Higher Supplies and Higher Demand

### Corn

- **2015/16**: 280 million metric tons
- **2016/17**: 300 million metric tons
- **2017/18**: 320 million metric tons
- **2018/19**: 340 million metric tons
- **2019/20**: 360 million metric tons
- **2020/21**: 380 million metric tons
- **2021/22**: 400 million metric tons

### Soybeans

- **2015/16**: 660 million metric tons
- **2016/17**: 680 million metric tons
- **2017/18**: 700 million metric tons
- **2018/19**: 720 million metric tons
- **2019/20**: 740 million metric tons
- **2020/21**: 760 million metric tons
- **2021/22**: 780 million metric tons

### Wheat

- **2015/16**: 800 million metric tons
- **2016/17**: 780 million metric tons
- **2017/18**: 760 million metric tons
- **2018/19**: 740 million metric tons
- **2019/20**: 720 million metric tons
- **2020/21**: 700 million metric tons
- **2021/22**: 680 million metric tons

**Source:** USDA February WASDE
U.S. Corn, Soybean & Wheat futures Prices Moved Sharply Higher

nearby futures

Data: Bloomberg
Corn Stocks in Exporting Countries Still Relatively Tight; World Trade Grows Despite High Prices

Source: USDA. Other exporters are Argentina, Brazil, Ukraine, and Russia. Trade Year basis.
Drought reduces 2022 South American Soybean Harvest

Production Argentina, Brazil, Paraguay

-21.2mmt

Source: USDA February WASDE
Consumer Food Demand Remains Strong

*U.S. Real Expenditure growth for Food Retail and Food Service, Year over Year changes*

Data: BEA, Jan 2018 to Dec 2021
Prices are Anticipated to Moderate, but Remain Strong

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Corn ($ bushel)</td>
<td>5.29</td>
<td>3.61</td>
<td>3.36</td>
<td>3.36</td>
<td>3.61</td>
<td>3.56</td>
<td>4.53</td>
<td>5.45</td>
<td>5.00</td>
<td>-8.3%</td>
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<tr>
<td>Rice ($ cwt)</td>
<td>14.4</td>
<td>12.2</td>
<td>10.4</td>
<td>12.9</td>
<td>12.6</td>
<td>13.6</td>
<td>13.7</td>
<td>15.70</td>
<td>16.10</td>
<td>2.5%</td>
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<tr>
<td>Sorghum ($ bushel)</td>
<td>5.13</td>
<td>3.31</td>
<td>2.79</td>
<td>3.22</td>
<td>3.26</td>
<td>3.34</td>
<td>5.04</td>
<td>5.45</td>
<td>4.90</td>
<td>-10.1%</td>
</tr>
<tr>
<td>Soybeans ($ bushel)</td>
<td>12.3</td>
<td>8.95</td>
<td>9.47</td>
<td>9.33</td>
<td>8.48</td>
<td>8.57</td>
<td>10.80</td>
<td>13.00</td>
<td>12.75</td>
<td>-1.9%</td>
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<tr>
<td>Upland Cotton ($ lb)</td>
<td>0.76</td>
<td>0.61</td>
<td>0.68</td>
<td>0.69</td>
<td>0.70</td>
<td>0.60</td>
<td>0.66</td>
<td>0.90</td>
<td>0.80</td>
<td>-11.1%</td>
</tr>
<tr>
<td>Wheat ($ bushel)</td>
<td>6.71</td>
<td>4.89</td>
<td>3.89</td>
<td>4.72</td>
<td>5.16</td>
<td>4.58</td>
<td>5.05</td>
<td>7.30</td>
<td>6.80</td>
<td>-6.8%</td>
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<tr>
<td>Barley ($ bushel)</td>
<td>5.40</td>
<td>5.52</td>
<td>4.96</td>
<td>4.47</td>
<td>4.62</td>
<td>4.69</td>
<td>4.75</td>
<td>5.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oats ($ bushel)</td>
<td>3.37</td>
<td>2.12</td>
<td>2.06</td>
<td>2.59</td>
<td>2.66</td>
<td>2.82</td>
<td>2.77</td>
<td>4.00</td>
<td></td>
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</table>

Source: USDA OCE-WAOB, Barley and Oat prices not forecast for the Ag Outlook Forum
U.S. Wheat Planted Acres Rise after Long-Term Decline

- Wheat area rebounded in 2021 on higher winter wheat plantings.
- 2022 wheat area expected to rise again to 48.0 million acres on favorable new-crop prices. Spring wheat increase could be limited.
- Winter wheat harvested area remains a question given dry fall and winter conditions.

Source: OCE-WAOB
New Crop U.S. Soybean to Corn Price Ratio

Source: CME
Note: Nov. Soybeans & Dec. Corn futures prices
Combined Corn (92ma), Soybean (88ma), and Wheat (48ma)
Area Modestly Above a Year Ago;
*High prices for other crops and assumption of normal weather limits area expansion*

Source: OCE-WAOB. 3-crops are corn, soybeans, and wheat.
U.S. Soybean Futures Crush Margin is Historically High

Source: CME
Note: Futures Prices - Nov. Soybeans, Dec. Meal and Oil
Soybean Oil Share of Futures Crush Value is also Historically High

Source: CME
Note: Futures Prices - Nov. Soybeans, Dec. Meal and Oil
Soybean Oil for Biofuel Grows Rapidly Through 2022/23

leading to lower soybean oil for food, feed, and other industrial uses in 2022/23

Source: USDA OCE-WAOB
Low Brazil & Argentina October 1 Soybean Stocks Support Higher U.S. Exports this Fall

Source: USDA-FAS February PS&D
Brazil Corn Prices Support Continued Area Expansion; Critical Phase of Growing Season Ahead

In contrast to year ago, fast soybean harvest in Brazil means accelerated planting of the safrina corn crop.

July corn futures in Reais

Source: CME, St. Louis Federal Reserve Economic Database
China’s Large Imports of Feedstuffs Expected to Continue

Source: TDM
Renewable Fuel Standard
Small refinery exemptions and covid impacts have left the RFS short of published volumes

<table>
<thead>
<tr>
<th>Category</th>
<th>Cellulosic Biofuel</th>
<th>Biomass-Based Diesel^b</th>
<th>Advanced Biofuel</th>
<th>Total RFS</th>
<th>implied conventional (corn ethanol)</th>
<th>Supp. Standard</th>
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<tr>
<td>2017</td>
<td>0.311</td>
<td>2</td>
<td>4.28</td>
<td>19.28</td>
<td>15.00</td>
<td>n/a</td>
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<tr>
<td>2018</td>
<td>0.288</td>
<td>2.1</td>
<td>4.29</td>
<td>19.29</td>
<td>15.00</td>
<td>n/a</td>
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<tr>
<td>2019</td>
<td>0.418</td>
<td>2.1</td>
<td>4.92</td>
<td>19.92</td>
<td>15.00</td>
<td>n/a</td>
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<tr>
<td>2020 (P)</td>
<td>0.51</td>
<td>2.43^c</td>
<td>4.63</td>
<td>17.13</td>
<td>12.50</td>
<td>n/a</td>
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<tr>
<td>2021 (P)</td>
<td>0.62</td>
<td>2.43^d</td>
<td>5.2</td>
<td>18.52</td>
<td>13.32</td>
<td>n/a</td>
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<tr>
<td>2022 (P)</td>
<td>0.77</td>
<td>2.76</td>
<td>5.77</td>
<td>20.77</td>
<td>15.00</td>
<td>0.25</td>
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</table>


Figure 1.2-4: Intended Versus Actual Consumption of Total Renewable Fuel
- Cotton planted area rising with historically strong cotton prices.
- Cotton harvested area still a question given persistent dryness in some major cotton areas.

Source: OCE-WAOB
Cotton stocks rose slightly last year as logistics problems slowed exports.

Cotton demand held up well in total and relative to other fibers in 2021.

Despite the projected larger crop, carryout stocks essentially unchanged.

Source: OCE-WAOB
# Livestock Prices

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022f</th>
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<tbody>
<tr>
<td></td>
<td>dollars per hundredweight</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cattle</td>
<td>121.52</td>
<td>117.12</td>
<td>116.78</td>
<td>108.51</td>
<td>122.40</td>
<td>137.50</td>
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<tr>
<td>Hogs</td>
<td>50.48</td>
<td>45.93</td>
<td>47.95</td>
<td>43.18</td>
<td>67.29</td>
<td>65.00</td>
</tr>
<tr>
<td></td>
<td>cents per pound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Broilers</td>
<td>93.5</td>
<td>97.8</td>
<td>88.6</td>
<td>73.2</td>
<td>101.2</td>
<td>113</td>
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<tr>
<td>Turkeys</td>
<td>96.1</td>
<td>80.2</td>
<td>89.2</td>
<td>106.5</td>
<td>122.8</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>cents per dozen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Eggs</td>
<td>100.9</td>
<td>137.6</td>
<td>94.0</td>
<td>112.2</td>
<td>118.5</td>
<td>131</td>
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</table>

Source: OCE-WAOB
Smaller Livestock Inventories will Lead to Tighter Red Meat Supplies

U.S. Cattle Inventory, January 1

U.S. Hog Inventory, December 1
Beef and Pork Slaughter Rates Variable

U.S. Beef and Pork Plant Capacity Utilization
4 week running average

Average Weekday Cattle and Hog Slaughter

Note: Excludes weekend operations. Adjusted to account for holiday operations.
Sources: USDA and National Pork Board
Greater Volatility in Wholesale Beef and Pork Prices than Retail

Wholesale and Retail Prices, Indexed (2020 Jan = 1)

Broiler Meat Expansion will be Modest

Source: USDA February WASDE
Dairy Product Prices Continue to Rise

### National Prices of Dairy Products

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022F</th>
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<tbody>
<tr>
<td>Butter</td>
<td>1.5808</td>
<td>1.7325</td>
<td>2.390</td>
</tr>
<tr>
<td>Cheese</td>
<td>1.9236</td>
<td>1.6755</td>
<td>1.900</td>
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<tr>
<td>Nonfat Dry Milk</td>
<td>1.0417</td>
<td>1.2693</td>
<td>1.665</td>
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<tr>
<td>Whey</td>
<td>0.3621</td>
<td>0.5744</td>
<td>0.705</td>
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<tr>
<td>All Milk</td>
<td>18.24</td>
<td>18.69</td>
<td>23.55</td>
</tr>
</tbody>
</table>

*Weighted Average Blocks and Barrels

Source: AMS-NDPSR

Source: OCE-WAOB
U.S. Agricultural Trade Situation

Exports at record $183.5 Billion; Imports at record $172.5 Billion

Source: USDA FAS/ERS February Quarterly Agricultural Export Forecast
Top U.S. Ag Export Markets

Source: USDA FAS/ERS February Quarterly Agricultural Export Forecast
**FY2022 Export Forecast vs. FY2021**

Soybeans lead export values higher on higher prices, not volumes

Source: USDA FAS/ERS February Quarterly Agricultural Export Forecast

* represents a record forecast value in FY2022
Value of U.S. Agricultural Exports by Mode

- **Vessel-Container**
- **Vessel-bulk**
- **Trucking/Rail**
- **Air**
- **% exported by containerized shipping**

Data: TDM
Farm Sector Profits Expected to Remain Above 20-year Average in 2021-22

$ billion (2022)

- Net cash farm income
- Net farm income

- 2001 - 2020 NCFI average = 119.8
- 2001 - 2020 NFI average = 98.7

-2.1% from ’21
-7.9% from ’21


Source: USDA, Economic Research Service, Farm Income and Wealth Statistics
Data as of February 4, 2022.
Total Direct Government Payments to Farmers Expected to Decline in 2022

F= Forecast.
1/ Includes payments from the Coronavirus Food Assistance Program and other USDA pandemic assistance for producers.
2/ Includes loans from the Small Business Administration’s Paycheck Protection Program.
3/ Includes counter-cyclical payments, average crop revenue election (ACRE) payments, loan deficiency payments, marketing loan gains, certificate exchange gains, Price Loss Coverage (PLC), Agriculture Risk Coverage (ARC), and dairy payments in which commodity payment rates vary with market prices.
4/ Fixed payments are through 2013 and cotton transition payments in 2014 whereby payment rates are fixed by legislation.
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics (using data from FSA, NRCS, CCC, and SBA)
Data as of February 4, 2022.
2021 Changes in Input Prices Paid by Farmers relative to Dec 2019 and Dec 2020

Source: USDA-NASS prices paid
Changes in Net Cash Income for Farm Businesses Vary Significantly by Region

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics
Supply Chain Disruptions, Rising Commodity Prices, General CPI?

Food CPI Drivers:
- Supply Chain and Food at Home
- Rising commodity prices

Food CPI Drivers ?:
- Commodity prices?
- Wage inflation?
- Transit and packaging?

Data: BLS
Inflation Broadening Out

2021 Food Retail Price Quarterly Changes: first 3 quarters vs last quarter

- Beef: 5%
- Pork: 4%
- Eggs: 3%
- Poultry: 2%
- Fats and Oils: 1%
- Seafood: 0%
- Snacks: 0%
- Food at Home: 0%
- Bakery: 0%
- Soups: 0%
- Frozen/Dried Prep. (non-alc.): 0%
- Canned Fruits & Veg: 0%
- Cereals: 0%
- Fresh Fruit/Veg: 0%
- Frozen Fruits and Veg: 0%
- Sugar and Sweets: 0%
- Dairy: 0%

Data: BLS
Outlook is Positive - Uncertainties Remain

• Prospects for crops supported by solid domestic demand and continued strong exports
• Livestock outlook supported by continued strong domestic demand and supportive exports
• Farm income forecast to fall as higher crop and livestock receipts do not offset rising input costs and lower government payments, but remains above average.
• Supply chain disruptions, labor availability and logistics/trucking remain important factors
• Trade with China important for ag markets
• Improved outlook for milk producers on strong product prices
• Russian incursions in Ukraine’s Luhansk and Donetsk Oblasts, or beyond, remain a key uncertainty
• *Weather will have the last say on supplies*
Questions? Seth.Meyer@usda.gov