

USDA Trims Projected Corn Yield in July WASDE

Todd D. Davis Chief Economist July 14, 2023

The July World Agricultural Supply and Demand Estimates (WASDE) from the U.S. Department of Agriculture (USDA), released July 12, updated the corn and soybean supply and demand projections for the 2023 crops. Before the report's release, market discussions focused on whether USDA would lower the projected corn and soybean yields in response to the country's drought. About 70% of the U.S. corn and 63% of the soybean crops were estimated to be in drought on June 27. Weather systems have provided some rain and have slightly reduced these percentages to 64% and 57% of the corn and soybean crops under drought as of July 11.

USDA did trim the projected corn yield from 181.5 to 177.5 bushels per acre (BPA) to acknowledge the drought (Table 1). USDA adopted the 94.1 million planted acre estimate published in the June 30 *Acreage Report*. The projected increase in harvested area combined with a higher yield than in 2022 will lead to a 1.59 billion bushel increase in production. If realized, the 2023 corn crop is projected to be 15.32 billion bushels and would be a record.

Table 1. U.S. Corn Supply and Demand for the 2021 to 2023 (Projected) Marketing Years.							
	2021-22	2022-23 (P)	2023-24 (P)	Change from			
				Previous Year			
Planted Area	93.3	88.6	94.1	+5.5			
Harvested Area	85.3	79.2	86.3	+7.1			
Yield (bushels/acre)	176.7	173.3	177.5	+4.2			
	Million Bushels						
Beginning Stocks	1,235	1,377	1,402	+25			
Production	15,074	13,730	15,320	+1,590			
Imports	<u>24</u>	<u>25</u>	<u>25</u>	<u>+0</u>			
Total Supply	16,333	15,132	16,747	+1,615			
Feed and Residual	5,719	5,425	5,650	+225			
Foods, Seed & Industrial	6,764	6,655	6,735	+80			
Ethanol and by-products	5,326	5,225	5,300	+75			
Total Domestic	12,483	12,080	12,385	+305			
Exports	2,472	<u>1,650</u>	2,100	+450			
Total Use	14,956	13,730	14,485	+755			
Ending Stocks (Mil. Bushels)	1,377	1,402	2,262	+860			
U.S. MYA Farm Price (\$/bu)	\$6.00	\$6.60	\$4.80	-\$1.80			
Stocks-Use (%)	9.2%	10.2%	15.6%	+5.4%			
Days Stocks (Days)	34	37	57	+20			

The larger projected crop plus carry-in will increase the corn supply by 1.6 billion bushels to 16.7 billion bushels.

USDA projects corn use to increase by 755 million bushels from the previous marketing year. USDA projects feed use and industrial use (including ethanol) to increase by 305 million bushels from last year. Exports are also expected to increase by 450 million bushels (Table 1).

Exports have been a concern for the 2022 crop and have lagged the exports for the three previous marketing years due to more competitively priced corn sourced from Brazil and Argentina. While the 2023 marketing year begins on September 1, export sales to date for the new crop are running behind the previous year's exports booked by the first week of July.

The increase in use will only partially offset the increase in supply, and USDA projects corn stocks to increase by 860 million bushels from last year to 2.26 billion bushels (Table 1). This increase would push the stocks-to-use ratio above 15% and pressure prices lower. The average farm price in the U.S. is projected at \$4.80 per bushel – a decrease of \$1.80 per bushel from last year.

A concern for the corn market is whether exports fail to rebound to 2.1 billion bushels. In this scenario, corn stocks would increase further, providing further downward price pressure. Conversely, USDA may reduce the projected yield once in-field measurements are conducted, and statisticians can look at ear development. Assuming the current demand projections, a national yield of 170 BPA would reduce ending stocks to 1.6 billion bushels and support higher prices. Given the drought and other weather stresses, yield, ending stocks and average farm price are all moving targets.

USDA did not adjust the projected 2023 soybean yield in the July estimates (Table 2). Because soybeans bloom over a wider agronomic window, USDA preferred to wait until August and the farmer surveys to deviate from the trend-yield estimate.

Table 2. U.S. Soybean Sup					USDA adopted the estimated
	2021-22	2022-23 (P)	2023-24 (P)	Change from	planted area of 83.5 million
				Previous Year	acres from the <i>Acreage</i>
Planted Area	87.2	87.5	83.5	-4.0	
Harvested Area	86.3	86.3	82.7	-3.6	report. Planted area decreased
Yield (bushels/acre)	51.7	49.5	52	+2.5	by 4 million acres from last
	Million Bushels				year.
Beginning Stocks	257	274	255	-19	7 5021
Production	4,465	4,276	4,300	+24	FI 2022 1
Imports	<u>16</u>	<u>25</u>	<u>20</u>	-5	The 2023 soybean crop is
Total Supply	4,738	4,576	4,575	-1	projected at 4.3 billion
					bushels, a 24 million bushel
Crushing	2,204	2,220	2,300	+80	increase from last year, as a
Exports	2,152	1,980	1,850	-130	3
Seed	102	97	101	+4	larger trend yield
Residuals	<u>6</u>	<u>23</u>	<u>25</u>	+2	compensates for the reduction
Total Use	4,464	4,320	4,276	-44	in harvested area.
Ending Stocks (Mil. Bushels)	274	255	300	+45	
U.S. MYA Farm Price (\$/bu)	\$13.30	\$14.20	\$12.40	-\$1.80	The soybean supply is
Stocks-Use (%)	6.1%	5.9%	7.0%	+1.1%	projected to be nearly the
Days Stocks (Days)	22	22	26	+4	- same as last year.

Soybean use is projected to decrease slightly from last year, driven by reduced exports (Table 2). USDA currently projects soybean exports at 1.85 billion bushels, which are 130 million bushels

less than last year. Crushing use remains strong, with a projected increase of 80 million bushels to 2.3 billion bushels.

Ending stocks are projected at 300 million bushels, an increase of 45 million bushels from the previous marketing year. The increased stocks are projected to lower prices to an average U.S. farm price of \$12.40 per bushel.

While the corn market is currently projected to have a cushion to absorb lower yields, the soybean market does not have that cushion. Assuming USDA's use projections, if the soybean yield was trimmed to 50 BPA, the soybean crop would be cut by about 176 million bushels, and stocks would drop below the pipeline minimum of 123 million bushels.

Based on the July report, the soybean market has the potential to rally if production is trimmed and demand remains strong. The corn market could also rally if yield and harvested area reductions are enough to adjust projected stocks lower toward a 10% stocks-to-use ratio or lower.

As always, fine-tune your marketing plan with a realistic estimate of your farm's production and realized costs to take advantage of any pricing opportunities.