

Updated Supply & Demand for Corn & Soybeans

Implications of USDA Grain Stocks and Acreage Reports



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farmdoc

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

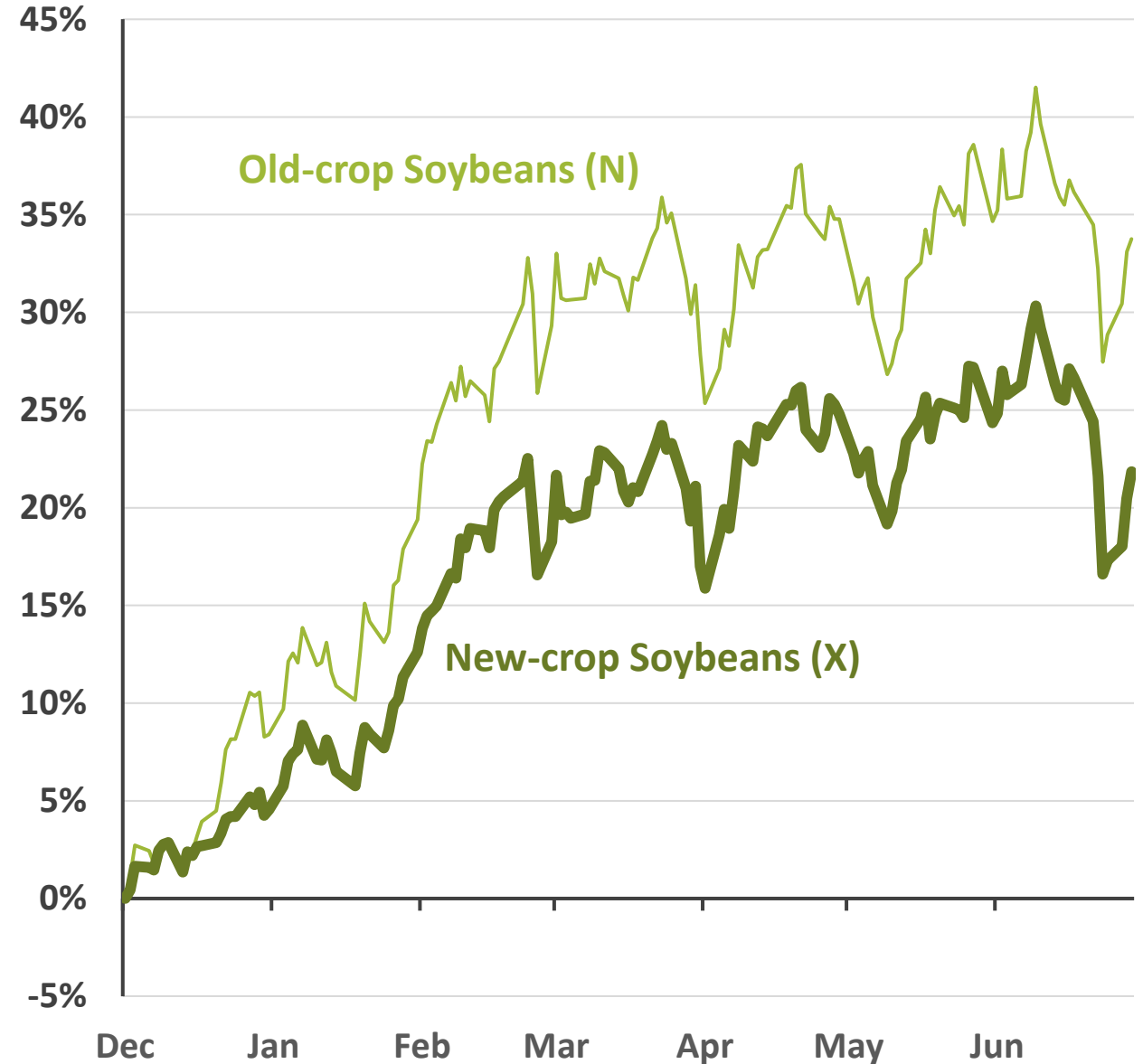
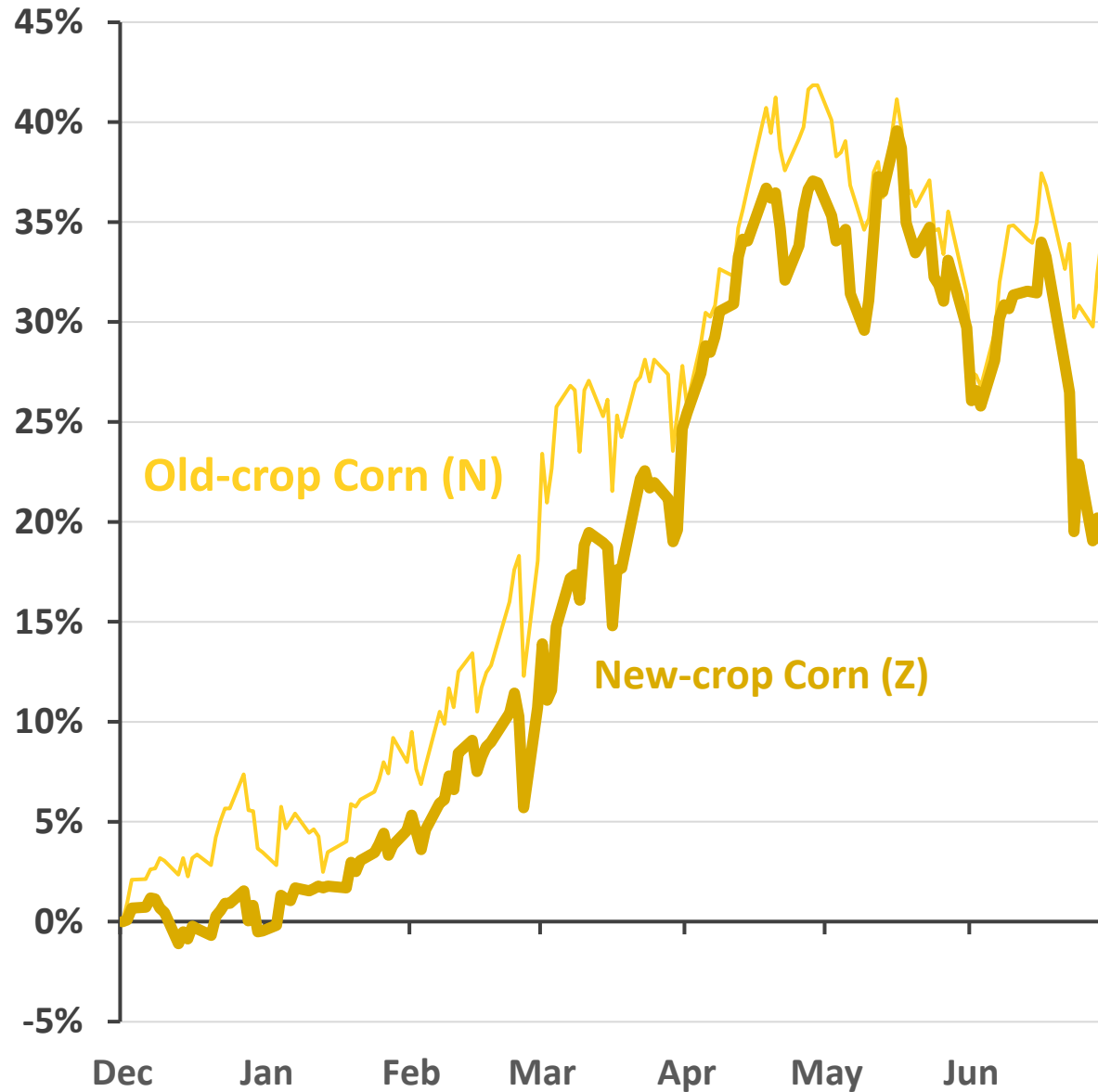


Figure 2: Corn and Soybean Market Reaction to Report Release, June 30

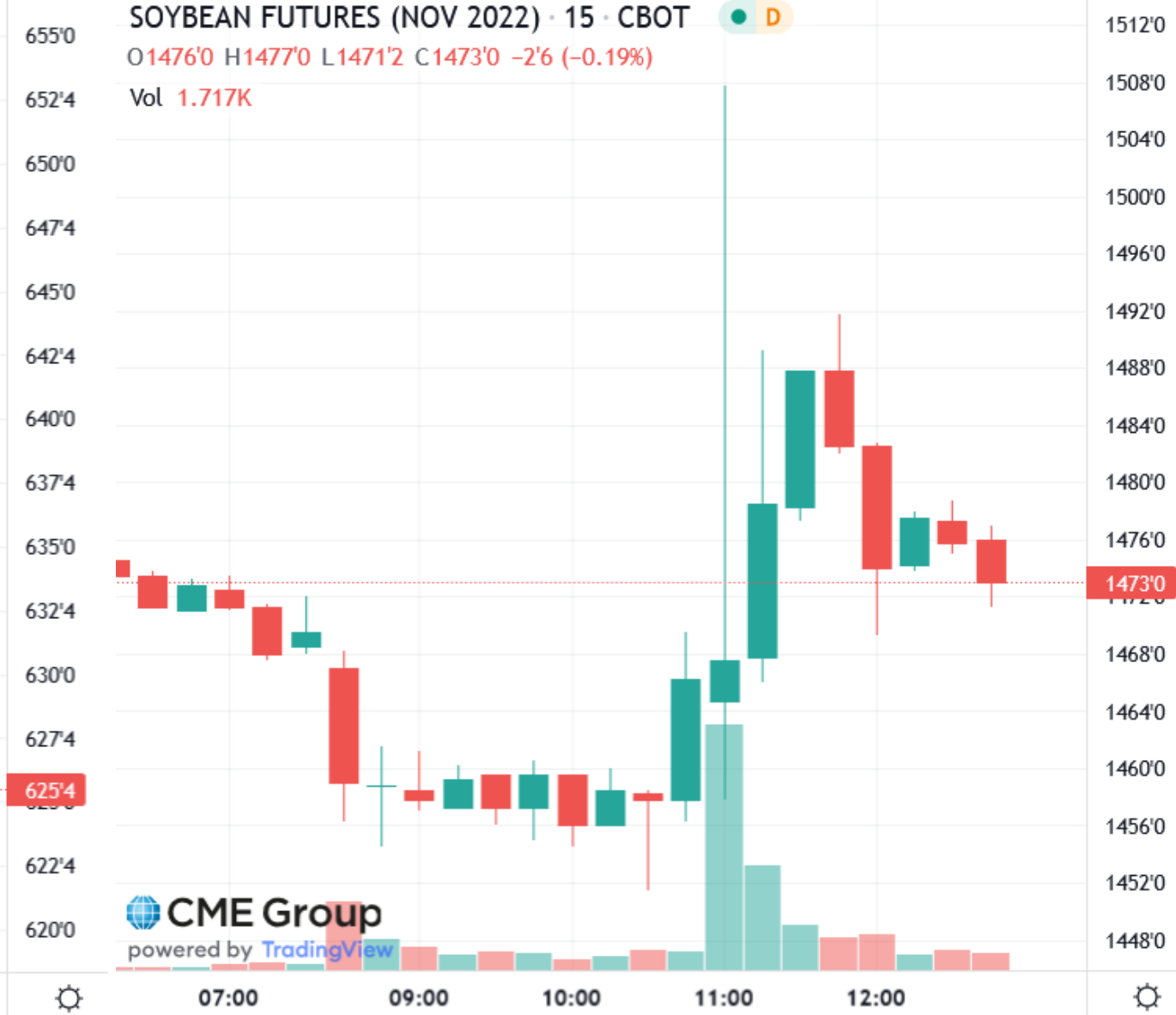


Figure 3: USDA June 1 Corn Stocks Estimate

Avg. Analyst Guess = 4,343 mbu
Source: Reuters Jun 24 survey

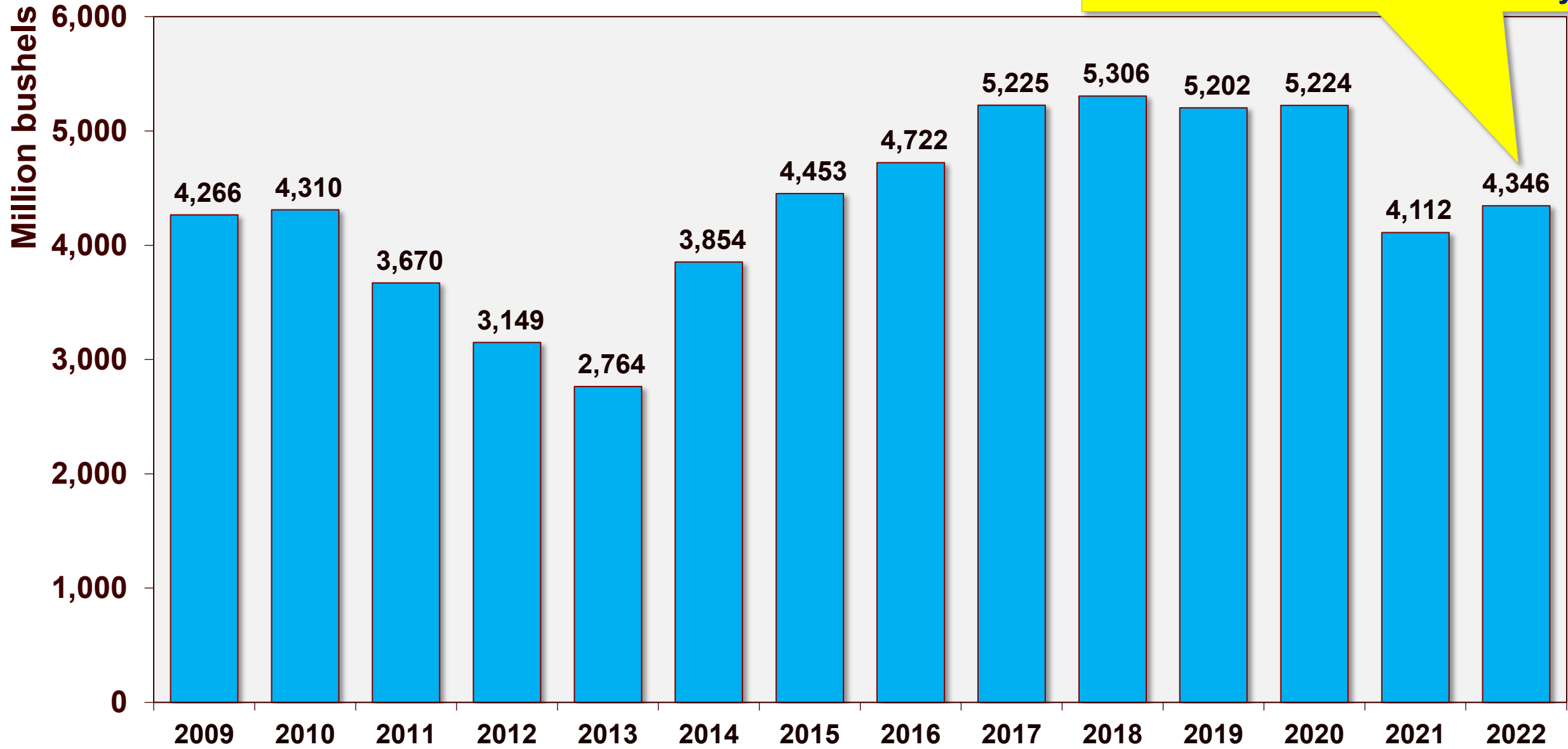


Figure 4: USDA June 1 Soybean Stocks Estimate Minus Average Guess

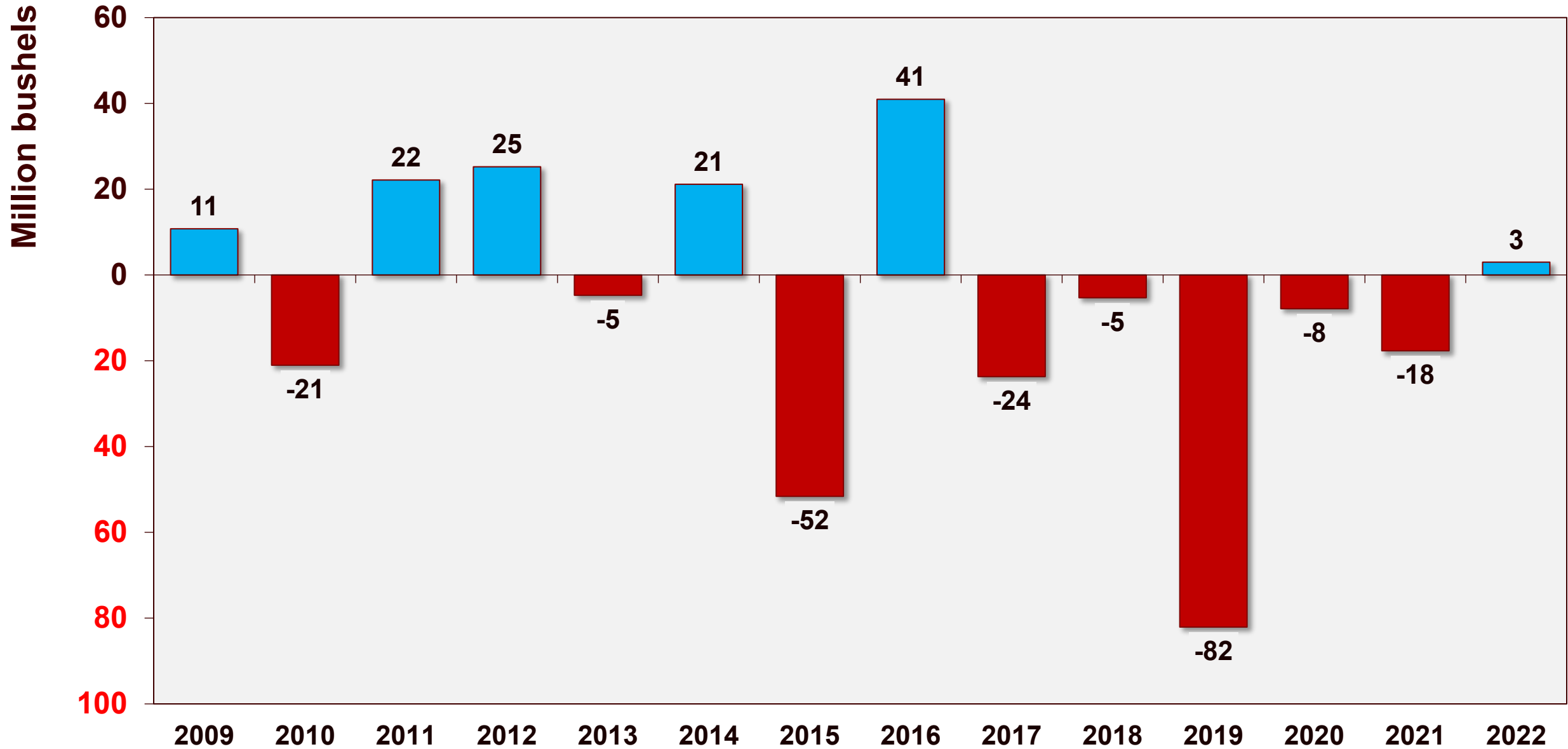


Figure 5: Old-Crop US Corn Balance Sheet

| | (in millions of bushels unless noted) | 2020/21 | 2021/22 USDA Jun 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 | 5,625 | 5,625 |
| | Food, Seed, and Industrial | 6,466 | 6,815 | 6,815 |
| | Ethanol | 5,208 | 5,375 | 5,375 |
| | Exports | 2,753 | 2,450 | 2,375 |
| | Total Use | 14,821 | 14,890 | 14,815 |
| | Ending Stocks | 1,235 | 1,485 | 1,560 |
| | Stocks-to-Use (%) | 8.3 | 10.0 | 10.5 |
| | Season Average Price (\$/bu.) | \$4.53 | \$5.95 | \$5.95 |

Figure 6: Corn Export Sales by Week of Marketing Year to June 16, 2022

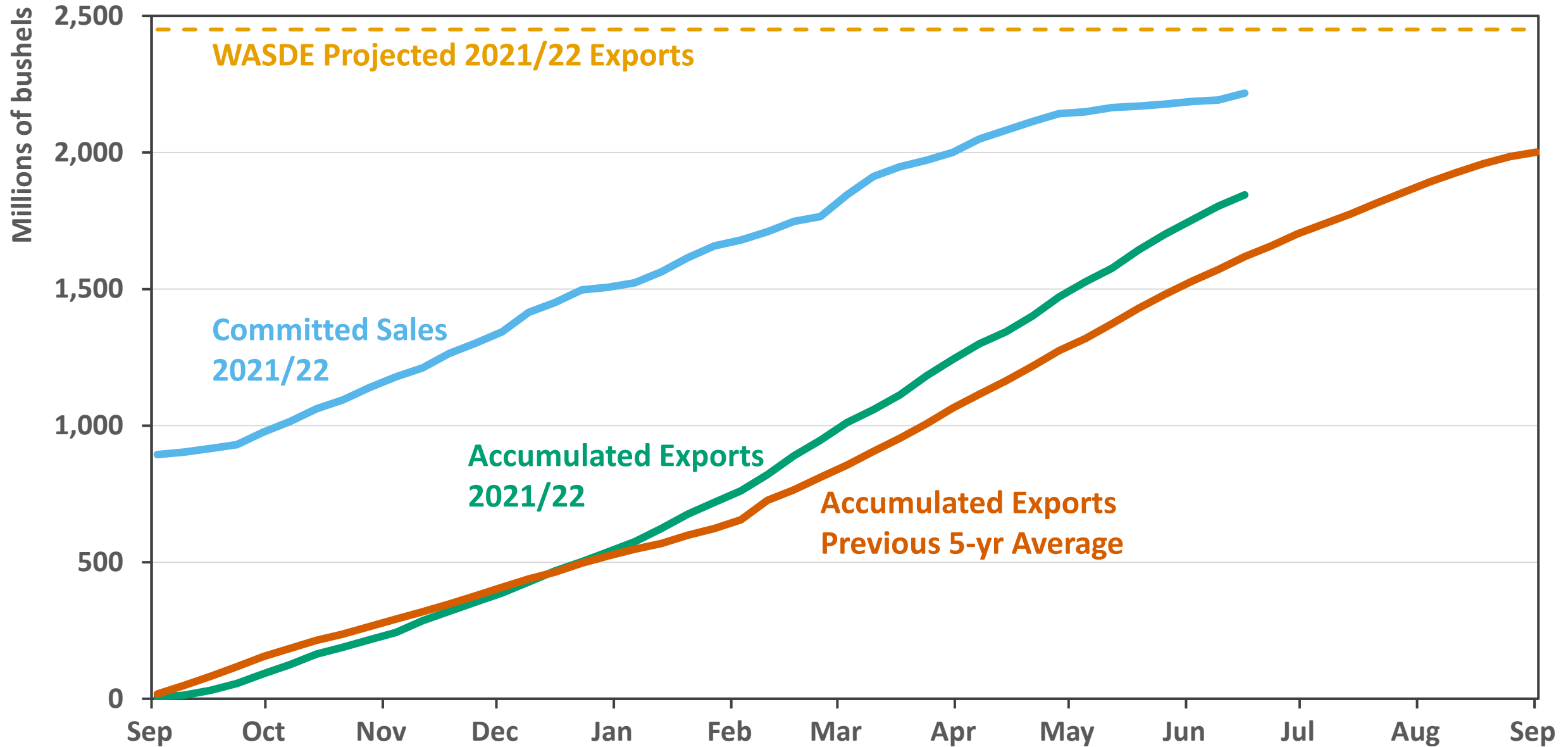


Figure 7: USDA June 1 Soybean Stocks Estimate

Avg. Analyst Guess = 965 mbu
Source: Reuters Jun 24 survey

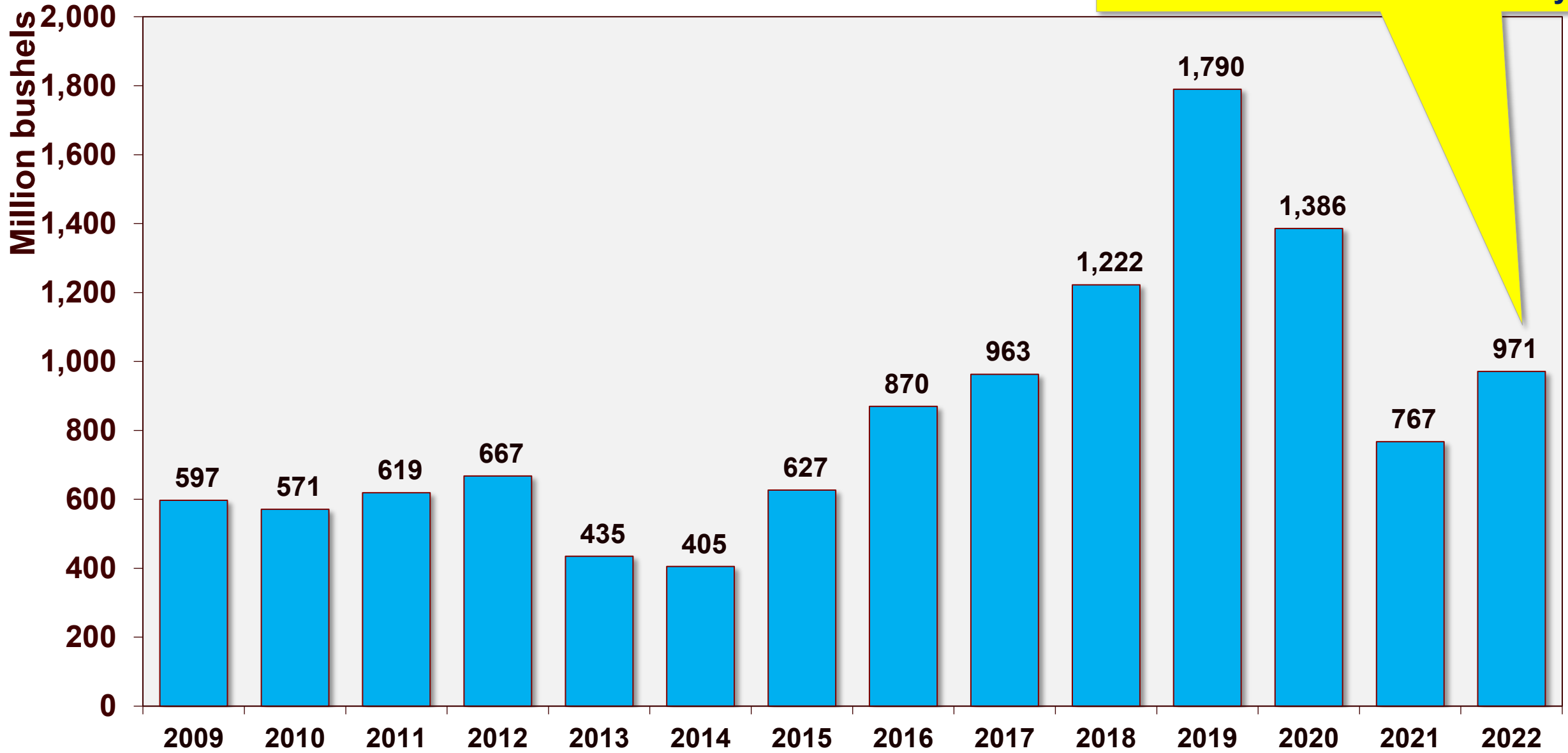


Figure 8: USDA June 1 Soybean Stocks Estimate Minus Average Guess

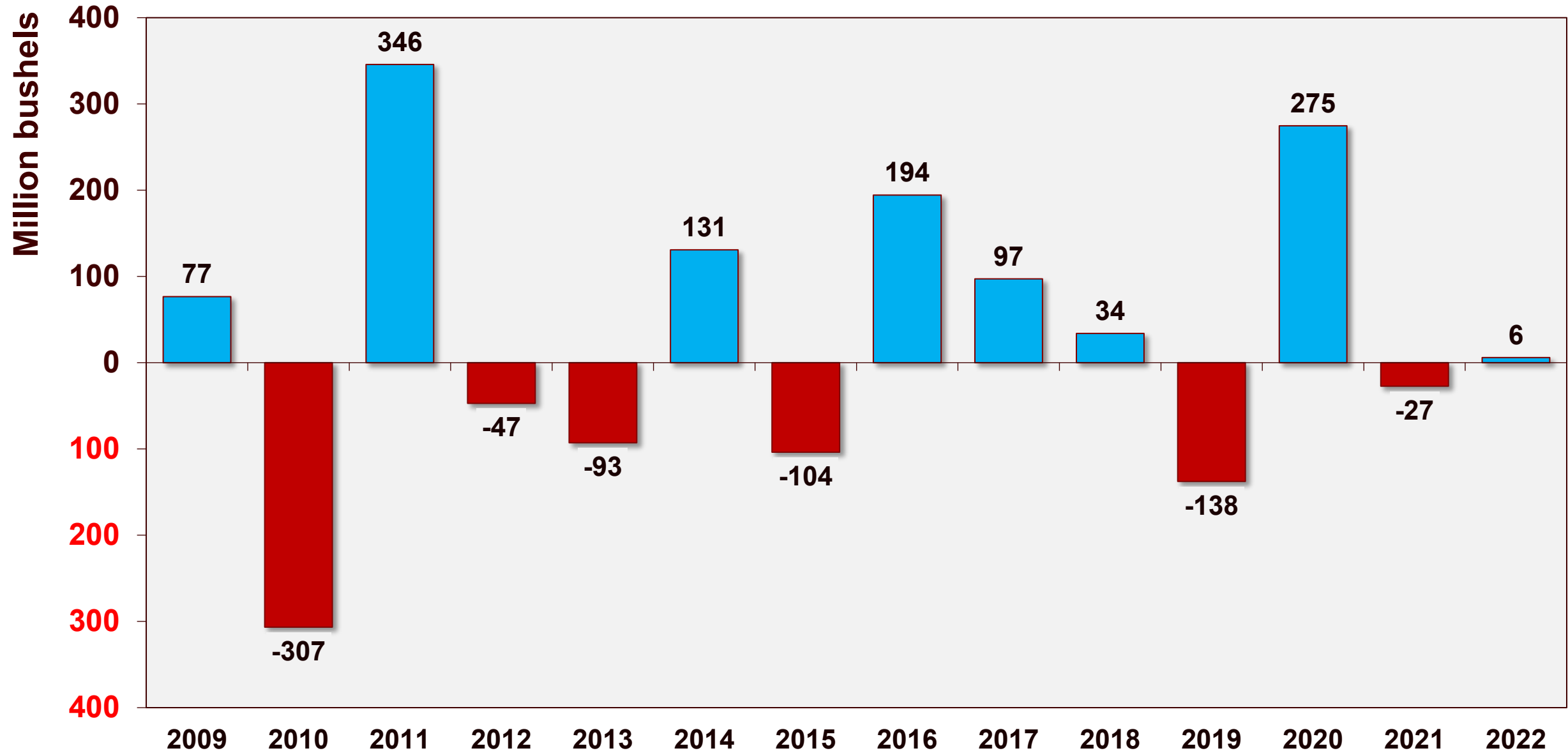


Figure 9: Old-Crop US Soybean Balance Sheet

| | (in millions of bushels unless noted) | 2020/21 | 2021/22 USDA June 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 | 2,170 | 2,170 |
| | Seed | 101 | 106 | 106 |
| | Residual | 1 | 12 | 12 |
| | Total Use | 4,504 | 4,502 | 4,502 |
| | Ending Stocks | 257 | 205 | 205 |
| | Stocks-to-Use (%) | 5.7 | 4.6 | 4.6 |
| | Season Average Price (\$/bu.) | \$10.80 | \$13.35 | \$13.35 |

Figure 10: Soybean Export Sales by Week of Marketing Year to June 16, 2022

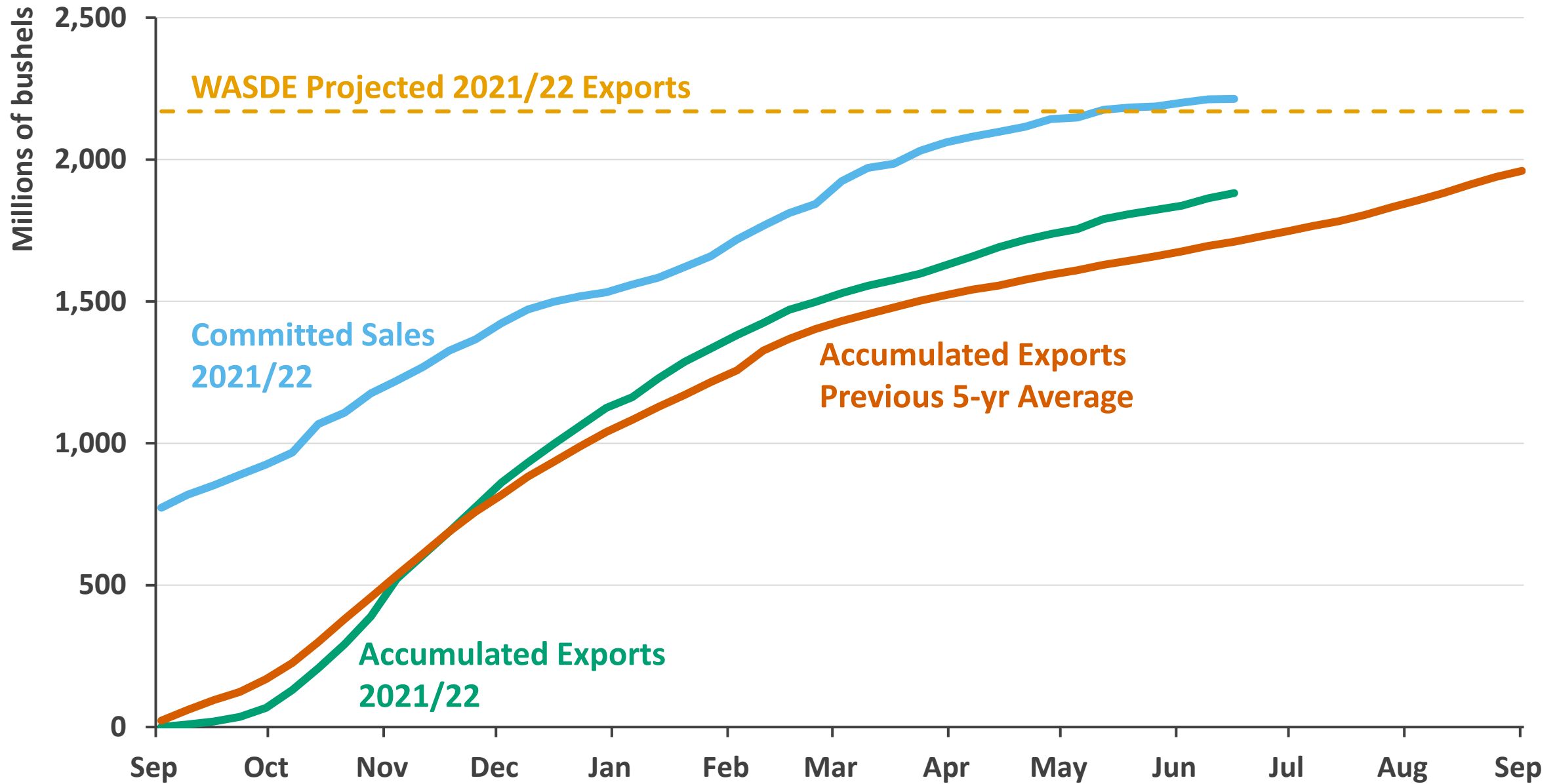


Figure 11: Acreage Summary for Principal Crops, CRP, and PP

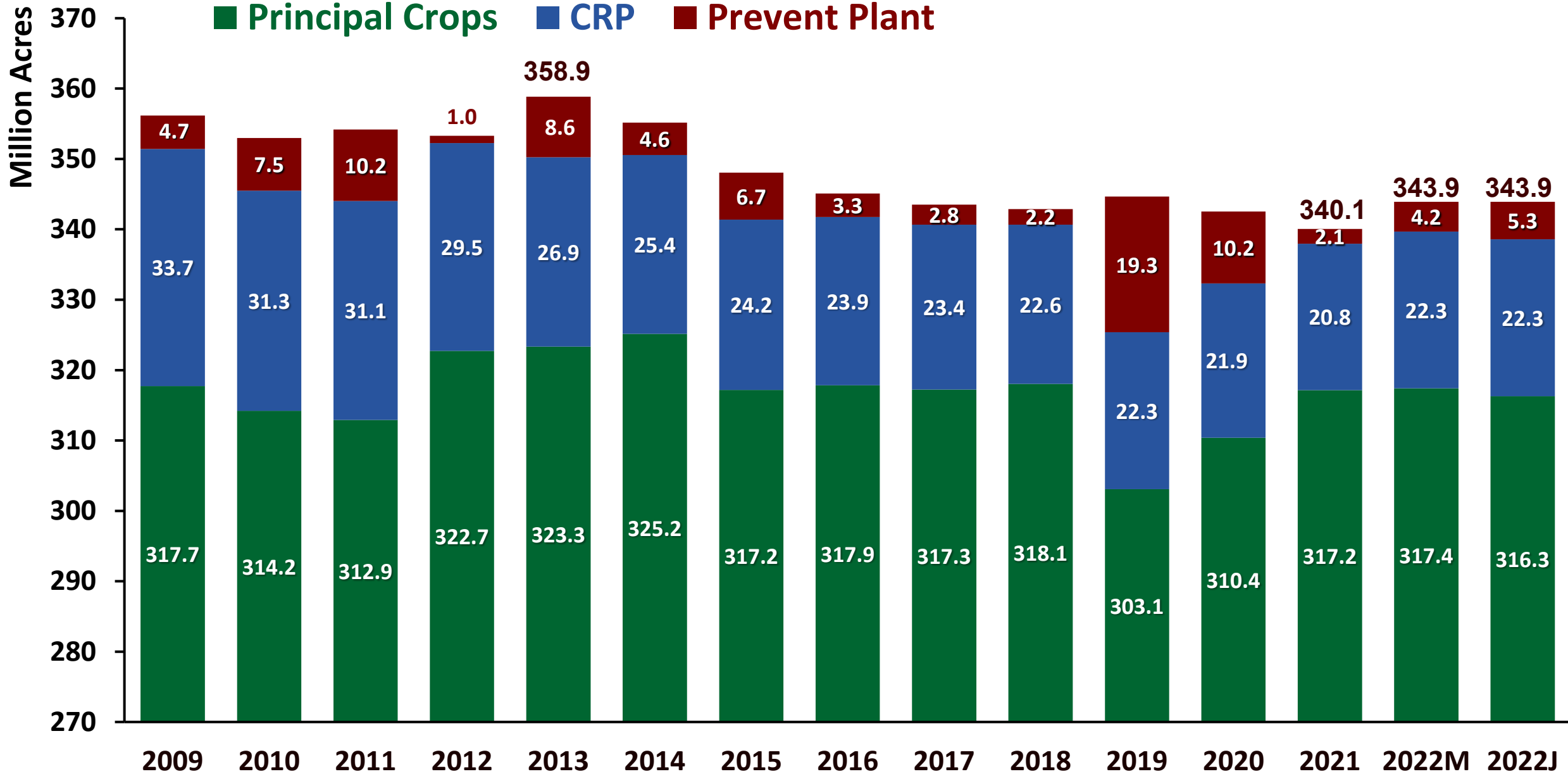


Figure 12: US Principal Crop Acres (000s Ac) and % Change from March Estimate

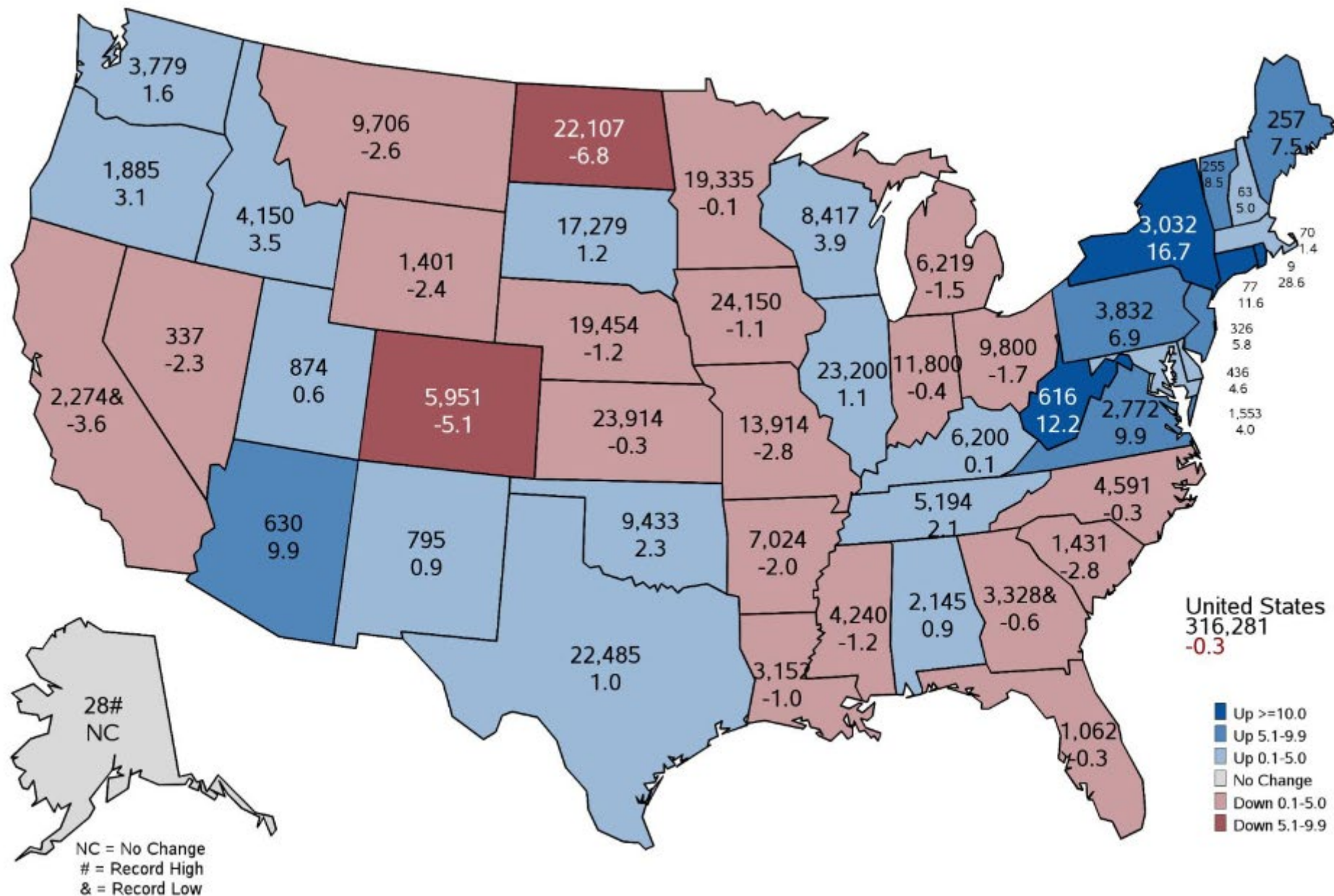
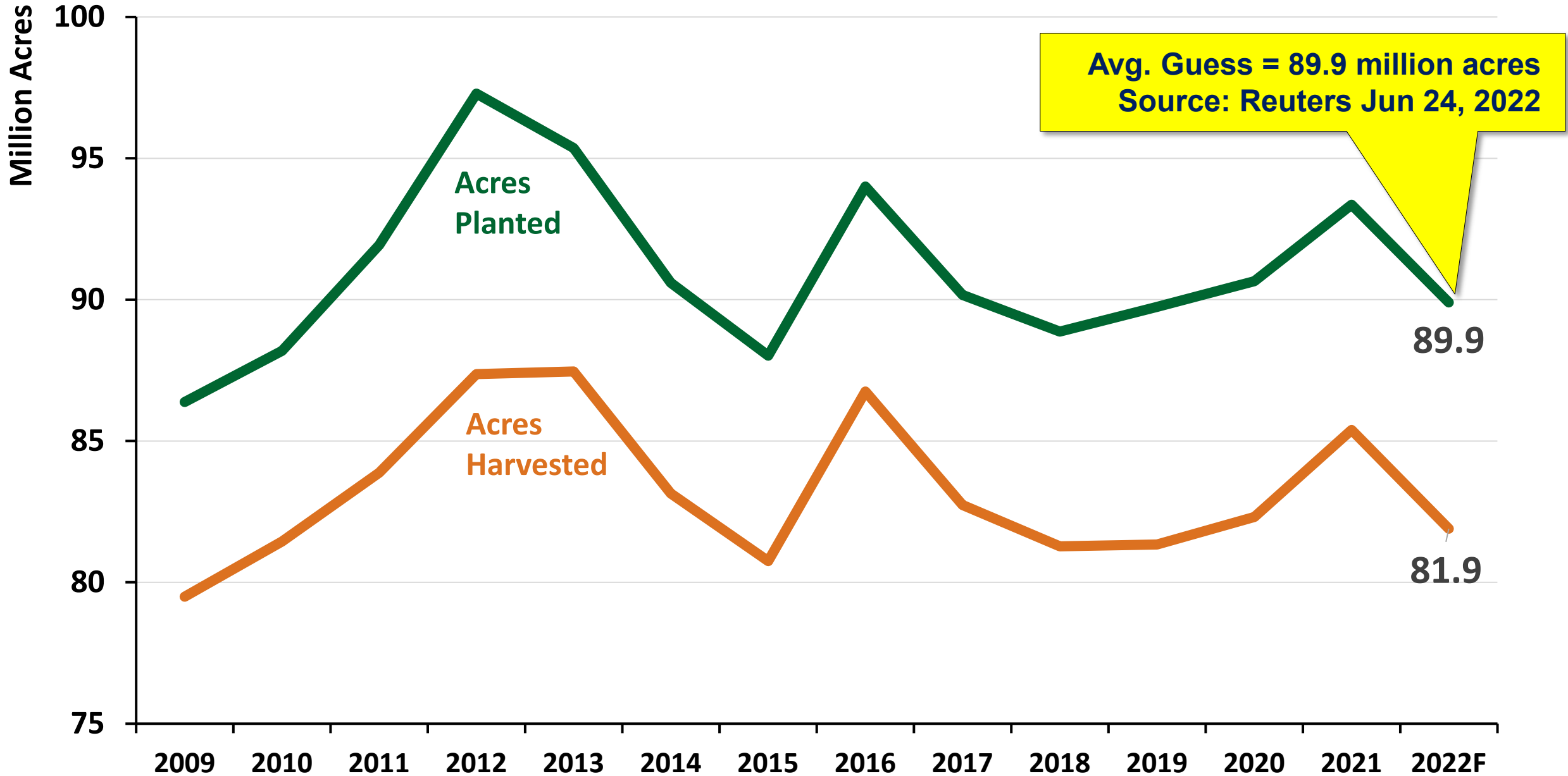


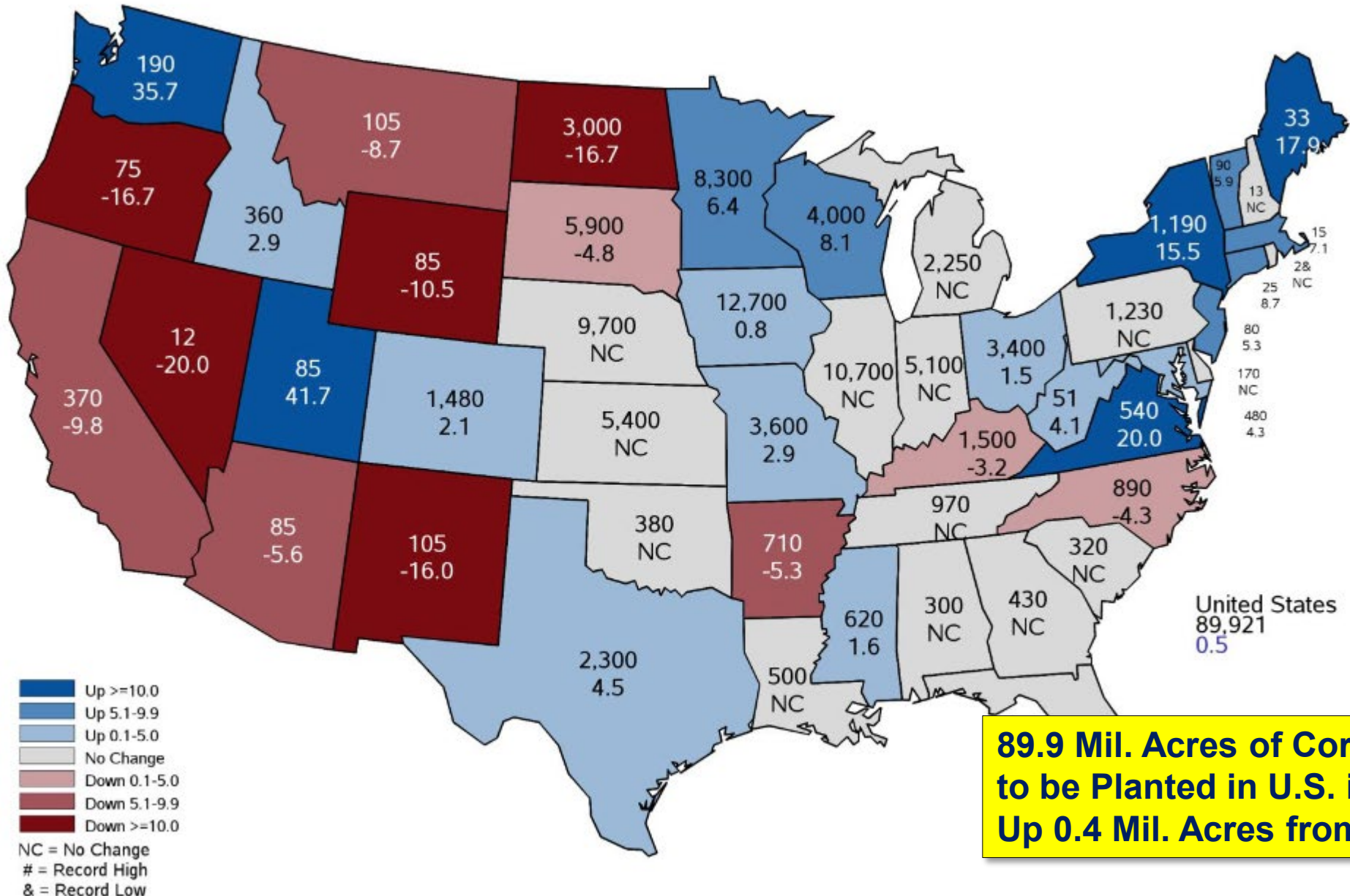
Figure 12: US Planted and Harvested Acres for Corn



Avg. Guess = 89.9 million acres
Source: Reuters Jun 24, 2022

Source: USDA NASS

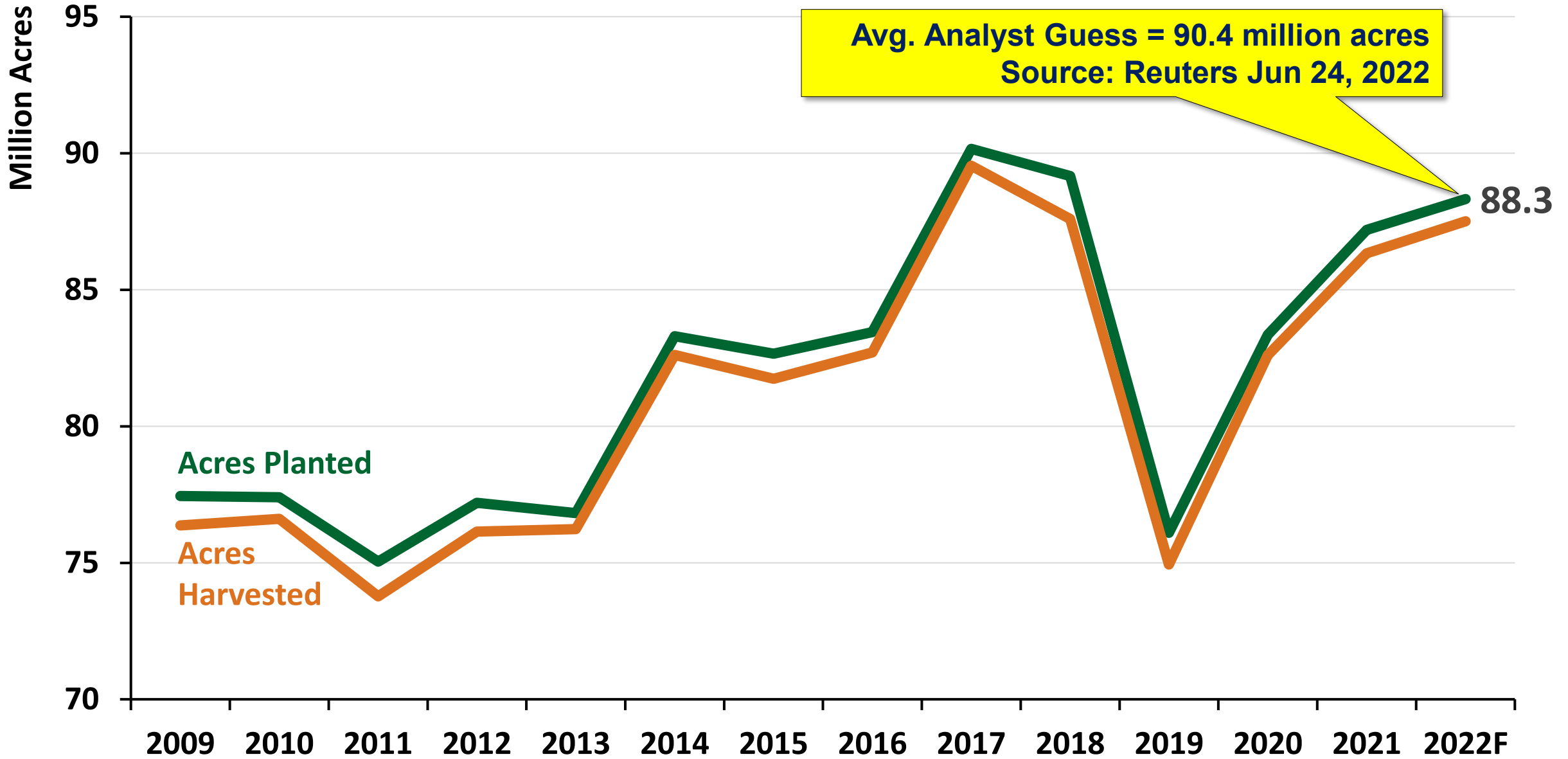
Figure 13: 2022 Corn Planted Acres (000s Ac) and % Change from March Estimate



**89.9 Mil. Acres of Corn to be Planted in U.S. in 2022
Up 0.4 Mil. Acres from March Est.**

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

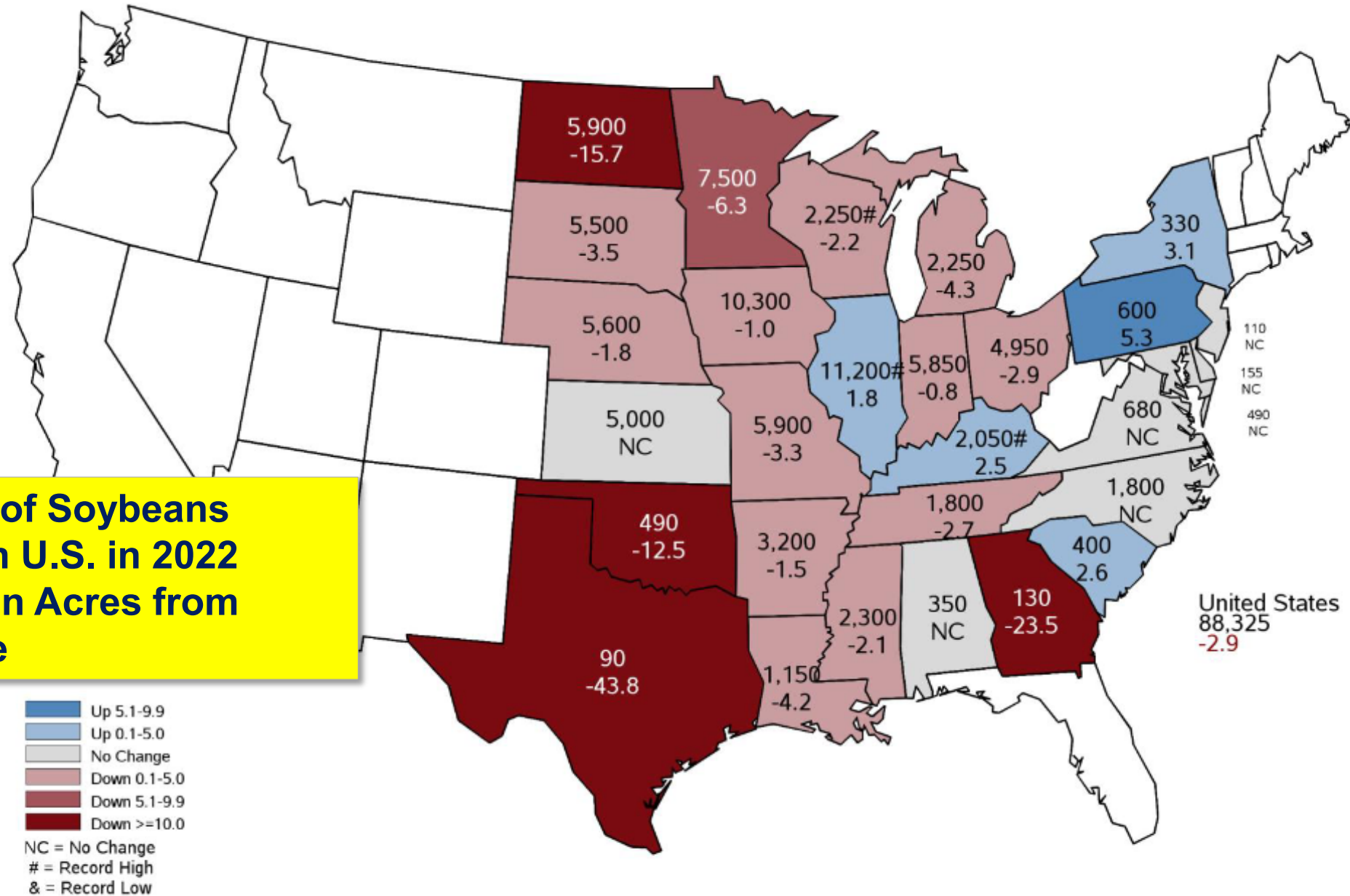
Figure 14: US Planted and Harvested Acres for Soybeans



Avg. Analyst Guess = 90.4 million acres
Source: Reuters Jun 24, 2022

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022F

Figure 15: 2022 Soybean Planted Acres (000s Ac) and % Change from March Est.



91.0 Mil. Acres of Soybeans to be Planted in U.S. in 2022 Down 2.6 Million Acres from March Estimate

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 16: US New-Crop Corn Balance Sheet

| | (mil. bushels unless noted) | 2020/21 | 2021/22 USDA June WASDE | 2022/23 USDA June WASDE | 2022/23 <i>farmdoc</i> Forecast |
|---------------|-------------------------------|---------------|----------------------------|----------------------------|------------------------------------|
| Supply | Area Planted (mil. acres) | 90.7 | 93.4 | 89.5 | 89.9 |
| | Area Harvested (mil. acres) | 82.3 | 85.4 | 81.7 | 81.9 |
| | Yield (bu./acre) | 171.4 | 177.0 | 177 | 176.0 |
| | Beginning Stocks | 1,919 | 1,235 | 1,485 | 1,560 |
| | Production | 14,111 | 15,115 | 14,460 | 14,414 |
| | Imports | 24 | 25 | 25 | 25 |
| | Total Supply | 16,055 | 16,375 | 15,970 | 15,999 |
| Use | Feed and Residual | 5,602 | 5,625 | 5,350 | 5,350 |
| | Food, Seed, and Industrial | 6,466 | 6,815 | 6,820 | 6,720 |
| | Ethanol | 5,208 | 5,375 | 5,375 | 5,275 |
| | Exports | 2,753 | 2,450 | 2,400 | 2,300 |
| | Total Use | 14,821 | 14,890 | 14,570 | 14,370 |
| | Ending Stocks | 1,235 | 1,485 | 1,400 | 1,629 |
| | Stocks-to-Use (%) | 8.3 | 10.0 | 9.6 | 11.3 |
| | Season Average Price (\$/bu.) | \$4.53 | \$5.95 | \$6.75 | \$6.25 |

Figure 2: Previous 30-day Precipitation, % of Normal as of June 30, 2022

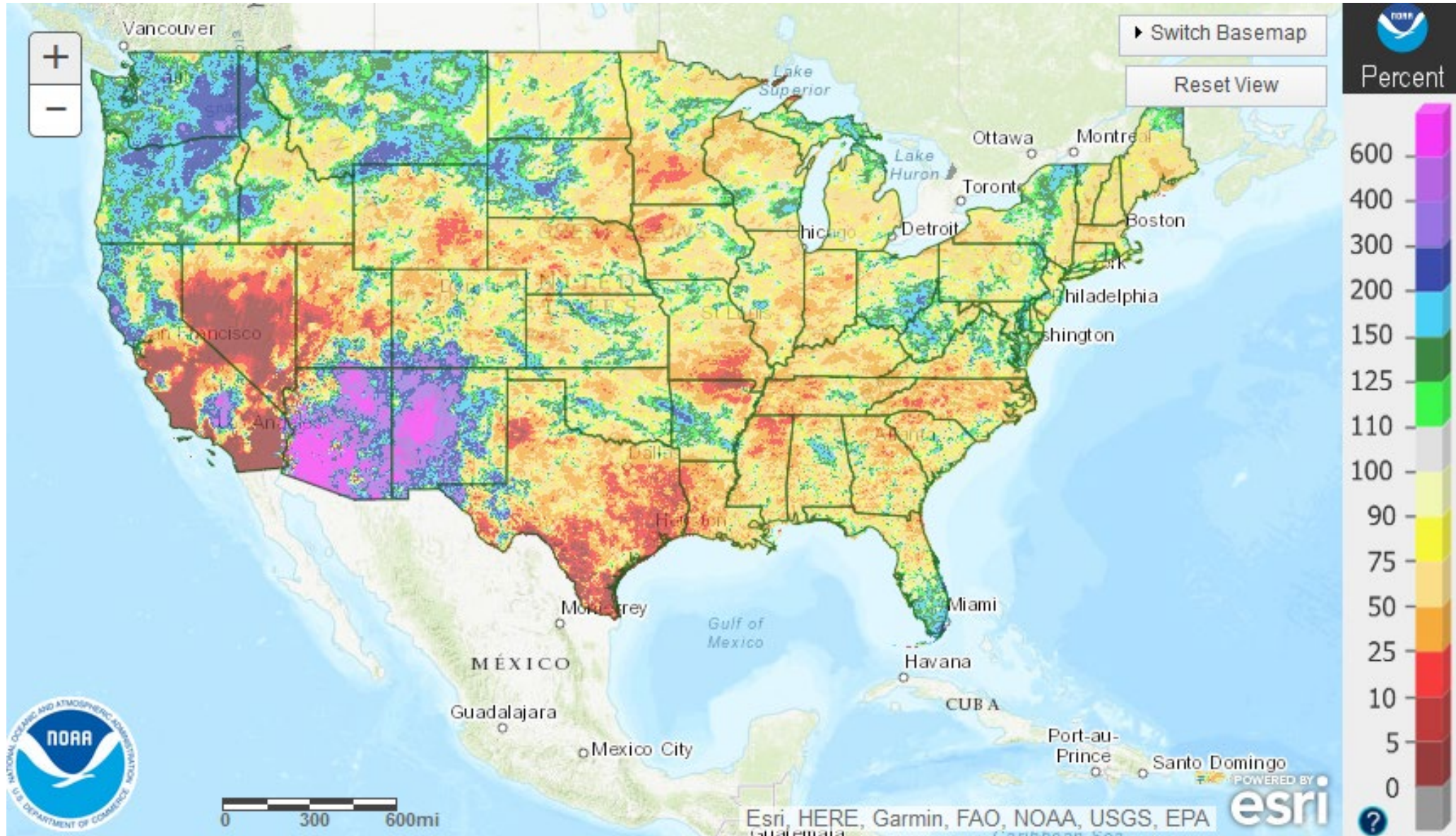
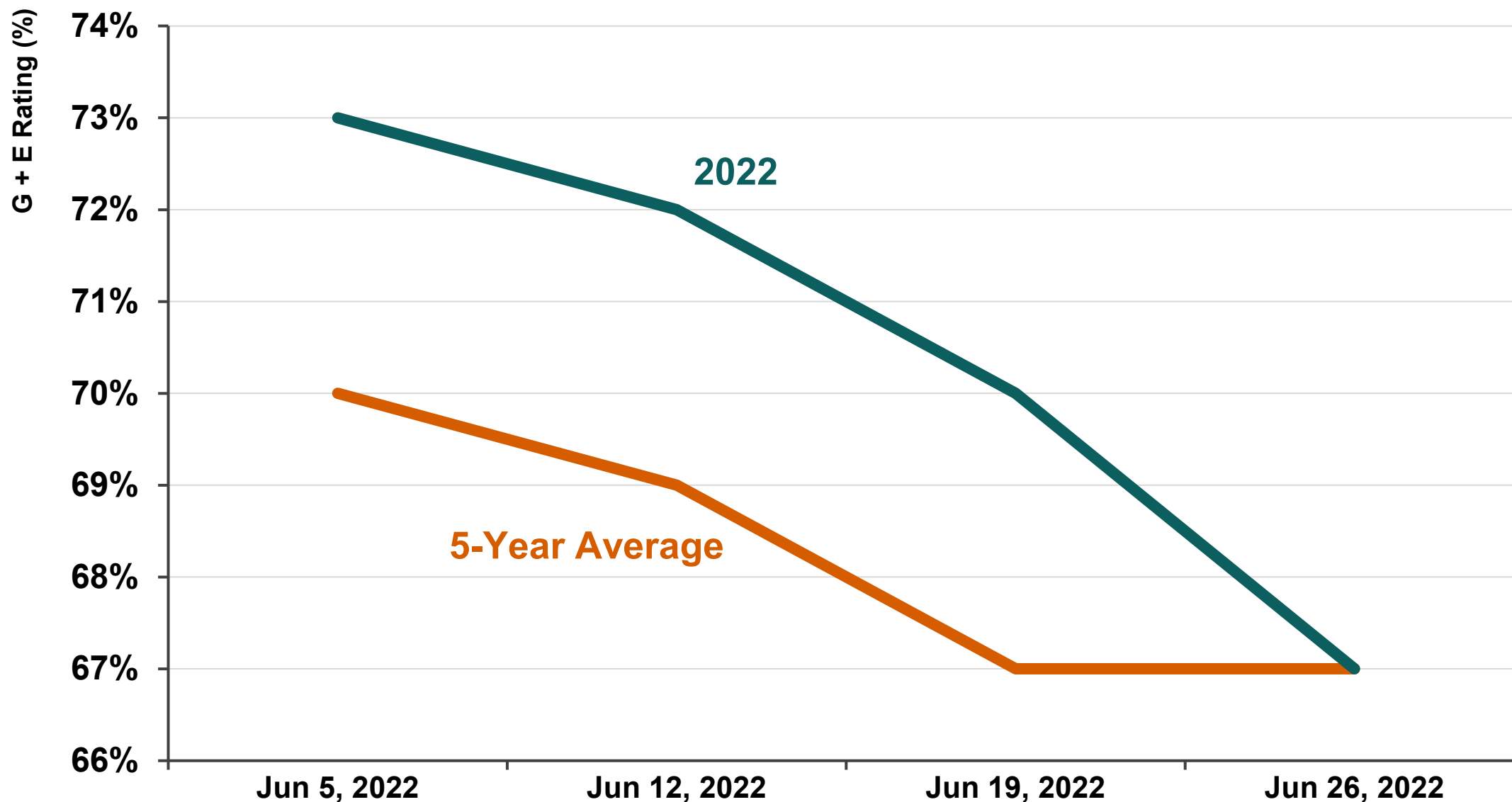


Figure 18: Weekly Sum of Good and Excellent Corn Condition Ratings for 18 Major Producing States in the U.S.



Source: USDA NASS

Figure 2: US 7-day Precipitation Forecast in inches, June 30-Jul 7, 2022

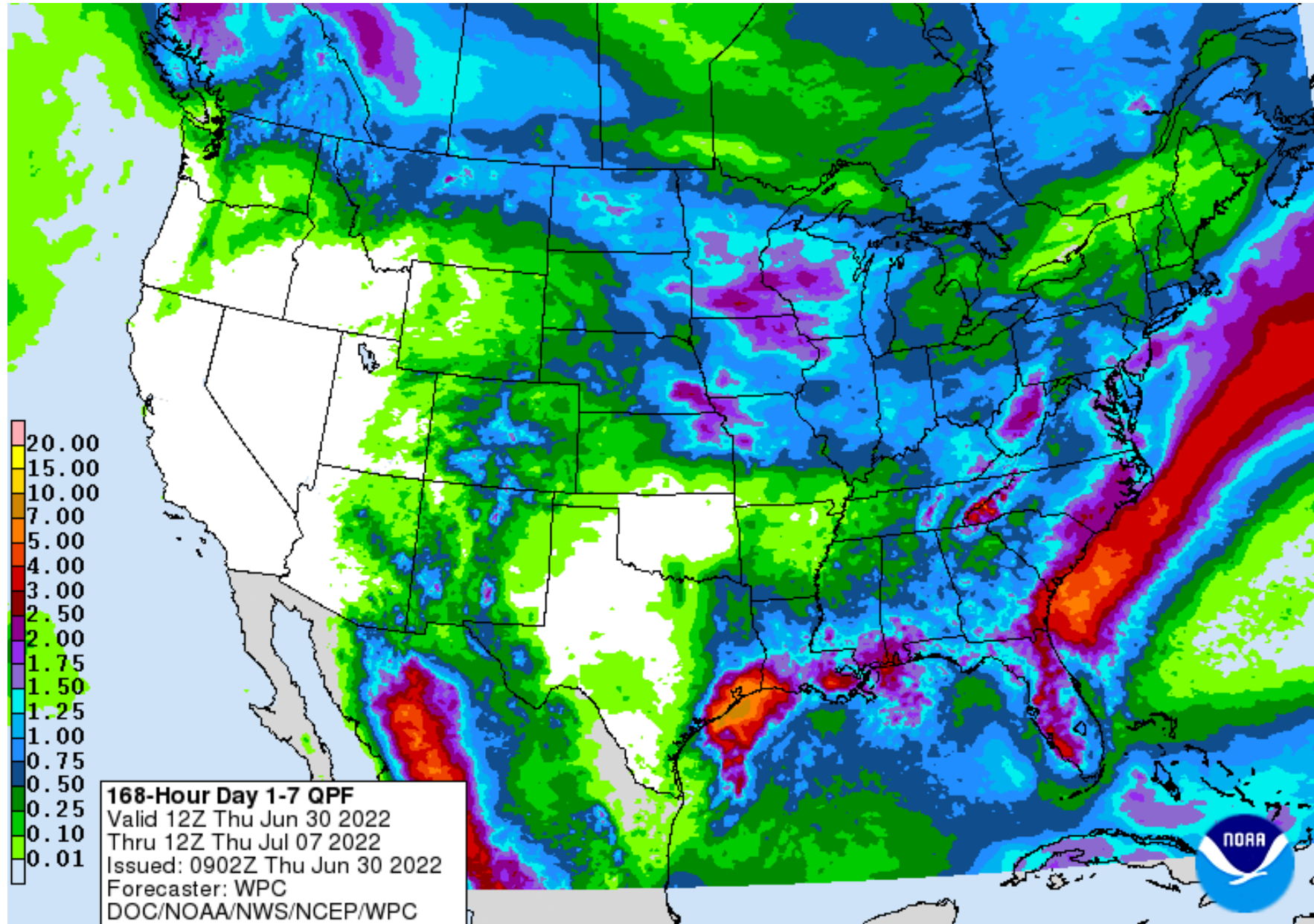


Figure 18: Weekly Retail Gasoline Price in the U.S., All Grades Jan 4, 2021 – Jun 13, 2022

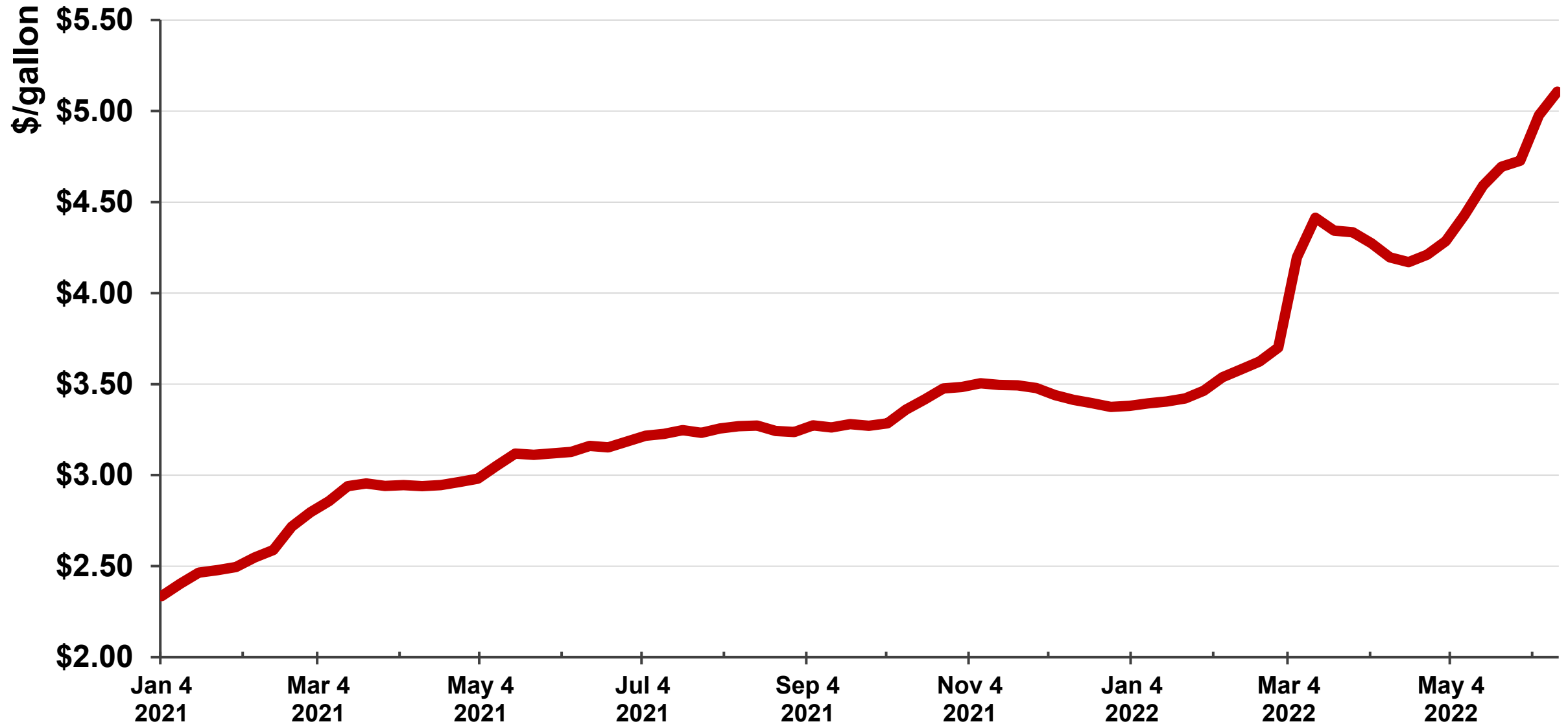
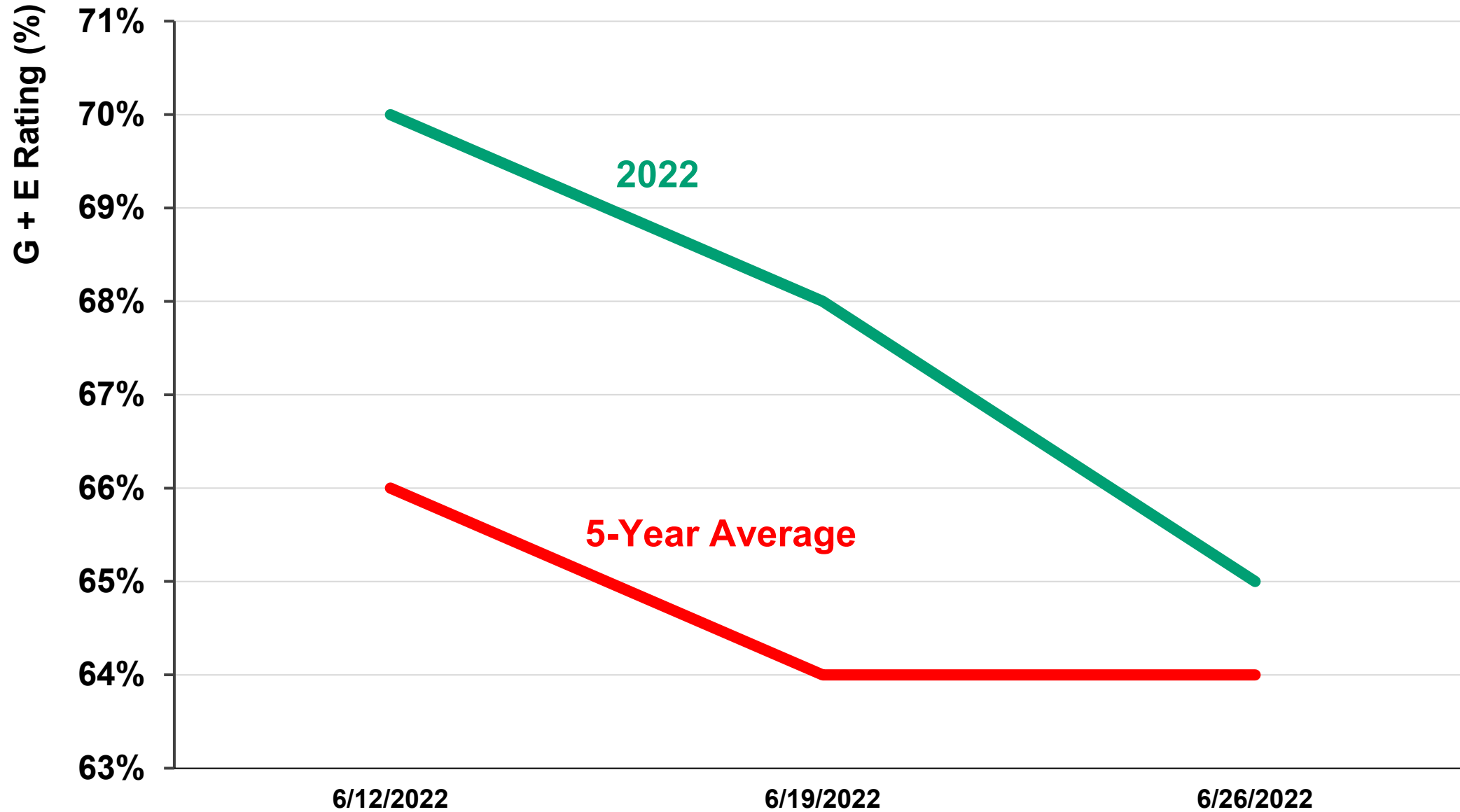


Figure 19: US New-Crop Soybean Balance Sheet

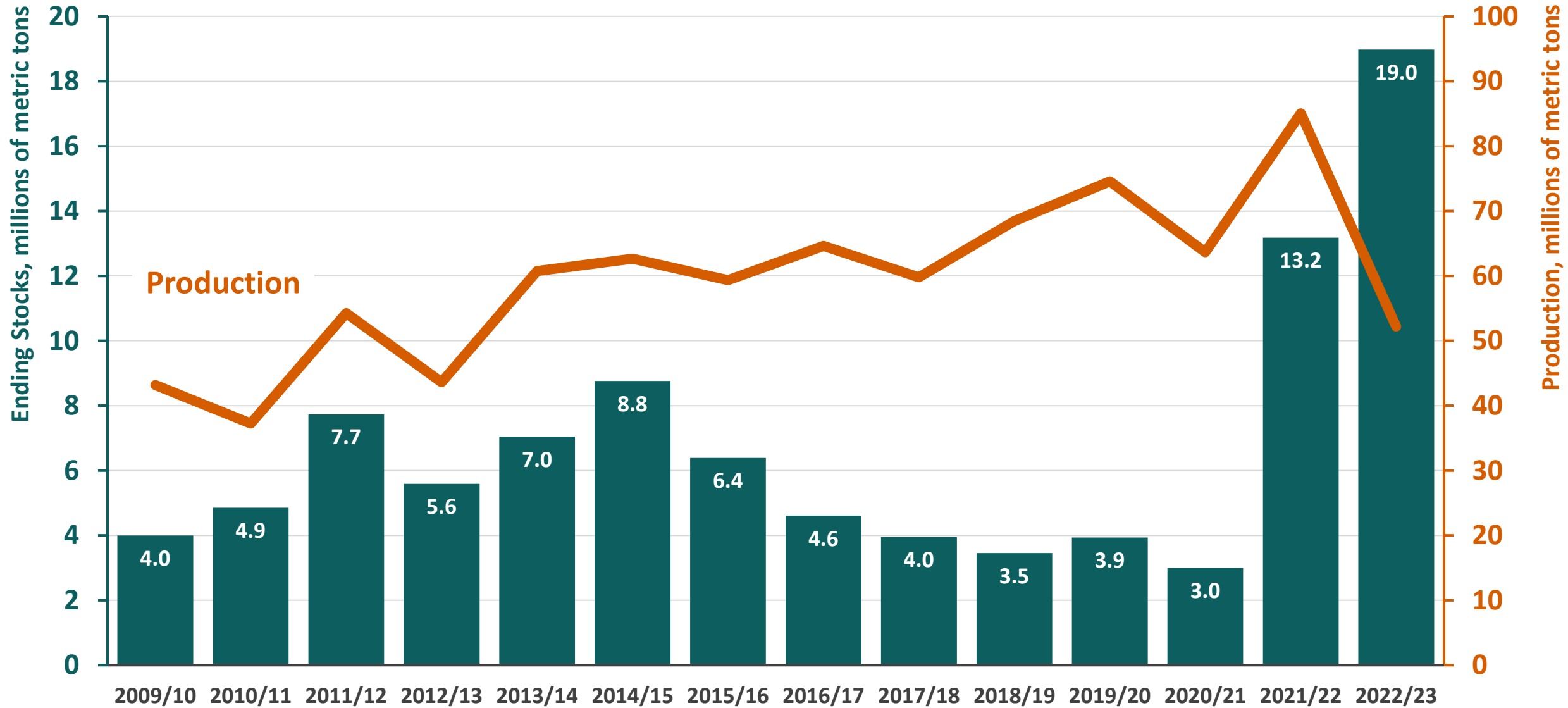
| | (mil. bushels unless noted) | 2020/21 | 2021/22 USDA June WASDE | 2022/23 USDA June WASDE | 2022/23 <i>farmdoc</i> Forecast |
|---------------|-------------------------------|--------------|----------------------------|----------------------------|------------------------------------|
| Supply | Area Planted (mil. acres) | 83.4 | 87.2 | 91.0 | 88.3 |
| | Area Harvested (mil. acres) | 82.6 | 86.3 | 90.1 | 87.5 |
| | Yield (bu./acre) | 51.0 | 51.4 | 51.5 | 51.00 |
| | Beginning Stocks | 525 | 257 | 205 | 205 |
| | Production | 4,216 | 4,435 | 4,640 | 4,463 |
| | Imports | 20 | 15 | 15 | 15 |
| | Total Supply | 4,761 | 4,707 | 4,860 | 4,683 |
| Use | Crushings | 2,141 | 2,215 | 2,255 | 2,235 |
| | Exports | 2,261 | 2,170 | 2,200 | 2,125 |
| | Seed | 101 | 106 | 102 | 102 |
| | Residual | 1 | 12 | 23 | 23 |
| | Total Use | 4,504 | 4,502 | 4,580 | 4,485 |
| | Ending Stocks | 257 | 205 | 280 | 198 |
| | Stocks-to-Use (%) | 5.7 | 4.6 | 6.1 | 4.4 |
| | Season Average Price (\$/bu.) | \$10.80 | \$13.35 | \$14.70 | \$14.70 |

Figure 18: Weekly Sum of Good and Excellent Soybean Condition Ratings for Major Producing States in the U.S.



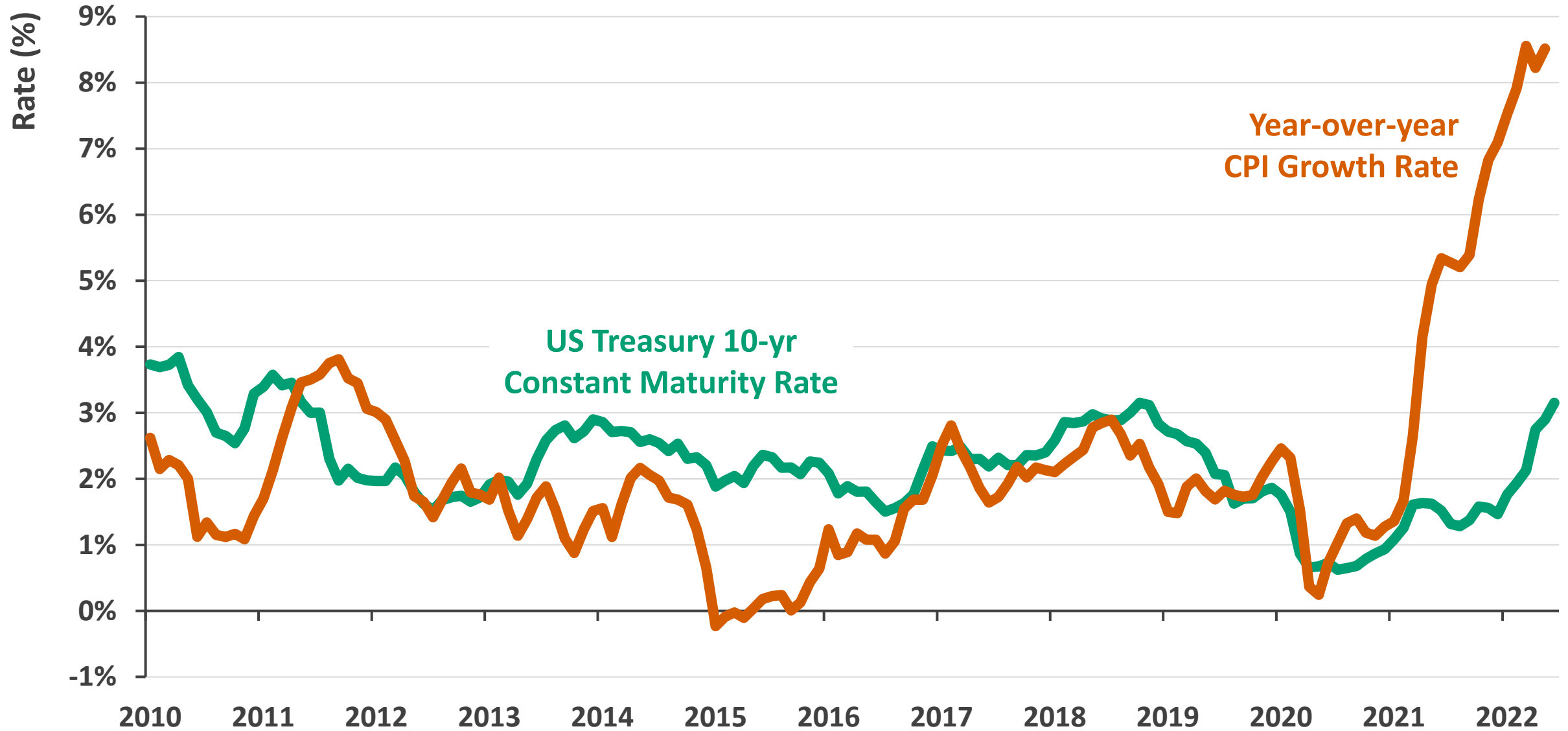
Source: USDA NASS

Figure 20: Ukraine Cereals Ending Stocks (left) and Production (right) 2010-11 to 2022/23



Source: USDA FAS. Note: Cereals include corn, wheat, and barley.

Figure 21: Monthly interest and inflation rates, January 2010 to June 2022



Closing Comments

- Grain Stocks Report showed:
 - June 1 stocks in line with trade expectations
 - Forecast of feed and residual use of corn unchanged
- Acreage Report showed:
 - 2.6 million less soybean acres than March estimate
 - 0.4 million more corn acres than March estimate
 - Decline in corn/soy acres in Northern Great Plains, likely some prevent plant
- Balance sheet implications:
 - Continuation of tight grain and oilseed supply and demand balances
 - Much higher than average historical prices
 - Expect high price volatility, especially related to weather news in corn

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