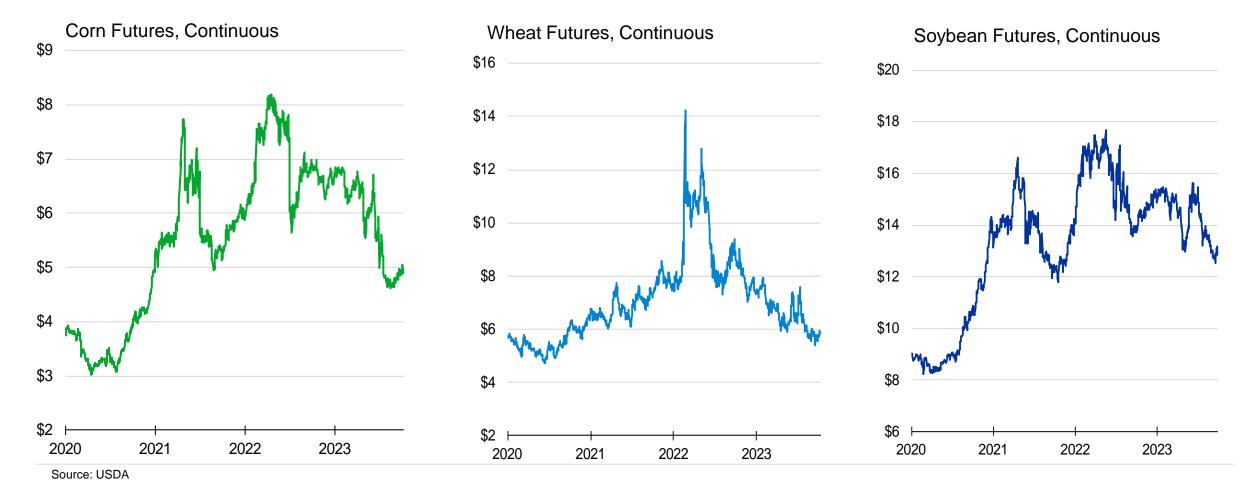






Futures prices have been on a wild ride

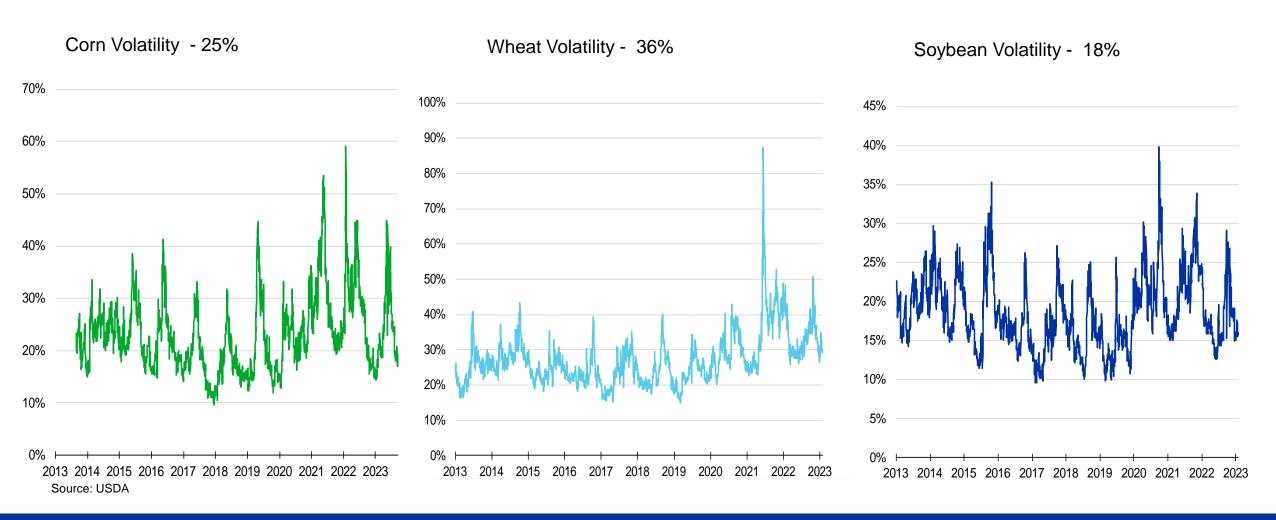
Most futures have set back to level of 2 to 3 years ago.





Volatility tells the tale

Volatility levels have spiked but are now down into historically low levels for corn and soybeans but remain highest in wheat.





U.S. Wheat Balance Table

	19/20	20/21	21/22	22/23	23/24
Planted Acres (Millions)	45.5	44.5	46.7	45.7	49.6
Area Harvested (Millions)	37.4	36.8	37.1	35.5	37.3
Yield (Bushels per Acre)	51.7	49.7	44.3	46.5	48.6
Beginning Stocks	1,080	1,028	845	698	582
Production	1,932	1,828	1,646	1,650	1,812
Imports	104	100	96	122	135
Total Supply	3,116	2,956	2,588	2,470	2,529
Total Domestic	1,117	1,118	1,093	1,130	1,159
Exports	969	994	796	759	700
Total Use	2,086	2,111	1,889	1,888	1,859
Ending Stocks	1,029	845	698	582	670
Stocks/Use	49%	40%	37%	31%	36%

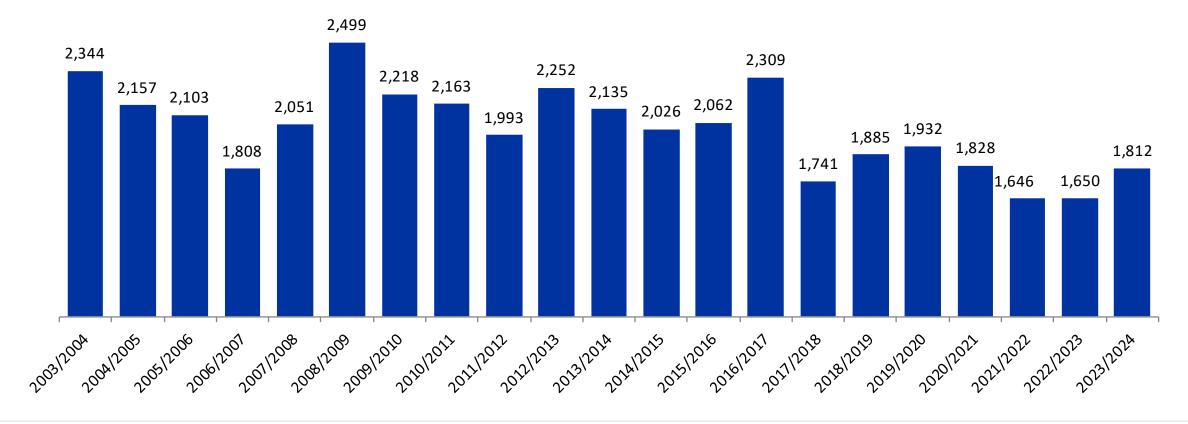
- Yields took a big jump up from 45.8 to 48.6 bpa in the October WASDE report
- Exports continue to drop. Lowest levels since 1971/1972!!
- 23/24 carryout grow from 615 million to 670 million bushels
- Stocks to use at 36% is the 2nd tightest since 13/14
- US has become the residual supplier to the world whereas we used to be the first choice.

Source: U.S. Department of Agriculture



U.S. wheat production still near 20-year lows

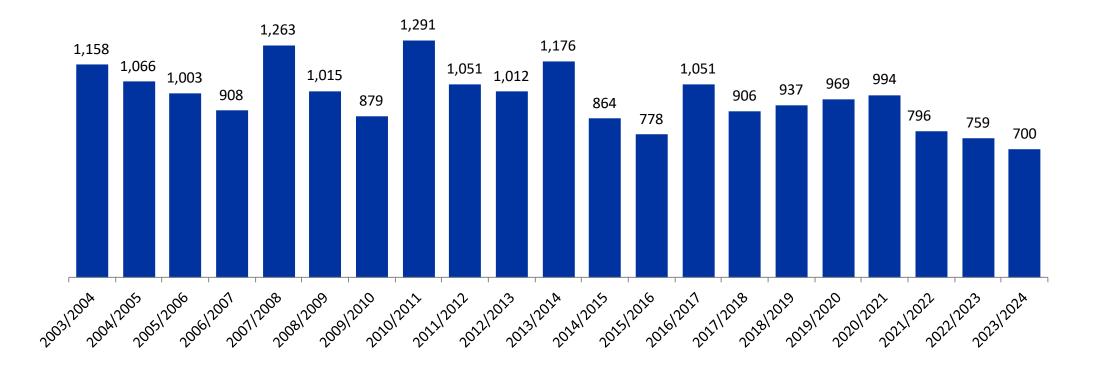
U.S. Wheat Production, million bushels





U.S. wheat exports hit 50-year lows

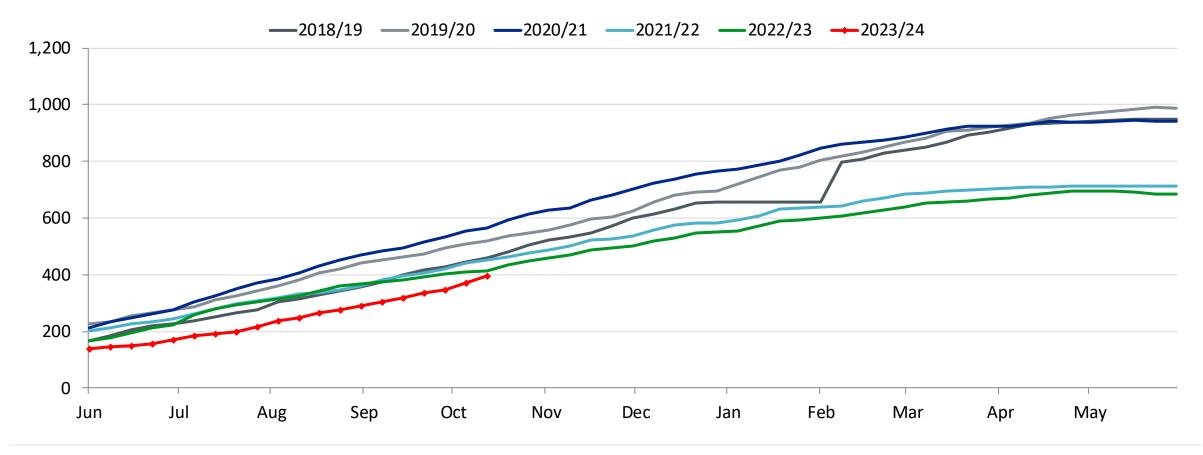
U.S. Wheat Exports, million bushels





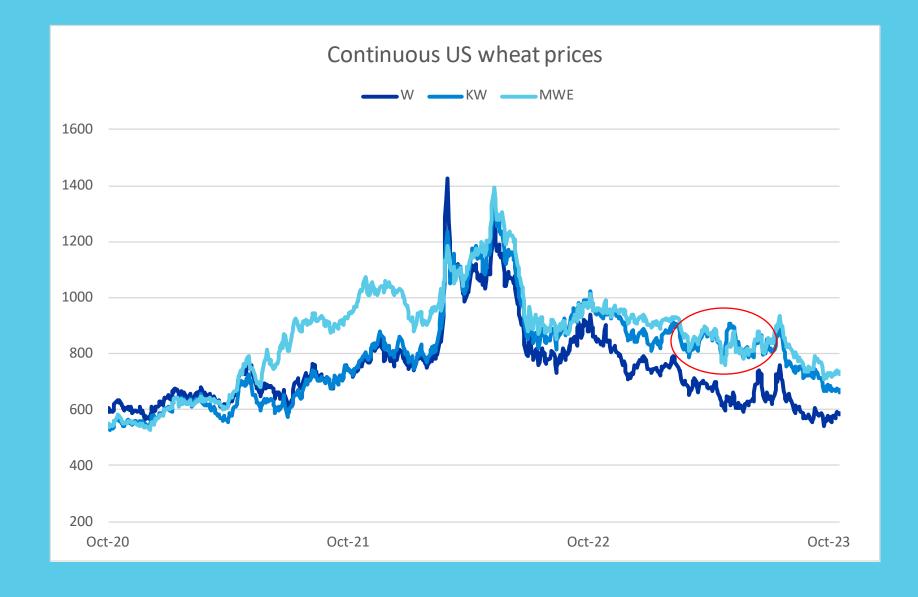
Wheat export commitments trailing even last year's difficult year

U.S. Wheat Export Commitments, million bushels





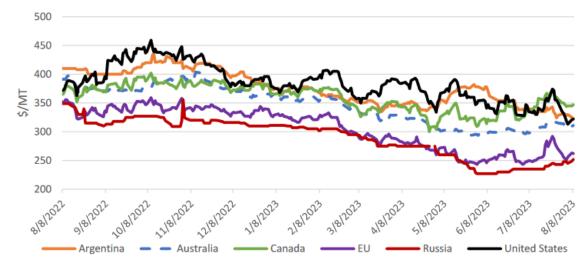
- Wheat prices have dropped back to prewar levels
- U.S. wheat prices remain very high for world trade
- MWE continues its climb vs other wheats
- Pricing HRS to Mexico in replacement of HRW



Argentina	Australia	Canada	EU	Russia	United States
\$323	\$311	\$347	\$262	\$252	\$322

Note: As of August 8, 2023

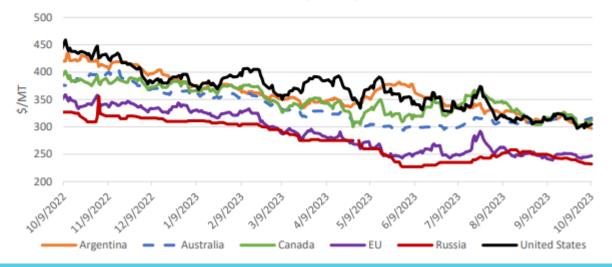
International Daily FOB Export Bids



Argentina	Australia	Canada	EU	Russia	United States
\$297	\$316	\$312	\$247	\$232	\$305

Note: As of October 9, 2023

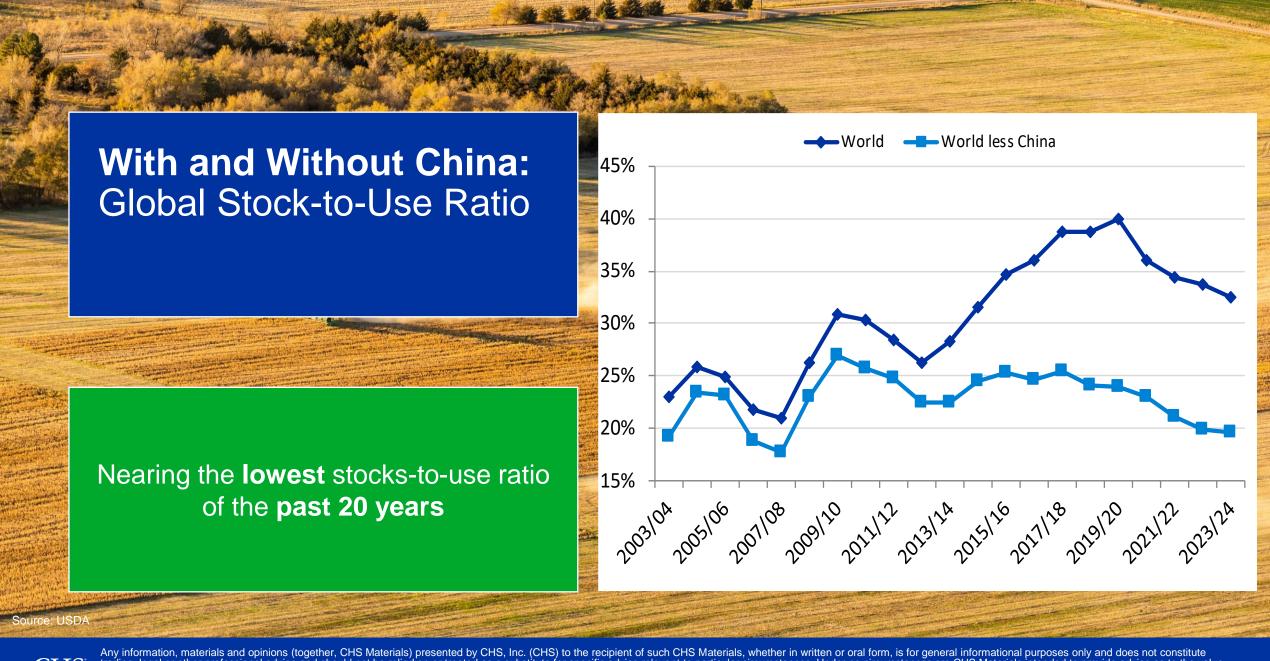
International Daily FOB Export Bids



Source: USDA



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Ukraine Wheat

- 2021/22 Production / Exports
 - 33.0 mmt
 - 18.8 mmt
- 2022/23 Production / Exports
 - 21.5 mmt
 - 17.1 mmt
- 2023/24 Production / Exports
 - 22.5 mmt
 - 11.0 mmt

Production and exports half of pre war levels

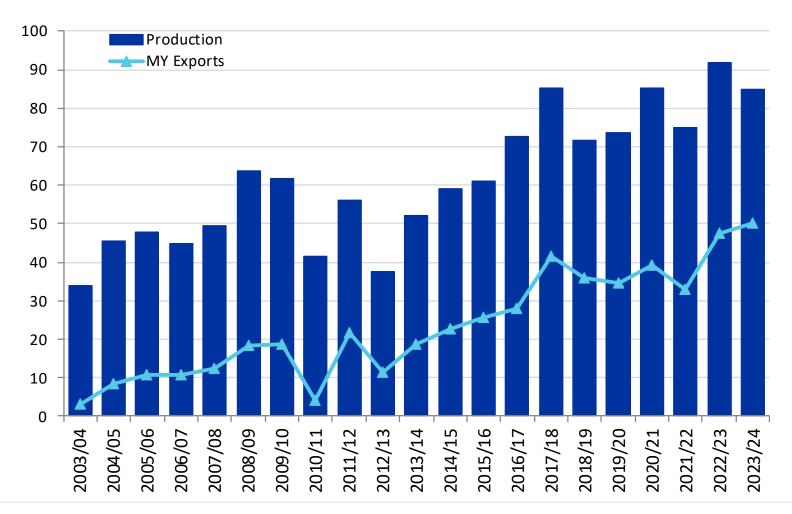




Source: State Statistics Service of Ukraine (Rosstat for Crimea Oblast)
Average Wheat Production 2016-2020



Russian exports continue their ascent



- Russian production drops back from record levels
- Exports up to a record
 50.0 mmt for 23/24
- Continues to find homes in every market globally.



What We're Watching

- The U.S. weather situation: Yields are very good in many areas. Snow is moving into the northern states
- War in Ukraine: How much wheat will move out of Ukraine is still a major unknown.
- Slow pace of U.S. exports: 2023/24 overall exports are off to a historically slow start. Although, SRW exports are outstanding when compared to recent years.

Going forward

- Large Brazil soybean crop and little corn demand will likely depress elevations and rail prices
- With elevations equalized, spread between CWRS and NS will stay more competitive
- How close depends on US interior freight competing with the Canadians
- Will the Canadian shippers find an equilibrium of how much freight to purchase?
- Does the market adjust its protein needs? MW/KC spread?



Thank you

