



# Managing Pasture Production Risk



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**NORTH CENTRAL  
EXTENSION  
RISK  
MANAGEMENT  
EDUCATION**



# Production Risk

- Fluctuations in yield (physical quantities of production)
- Contributing factors include
  - Weather
  - Pests
  - Disease
  - Genetics
  - Wildlife
  - Timing



# Strategies for Managing Risk

1. Avoid it
2. Transfer it outside the business
  - a) Insurance
  - b) Contracting
3. Control it
  - a) Control the probability
  - b) Control the impact
    - 1) Increase reserves
    - 2) Maintain flexibility
    - 3) Diversification
4. Accept it



# Federal Insurance/Program Tools

- Crop insurance (USDA-Risk Management Agency)

[\*rma.usda.gov\*](http://rma.usda.gov)

- Farm Service Agency (FSA) Programs
  - Noninsured Crop Disaster Assistance Program (NAP)
  - Livestock Forage Disaster Program (LFP)

[\*fsa.usda.gov\*](http://fsa.usda.gov)

# 2021 Crop Year

## Nebraska Crop Insurance State Profile

| Crops                      | Insured Acres |
|----------------------------|---------------|
| Annual Forage              | 10,755        |
| Forage Production          | 3,666         |
| Forage Seeding             | 2,806         |
| Pasture, Rangeland, Forage | 3,551,541     |

| Program                    | Availability | Total Liability |
|----------------------------|--------------|-----------------|
| Annual Forage              | All counties | \$1,666,627     |
| Forage Production          | 9 counties   | \$447,570       |
| Forage Seeding             | 39 counties  | \$409,395       |
| Pasture, Rangeland, Forage | All counties | \$105,813,124   |

# Precipitation Risk Management Programs

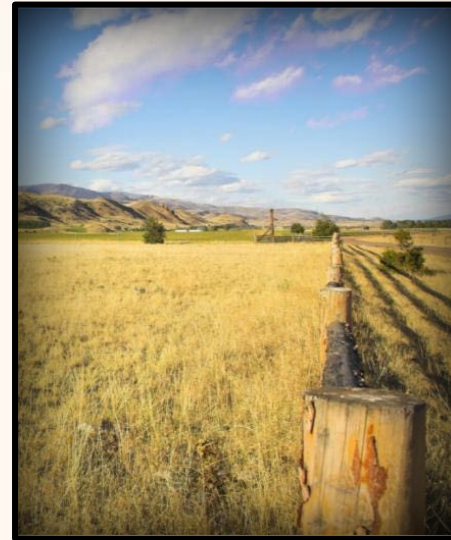
- Pasture, Rangeland, Forage Insurance Program (PRF)
- Annual Forage Insurance Program



*Rainfall Index*

## The Purpose of PRF

- Agricultural production is financially risky. Forage losses from natural hazards, especially drought, are frequent.
- PRF insurance is a group risk plan that can help forage and livestock producers manage for potential production losses.
- These plans are now available to producers in all counties and states.



# Indexing

- What is an *index*?
- An index is a number derived from a series of observations which is used as an indicator or measure.
- PRF insurance uses indexing to measure and compare conditions that affect forage production in specific areas over time.
- Each index uses information gathered from a number of sources and locations.

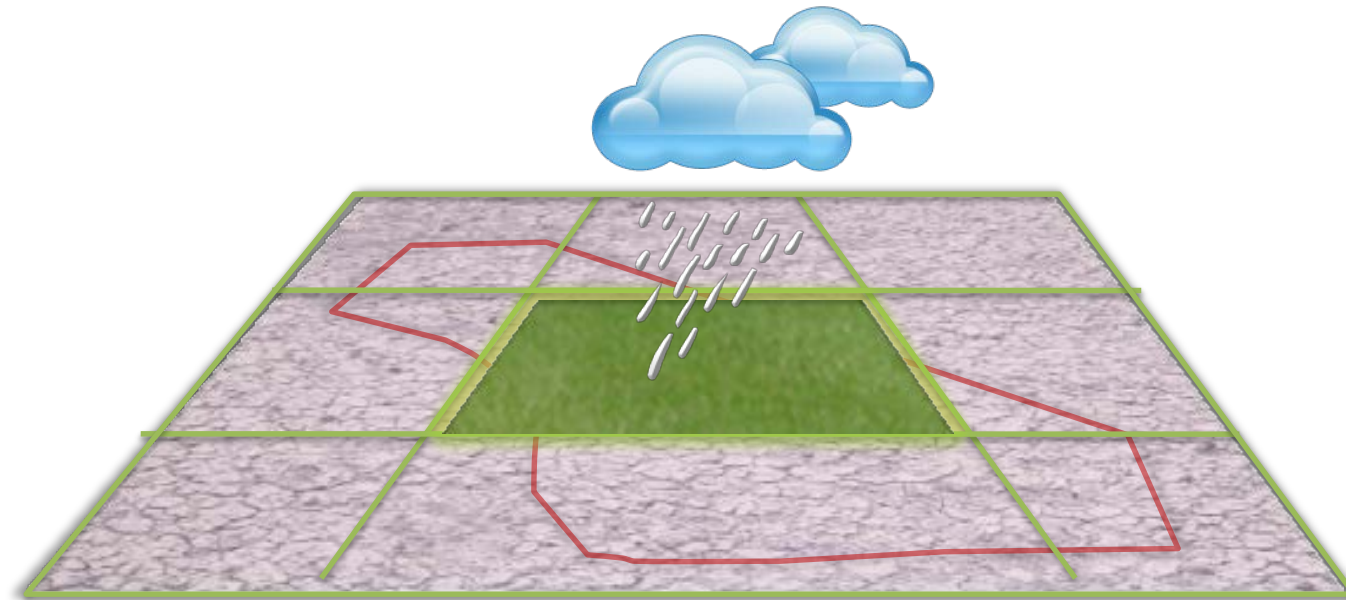


*Rainfall Index*



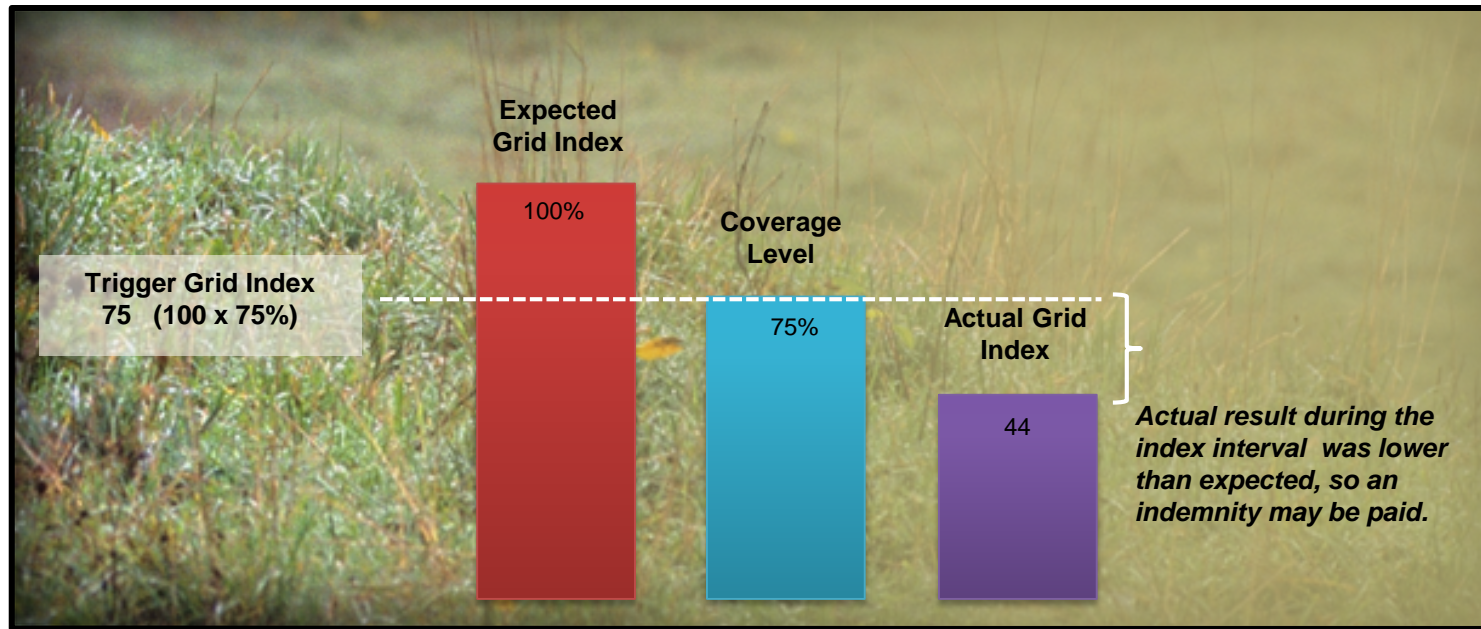
# Expected Index Values

- Historical data for each grid is used to determine the expected index value for precipitation.



# Using Grid Indices

- The expected grid index is compared to the [final grid index](#). Producers may receive an indemnity if the actual final index falls below the [trigger grid index](#), which is adjusted based on the [coverage level](#).



# Pasture, Rangeland, Forage Insurance

- Calendar year coverage for perennial forage
  - Signup deadline of November 15
  - Precipitation coverage Jan 1 through Dec 31
- Example Grid 24721: (Dawson County, Nebraska)
  - County Base Value: \$45.80/acre
- Primary producer choices
  - Coverage Level: 70%, 75%, 80%, 85%, or 90% of expected grid rainfall index
  - Productivity Factor: 60% - 150% of County Base Value
    - Dawson County (\$27.48 - \$68.70)
  - Insure 10%-60% of value in two or more two month intervals
    - Insured intervals may not overlap
    - Total must equal 100%

# Pasture, Rangeland, Forage Support Tool



# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$6.18                     | 21.71                  | \$1.34        | \$0.66           |
| Mar-Apr        | 15%                  | \$6.18                     | 17.82                  | \$1.10        | \$0.54           |
| May-Jun        | 20%                  | \$8.24                     | 13.95                  | \$1.15        | \$0.56           |
| Jul-Aug        | 20%                  | \$8.24                     | 13.25                  | \$1.09        | \$0.53           |
| Sep-Oct        | 15%                  | \$6.18                     | 21.62                  | \$1.34        | \$0.66           |
| Nov-Dec        | 15%                  | \$6.18                     | 28.92                  | \$1.79        | \$0.88           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$41.22</b>             | <b>N/A</b>             | <b>\$7.81</b> | <b>\$3.83</b>    |

## Base Strategy

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

## Base Strategy

| Year | Indemnity |
|------|-----------|
| 2020 | \$9.45    |
| 2019 | \$2.74    |
| 2018 | \$1.88    |
| 2017 | \$3.81    |
| 2016 | \$3.74    |
| 2015 | \$2.06    |
| 2014 | \$0.95    |
| 2013 | \$7.89    |
| 2012 | \$16.73   |
| 2011 | \$1.73    |

Premium \$3.83  
 Average Indemnity \$5.10  
 Producer Loss Ratio 1.33

## ***Net Positive***

*(Indemnity > Premium)*

**30%** (3/10 years)

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

**Base Strategy**  
**\$3.83 Premium**

|                                    | 10 years | 30 years | 73 years |
|------------------------------------|----------|----------|----------|
| Average Indemnity                  | \$5.10   | \$5.27   | \$6.73   |
| Producer Loss Ratio                | 1.33     | 1.37     | 1.76     |
| Net Positive (Indemnity > Premium) | 30%      | 50%      | 70%      |

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$6.18                     | 21.71                  | \$1.34        | \$0.66           |
| Mar-Apr        | 15%                  | \$6.18                     | 17.82                  | \$1.10        | \$0.54           |
| May-Jun        | 20%                  | \$8.24                     | 13.95                  | \$1.15        | \$0.56           |
| Jul-Aug        | 20%                  | \$8.24                     | 13.25                  | \$1.09        | \$0.53           |
| Sep-Oct        | 15%                  | \$6.18                     | 21.62                  | \$1.34        | \$0.66           |
| Nov-Dec        | 15%                  | \$6.18                     | 28.92                  | \$1.79        | \$0.88           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$41.22</b>             | <b>N/A</b>             | <b>\$7.81</b> | <b>\$3.83</b>    |

## Base Strategy



# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$34.35 |
| Subsidy                | 59%     |

**Coverage  
Strategy**

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$5.15                     | 15.79                  | \$0.81        | \$0.33           |
| Mar-Apr        | 15%                  | \$5.15                     | 11.54                  | \$0.59        | \$0.24           |
| May-Jun        | 20%                  | \$6.87                     | 8.46                   | \$0.58        | \$0.24           |
| Jul-Aug        | 20%                  | \$6.87                     | 7.56                   | \$0.52        | \$0.21           |
| Sep-Oct        | 15%                  | \$5.15                     | 14.94                  | \$0.77        | \$0.32           |
| Nov-Dec        | 15%                  | \$5.15                     | 22.89                  | \$1.18        | \$0.48           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$34.35</b>             | <b>N/A</b>             | <b>\$4.46</b> | <b>\$1.82</b>    |

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$34.35 |
| Subsidy                | 59%     |

**Coverage  
Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$5.11    |
| 2019 | \$1.55    |
| 2018 | \$0.85    |
| 2017 | \$2.74    |
| 2016 | \$1.57    |
| 2015 | \$0.61    |
| 2014 | \$0.00    |
| 2013 | \$4.12    |
| 2012 | \$11.92   |
| 2011 | \$0.70    |

Premium \$1.82  
 Average Indemnity \$2.92  
 Producer Loss Ratio 1.60

**Net Positive**  
*(Indemnity > Premium)*  
**40% (4/10 years)**

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$34.35 |
| Subsidy                | 59%     |

**Coverage Strategy**  
**\$1.82 Premium**

|                                    | 10 years | 30 years | 73 years |
|------------------------------------|----------|----------|----------|
| Average Indemnity                  | \$2.92   | \$2.94   | \$3.89   |
| Producer Loss Ratio                | 1.60     | 1.61     | 2.14     |
| Net Positive (Indemnity > Premium) | 40%      | 50%      | 66%      |

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 83%     |
| Base Value             | \$45.80 |
| Amount of Protection   | \$34.21 |
| Subsidy                | 51%     |

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$5.13                     | 21.71                  | \$1.11        | \$0.54           |
| Mar-Apr        | 15%                  | \$5.13                     | 17.82                  | \$0.91        | \$0.44           |
| May-Jun        | 20%                  | \$6.84                     | 13.95                  | \$0.95        | \$0.46           |
| Jul-Aug        | 20%                  | \$6.84                     | 13.25                  | \$0.91        | \$0.45           |
| Sep-Oct        | 15%                  | \$5.13                     | 21.62                  | \$1.11        | \$0.54           |
| Nov-Dec        | 15%                  | \$5.13                     | 28.92                  | \$1.48        | \$0.72           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$34.21</b>             | <b>N/A</b>             | <b>\$6.48</b> | <b>\$3.15</b>    |

**\$ Production Strategy**

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 83%     |
| Base Value             | \$45.80 |
| Amount of Protection   | \$34.21 |
| Subsidy                | 51%     |

**\$ Production Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$7.86    |
| 2019 | \$2.28    |
| 2018 | \$1.56    |
| 2017 | \$3.16    |
| 2016 | \$3.10    |
| 2015 | \$1.71    |
| 2014 | \$0.79    |
| 2013 | \$6.56    |
| 2012 | \$13.88   |
| 2011 | \$1.44    |

Premium \$3.15  
 Average Indemnity \$4.23  
 Producer Loss Ratio 1.34

**Net Positive**  
*(Indemnity > Premium)*  
**40% (4/10 years)**

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 120%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 59%     |

**Combo  
Strategy**

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$6.18                     | 15.79                  | \$0.98        | \$0.40           |
| Mar-Apr        | 15%                  | \$6.18                     | 11.54                  | \$0.71        | \$0.29           |
| May-Jun        | 20%                  | \$8.24                     | 8.46                   | \$0.70        | \$0.29           |
| Jul-Aug        | 20%                  | \$8.24                     | 7.56                   | \$0.62        | \$0.25           |
| Sep-Oct        | 15%                  | \$6.18                     | 14.94                  | \$0.92        | \$0.37           |
| Nov-Dec        | 15%                  | \$6.18                     | 22.89                  | \$1.42        | \$0.58           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$41.22</b>             | <b>N/A</b>             | <b>\$5.35</b> | <b>\$2.18</b>    |

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 120%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 59%     |

**Combo  
Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$6.13    |
| 2019 | \$1.86    |
| 2018 | \$1.01    |
| 2017 | \$3.29    |
| 2016 | \$1.88    |
| 2015 | \$0.73    |
| 2014 | \$0.00    |
| 2013 | \$4.94    |
| 2012 | \$14.30   |
| 2011 | \$0.84    |

Premium \$2.18  
 Average Indemnity \$3.50  
 Producer Loss Ratio 1.60

**Net Positive**  
*(Indemnity > Premium)*  
**40% (4/10 years)**

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

**Combo +  
Strategy**

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Jan-Feb        | 15%                  | \$7.73                     | 15.79                  | \$1.22        | \$0.50           |
| Mar-Apr        | 15%                  | \$7.73                     | 11.54                  | \$0.89        | \$0.36           |
| May-Jun        | 20%                  | \$10.31                    | 8.46                   | \$0.87        | \$0.36           |
| Jul-Aug        | 20%                  | \$10.31                    | 7.56                   | \$0.78        | \$0.32           |
| Sep-Oct        | 15%                  | \$7.73                     | 14.94                  | \$1.15        | \$0.47           |
| Nov-Dec        | 15%                  | \$7.73                     | 22.89                  | \$1.77        | \$0.73           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$51.53</b>             | <b>N/A</b>             | <b>\$6.69</b> | <b>\$2.74</b>    |



# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

**Combo +  
Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$7.66    |
| 2019 | \$2.33    |
| 2018 | \$1.27    |
| 2017 | \$4.11    |
| 2016 | \$2.35    |
| 2015 | \$0.92    |
| 2014 | \$0.00    |
| 2013 | \$6.18    |
| 2012 | \$17.88   |
| 2011 | \$1.05    |

Premium \$2.74  
 Average Indemnity \$4.38  
 Producer Loss Ratio 1.60

***Net Positive***  
*(Indemnity > Premium)*  
**40% (4/10 years)**

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|---------------|------------------|
| Apr-May        | 50%                  | \$25.76                    | 9.83                   | \$2.53        | \$1.04           |
| Jun-Jul        | 50%                  | \$25.76                    | 8.17                   | \$2.10        | \$0.86           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$51.53</b>             | <b>N/A</b>             | <b>\$4.64</b> | <b>\$1.90</b>    |

**Spring  
Strategy**

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

**Spring  
Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$0.00    |
| 2019 | \$0.00    |
| 2018 | \$0.00    |
| 2017 | \$0.96    |
| 2016 | \$0.00    |
| 2015 | \$0.00    |
| 2014 | \$6.73    |
| 2013 | \$8.93    |
| 2012 | \$13.53   |
| 2011 | \$0.00    |

Premium \$1.90  
 Average Indemnity \$3.02  
 Producer Loss Ratio 1.59

**Net Positive**  
*(Indemnity > Premium)*  
**30% (3/10 years)**

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium  | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|----------------|------------------|
| Feb-Mar        | 50%                  | \$25.76                    | 17.42                  | \$4.49         | \$1.84           |
| Nov-Dec        | 50%                  | \$25.76                    | 22.89                  | \$5.90         | \$2.42           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$51.53</b>             | <b>N/A</b>             | <b>\$10.38</b> | <b>\$4.26</b>    |

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

**Winter  
Strategy**

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 75%     |
| Productivity Factor    | 150%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$51.53 |
| Subsidy                | 59%     |

**Winter  
Strategy**

| Year | Indemnity |
|------|-----------|
| 2020 | \$0.00    |
| 2019 | \$0.00    |
| 2018 | \$0.34    |
| 2017 | \$13.95   |
| 2016 | \$0.00    |
| 2015 | \$15.08   |
| 2014 | \$0.00    |
| 2013 | \$3.74    |
| 2012 | \$7.69    |
| 2011 | \$9.13    |

Premium \$4.26  
 Average Indemnity \$4.99  
 Producer Loss Ratio 1.17

**Net Positive**  
*(Indemnity > Premium)*  
**40% (4/10 years)**

# PRF Sample Coverage (Grid 24721)

Protection Table (per acre)

| Index Interval | Percent of Value (%) | Policy Protection Per Unit | Premium Rate Per \$100 | Total Premium  | Producer Premium |
|----------------|----------------------|----------------------------|------------------------|----------------|------------------|
| Feb-Mar        | 50%                  | \$20.61                    | 22.99                  | \$4.74         | \$2.32           |
| Nov-Dec        | 50%                  | \$20.61                    | 28.92                  | \$5.96         | \$2.92           |
| <b>TOTAL</b>   | <b>100%</b>          | <b>\$41.22</b>             | <b>N/A</b>             | <b>\$10.70</b> | <b>\$5.24</b>    |

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

## Winter 2 Strategy

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

## Winter 2 Strategy

| Year | Indemnity |
|------|-----------|
| 2020 | \$1.72    |
| 2019 | \$0.00    |
| 2018 | \$3.66    |
| 2017 | \$16.17   |
| 2016 | \$1.10    |
| 2015 | \$13.49   |
| 2014 | \$3.23    |
| 2013 | \$5.93    |
| 2012 | \$8.56    |
| 2011 | \$12.96   |

Premium \$5.24  
 Average Indemnity \$6.68  
 Producer Loss Ratio 1.28

***Net Positive***  
*(Indemnity > Premium)*  
***50% (5/10 years)***

# PRF Sample Coverage (Grid 24721)

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$45.80 |
| Amount of Protection   | \$41.22 |
| Subsidy                | 51%     |

## Base Strategy

| Year | Indemnity |
|------|-----------|
| 2020 | \$9.45    |
| 2019 | \$2.74    |
| 2018 | \$1.88    |
| 2017 | \$3.81    |
| 2016 | \$3.74    |
| 2015 | \$2.06    |
| 2014 | \$0.95    |
| 2013 | \$7.89    |
| 2012 | \$16.73   |
| 2011 | \$1.73    |

Premium \$3.83  
 Average Indemnity \$5.10  
 Producer Loss Ratio 1.33

## ***Net Positive***

*(Indemnity > Premium)*

**30%** (3/10 years)



# PRF Sample Coverage (Grid 26809) – Box Butte

| Production Information |         |
|------------------------|---------|
| Intended Use           | Grazing |
| Coverage Level         | 90%     |
| Productivity Factor    | 100%    |
| Base Value             | \$15.20 |
| Amount of Protection   | \$13.68 |
| Subsidy                | 51%     |

## Base Strategy

| Year | Indemnity |
|------|-----------|
| 2020 | \$5.54    |
| 2019 | \$1.71    |
| 2018 | \$1.63    |
| 2017 | \$1.94    |
| 2016 | \$2.70    |
| 2015 | \$1.38    |
| 2014 | \$0.56    |
| 2013 | \$1.40    |
| 2012 | \$5.96    |
| 2011 | \$1.16    |

Premium \$1.13  
 Average Indemnity \$2.40  
 Producer Loss Ratio 2.12

***Net Positive***

*(Indemnity > Premium)*

***90% (9/10 years)***

# PRF Insurance NEBRASKA Summary

| Crop Year      | Policies Earning Premium | Policies Indemnified | Acres            | Total Premiums       | Total Subsidies     | Total Indemnities   | Producer Loss Ratio |
|----------------|--------------------------|----------------------|------------------|----------------------|---------------------|---------------------|---------------------|
| 2013           | 2,362                    | 1,840                | 3,490,985        | \$ 11,388,137        | \$ 6,001,684        | \$ 6,890,629        | 1.28                |
| 2014           | 1,243                    | 779                  | 1,873,472        | \$ 5,962,614         | \$ 3,125,538        | \$ 4,356,850        | 1.54                |
| 2015           | 1,101                    | 679                  | 1,801,916        | \$ 6,884,276         | \$ 3,631,584        | \$ 3,531,928        | 1.09                |
| 2016           | 1,001                    | 711                  | 1,598,168        | \$ 10,393,580        | \$ 5,500,791        | \$ 5,149,449        | 1.05                |
| 2017           | 1,134                    | 922                  | 2,178,807        | \$ 10,385,486        | \$ 5,468,531        | \$ 5,668,632        | 1.15                |
| 2018           | 1,066                    | 532                  | 2,164,797        | \$ 10,773,373        | \$ 5,668,502        | \$ 2,229,136        | 0.44                |
| 2019           | 1,084                    | 512                  | 2,216,647        | \$ 8,778,012         | \$ 4,624,189        | \$ 2,493,274        | 0.60                |
| 2020           | 1,000                    | 927                  | 1,919,917        | \$ 9,221,219         | \$ 4,868,848        | \$ 12,533,558       | 2.88                |
| 2021           | 1,739                    | 439                  | 3,551,541        | \$ 17,789,814        | \$ 9,354,074        | \$ 3,401,014        | 0.40                |
| <b>Average</b> | <b>1,303</b>             | <b>816</b>           | <b>2,310,694</b> | <b>\$ 10,175,168</b> | <b>\$ 5,360,416</b> | <b>\$ 5,139,386</b> | <b>1.07</b>         |

NOTE: 2021 Crop Year still in progress.

# PRF 2020 County Coverage Data

## Buffalo County

| Coverage Level | Policies Earning Prem | Policies Indemnified | Acres | Producer Loss Ratio |
|----------------|-----------------------|----------------------|-------|---------------------|
| 70%            | 3                     | 3                    | 962   | 9.80                |
| 75%            | 2                     | 1                    | 36    | 6.16                |
| 90%            | 15                    | 13                   | 4728  | 1.98                |

## Dawson County

| Coverage Level | Policies Earning Prem | Policies Indemnified | Acres | Producer Loss Ratio |
|----------------|-----------------------|----------------------|-------|---------------------|
| 90%            | 7                     | 7                    | 2065  | 3.51                |

# PRF 2020 County Coverage Data

## Box Butte County

| Coverage Level | Policies Earning Prem | Policies Indemnified | Acres | Producer Loss Ratio |
|----------------|-----------------------|----------------------|-------|---------------------|
| 75%            | 2                     | 2                    | 3948  | 6.39                |
| 80%            | 1                     | 1                    | 1300  | 5.79                |
| 85%            | 3                     | 3                    | 4284  | 5.71                |
| 90%            | 1                     | 1                    | 381   | 1.99                |

## Cherry County

| Coverage Level | Policies Earning Prem | Policies Indemnified | Acres  | Producer Loss Ratio |
|----------------|-----------------------|----------------------|--------|---------------------|
| 75%            | 4                     | 4                    | 114374 | 3.91                |
| 80%            | 3                     | 1                    | 29126  | 0.49                |
| 85%            | 9                     | 9                    | 21441  | 1.09                |
| 90%            | 7                     | 7                    | 8065   | 1.35                |

# Pasture, Rangeland, Forage Insurance

- Lower Coverage Levels
  - Lower premium rates + higher premium subsidies = lower premiums
  - Higher chance of no indemnities
- Lower Productivity Values or Fewer Acres
  - Lower dollar value of coverage = lower premiums
  - Return percentage unchanged
- Fewer covered two-month intervals
  - Higher chance of no indemnities
  - Winter months more expensive/volatile than spring/summer

# Strategies for Managing Risk

1. Avoid it
2. Transfer it outside the business
  - a) Insurance
  - b) Contracting
3. Control it
  - a) Control the probability
  - b) Control the impact
    - 1) Increase reserves
    - 2) Maintain flexibility
    - 3) Diversification
4. Accept it



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**THANK YOU!**

