

Implications of USDA Grain Stocks and Prospective Plantings Reports for Corn and Soybean Prices



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farmdoc

Figure 1: Change in Corn and Soybean Futures Prices since Dec 1, 2021

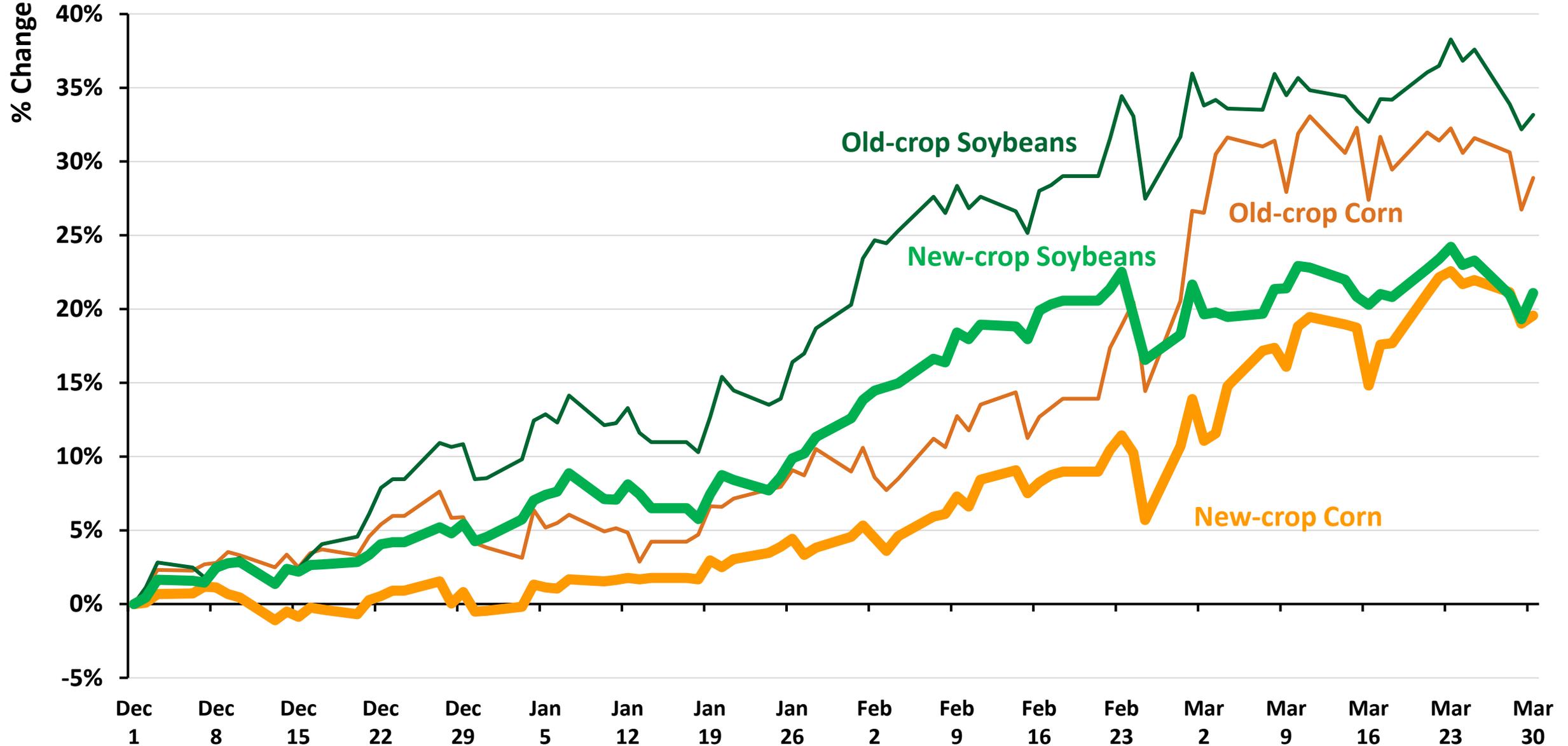


Figure 2: Corn and Soybean Market Reaction to Report Release, March 31



Figure 3: March 1 Corn Stocks

Avg. Analyst Guess = 7,877 mbu
Source: Reuters Mar 28 survey

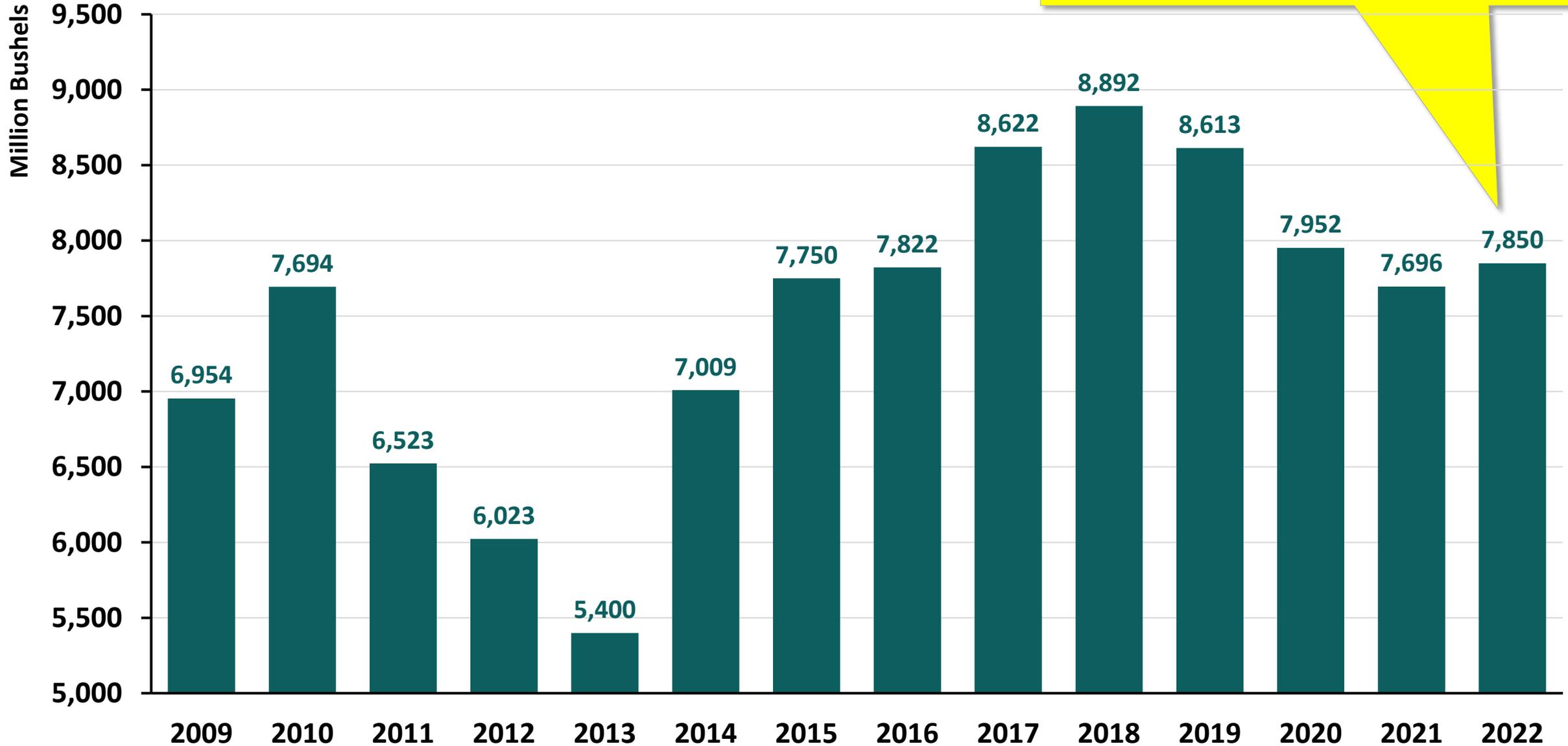


Figure 4: USDA March 1 Corn Stocks Estimate Minus Average Guess

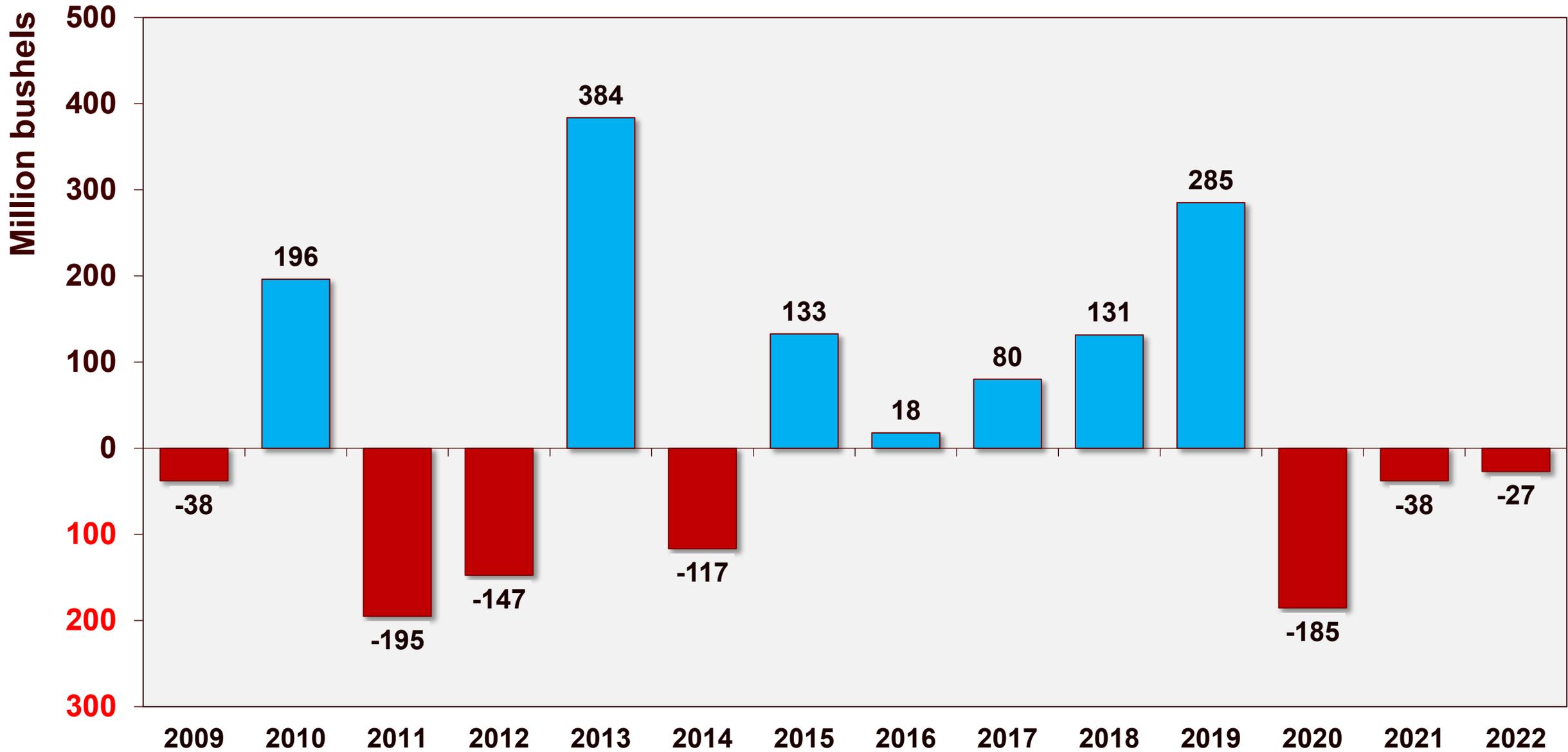


Figure 5: Old-Crop US Corn Balance Sheet

	(in millions of bushels unless noted)	2020/21	2021/22 USDA Mar WASDE	2021/22 <i>farmdoc</i> forecast
Supply	Area Planted (mil. acres)	90.7	93.4	93.4
	Area Harvested (mil. acres)	82.3	85.4	85.4
	Yield (bu./acre)	171.4	177.0	177.0
	Beginning Stocks	1,919	1,235	1,235
	Production	14,111	15,115	15,115
	Imports	24	25	25
	Total Supply	16,055	16,375	16,375
Use	Feed and Residual	5,602	5,650	5,650
	Food, Seed, and Industrial	6,466	6,785	6,785
	Ethanol	5,208	5,350	5,300
	Exports	2,753	2,500	2,500
	Total Use	14,821	14,935	14,885
	Ending Stocks	1,235	1,440	1,490
	Stocks-to-Use (%)	8.3	9.6	10.0
	Season Average Price (\$/bu.)	\$4.53	\$5.65	\$5.65

Figure 6: March 1 Soybean Stocks

Avg. Analyst Guess = 1,908 mbu
Source: Reuters Mar 28 survey

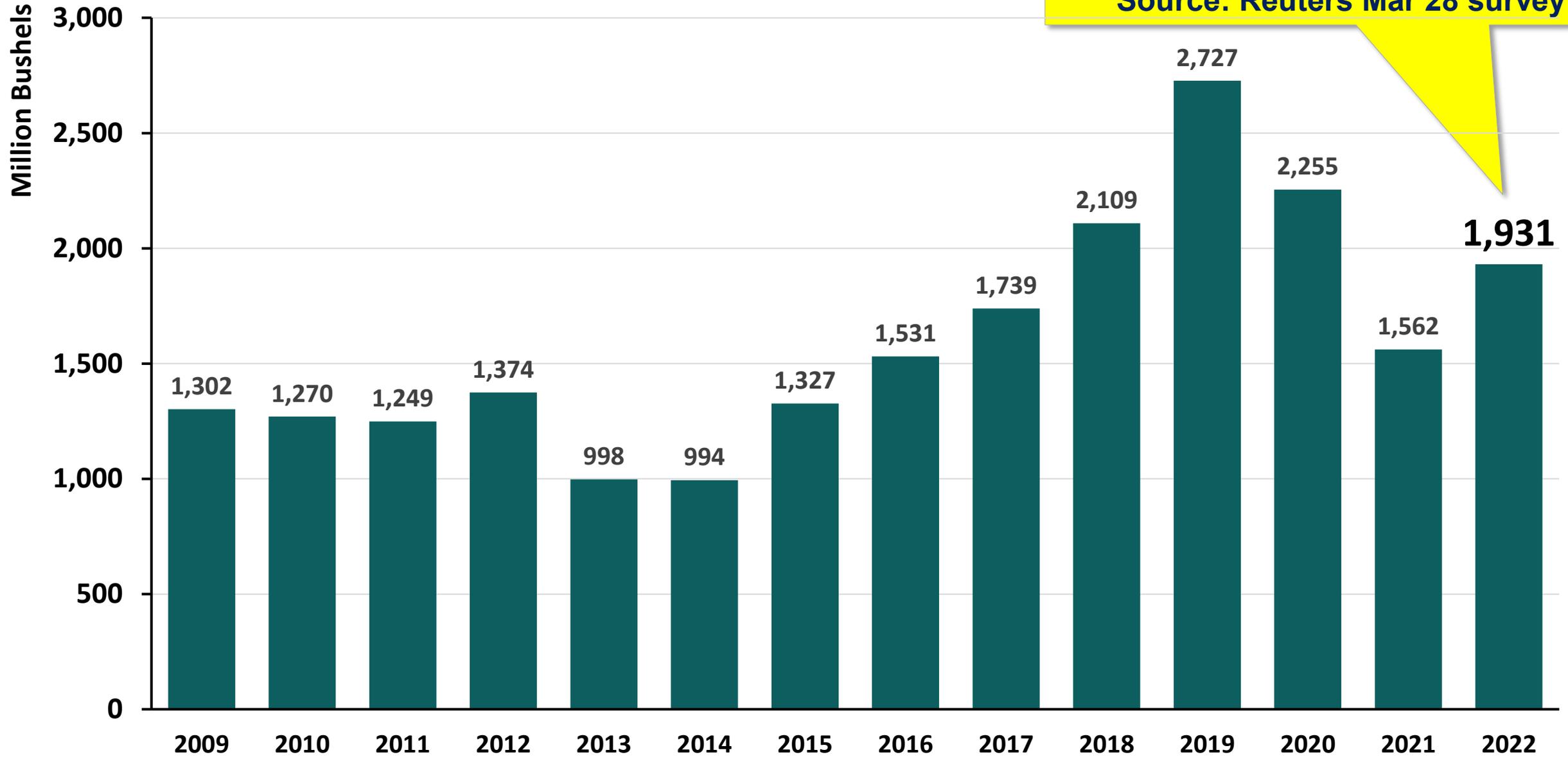


Figure 7: Old-Crop US Soybean Balance Sheet

	(in millions of bushels unless noted)	2020/21	2021/22 USDA Mar WASDE	2021/22 <i>farmdoc</i> forecast
Supply	Area Planted (mil. acres)	83.4	87.2	87.2
	Area Harvested (mil. acres)	82.6	86.3	86.3
	Yield (bu./acre)	51.0	51.4	51.4
	Beginning Stocks	525	257	257
	Production	4,216	4,435	4,435
	Imports	20	15	15
	Total Supply	4,761	4,707	4,707
Use	Crushings	2,141	2,215	2,215
	Exports	2,261	2,090	2150
	Seed	101	102	102
	Residual	1	15	15
	Total Use	4,504	4,422	4,482
	Ending Stocks	257	285	225
	Stocks-to-Use (%)	5.7	8.0	5.0
	Season Average Price (\$/bu.)	\$10.80	\$13.25	\$13.50

Figure 8: Acreage Summary for Principal Crops, CRP, and PP

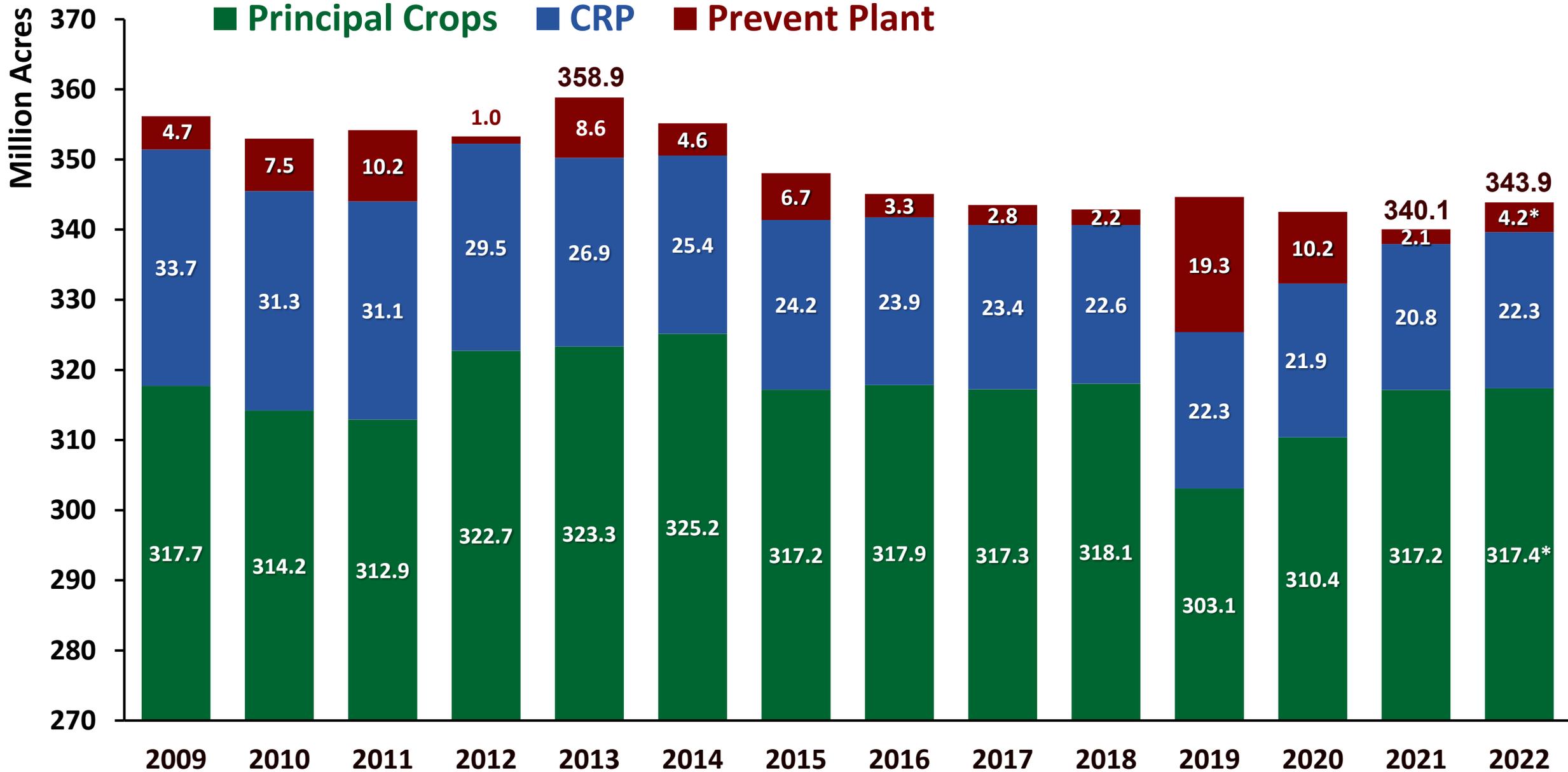
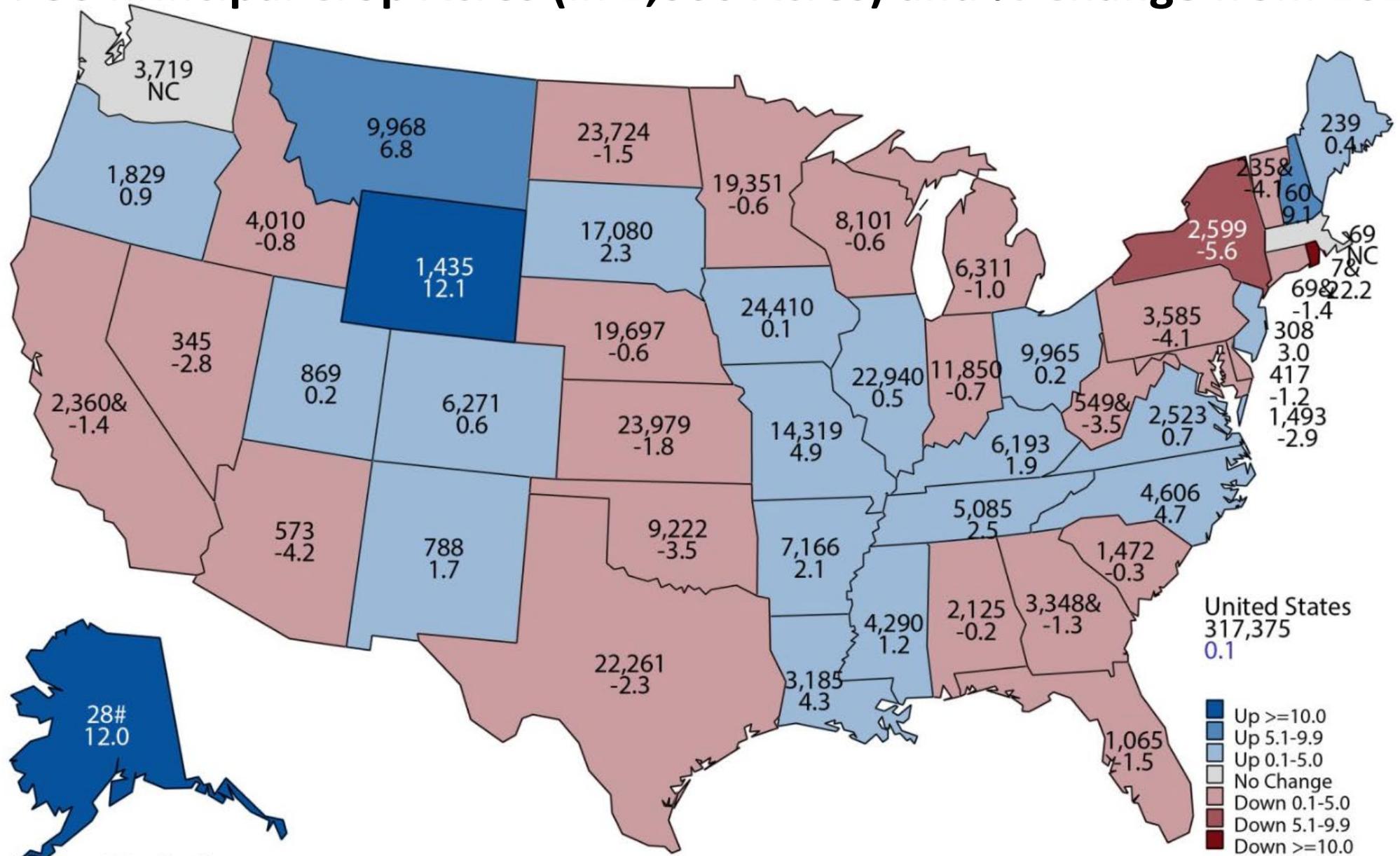


Figure 9: US Principal Crop Acres (in 1,000 Acres) and % Change from 2021

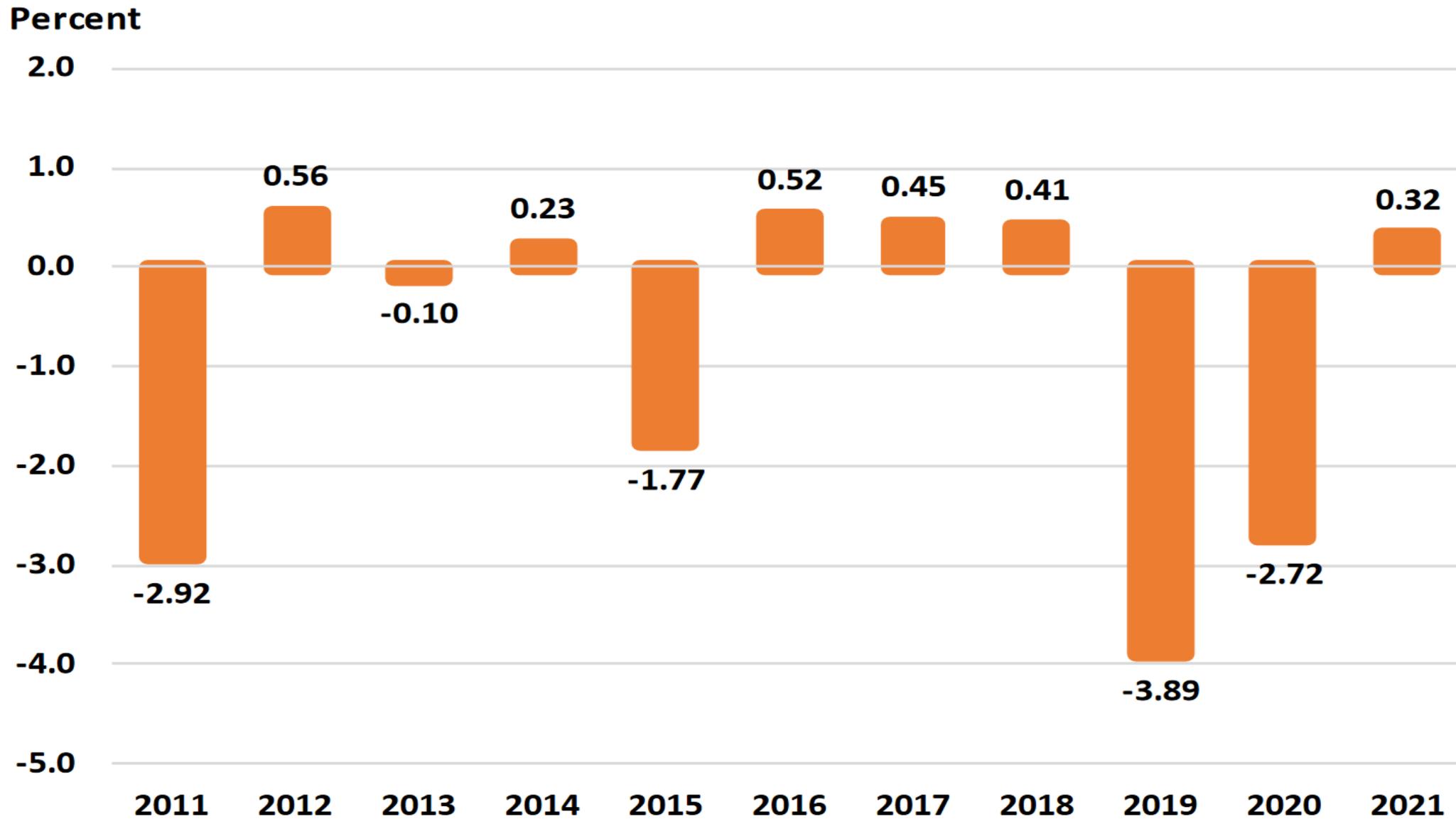


NC = No Change
 # = Record High
 & = Record Low

Source: USDA NASS

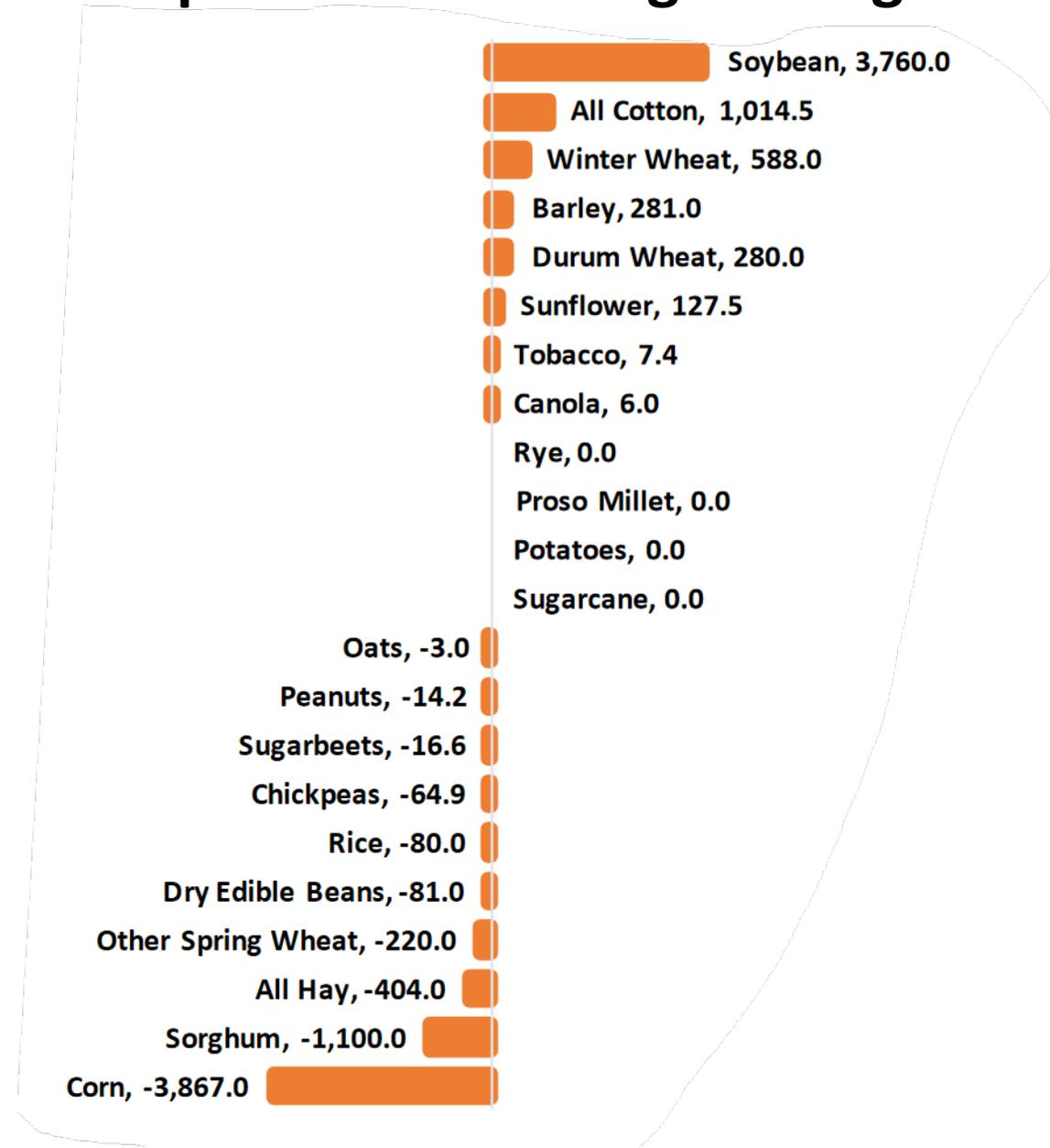
- Up >=10.0
- Up 5.1-9.9
- Up 0.1-5.0
- No Change
- Down 0.1-5.0
- Down 5.1-9.9
- Down >=10.0

Figure 10: Principal Crop Intentions vs Final Acres, % Difference



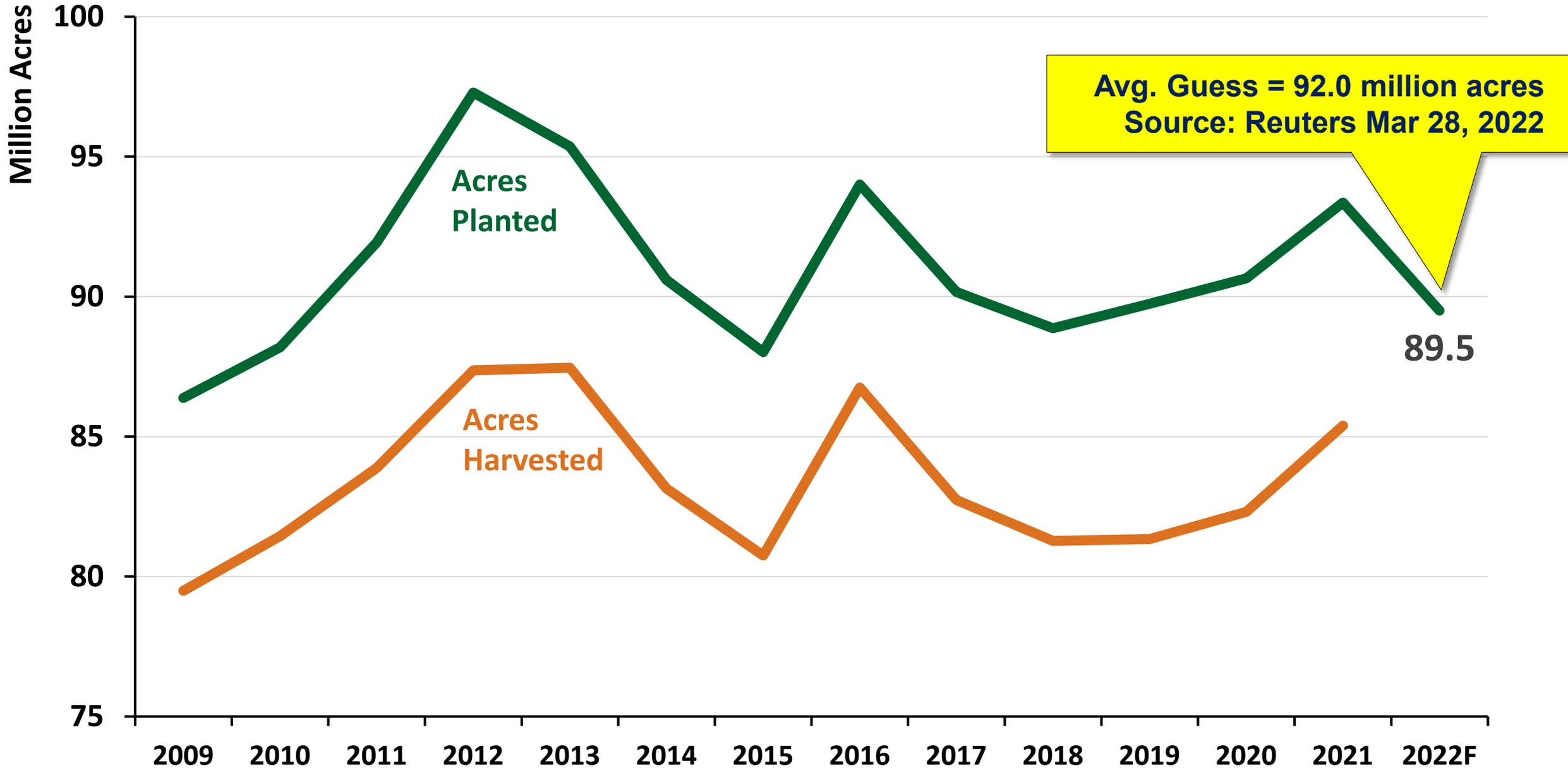
Source: USDA NASS

Figure 11: 2022 Principal Crops Planted Acreage Change from 2021, Percent



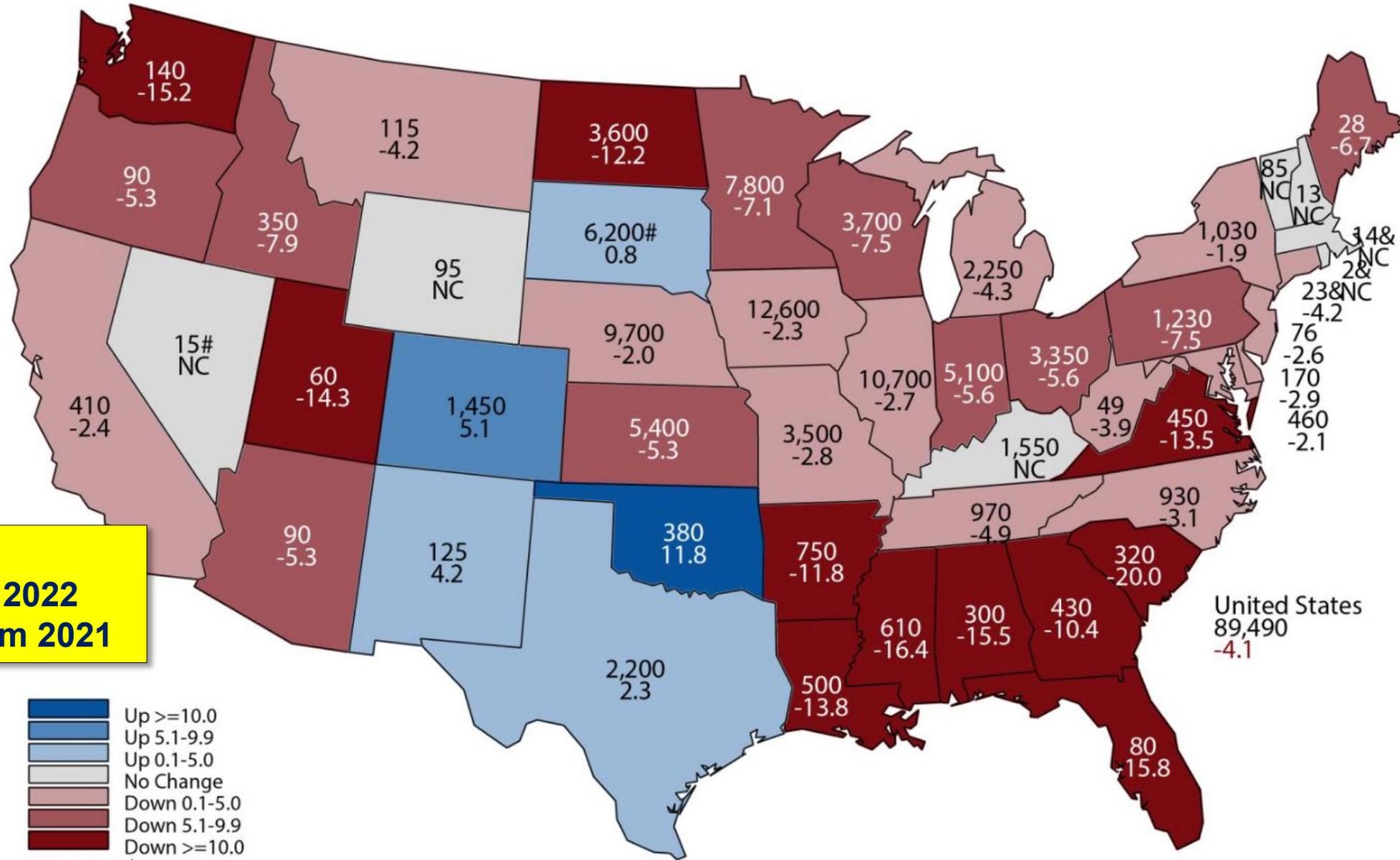
Source: USDA NASS

Figure 12: US Planted and Harvested Acres for Corn



Source: USDA NASS

Figure 13: 2022 Corn Planted Acres (in 1,000 Acres) and % Change from 2021



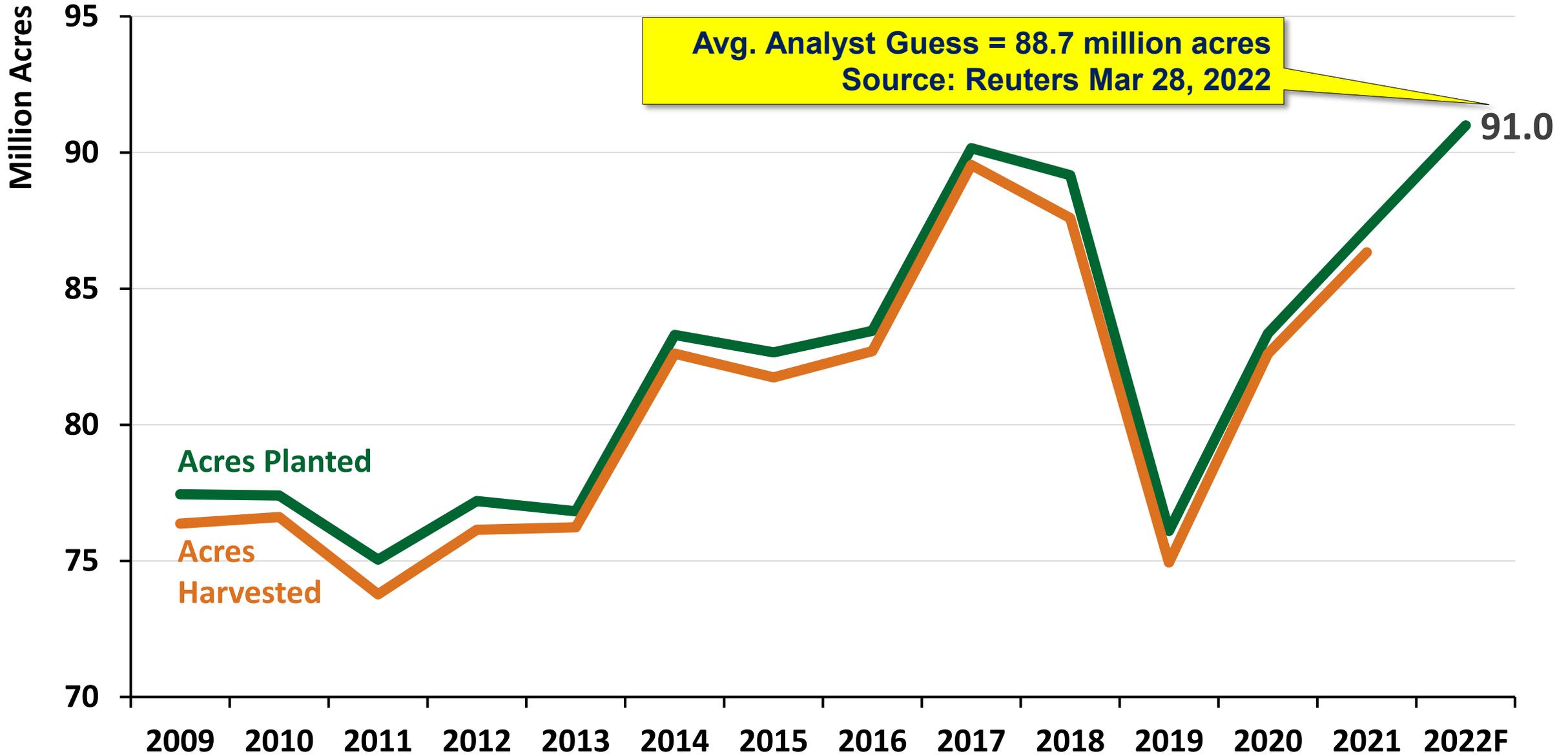
89.5 Mil. Acres of Corn to be Planted in U.S. in 2022 Down 3.9 Mil. Acres from 2021

- Up >=10.0
- Up 5.1-9.9
- Up 0.1-5.0
- No Change
- Down 0.1-5.0
- Down 5.1-9.9
- Down >=10.0

NC = No Change
= Record High
& = Record Low

Source: USDA NASS

Figure 14: US Planted and Harvested Acres for Soybeans

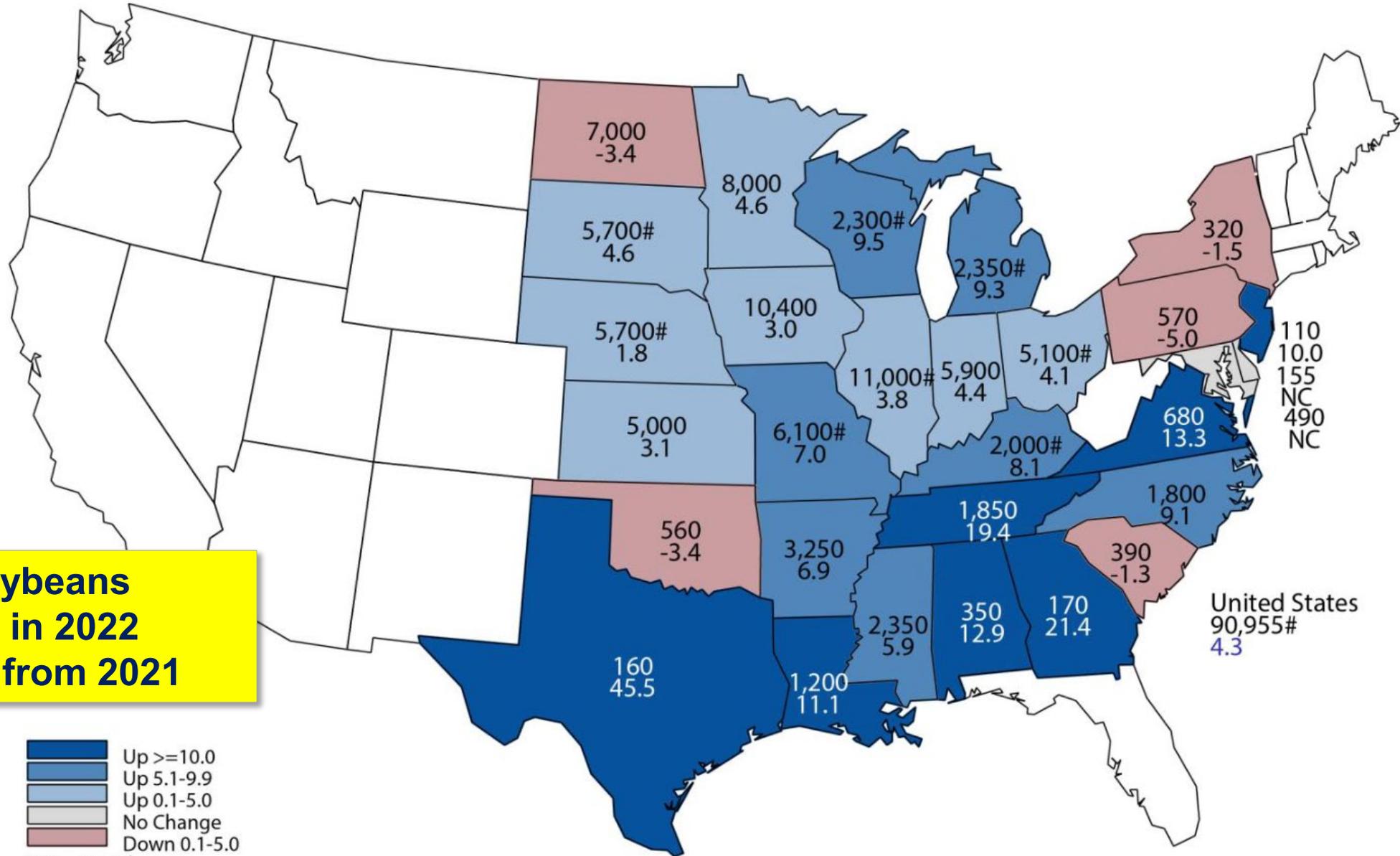


Avg. Analyst Guess = 88.7 million acres
Source: Reuters Mar 28, 2022

Acres Planted
Acres Harvested

91.0

Figure 15: 2022 Soybean Planted Acres (in 1,000 Acres) and % Change from 2021



**91.0 Mil. Acres of Soybeans to be Planted in U.S. in 2022
Up 3.8 Million Acres from 2021**

■ Up >=10.0
■ Up 5.1-9.9
■ Up 0.1-5.0
■ No Change
■ Down 0.1-5.0

NC = No Change
 # = Record High
 & = Record Low

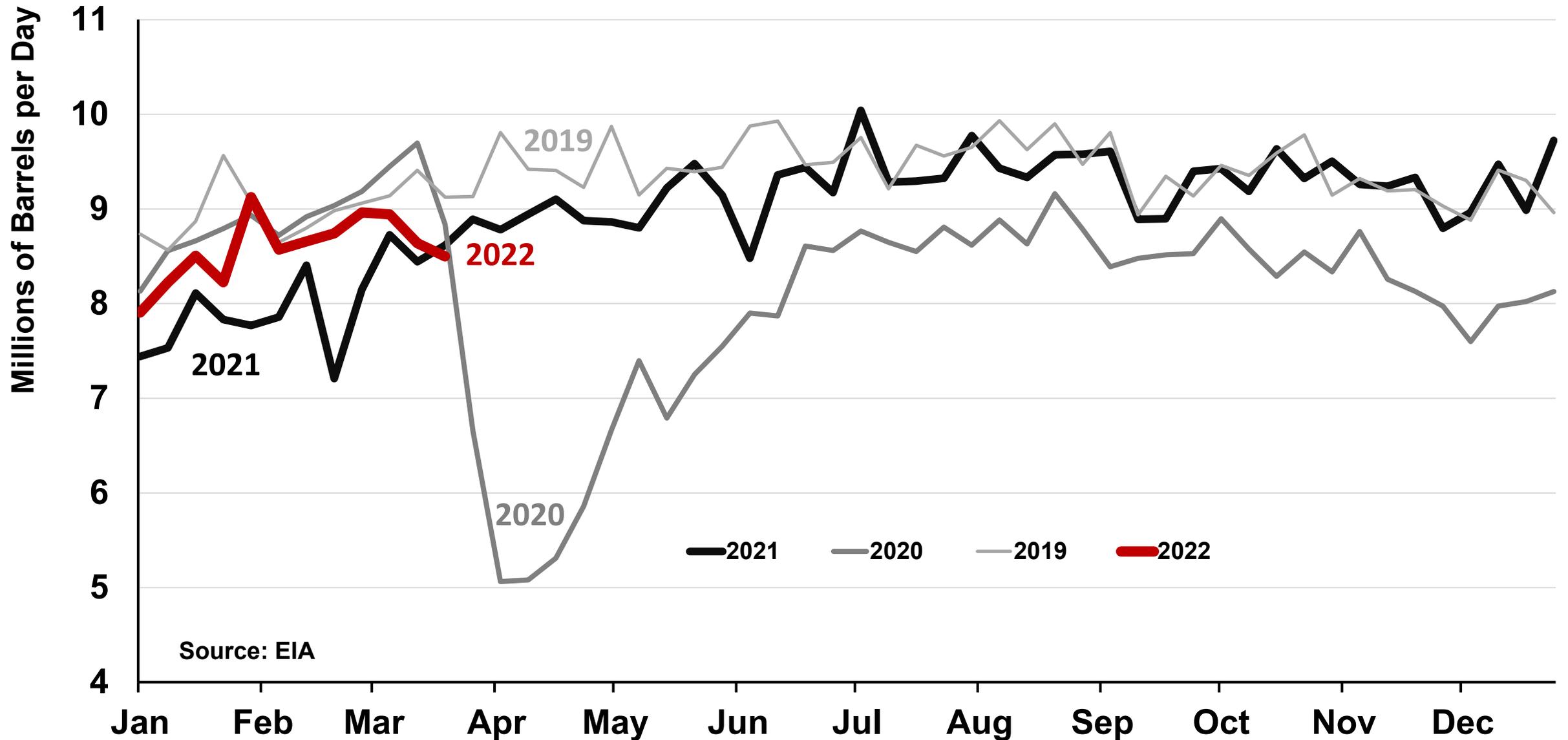
Source: USDA NASS

Figure 16: US New-Crop Corn Balance Sheet

	(mil. bushels unless noted)	2020/21	2021/22 USDA Mar WASDE	2022/23 USDA Outlook Forum	2022/23 <i>farmdoc</i> Forecast
Supply	Area Planted (mil. acres)	90.7	93.4	92.0	89.5
	Area Harvested (mil. acres)	82.3	85.4	84.2	81.7
	Yield (bu./acre)	171.4	177.0	181.0	181
	Beginning Stocks	1,919	1,235	1,540	1,490
	Production	14,111	15,115	15,240	14,788
	Imports	24	25	25	25
	Total Supply	16,055	16,375	16,805	16,303
Use	Feed and Residual	5,602	5,650	5,650	5,600
	Food, Seed, and Industrial	6,466	6,785	6,840	6,690
	Ethanol	5,208	5,350	5,400	5,250
	Exports	2,753	2,500	2,350	2,350
	Total Use	14,821	14,935	14,840	14,640
	Ending Stocks	1,235	1,440	1,965	1,663
	Stocks-to-Use (%)	8.3	9.6	13.2	11.4
	Season Average Price (\$/bu.)	\$4.53	\$5.65	\$5.00	\$6.00

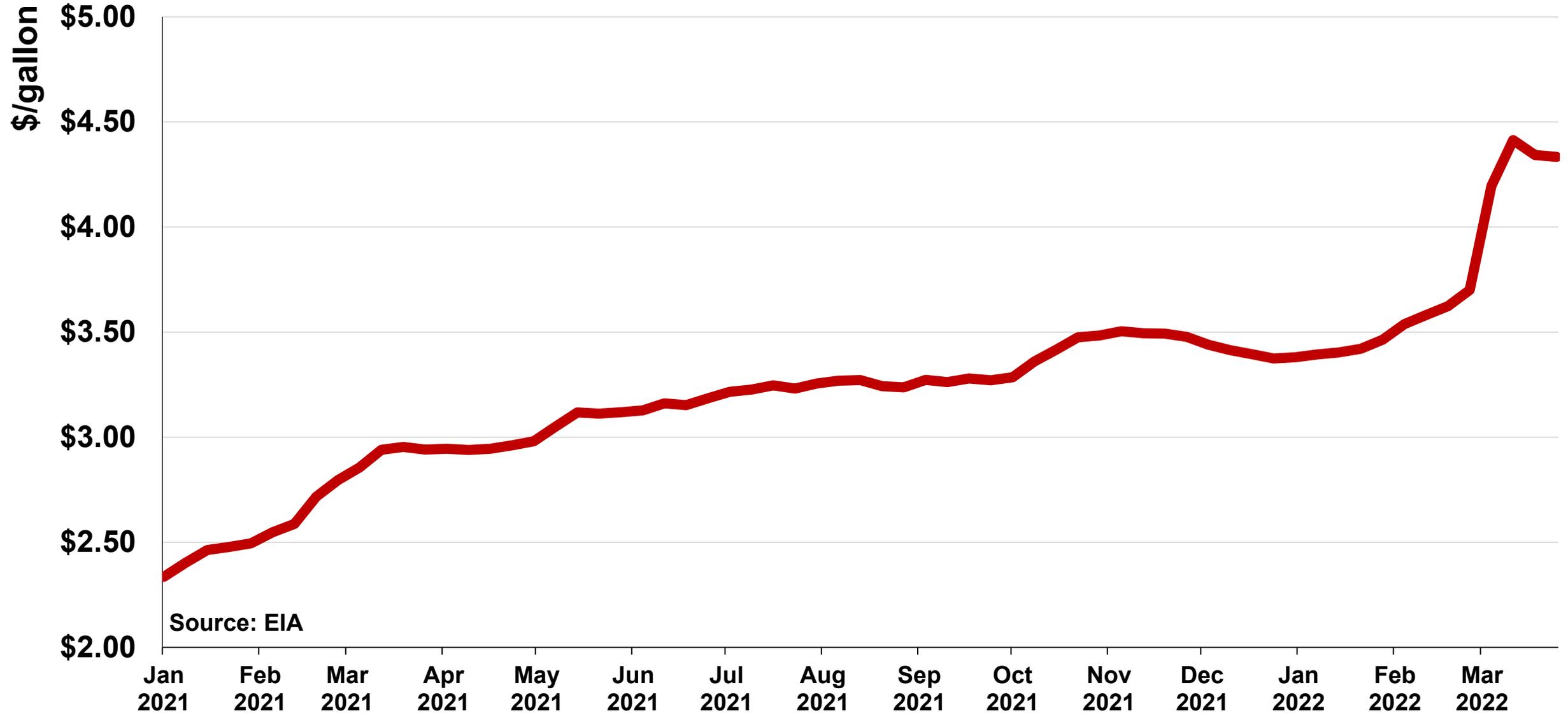
Figure 17: Implied Weekly Usage of Gasoline in the U.S.

01/04/2019 - 03/25/2022



Source: EIA

Figure 18: Weekly Retail Gasoline Price in the U.S., All Grades 01/04/2019 - 03/25/2022

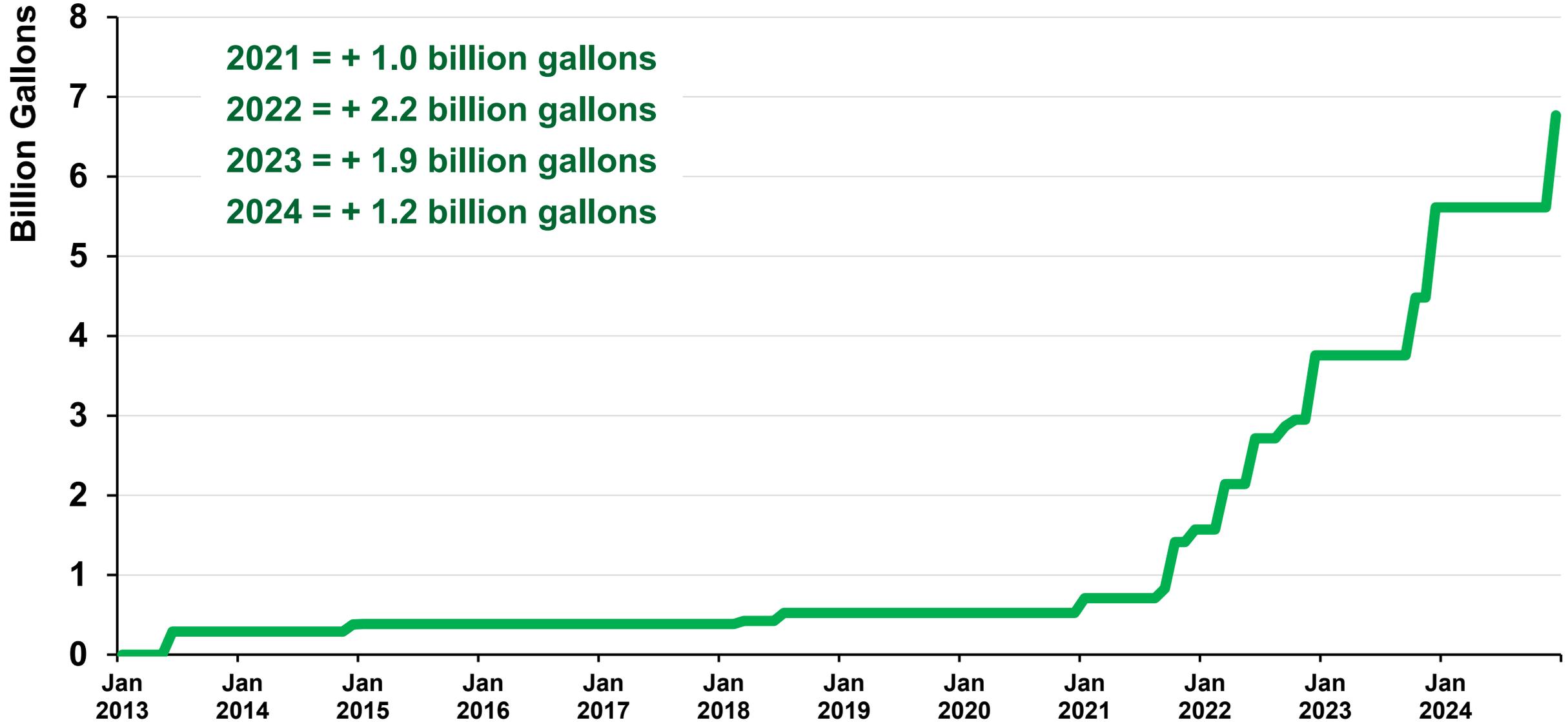


Source: EIA

Figure 19: US New-Crop Soybean Balance Sheet

	(mil. bushels unless noted)	2020/21	2021/22 USDA Mar WASDE	2022/23 USDA Outlook Forum	2022/23 <i>farmdoc</i> Forecast
Supply	Area Planted (mil. acres)	83.4	87.2	88.0	91.0
	Area Harvested (mil. acres)	82.6	86.3	87.2	90.2
	Yield (bu./acre)	51.0	51.4	51.5	51.5
	Beginning Stocks	525	257	325	225
	Production	4,216	4,435	4,490	4,645
	Imports	20	15	15	15
	Total Supply	4,761	4,707	4,830	4,885
Use	Crushings	2,141	2,215	2,250	2,275
	Exports	2,261	2,090	2,150	2,150
	Seed	101	102	110	110
	Residual	1	15	15	15
	Total Use	4,504	4,422	4,525	4,550
	Ending Stocks	257	285	305	335
	Stocks-to-Use (%)	5.7	8.0	6.7	7.4
	Season Average Price (\$/bu.)	\$10.80	\$13.25	\$12.75	\$13.25

Figure 20: Actual and Projected North American Renewable Diesel Production Capacity, January 2013 - December 2024



Closing Comments

- March 1 Stocks Report Showed:
 - March 1 corn stocks about as expected
 - Forecast of feed and residual use of corn unchanged
- U.S. farmers intend to plant:
 - 3.8 million more soybean acres
 - 3.9 million fewer corn acres
 - Negligible change in combined corn + soybean acres
- Balance sheet implications
 - Continuation of tight grain and oilseed supply and demand balances
 - Much higher than average historical prices
 - Tight stocks + war in Ukraine = extreme price volatility

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