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2024 AEDE Agricultural Outlook and Policy Conference

Grain Market Outlook

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Preview: Weak Market Fundamentals

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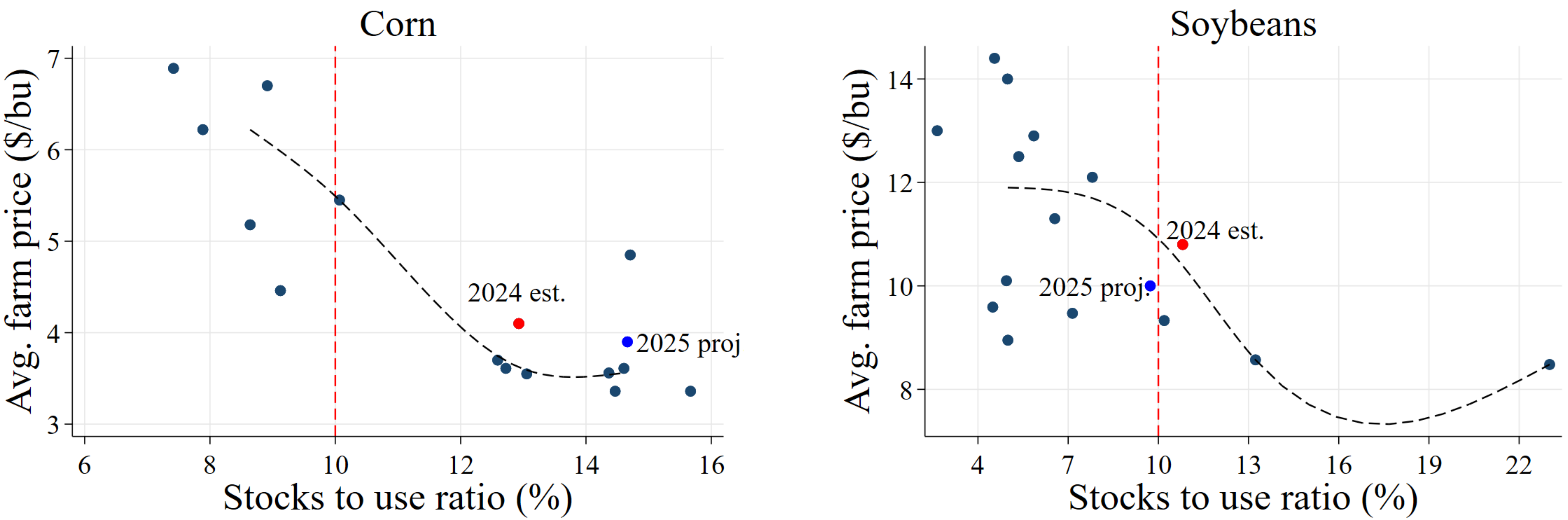
Negative correlation between Avg. Farm Price and Stocks-to-Use ratio (2010-2025)



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Data source: USDA WASDE

U.S. Corn Supply and Demand

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Name (MY: Sep-Aug)	MY 23/24	MY 24/25-Oct	MY 24/25-Nov	Δ from 23/24	2025 trend proj
Area Planted (mil. acres)	94.6	90.7	90.7	-3.9	92.0
Area Harvested (mil. acres)	86.5	82.7	82.7	-3.8	
Yield per Harvested Acre	177.3	183.8	183.1	5.8	182.0
a) Beginning Stocks	1,360	1,760	1,760	400	1,938
b) Production	15,341	15,203	15,143	-198	15,305
c) Imports	28	25	25	-3	25
Supply, Total	**16,729**	**16,989**	**16,928**	**199**	**17,268**
a) Feed and Residual	5,807	5,825	5,825	18	5,925
b) Ethanol & by-products	1,391	1,390	1,390	-1	5,475
c) Food, Seed & Industrial	5,478	5,450	5,450	-28	1,385
Domestic, Total	*12,676*	*12,665*	*12,665*	*-11*	*12,785*
d) Exports	2,292	2,325	2,325	33	2,275
Use, Total	**14,969**	**14,990**	**14,990**	**21**	**15,060**
Ending Stocks	**1,760**	**1,999**	**1,938**	**178**	**2,208**
Stocks to use ratio	**12%**	**13%**	**13%**	**1%**	**14.6%**
Avg. Farm Price ($/bu)	**4.55**	**4.10**	**4.10**	**-0.45**	**3.90**

Source: USDA WASDE, November 2024

U.S. Corn State-level Yield

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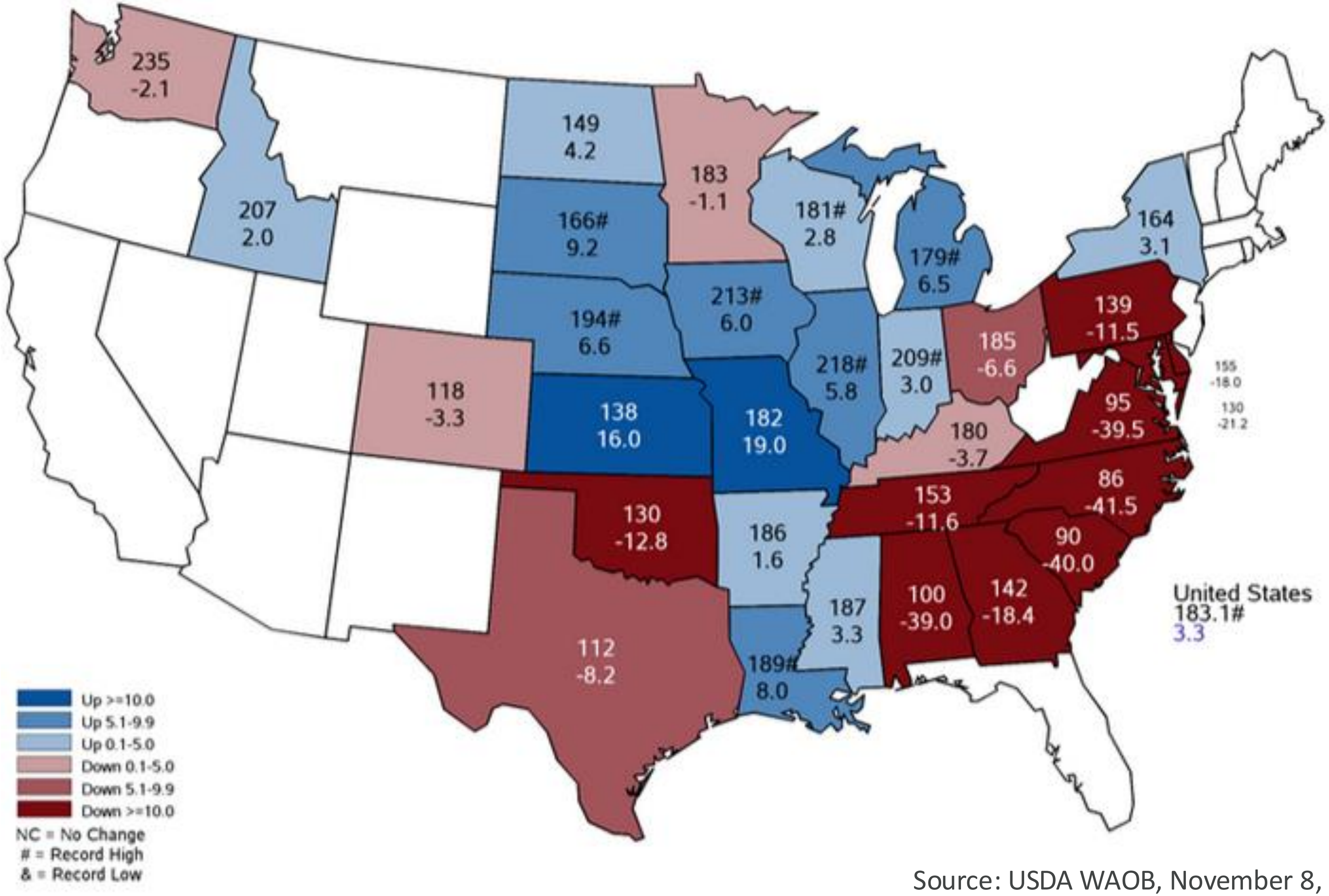

- **Ohio: 185 bu/acre -6.6% from 2023**
- Eight states are expecting record-high yield: IA, IL, IN, MI, NE, WI, SD, LA
- Record high US average: 183.1 bu/acre +3.3% from 2023

Source: USDA WAOB, November 8, 2024

Corn Futures

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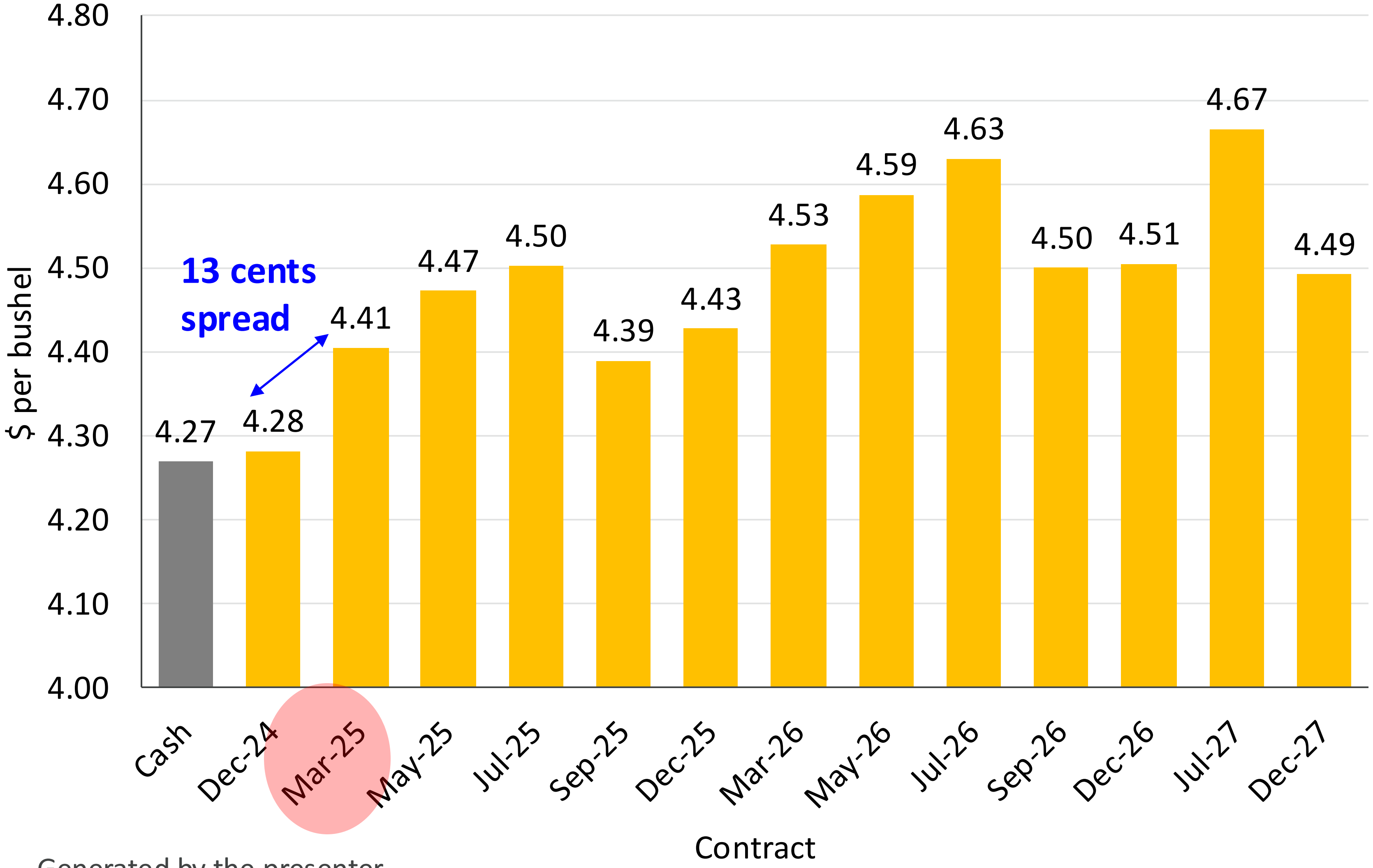

Generated by the presenter

Data source: Barchart CmdtyView (11/13/2024)

- Nearby future (DEC 24) is currently at $4.28
- Short-term market spread for corn is 13 cents
- March 25 future contract effectively reflects the near-term market prospects
- Market spreads shows to offer an incentive to store grain

Corn Futures: 25 March Contract

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U.S. Soybean Supply and Demand

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Name	23/24	24/25-Oct	24/25-Nov	Δ from 23/24	2025 trend proj
Area Planted (mil. acres)	83.6	87.1	87.1	3.5	85.0
Area Harvested (mil. acres)	82.3	86.3	86.3	4	
Yield per Harvested Acre	50.6	53.1	51.7	1.1	52.5
a) Beginning Stocks	264	342	342	78	470
b) Production	4,162	4,582	4,461	299	4,420
c) Imports	21	15	15	-6	15
Supply, Total	**4,447**	**4,939**	**4818**	**371**	**4,905**
a) Crush	2,287	2,425	2,410	123	2,475
b) Exports	1,695	1,850	1,825	130	1,885
c) Seed & Residual	123	114	113	-10	110
Use, Total	**4,105**	**4,389**	**4,348**	**243**	**4,470**
Ending Stocks	**342**	**550**	**470**	**128**	**435**
Stocks to use ratio	**8%**	**13%**	**11%**	**3%**	**9.7%**
Avg. Farm Price ($/bu)	**12.4**	**10.8**	**10.8**	**-1.6**	**10.0**

Source: USDA WASDE, November 2024

U.S. Soybean State-level Yield

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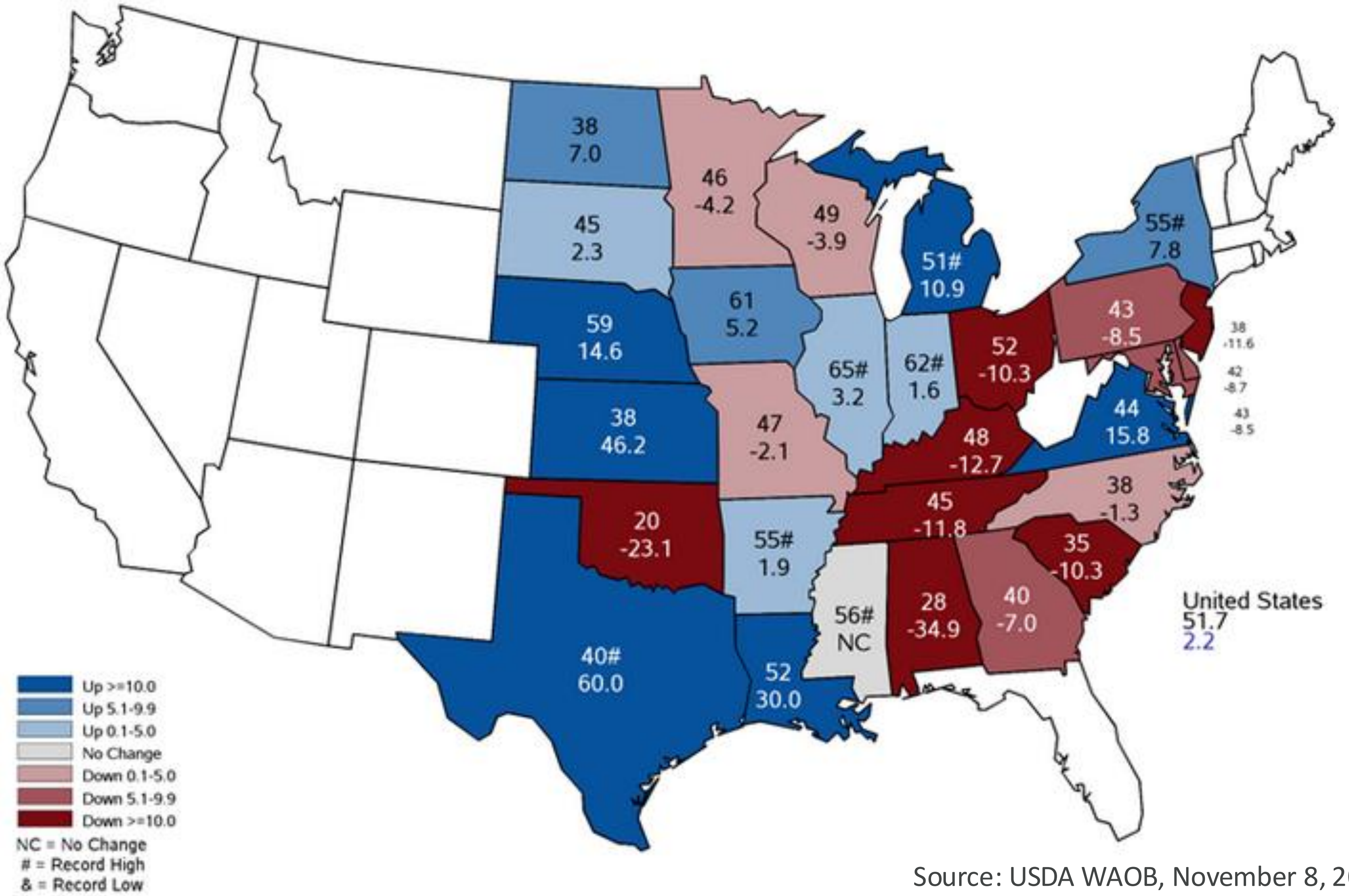

- **Ohio: 52 bu/acre -10.3% from 2023**
- Seven states are expecting record-high yield: IL, IN, MI, AR, MS, TX, NY
- High US average yield: 51.7 bu/acre +2.2% from 2023

Source: USDA WAOB, November 8, 2024

Soybean Futures

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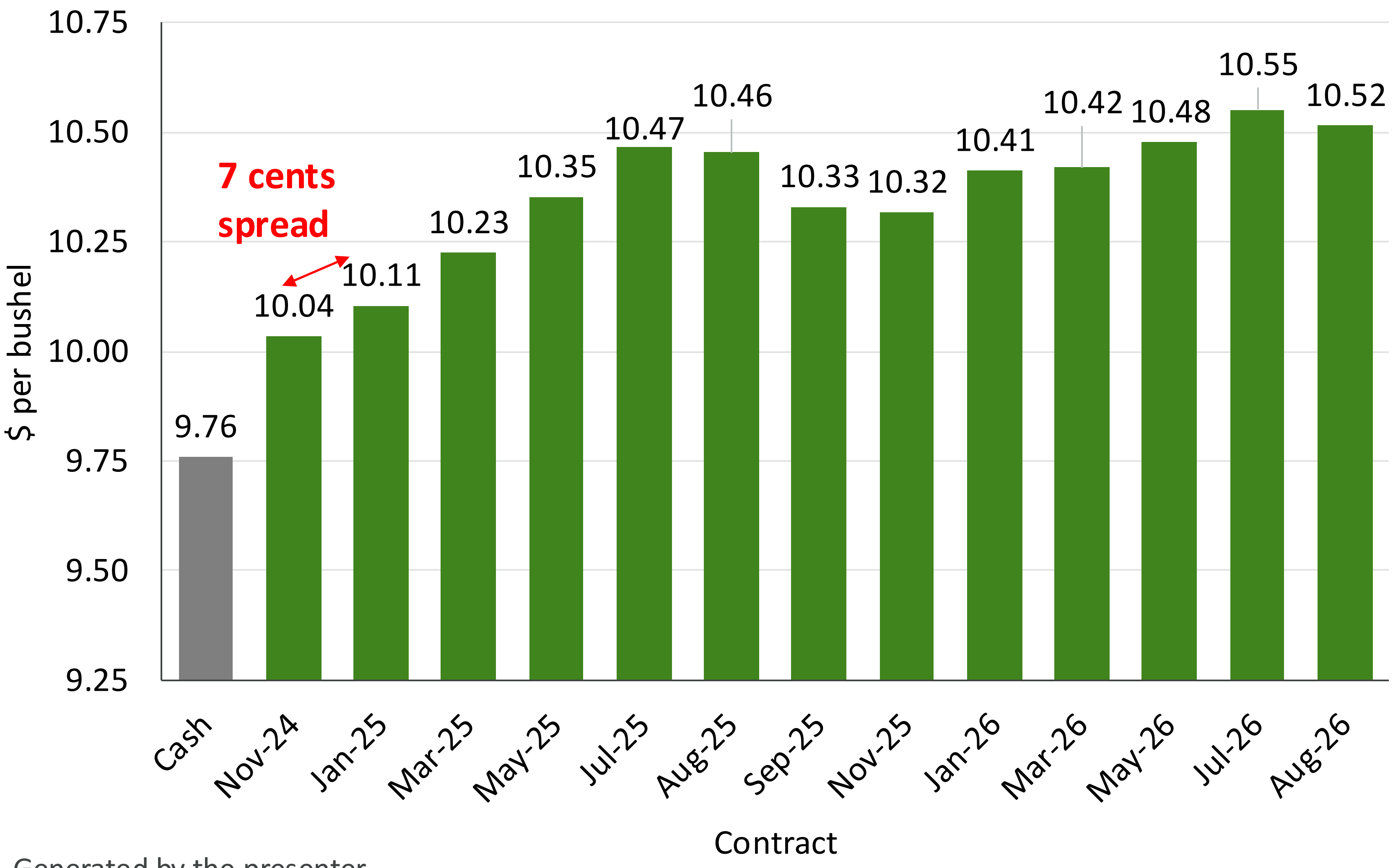
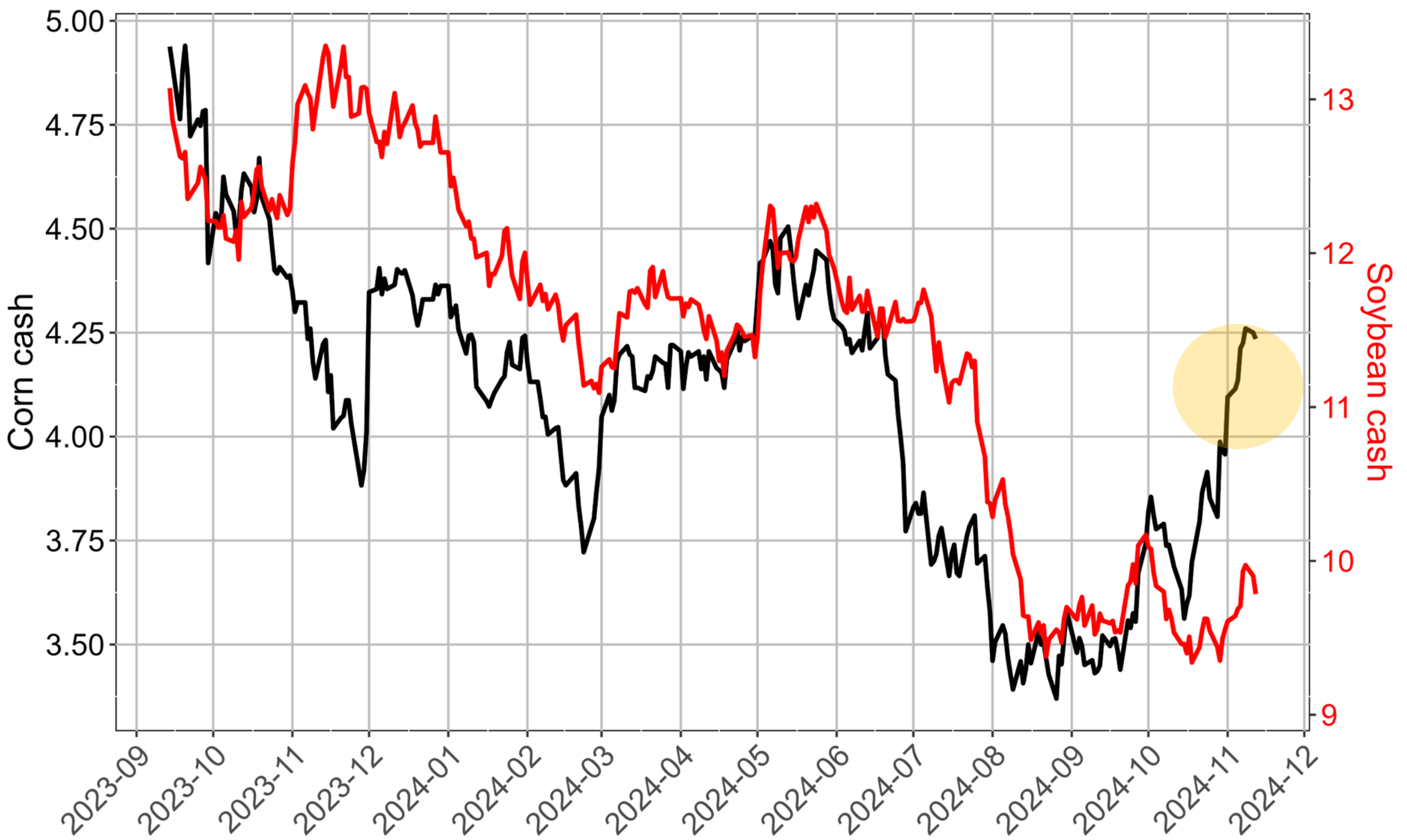


- Nearby future (Nov 24) is currently at $10.04
- Short-term market spread for soybeans is positive but much smaller than that of corn
- Market is more pessimistic than USDA's projection ($10.80)

Generated by the presenter
Data source: Barchart CmdtyView (11/13/2024)

Soybean Futures: 25 January Contract

Cash Prices – Fayette County, Ohio



- Corn cash rebounded at $4.25/bu, but soybean cash is still below $10/bu in Fayette County (early Nov)
- **Recall:**
  CASH = FUTURES + BASIS
- Nationwide weak grain price keeps downward pressing; basis affects cash prices differently across Ohio

Generated by the presenter
Data source: Barchart CmdtyView (11/13/2024)

Cash Prices – Fulton County, Ohio

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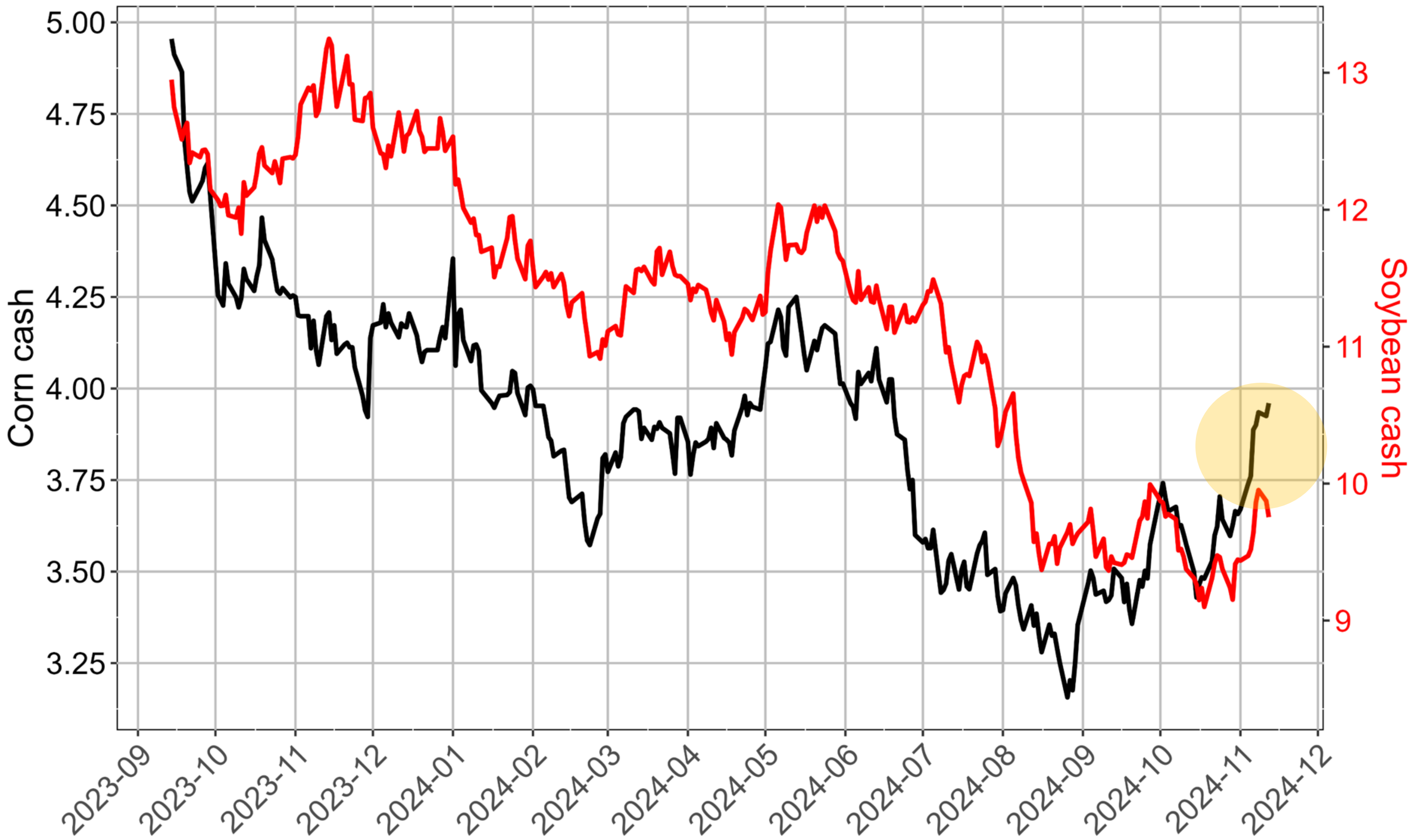

- Corn cash is below $4/bu, and soybean cash is still below $10/bu in Fulton County (early Nov)
- **Recall:**
  CASH = FUTURES + BASIS
- Nationwide weak grain price keeps downward pressing; basis affects cash prices differently across Ohio

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Data source: Barchart CmdtyView (11/13/2024)

Current Basis

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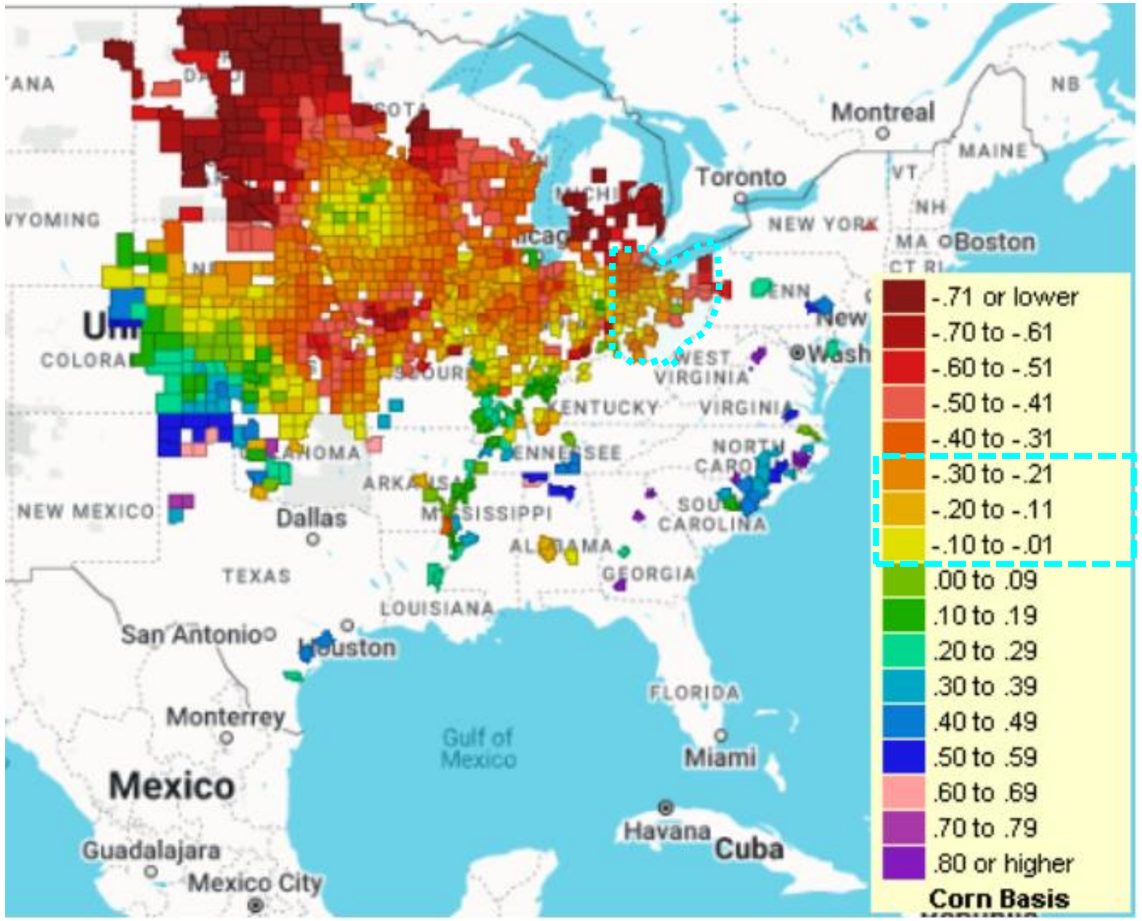
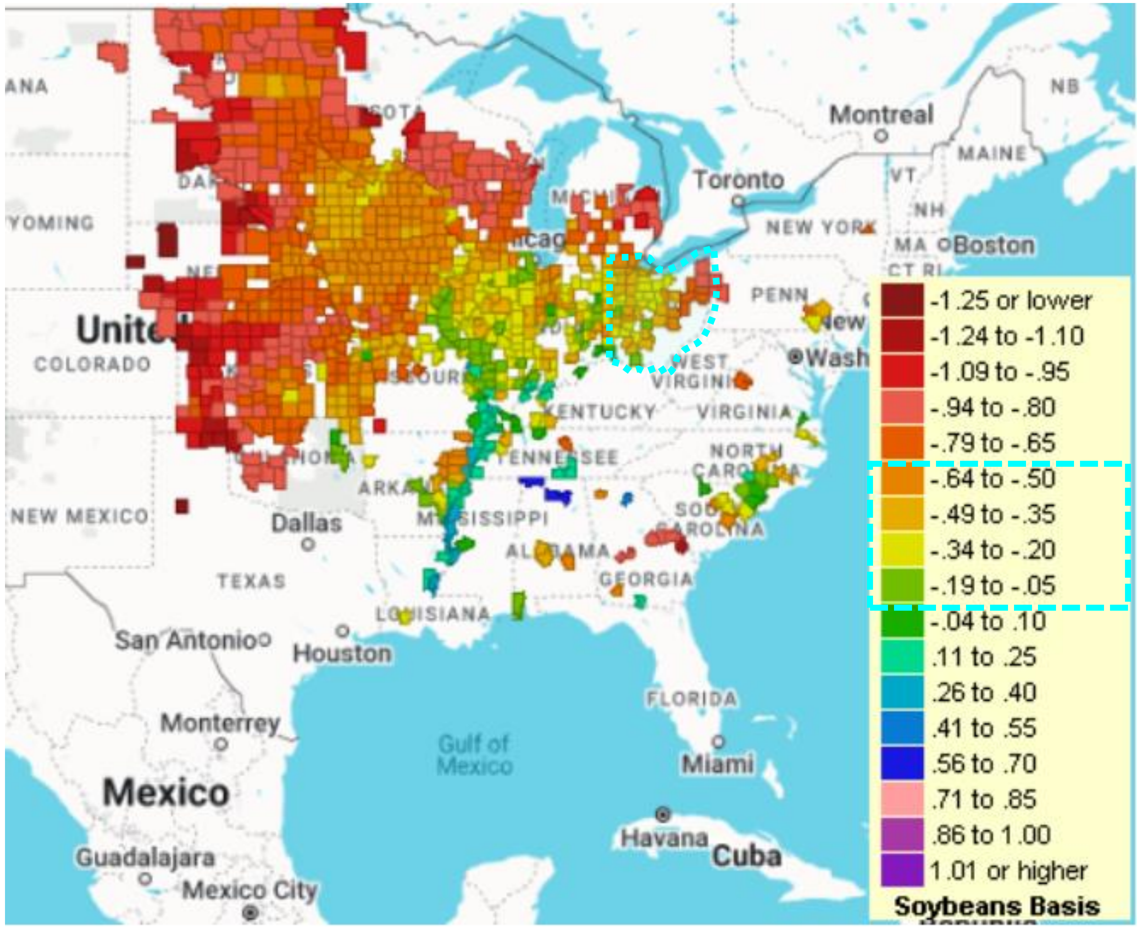
Corn Basis

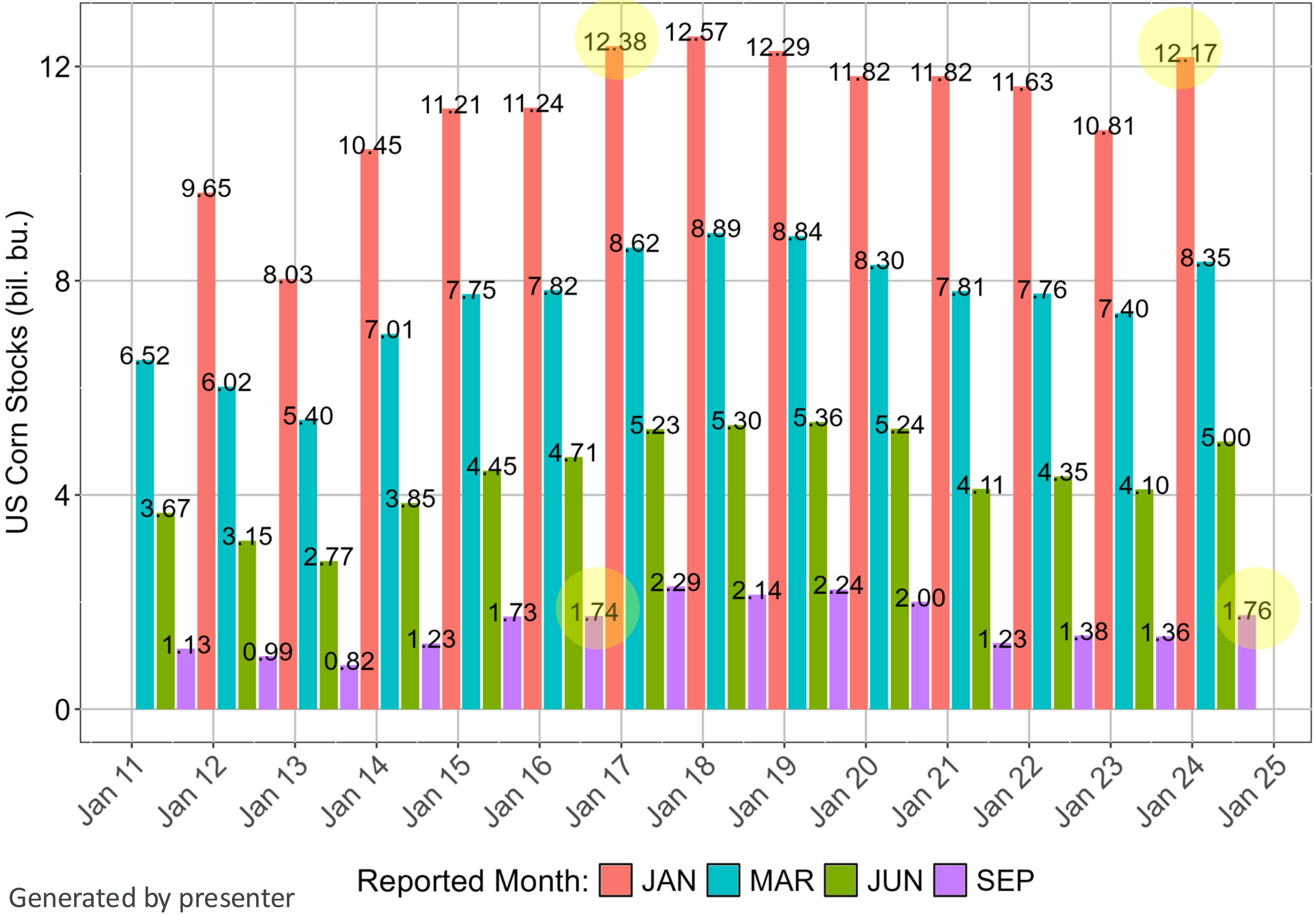


Soybeans Basis



Source: DTN (11/12/2024)

Stock Level Discussion – National Corn Stock

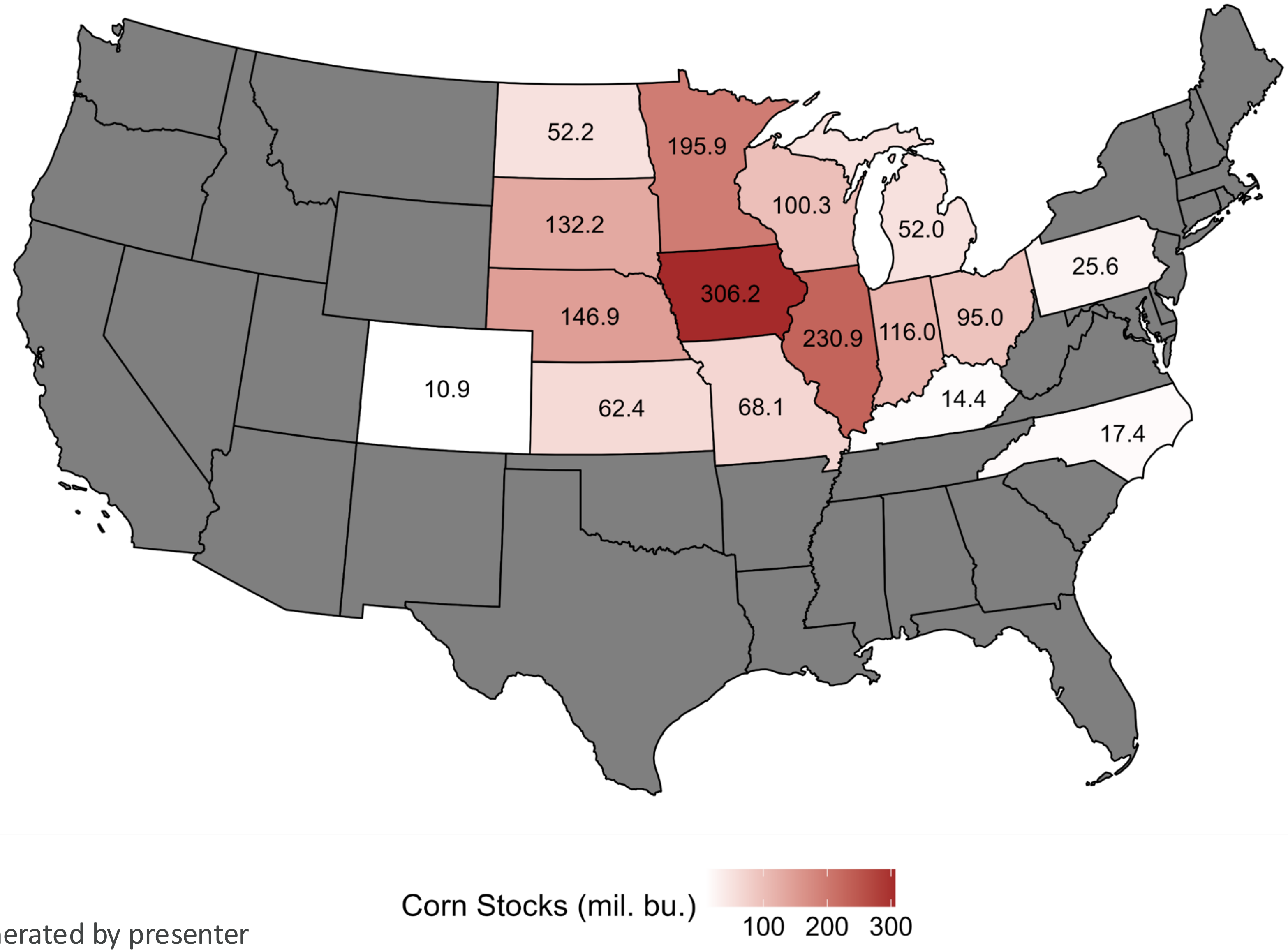


- September national corn stock appears to be as high as what we had in the 2016/17 market year
- December stock level will largely determine the market sentiments for the rest of the 2024/25 market year

Generated by presenter
Data source: USDA NASS;

Stock Level Discussion – Corn

CFAES

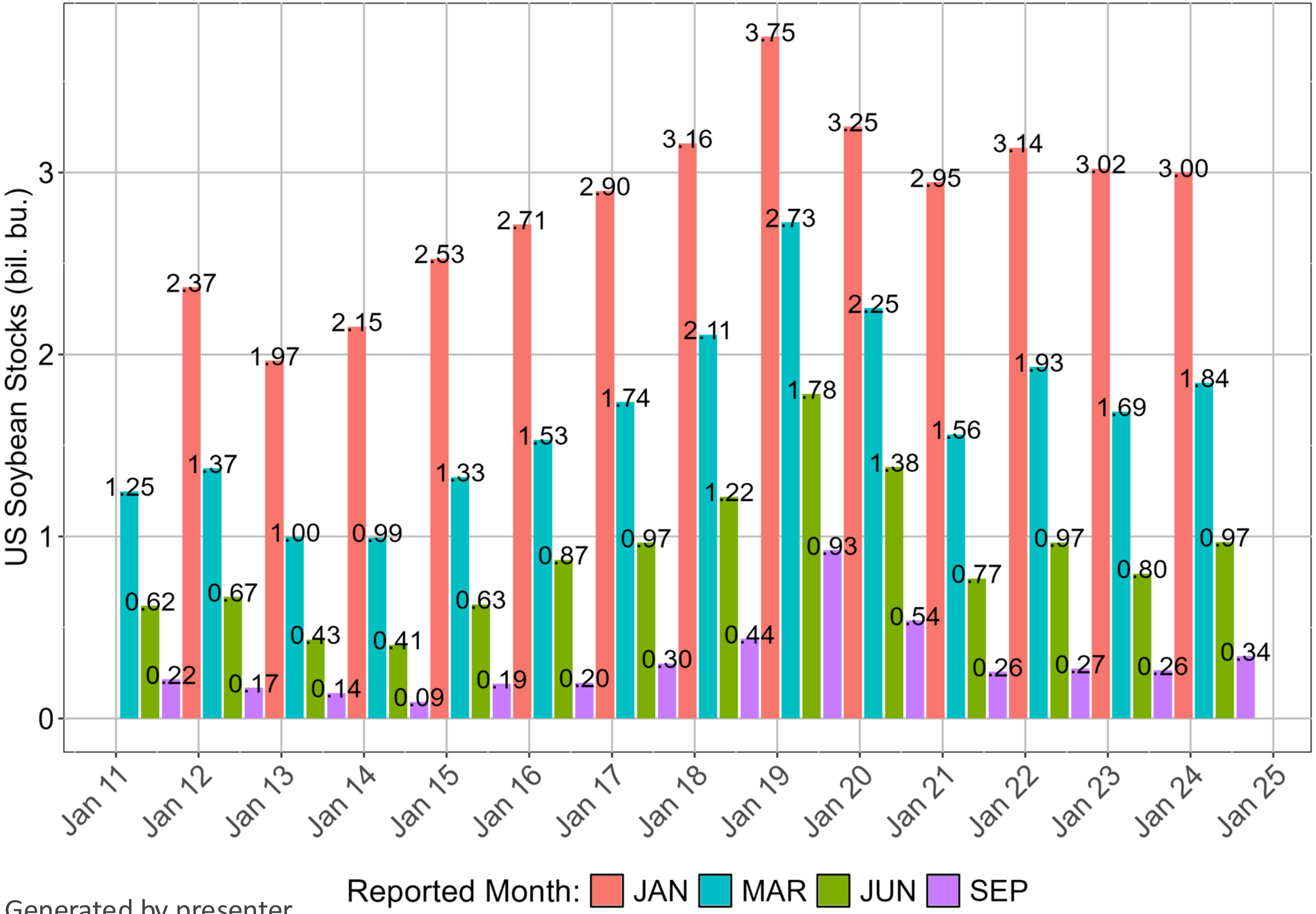


- Ohio is reported to have a corn stock of about 95 mil. bu.
- The geographic distribution of stocks will change in December due to the new crop corn (OH↓, while western Corn Belt↑)

Generated by presenter
Data source: USDA NASS;

Stock Level Discussion – National Soybean Stock

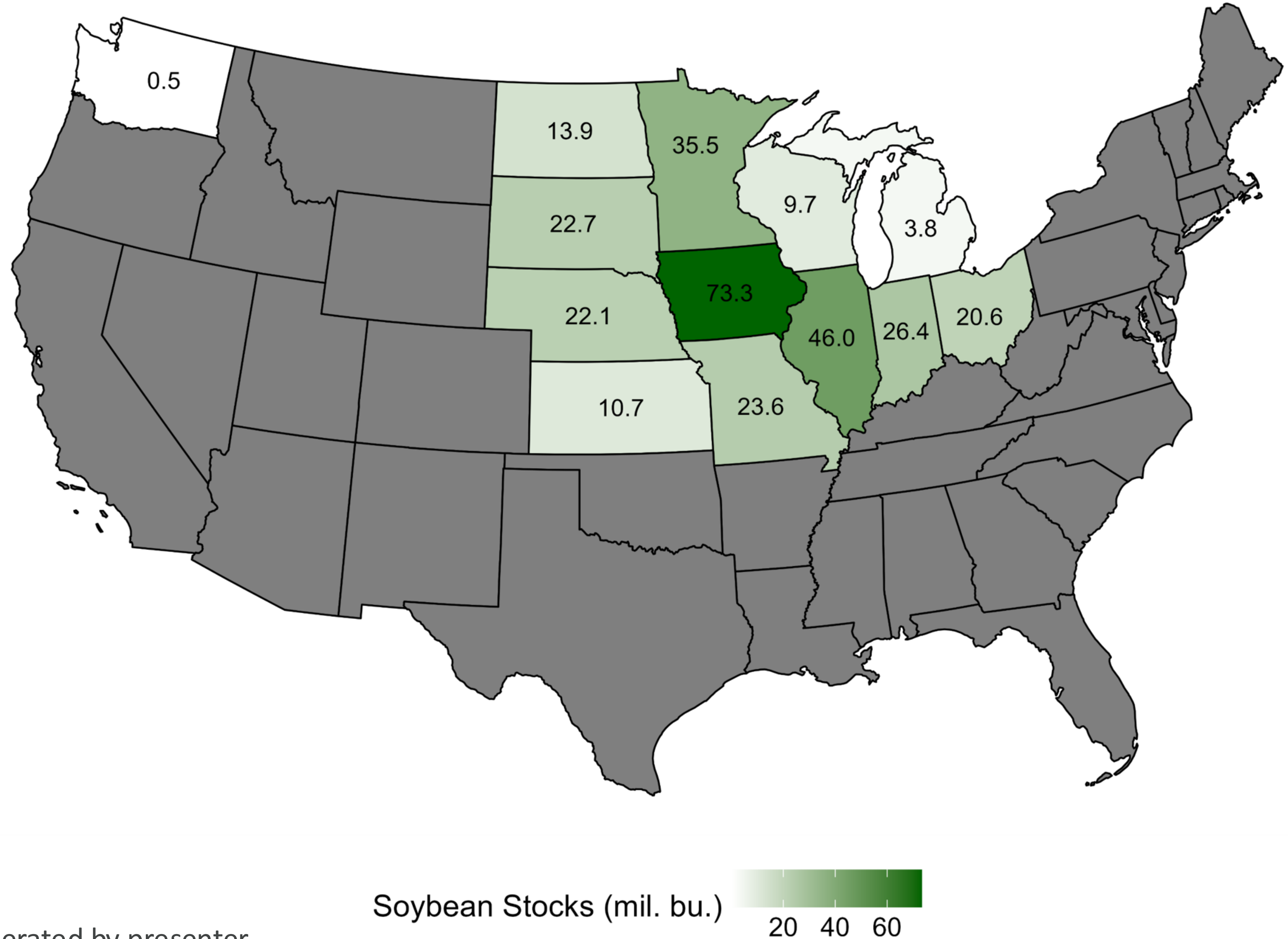
CFAES



- September national soybean stock appears to be moderately higher than previous years
- December stock level will be an important indicator, but the March stock level will largely determine the market sentiments for the rest of the 2024/25 market year

Generated by presenter
Data source: USDA NASS;

Stock Level Discussion – Soybeans



- Ohio is reported to have a soybean stock of about 20.6 mil. bu.
- As in corn, the geographic distribution of stocks will change in December due to the new crop corn (OH↓, while western Corn Belt↑)

Generated by presenter
Data source: USDA NASS;

World Corn Production

Country or Region	2023/2024 estimate	2024/2025 forecast	Change from October 11	Change from 2023/2024
	---------------- Million Tons	----------------		
World	1,229.1	1,219.4	2.2	-9.7
United States	389.7	384.6	-1.5	-5.0
Foreign	839.4	834.8	3.7	-4.7
Argentina	50.0	51.0	--	1.0
Brazil	122.0	127.0	--	5.0
Mexico	23.5	24.5	-0.5	1.0
Canada	15.4	15.2	--	-0.2
European Union	61.5	58.8	-0.2	-2.7
Serbia	6.8	5.5	--	-1.3
FSU-12	55.1	45.3	0.4	-9.8
Ukraine	32.5	26.2	--	-6.3
Russia	16.6	13.0	--	-3.6
South Africa	13.4	17.0	--	3.6
China	288.8	292.0	--	3.2
India	37.7	38.0	--	0.3

-- No change.

- Globally, corn production is estimated to be a little smaller than last year, mainly because of less planting in the US and weather issues (extreme heat and water deficits) in the Black Sea region

Source: USDA WASDE November 8, 2024

Corn Exports Update

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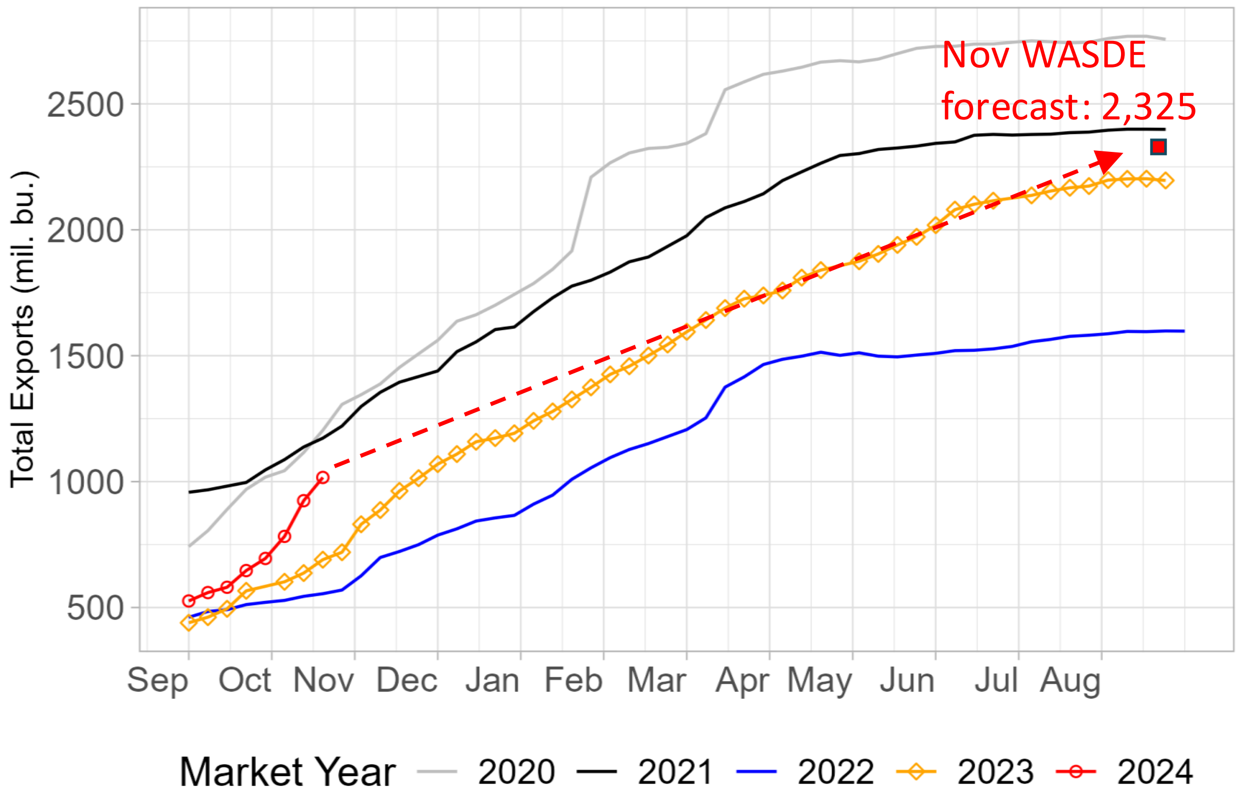
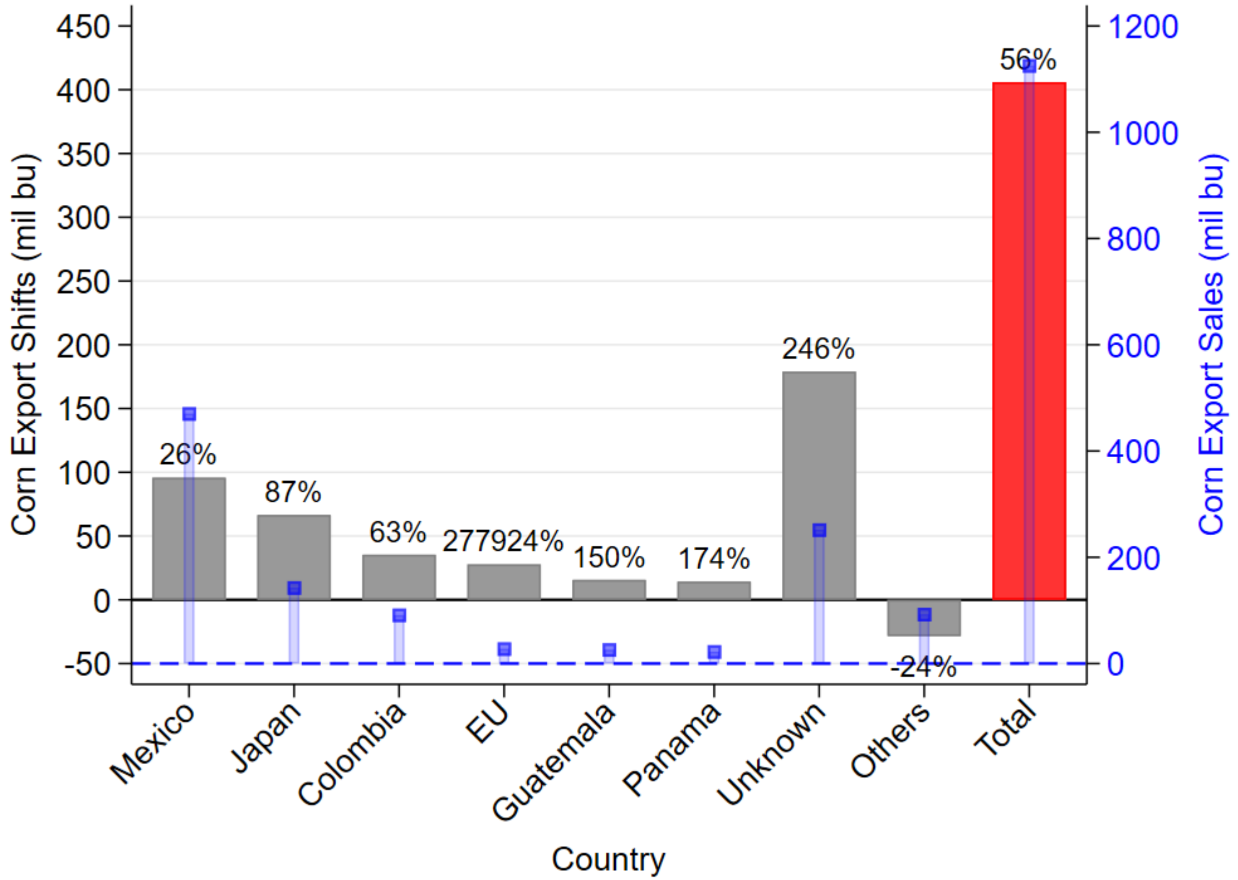
Total Corn Export Progress

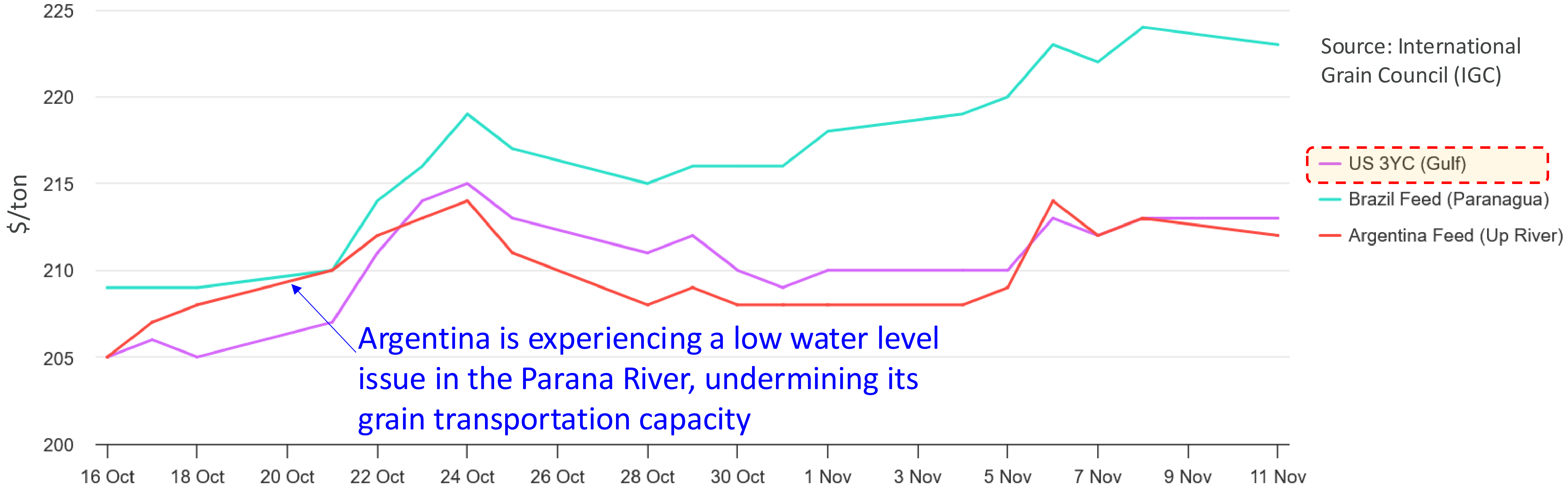


Country-specific Corn Export Shifts



Source: USDA FAS;
figures generated by presenter

Recent Corn Exports Prices Across Major Exporters



Source: International Grain Council (IGC)

	11 Nov	Daily $ Change	Annual Change	52 Week Low	52 Week High
Argentina Feed (Up River)	$212	-1	1 %	$178	$224
Brazil Feed (Paranagua)	$223	-1	2 %	$180	$234
US 3YC (Gulf)	$213	-	-%	$179	$218
Maize sub-Index	225	-1	-%	186	235

World Soybean Production

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Country or Region	2023/2024 estimate	2024/2025 forecast	Change from October 11	Change from 2023/2024	
	---------------	Million Tons	---------------		
World	394.7	425.4	-3.5	30.7	= 1,128 mil. bu.
United States	113.3	121.4	-3.3	8.1	= 298 mil. bu.
Foreign	281.5	304.0	-0.2	22.5	
Argentina	48.2	51.0	--	2.8	
Brazil	153.0	169.0	--	16.0	= 588 mil. bu.
Paraguay	11.0	11.2	--	0.2	
Canada	7.0	7.2	--	0.2	
India	11.9	12.6	-0.2	0.7	
China	20.8	20.7	--	-0.1	

-- No change.

Source: USDA WASDE October 2024

- The global soybean production is estimated to be considerably higher than last year (7.8%↑)
- Competition with Brazil will be the key factor
  (Brazil is estimated to produce around 10% more soybeans than last year)

Soybean Exports Update

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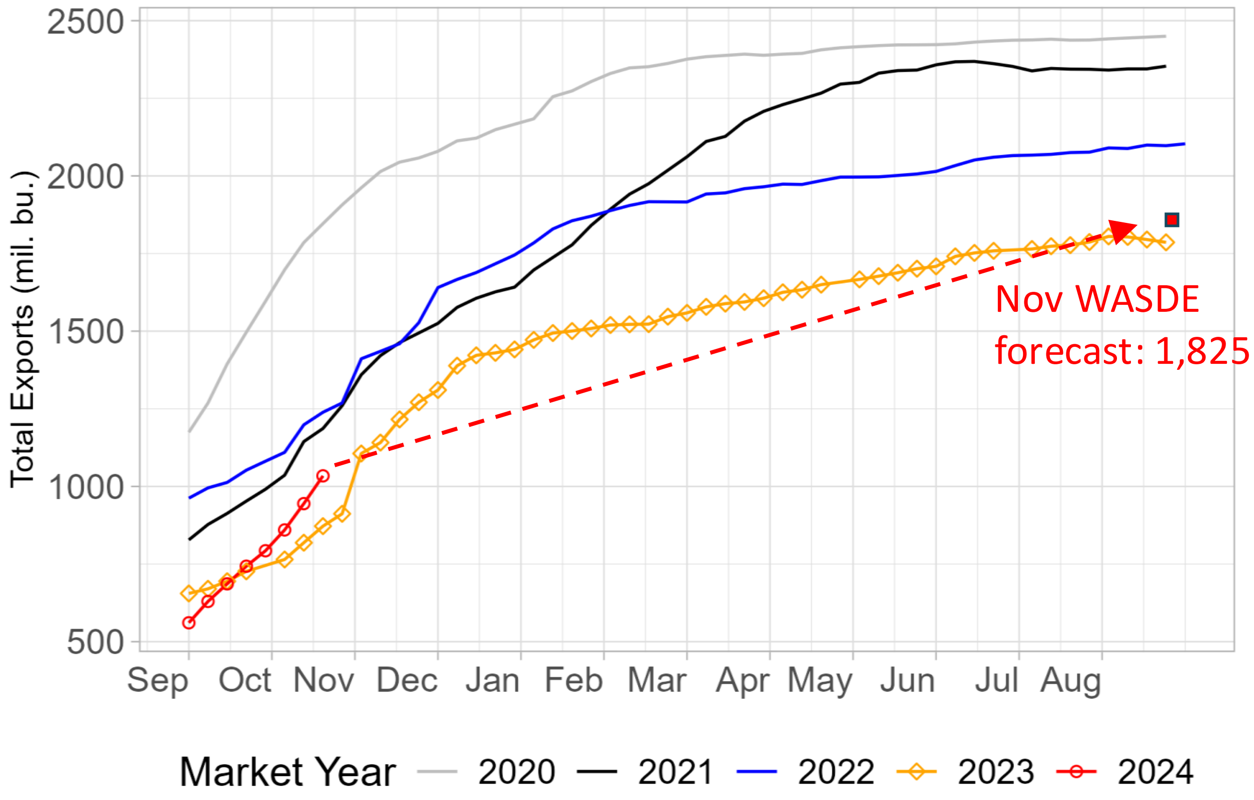
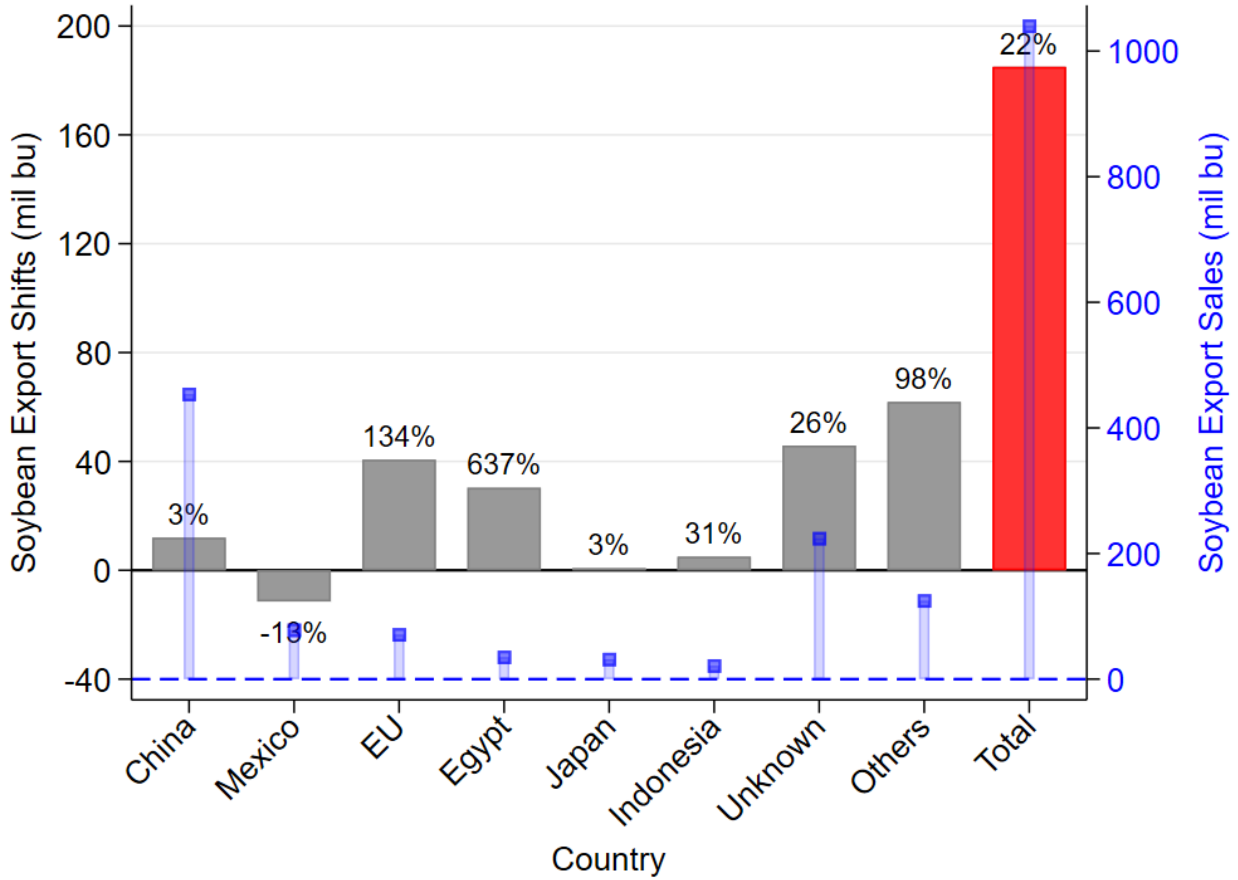
Total Soybean Export Progress



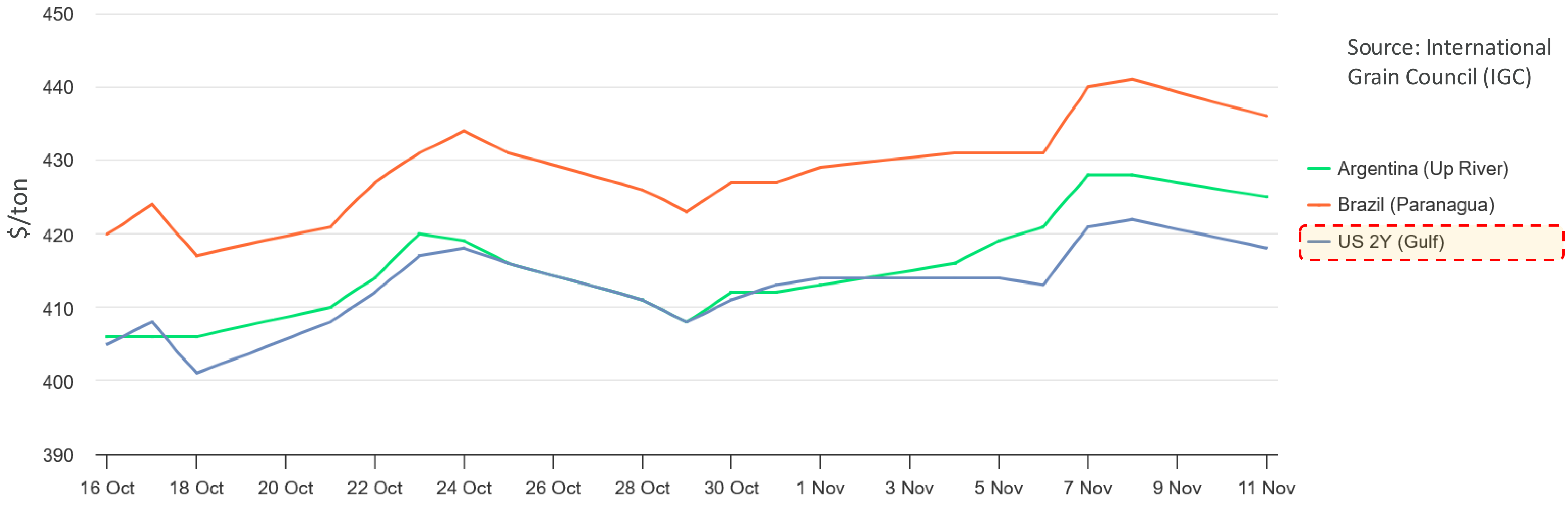
Country-specific Soybean Export Shifts



Source: USDA FAS;
figures generated by presenter

Recent Soybean Exports Prices Across Countries

CFAES



Source: International Grain Council (IGC)

	11 Nov	Daily $ Change	Annual Change	52 Week Low	52 Week High
Argentina (Up River)	$425	-3	-19 %	$388	$541
Brazil (Paranagua)	$436	-5	-13 %	$391	$521
US 2Y (Gulf)	$418	-4	-20 %	$379	$541
Soyabeans sub-Index	216	-2	-18 %	196	270

Wildcards

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- **Uncertainty would not help support grain prices under the current market**
  - Strong Dollars
  - Ongoing wars and trade policies can shock the global grain market at any time

- **New EU Regulation for Deforestation-Free Products**

UPDATE: EU Commission proposed **one-year delay** to implementation of the regulation (10-10-2024)

- The legislation will apply to commodities like cattle, soy, oil palm, coffee, cocoa, wood, and rubber
- Can have a huge impact on Brazilian agribusiness

- **China Approved Genetically Modified (GM) Seed Use in 2023**
  - It's been proven GM dramatically increase crop productivity
  - Chinese adoption of GM varieties will likely drastically change the international grain trade flow

- **Long-term challenge: a sharp decline in China's grain imports**
  - The China Agricultural Monitoring and Early Warning System (CAMES) recently estimated China's grain imports would decline by 30% from 2024 to 2033, mainly because of Population decline + productivity increase

Wildcards [a potential game changer in the long run]

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India's push toward corn-based ethanol

- India was Asia's top corn exporter
- Recent push to make more corn-based ethanol turned India into a net importer for the first time in decades; **this can scramble global supply chains**
- **Indian poultry industry seeks duty-free imports, GM corn**
- A record corn import of 1 mil. tons, mainly for non-GM corn from Myanmar and Ukraine

Note: Exports, imports in million metric tons in calendar year; By Rajendra Jadhav (Reuters, 09-04-2024)
Source: Commerce Ministry, traders' estimate

Closing Remarks: Skating on thin ice?

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Takeaway: The grain market will be rough for a year or more. It's time to check your marketing plan & safety nets.

Massive Supply

Renewable diesel to expand by 30% annually in 2024, 2025
(EIA, Feb 2024)

Growing ethanol demand in India
Targeting 20% ethanol blending with gasoline by 2025

Demand

Strong dollar

Competition with Brazil
Soybean prospect will be dependent on South American harvest prospects

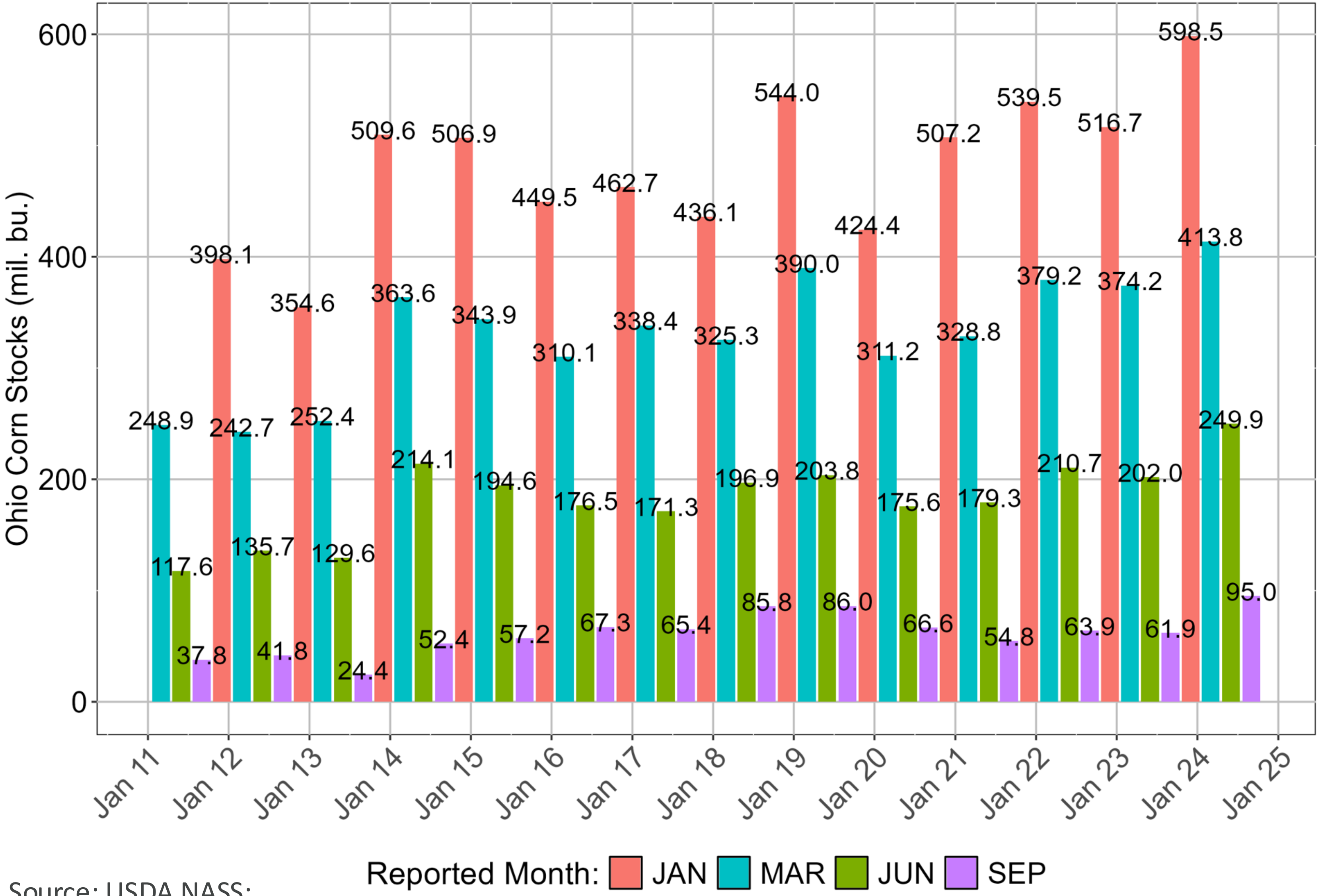
China's decoupling
(GM crop adoption)

Thank You!

Please email me if you have any questions about the slides

Lee.10168@osu.edu

Appendix: Ohio Corn Stocks



Source: USDA NASS;
figures generated by presenter

Appendix: Ohio Soybean Stocks

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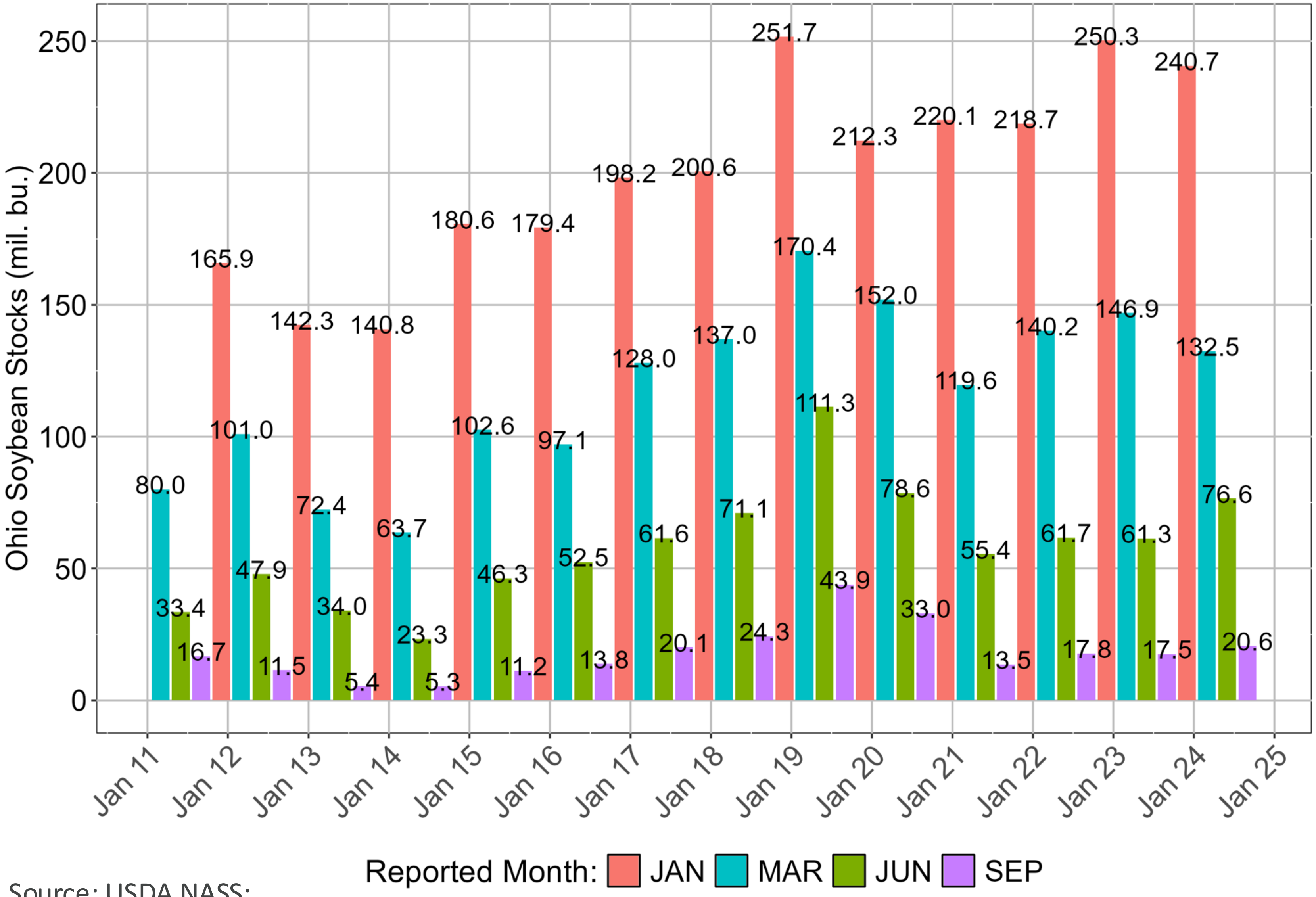

Source: USDA NASS;
figures generated by presenter

Appendix: U.S. Wheat Supply and Demand

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Name	22/23	23/24	24/25-Oct	24/25-Nov	Δ from 23/24
Area Planted	45.8	49.6	46.1	46.1	-3.5
Area Harvested	35.5	37.1	38.5	38.5	1.4
Yield per Harvested Acre	46.5	48.7	51.2	51.2	2.5
a) Beginning Stocks	674	570	696	696	126
b) Production	1650	1804	1971	1971	167
c) Imports	122	138	115	120	-18
Supply, Total	**2446**	**2512**	**2783**	**2788**	**276**
a) Food	972	961	964	966	5
b) Seed, Feed and Residual	142	147	182	182	35
Domestic, Total	*1114*	*1108*	*1146*	*1148*	*40*
c) Exports	762	707	825	825	118
Use, Total	**1876**	**1815**	**1971**	**1973**	**158**
Ending Stocks	**570**	**696**	**812**	**815**	**119**
Stocks to use ratio	**30%**	**38%**	**41%**	**41%**	**3%**
Avg. Farm Price ($/bu)	**8.83**	**6.96**	**5.7**	**5.6**	**-1.36**

Source: USDA WASDE Nov 2024