

Pasture, Rangeland, and Forage

Insurance

- ▶ Rainfall-index based insurance product offered by the USDA RMA
 - ▷ Covers increased costs to supplement reduced forage in drier than usual conditions
- ▶ Buy-up coverage, best to combine with other products
 - ▷ Catastrophic coverage: Livestock Forage Disaster (LFP), Noninsured Disaster Assistance Program (NAP)
 - ▷ Other perils: Livestock Risk Protection (LRP), Livestock Gross Margin (LGM)
- ▶ Premiums are subsidized 51-59%

PRF: Insured Value

- ▶ Not required to insure all acreage
- ▶ Intended use can be Hay or Grazing
 - ▷ irrigation practice, organic, transitional
- ▶ County base value - revised every 3 to 5 years
 - ▷ average “price of alternative feeding” per acre
 - ▷ Can adjust using productivity factor (60% to 150%)
- ▶ Coverage levels: 70%, 75%, 80%, 85%, 90%
 - ▷ “trigger” point for how low the rainfall index must be before an indemnity is paid
 - ▷ For a 90% coverage level with \$10,000 insured, if the rainfall index is 85% then you would receive an indemnity payment of

$$(0.90 - 0.85) \times \$10,000 = \$500$$

PRF: Interval Selection & Premiums

- ▶ You choose a set of intervals and assign a percent of value (%) to each. E.g 60% May-Jun + 40% July-Aug
 - ▷ % of value is how much of your total insured value should be covered in that bimonthly interval
 - ▷ Maximum % of value is 60%, minimum is 10%, must total 100%, Cannot overlap months
- ▶ Premium rates set every year for each grid, bimonthly interval, intended use, and coverage level
 - ▷ premium \approx average indemnity + 14% for “catastrophic loading”
 - ▷ If rainfall is more variable year to year in grid and/or bimonthly interval then its premium rate will be higher.
 - ▷ Higher coverage levels have higher premium rates because the trigger point is higher.

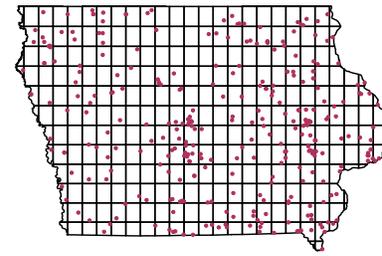
PRF Interval Selection Strategies

- ▶ Anecdotally, we see considerable diversity in intervals insured. Why?
- ▶ Theory: Farmers use PRF in different ways to satisfy their unique goals and risk preferences
- ▶ At least two distinct strategies:
 - ▷ Tradeoff between risk exposure and returns.
 - ▷ **Risk management.** Select intervals with indexes that correlate well with forage outcomes.
 - ▷ **Profit maximization.** Select intervals that generate the highest return, even if it means selecting “riskier” intervals.

Rainfall Index

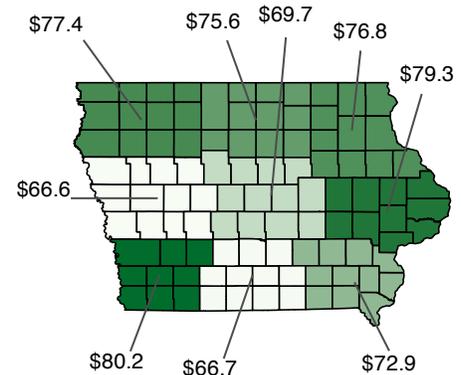
Grids and Weather Stations

- ▶ Daily precipitation from NOAA (1948 - present) averaged over a grid
 - ▷ weighted across nearest 4 stations
- ▶ Index uses total precipitation for 11 bimonthly intervals (Jan-Feb, Feb-Mar, ..., Nov-Dec)
- ▶ For a given year, grid, and bimonthly intervals, rainfall index is



*each grid is \approx 17 by 12 miles

2026 County Base Values - Grazing



PRF: Pros and Cons

Pros

- ▶ **Extremely flexible.**
- ▶ **Quick indemnity payments.**
- ▶ **No upfront costs.**
- ▶ **Subsidized.**

Cons

- ▶ **Basis Risk.** The rainfall index can poorly correlate with forage outcomes.
- ▶ **Complexity.**
- ▶ **Single Peril.**

On average, from 2016 to 2025 contracts in Iowa returned:

\$1.56 in indemnity per \$1 paid in premium.*

***Not indicative of future performance. Always consult with an authorized insurance agent.**

Additional PRF Resources

- ▶ USDA PRF Support Tool → <https://public-rma.fpac.usda.gov/apps/PRF>
 - ▷ Find your grid(s)
 - ▷ See historical index performance
 - ▷ Estimate subsidized premiums and indemnities across different contract choices (e.g. intervals, coverage, use, etc.)
- ▶ Iowa Farm Bureau
- ▶ Your local insurance agent
- ▶ Iowa State Ag Decision Maker