

Rainfall Index for Pasture, Rangeland, and Forage (PRF)

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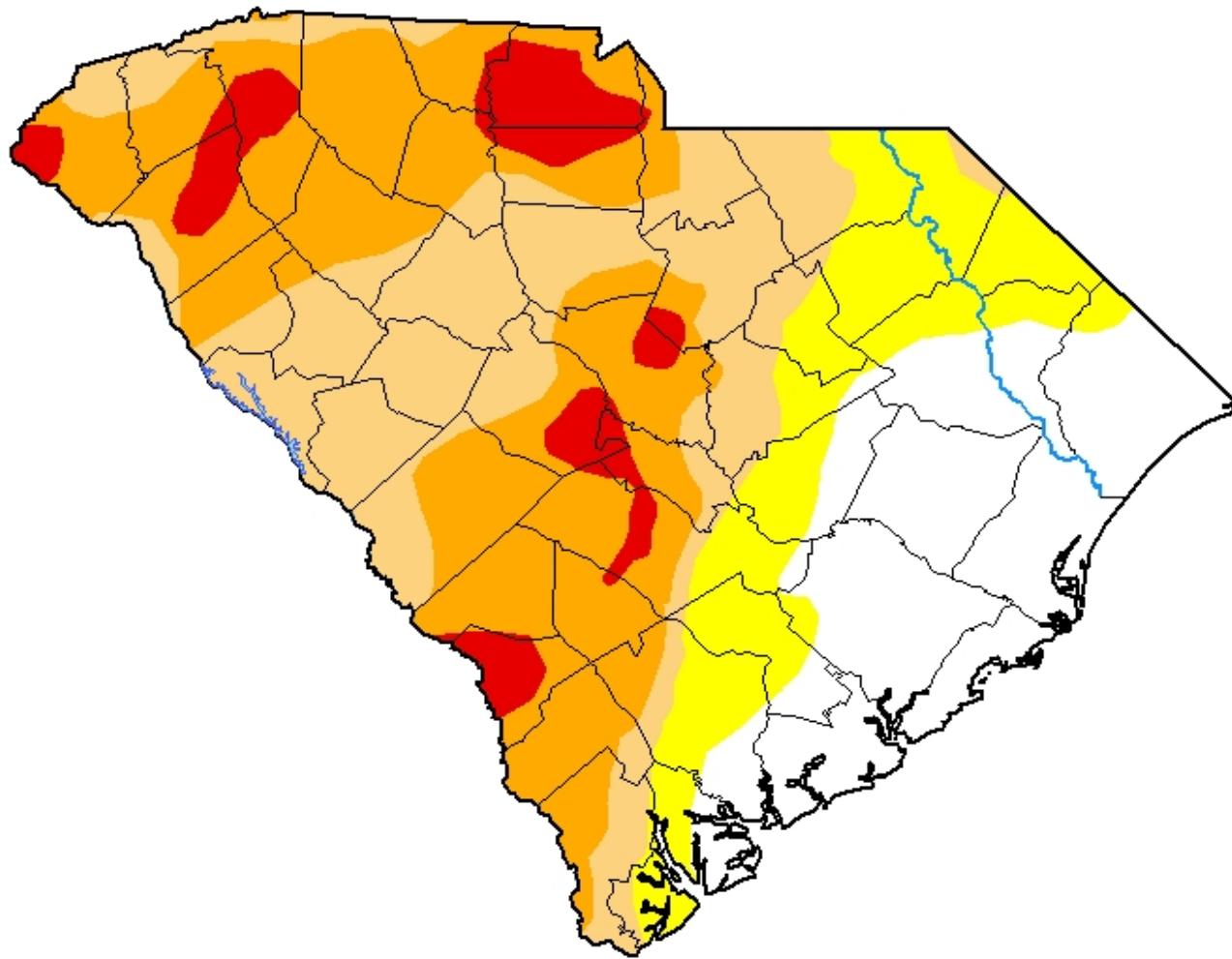
*Some program material adapted from a program by Dr. Brittany Goodrich

Rainfall Index Insurance for Pasture, Rangeland and Forage (PRF)







- Provides producers with insurance against drought-like conditions which would affect forage production
- Covers perennial pasture, rangeland, or forage used to feed livestock

U.S. Drought Monitor South Carolina

October 8, 2019
(Released Thursday, Oct. 10, 2019)
Valid 8 a.m. EDT



Intensity:

-  None
-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

How does PRF work?

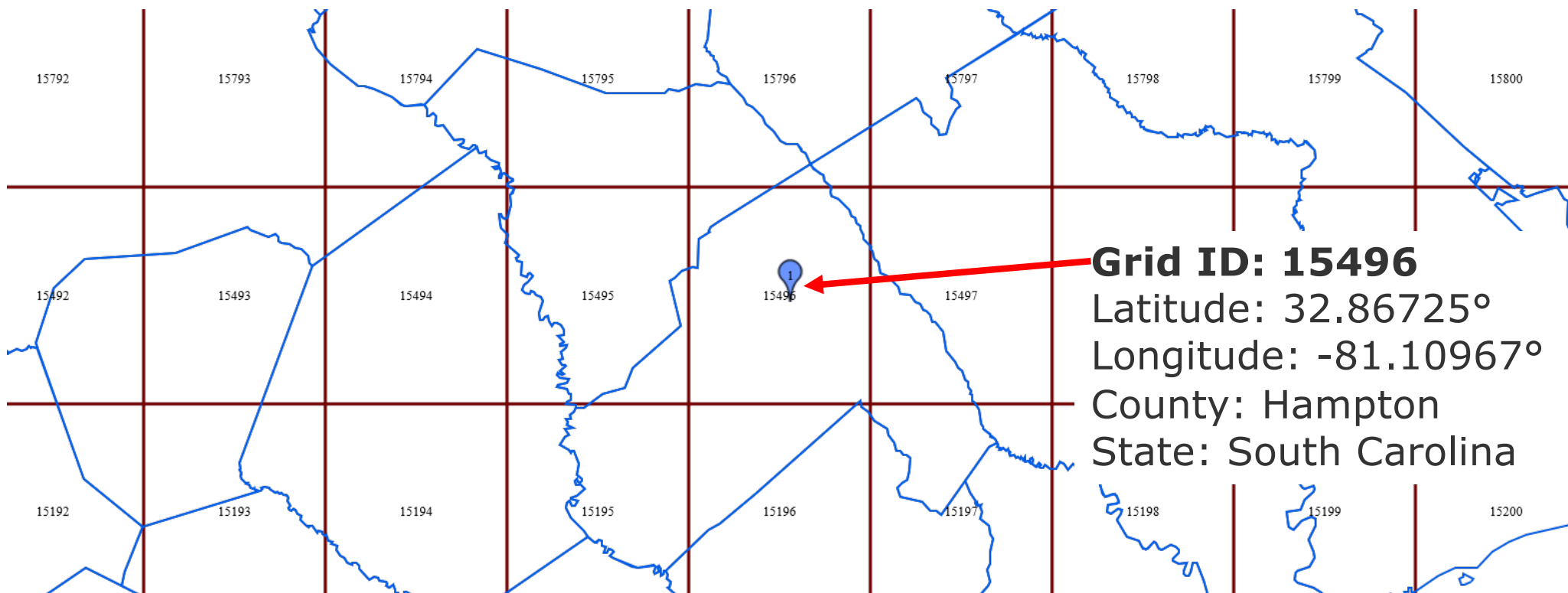
- Uses a grid system (Grids ~ 12 x 12 Miles) to measure rainfall index and payment value
- Rainfall index: Weighted average of 4 closest weather stations to grid
- Insured value based on production practices and county base values, not on direct loss

How does PRF work?

- Guarantee from 70% to 90% of average rainfall
- Policy runs January to December
- Pick months you want to insure
 - at least two 2-month intervals

Example: Grid System for Rainfall

12 mile x 12 mile grids around Hampton, South Carolina



Website:

<https://prodwebnlb.rma.usda.gov/apps/prf>

PRF Participant Decisions

1. **Insured Acres:** Number of acres to be insured

- Not all acres must be insured
- No minimum

2. **Intended Use:** Haying or Grazing

– **If Intended Use is Haying:**

- **Irrigation Practice:** Irrigated or Non-irrigated
- **Organic Practice:** Organic certified, Organic transitional or Not organic

PRF Participant Decisions

3. Choose Your Two-month Index Interval

- Jan-Feb
- Feb-March
- March-April
- April-May
- May-June
- June-July
- July-Aug
- Aug-Sept
- Sept-Oct
- Oct-Nov
- Nov-Dec

PRF Participant Decisions

4. Coverage level: At what percentage of average rainfall do you want the payments to kick in?

- 70, 75, 80, 85, or 90% of average rainfall
- Higher %= Higher cost, Higher chance of payout
- Subsidy levels vary with coverage levels (51-59%)
 - Lower coverage levels receive highest subsidy (59%)

PRF Participant Decisions

5. Productivity Factor: Is your acreage more or less productive than other pasture acreage in your area ?

- 60-150% used to adjust county base value
- Higher %= Higher cost of insurance
 - Higher payout if low rainfall

PRF-Rainfall Index Insurance Example

- 40 Acres of Hay
- Located in Hampton County
- Non Irrigated, Non Organic
- Coverage Level 85%
- Productivity Factor 100%
- Rainfall months: Feb-July
- Year: 2018

- Online decision tool:
<https://prodwebnlb.rma.usda.gov/apps/prf>

PRF-Rainfall Index Insurance Example

- 40 Acres of Hay
- Percentage of value on Feb - March 30%
- Percentage of value on April – May 40%
- Percentage of value June – July 30%

- Online decision tool:

<https://prodwebnlb.rma.usda.gov/apps/prf>

Protection and Policy Information

Protection Information ?

Intended Use	Haying <input type="text"/>
Irrigation Practice	Non-Irrigated <input type="text"/>
Organic Practice	Not Organic <input type="text"/>
Coverage Level	85% <input type="text"/>
Productivity Factor	118% <input type="text"/>
Insurable Interest	100% <input type="text"/>
Insured Acres	40 <input type="text"/>
Sample Year	2017 <input type="text"/>

Policy Information ?

County Base Value	\$211.00 <input type="text"/>
Dollar Amount of Protection	\$179.35 <input type="text"/>
Total Insured Acres	40 <input type="text"/>
Total Policy Protection	\$7,174.00 <input type="text"/>
Subsidy Level	55.0% <input type="text"/>
Maximum Percent of Value per Index Interval	50.0% <input type="text"/>

Premium and Premium Subsidy

Total	Premium	Producer
\$20.23	\$11.24	\$9.20
\$817	\$449	\$368
\$999	\$549	\$450

Which Months Paid in Example?

Index Interval	Percent of Value (%)	Policy Protection Per Unit	Premium Rate Per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Estimated Indemnity
Jan-Feb		\$0	12.33	\$0	\$0	\$0	29.6	\$0
Feb-Mar		\$2,152	12.82	\$276	\$152	\$124	31.8	\$1,347
Mar-Apr		\$0	13.58	\$0	\$0	\$0	49.5	\$0
Apr-May		\$2,870	12.78	\$367	\$202	\$165	161.0	\$0
May-Jun		\$0	8.33	\$0	\$0	\$0	138.3	\$0
Jun-Jul		\$2,152	8.11	\$175	\$96	\$79	103.1	\$0
Jul-Aug		\$0	8.12	\$0	\$0	\$0	122.2	\$0

<https://prodwebnlb.rma.usda.gov/apps/prf>

What was Net Benefit in Example?

Index Interval	Percent of Value (%)	Policy Protection Per Unit	Premium Rate Per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Estimated Indemnity
Per Acre	N/A	N/A	N/A	\$20.43	\$11.24	\$9.20	N/A	\$33.68
Total	40	\$7,174	N/A	\$817	\$449	\$368	N/A	\$1,347

Premium After Subsidy: \$368

Estimated Indemnity for 2018: \$1347

Net Insurance Benefit of: \$979

So...Does it work?

- Research suggests that it does insure against low rainfall periods
- Research also suggests that the index may or may not correlate with low forage yield periods
- BUT, overall, PRF is expected to increase returns (some due to subsidy levels)

More Information

- USDA RMA Pasture, Rangeland, Forage Insurance website:
 - <https://www.rma.usda.gov/policies/pasturerangeforage/>
- Decision Support Tool:
 - <https://prodwebnlb.rma.usda.gov/apps/prf>

Questions?

Rma.usda.gov

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