Farm Policy Risk and Policy Tools

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Farm Policy Outlook

• 2018 Farm Bill
  • The debate is over, the decisions are ahead for commodity and conservation programs
• 2014 Farm Program Payments
  • Reduced payments will stress cash flow in 2019
• Trade Assistance
  • Market Facilitation Program payments provided substantial cash flow in 2018-2019
• Farm Income Outlook
  • Farm program payments shift between farm bills
  • Careful planning needed for 2019 and beyond
Farm Bill Issues

- Commodity programs
  - ARC mechanics
  - Yield data and history
  - Reference prices
  - ARC v. PLC decision
  - Dairy and cotton

- Conservation
  - CRP
    - Acreage enrollment cap
    - CRP rental rates
  - Working lands programs
    - EQIP and CSP funding

- Crop insurance programs
  - Program features
  - Eligibility limits
  - Premium subsidy

- Nutrition (Supplemental Nutrition Assistance Program)
  - Supports and eligibility levels
  - Not a source of funds for farm program spending

2018 Farm Bill

- Separate bills passed each chamber of Congress in Summer 2018
  - House bill passed 213-211 on June 21 after failing 198-213 on May 18
  - Senate bill passed 86-11 on June 28

- 2014 Farm Bill expired on September 30, 2018 without an extension
  - Permanent legislation and the “milk cliff” would have presumably taken effect on January 1, 2019 without a new farm bill

- After extended negotiations, final agreement moved quickly at the end of 2018
  - Conference report filed on December 10
  - Passed the Senate 87-13 on December 11
  - Passed the House 369-47 on December 12
  - Signed by the President on December 20
Commodity Programs
Small Changes, Big Decisions

- **ARC**
  - Yield data
  - Coverage by practice
  - Coverage by physical county
  - Plug yield increase
  - Trend yield adjustment
  - Big county split

- **PLC**
  - Payment yield update
  - Effective reference price

- **Marketing loans**
  - Increased loan rates

- **Base acreage**
  - Payment cuts to base acreage not planted to program crops in 10 years with some conservation incentives added

- **Payment limits**
  - Payment eligibility rules for extended family (nieces, nephews, cousins)

- **Decisions**
  - ARC v. PLC in 2019 for 2019-2020, annually beginning in 2021

**ARC Revisions**

- **Yield Data**
  - Use of alternative yield data, presumably USDA-RMA crop insurance data, as the primary source of data instead of USDA-NASS survey data
    - It should provide more consistent data for major crops in major growing regions
    - It will not resolve all data gaps, leaving some yield estimates to committee determination

- **ARC-CO Coverage by Practice**
  - Coverage by irrigated and nonirrigated practice available upon FSA committee request if not less than 5% of the acreage was irrigated and not less than 5% of the acreage was nonirrigated during the 2014-2018 crop years (as opposed to the 25% factor used to establish ARC-CO coverage by practice under the 2014 Farm Bill)

- **ARC-CO Coverage by Physical County**
  - ARC-CO coverage tied to physical county regardless of administrative county

- **Plug Yield**
  - Plug yield in ARC-CO increased from 70% to 80% of transitional yield
**ARC Revisions**

- **Trend Yield Adjustment**
  - Historical yield data in the ARC benchmark equation to be adjusted in similar fashion as with the Federal crop insurance trend-adjusted yield endorsement
  - Crop insurance trend-adjusted yield methodology
    - Trend-adjusted yield factor by crop, county, and practice calculated each year from historical data
    - TA factor added to historical yields to produce de-trended yield history
      - (TA factor * 1) added to yield in year (t-1)
      - (TA factor * 2) added to yield in year (t-2)
      - Etc.
  - Should improve the ARC-CO benchmark and thus the guarantee to reflect trend-yield expectations that are at or above historical yield averages (no negative trends allowed)

**ARC-CO Trend-Adjusted Yield Comparison**

![Graph showing ARC-CO Trend-Adjusted Yield Comparison](image)
ARC-CO Trend-Adjusted Yield Comparison

Buffalo County Corn - All

Actual Yield | Trend Yield Adjustment | 5-Year Olympic Average | 5-Year Trend-Adjusted Olympic Average

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Yield</th>
<th>Trend Yield Adjustment</th>
<th>5-Year Olympic Average</th>
<th>5-Year Trend-Adjusted Olympic Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>170</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2013</td>
<td>165.7</td>
<td></td>
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<tr>
<td>2014</td>
<td>150</td>
<td></td>
<td></td>
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<tr>
<td>2015</td>
<td>170</td>
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<tr>
<td>2016</td>
<td>160</td>
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<td></td>
</tr>
<tr>
<td>2017</td>
<td>180</td>
<td></td>
<td></td>
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</table>

Scotts Bluff County Corn - All

Actual Yield | Trend Yield Adjustment | 5-Year Olympic Average | 5-Year Trend-Adjusted Olympic Average

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Yield</th>
<th>Trend Yield Adjustment</th>
<th>5-Year Olympic Average</th>
<th>5-Year Trend-Adjusted Olympic Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>156.7</td>
<td></td>
<td></td>
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<tr>
<td>2013</td>
<td>161.7</td>
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</tr>
<tr>
<td>2014</td>
<td>150</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2015</td>
<td>170</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2016</td>
<td>160</td>
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<tr>
<td>2017</td>
<td>180</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PLC Revisions

• **Payment Yield Update**
  • All farms have an opportunity to update yields, not just drought counties

\[
\text{Payment Yield} = 90\% \times \left(\frac{2013 - 2017}{\text{average yield}}\right) \times \left(\frac{2008 - 2012 \text{ national average yield}}{2013 - 2017 \text{ national average yield}}\right)
\]

• Formula provides for yield update, but uses ratio of national yield levels to back up payment yields to 2008-2012 general yield levels, subject to a limit on the ratio of not less than 90% nor more than 110%

• Benefit primarily to farms with below average farm yields in the 2008-2012 period utilized for the last payment yield update (90% of 2008-2012 average yield)

• **Effective Reference Price**
  • Reference price accelerator

\[
\text{Effective Reference Price} = \text{Maximum of} \left[\text{Reference Price} \text{ or } 85\% \times \left(5 - \text{year Olympic average marketing year average price}\right)\right]
\]

• Formula provides increased reference price if 5-year Olympic average price exceeds existing reference price, subject to a limit of no more than 115% of the existing reference price

• Could essentially provide a moving average reference price at 85% of the Olympic average, but only if prices move substantially above existing reference levels (above $4.35 for corn, given the $3.70 existing reference price)
Marketing Loan Rate Revisions

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Unit</th>
<th>Existing Loan Rate</th>
<th>New Loan Rate</th>
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<tbody>
<tr>
<td>Barley</td>
<td>bushel</td>
<td>$1.95</td>
<td>$2.50</td>
</tr>
<tr>
<td>Corn</td>
<td>bushel</td>
<td>1.95</td>
<td>2.20</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>bushel</td>
<td>1.95</td>
<td>2.20</td>
</tr>
<tr>
<td>Oats</td>
<td>bushel</td>
<td>1.39</td>
<td>2.00</td>
</tr>
<tr>
<td>Soybeans</td>
<td>bushel</td>
<td>5.00</td>
<td>6.15</td>
</tr>
<tr>
<td>Wheat</td>
<td>bushel</td>
<td>2.94</td>
<td>3.38</td>
</tr>
<tr>
<td>Other Oils</td>
<td>hundredweight</td>
<td>10.09</td>
<td>10.09</td>
</tr>
<tr>
<td>Dry Peas</td>
<td>hundredweight</td>
<td>5.40</td>
<td>6.15</td>
</tr>
<tr>
<td>Lentils</td>
<td>hundredweight</td>
<td>11.28</td>
<td>13.00</td>
</tr>
<tr>
<td>Small Chickpeas</td>
<td>hundredweight</td>
<td>7.43</td>
<td>10.00</td>
</tr>
<tr>
<td>Large Chickpeas</td>
<td>hundredweight</td>
<td>11.28</td>
<td>14.00</td>
</tr>
</tbody>
</table>

Dairy Revisions

- **Margin Protection Program (MPP)** revised to **Dairy Margin Coverage (DMC)**
  - Increased margin coverage levels available
  - Decreased premiums for lower production and margin levels
  - Increased coverage options available from 5% to 95% of production
- Affects role of LGM-Dairy as well

<table>
<thead>
<tr>
<th>Margin Coverage Level</th>
<th>MPP Tier 1 (&lt;= 5 M Lbs)</th>
<th>MPP Tier 2 (&gt;5 M Lbs)</th>
<th>DMC Tier 1 (&lt;= 5 M Lbs)</th>
<th>DMC Tier 2 (&gt;5 M Lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.00</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>4.50</td>
<td>0</td>
<td>0.02</td>
<td>0.0025</td>
<td>0.0025</td>
</tr>
<tr>
<td>5.00</td>
<td>0</td>
<td>0.04</td>
<td>0.005</td>
<td>0.005</td>
</tr>
<tr>
<td>5.50</td>
<td>0.009</td>
<td>0.10</td>
<td>0.03</td>
<td>0.10</td>
</tr>
<tr>
<td>6.00</td>
<td>0.160</td>
<td>0.155</td>
<td>0.05</td>
<td>0.31</td>
</tr>
<tr>
<td>6.50</td>
<td>0.04</td>
<td>0.29</td>
<td>0.07</td>
<td>0.65</td>
</tr>
<tr>
<td>7.00</td>
<td>0.630</td>
<td>0.83</td>
<td>0.08</td>
<td>1.107</td>
</tr>
<tr>
<td>7.50</td>
<td>0.087</td>
<td>1.03</td>
<td>0.09</td>
<td>1.413</td>
</tr>
<tr>
<td>8.00</td>
<td>0.142</td>
<td>1.36</td>
<td>0.10</td>
<td>1.813</td>
</tr>
<tr>
<td>8.50</td>
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<td>N/A</td>
<td>0.105</td>
<td>N/A</td>
</tr>
<tr>
<td>9.00</td>
<td>N/A</td>
<td>N/A</td>
<td>0.11</td>
<td>N/A</td>
</tr>
<tr>
<td>9.50</td>
<td>N/A</td>
<td>N/A</td>
<td>0.15</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Program Decisions

- **Payment Yield Update**
  - Look to prove 2013-2017 production then consider whether payment yield update will be beneficial

- **ARC v. PLC Decisions**
  - Decision in 2019 for 2019-2020 program year
  - Annual decision beginning in 2021
    - Change in enrollment only needed to change decision

- **Analyzing program changes and analyzing market expectations**
  - Improvements to ARC and PLC payment yields
  - Market price expectations affect ARC v. PLC comparison and decision

Farm Income Safety Net

Corn Prices, PLC, and ARC Price Protection*

* Price projections for 2018-2023 from USDA-WAOB and USDA-FSA as of December 2018. Price projections for 2019-2023 from USDA-OCE as of December 2018. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue. Sources: USDA-FSA, USDA-NASS, USDA-WAOB and USDA-OCE.
Farm Income Safety Net
Sorghum Prices, PLC, and ARC Price Protection*

* Price projections for 2018-2023 from USDA-WAOB and USDA-FSA as of December 2018. Price projections for 2019-2023 from USDA-OCE as of December 2018. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue. Sources: USDA-FSA, USDA-NASS, USDA-WAOB and USDA-OCE.

Farm Income Safety Net
Soybean Prices, PLC, and ARC Price Protection*

* Price projections for 2018-2023 from USDA-WAOB and USDA-FSA as of December 2018. Price projections for 2019-2023 from USDA-OCE as of December 2018. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue. Sources: USDA-FSA, USDA-NASS, USDA-WAOB and USDA-OCE.
Farm Income Safety Net
Wheat Prices, PLC, and ARC Price Protection*

* Price projections for 2018-2023 from USDA-WAOB and USDA-FSA as of December 2018. Price projections for 2019-2023 from USDA-OCE as of December 2018. ARC 5-year effective Olympic average price based on 86% of ARC 5-Year Olympic average price for illustration only as ARC protection is tied to revenue. Sources: USDA-FSA, USDA-NASS, USDA-WAOB and USDA-OCE.

2018 Farm Bill Program Decisions

• ARC v. PLC Decisions
  • Under stable, lower price levels, PLC support will kick in before ARC support for downward price movement
  • Under modestly increasing price levels, ARC and PLC support may quickly disappear
  • Under substantially higher prices, moving average price in ARC benchmark and moving average price in PLC effective reference price could ratchet up support to near equivalent levels
Conservation Revisions

• CRP
  • Increased enrollment cap from 24 million to 27 million
  • Reduced rental rate cap to 90% (continuous) or 85% (general) of county average rental rates

• Working lands (EQIP and CSP)
  • Repealed existing CSP, maintaining authority only to service existing contracts
  • Combined CSP into same section as EQIP
  • Less total funding for combined EQIP and CSP programs

• Easements (ACEP) and regional partnerships (RCPP)
  • Disappearing funding restored
Conservation Reserve Program
Enrolled Acreage and Corn Prices

Sources: USDA‐FSA and USDA‐NASS

Conservation Program Payments

Sources: USDA‐ERS, USDA‐FSA, USDA‐NRCS, and author calculations
Program Decisions

• CRP
  • Increased opportunity for both continuous and general enrollment
  • Pilot programs for both short (3-5 year) and long-term (30 year) enrollments
  • Economics of CRP enrollment changing
    • Crop economics v. grazing economics v. CRP enrollment at reduced rates

• Working Lands Programs
  • Revised EQIP and CSP opportunities, but also less total funding
Farm Program Payments and Outlook

- 2014 Farm Bill programs
  - 2017 program provided reduced support in October 2018
  - 2018 program expected to provide little support in October 2019

- 2018 Farm Bill programs
  - 2019 program will provide support in October 2020

- Trade assistance program
  - Market Facilitation Payment program provided substantial support in late 2018, early 2019

Farm Program Outlook

Price Projections*

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>3.70</td>
<td>3.61</td>
<td>3.36</td>
<td>3.20</td>
<td>3.60</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>4.03</td>
<td>3.31</td>
<td>2.79</td>
<td>3.22</td>
<td>3.40</td>
</tr>
<tr>
<td>Soybeans</td>
<td>10.10</td>
<td>8.95</td>
<td>9.47</td>
<td>9.33</td>
<td>8.60</td>
</tr>
<tr>
<td>Wheat</td>
<td>5.99</td>
<td>4.89</td>
<td>3.89</td>
<td>4.72</td>
<td>5.15</td>
</tr>
</tbody>
</table>

* Price projections for 2018 from USDA-WAOB and USDA-FSA as of December 2018. Sources: USDA-FSA, USDA-NASS, and USDA-WAOB.
## Farm Program Outlook
### Average PLC Payment Rates in Nebraska*

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Average PLC Payment Yield (bushels/acre)</th>
<th>Average PLC Payment Rates per Base Acre ($/base acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
<td>2015</td>
</tr>
<tr>
<td>Corn</td>
<td>150</td>
<td>0.00</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>77</td>
<td>0.00</td>
</tr>
<tr>
<td>Soybeans</td>
<td>45</td>
<td>0.00</td>
</tr>
<tr>
<td>Wheat</td>
<td>41</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* PLC payment projections (prior to payment limits and budget sequestration) based on weighted average PLC payment yields and price projections for 2018 from USDA-WAOB and USDA-FSA as of December 2018. Sources: USDA-FSA, USDA-NASS, and USDA-WAOB.

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## Farm Program Outlook
### Average ARC-CO Payment Rates in Nebraska*

<table>
<thead>
<tr>
<th>Commodity</th>
<th>County/Practice Combinations</th>
<th>Average ARC-CO Payment Rates per Base Acre ($/base acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Corn</td>
<td>131</td>
<td>53.31</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>103</td>
<td>18.44</td>
</tr>
<tr>
<td>Soybeans</td>
<td>112</td>
<td>15.47</td>
</tr>
<tr>
<td>Wheat</td>
<td>113</td>
<td>9.11</td>
</tr>
</tbody>
</table>

* ARC-CO payment projections (prior to payment limits and budget sequestration) based on yield and price projections for 2018 from USDA-NASS, USDA-WAOB, and USDA-FSA as of December 2018. Sources: USDA-FSA, USDA-NASS, and USDA-WAOB.
Trade Assistance from USDA

- Market Facilitation Program
  - Direct payments to producers of selected commodities impacted by trade losses
  - Initial payments of $4.7 billion on 50% of 2018 production
  - Shelled almonds and fresh sweet cherries added to direct payments (from original food purchase announcement)
  - Second round of payments added on remaining 2018 production
- Food Purchase and Distribution Program
  - Government purchases of selected commodities for distribution through food assistance programs
  - Initial target of $1.2 billion in purchases
- Agricultural Trade Promotion Program
  - Cost-share assistance to organizations for trade promotion efforts such as advertising, public relations, point-of-sale demonstrations, trade fairs/exhibits, market research, or technical assistance
  - Initial commitment of $200 million

Trade assistance announced by USDA in wake of trade conflicts, tariffs, retaliatory tariffs, and price losses.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>First and Second Round Total Payment Rate (on 100% of production)</th>
<th>Estimated Total Payments ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>$0.01/bu</td>
<td>$192</td>
</tr>
<tr>
<td>Cotton</td>
<td>0.06/lb</td>
<td>553.8</td>
</tr>
<tr>
<td>Dairy (milk)</td>
<td>0.12/cwt</td>
<td>254.8</td>
</tr>
<tr>
<td>Pork (hogs)</td>
<td>8.00/head</td>
<td>580.6</td>
</tr>
<tr>
<td>Sorghum</td>
<td>0.86/bu</td>
<td>313.6</td>
</tr>
<tr>
<td>Soybeans</td>
<td>1.65/bu</td>
<td>7,259.4</td>
</tr>
<tr>
<td>Wheat</td>
<td>0.14/bu</td>
<td>238.4</td>
</tr>
<tr>
<td>Shelled Almonds</td>
<td>0.03/lb</td>
<td>63.3</td>
</tr>
<tr>
<td>Fresh Sweet Cherries</td>
<td>0.16/lb</td>
<td>111.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$9,567.4</strong></td>
</tr>
</tbody>
</table>
### Trade Assistance from USDA

#### Food Purchase and Distribution Program

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Targeted Purchases</th>
<th>Commodity</th>
<th>Targeted Purchases</th>
<th>Commodity</th>
<th>Targeted Purchases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>$93,400</td>
<td>Kidney Beans</td>
<td>14,200</td>
<td>Pecans</td>
<td>16,000</td>
</tr>
<tr>
<td>Apricots</td>
<td>200</td>
<td>Lemons/Limes</td>
<td>3,400</td>
<td>Pistachios</td>
<td>85,200</td>
</tr>
<tr>
<td>Beef</td>
<td>14,800</td>
<td>Lentils</td>
<td>$1,800</td>
<td>Plums/Prunes</td>
<td>18,700</td>
</tr>
<tr>
<td>Blueberries</td>
<td>1,700</td>
<td>Macadamia</td>
<td>7,700</td>
<td>Pork</td>
<td>558,800</td>
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<td>Cranberries</td>
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<td>Navy Beans</td>
<td>18,000</td>
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<td>Dairy</td>
<td>84,900</td>
<td>Oranges (Fresh)</td>
<td>55,600</td>
<td>Rice</td>
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<td>Figs</td>
<td>15</td>
<td>Orange Juice</td>
<td>24,000</td>
<td>Strawberries</td>
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<tr>
<td>Grapefruit</td>
<td>700</td>
<td>Peanut Butter</td>
<td>12,300</td>
<td>Sweet Corn</td>
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<tr>
<td>Grapes</td>
<td>48,200</td>
<td>Peas</td>
<td>1,400</td>
<td>Walnuts</td>
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</tr>
<tr>
<td>Hazelnuts</td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>$1,238,800</td>
</tr>
</tbody>
</table>

Sources: USDA-ERS and author calculations.

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### Nebraska Farm Program Payments

![Bar chart showing Nebraska Farm Program Payments from 2005 to 2021F](chart.png)

- **Fixed direct payments**
- **Crop programs**
- **Dairy programs**
- **Conservation**
- **Supplemental/disaster assistance**
- **Miscellaneous programs**

Source: [Nebraska Farm Program Payments](chart.png)
Nebraska Net Farm Income

Key Points

• Little farm program support for the 2018 crop to be paid in 2019
  • But a new farm program decision is coming in 2019 with support to be paid in 2020
  • And, trade assistance is providing some current support on selected 2018 production

• More policy uncertainty ahead
• Manage risks as part of a comprehensive strategy
• Educational programs, resources, and information forthcoming, including resources available at farmbill.unl.edu