Crop Insurance Forage, Rangeland, and Forage

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PRF Rainfall – What is it?

- A plan of insurance that insures against a decline in an index value that is based on the longterm historical average precipitation for a grid and index interval (two-month span)
- Utilizes National Oceanic and Atmospheric Administration (NOAA) Climate Prediction Center (CPC) gridded and interpolated precipitation data
 - > 1948-2023 is being used for 2025
 - Rainfall data is pre-processed by NOAA, RMA does not further process or change data
- PRF Rainfall is available in all counties in the 48 contiguous states and now Hawaii

PRF Rainfall – Does not...

- Does not measure, capture, or utilize the actual crop production of any producer or any of the actual crop production within a grid
- Does not cover other perils such as flood, fire, and hail
- Does not use precipitation data maintained by producers or any other source other than NOAA CPC
 - Precipitation data used may not match the amount of precipitation received by a producer in a specific location because it is an interpolated value for the entire grid and index interval
- Is not "drought insurance" and does not insure against abnormally "high temperatures" or "windy conditions"
 - While a drought may cause a decline in the index value to the point that an indemnity payment is issued, a drought being declared in a state, county or area does not, by itself, trigger a RI indemnity payment

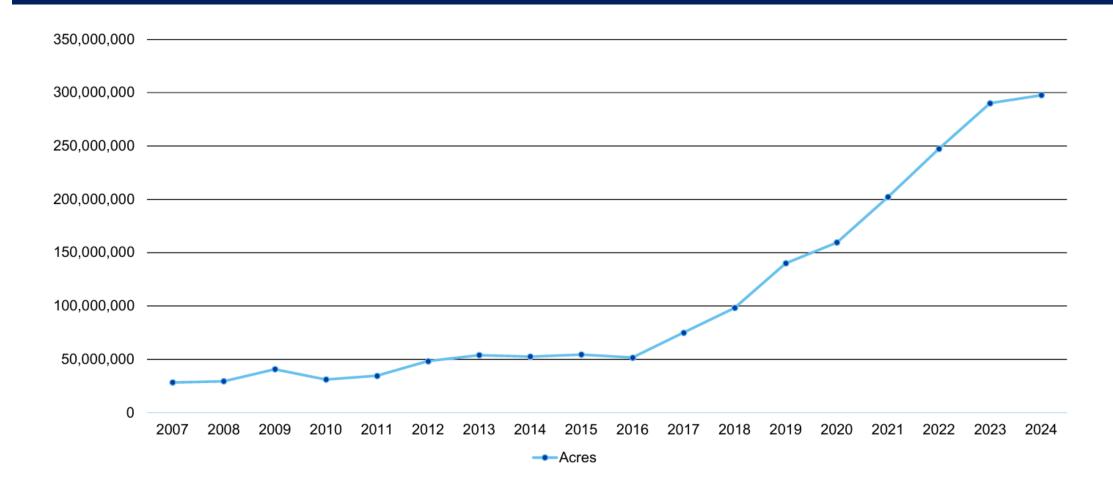
PRF Rainfall Technology

- Rainfall data is interpolated using a Cressman methodology, which estimates rainfall for a target grid using stations and other data sets within a search radius around the grid point
- NOAA also uses satellite and radar data in areas where gauge observations are scarce (there
 are not stations in every grid)
- Minimum of 6,000 reporting stations daily (normally >15K), and NOAA-CPC only uses those that report by the cut off (8:55 p.m. Eastern time)
 - Each day they obtain data from the 4 reporting stations closest to the center of the grid that report data for that day
 - > The reporting station used may not be in the insureds grid
 - Not all stations report every day so each day different reporting stations may be used
 - If it does not rain and the station does not report, that zero rain report is not included and another station that did report, with rainfall, may be used
- RI may not be suitable or reflective of conditions for all regions....use historical indices

PRF Summary of Business as of 9/9/2024

	Policies	Policies	Policies						Loss
Year	Sold	Earning Prem	Indemnified	Acres	Liabilities (\$)	Total Prem (\$)	Subsidy (\$)	Indemnity (\$)	Ratio
2024	73,064	65,430	40,041	297,781,322	\$6,321,927,792	\$1,397,835,769	\$737,034,407	\$402,574,088	0.29
2023	67,043	60,936	57,267	290,080,325	\$5,927,506,735	\$1,333,809,631	\$706,951,145	\$1,123,069,210	0.84
2022	52,683	46,764	45,161	247,525,731	\$4,714,579,410	\$1,067,579,855	\$567,902,373	\$1,433,968,177	1.34
2021	45,143	39,645	37,505	202,233,944	\$3,847,769,950	\$859,449,570	\$457,687,771	\$982,008,506	1.14
2020	38,186	32,634	29,999	159,606,067	\$2,988,079,135	\$674,503,145	\$359,426,915	\$886,723,738	1.31
2019	37,139	32,118	24,713	140,054,736	\$2,623,675,332	\$581,191,717	\$310,194,464	\$363,315,873	0.63
2018	32,708	28,306	22,366	98,283,617	\$2,377,950,750	\$520,177,152	\$278,221,376	\$499,647,200	0.96
2017	28,474	24,166	22,138	74,936,300	\$1,744,753,278	\$380,383,559	\$202,998,653	\$341,224,966	0.90
2016	25,287	20,658	17,619	51,561,151	\$1,390,841,171	\$280,799,385	\$151,276,230	\$178,758,545	0.64

PRF Insured Acres



PRF Definition of Livestock

 In August 2023, RMA revised the definition of Livestock to clarify they must be part of an agriculture operation and added domesticated bison as an example:

Livestock - Domesticated animals produced or maintained for use as part of an agricultural operation and not for other reasons including, but not limited to, animals produced or maintained for hunting, wild free-roaming animals, recreational animals, or pets. Livestock include but not limited to, cattle, sheep, horses, swine, bison, goats, and poultry.

Program Overview

- Group based coverage
 - Concept same as ARP
 - Predetermined guarantees established based on GRID averages/values
 - Insured selects guarantee based on "normal rainfall"
 - This amount is not listed, everything is based on % of "normal"
 - Rainfall (lack of) is the single peril
 - Losses paid when actual rainfall falls below insured's guarantee
 - No APH
 - Application and Acreage Report both completed by SCD of December 1

Program Overview

- Coverage Levels-70,75,80,85,and 90%
 - Only one coverage level for county, crop, intended use (hay/graze), organic practice, and irrigated practice
 - Verify NAP and linkage requirements with local FSA
- Productivity Factor- 60-150% of a County Based Value in 1% increments
 - Only one factor for the county, crop, intended use (hay/graze), organic practice, and irrigated practice
- Grid Overview area acreage is insured in lieu of section, township and range
- Acreage reporting requirements include FSA's FSN, tract number, field ID number, and Latitude/Longitude
- Cannot insure any acreage planted or acquired after the acreage reporting date

Program Overview

Not Applicable to PRF Rainfall:

- Hail/Fire Exclusion
- High Risk Land Exclusion
- Late plant, replant, prevented plant
- Experience adjustment factors
- Production reporting
- Optional/Enterprise/Whole Farm units

PRF Subsidy:

- 70% = .590
- 75% = .590
- 80% = .550
- 85% = .550
- 90% = .510

2025 Rainfall Dates

Contract Change Date	August 31st
Sales Closing Date	December 1
Cancellation & Termination Date	December 1
Acreage Reporting Date	December 1
Premium Billing	September 1

Type/Intended Uses-Grazing and Haying

Grazing

- Defined as "used solely as pasture for livestock to roam and feed on"
 - > See Crop Provisions
- Intended for grazing by livestock
- Acreage must be suitable for grazing
 - > Forest, submerged, or rocky areas would not be suitable

Haying

- Defined as "severance of the plant from its roots by mechanical equipment and cured"
 - > See Crop Provisions
- Acreage must be suitable for haying
 - Not limited to alfalfa
- Does not include earlage, green chop, grain which may be fed to livestock, or silage (These would be covered under an Annual Forage policy)
- > Haying has both Irrigated and Non-irrigated practices

Haying Irrigated and Non-Irrigated

- Haying has both Irrigated and Non-irrigated practice
 - > There is now an IR and a NI price in all states
- The NI practice covers the loss of production due to lack of rainfall
 - NI price based on NASS ALL hay price excluding alfalfa (3-year average)
- The IR practice covers the additional costs of irrigation to replace only the precipitation shortfall, not the normal cost of irrigation
- Example County Based Values:
 - > Boone, NE: Grazing \$58.90, Haying NI \$251, Haying IR \$115
 - > Brule, SD: Grazing \$38.80, Haying NI \$298, Haying IR \$64
 - > Ellis, KS: Grazing \$44.50, Haying NI \$227, Haying IR \$70
 - Clay, NC: Grazing \$37.20, Haying NI \$177, Haying IR \$133

Haying Irrigated and Non-Irrigated

- Each practice can elect a different coverage level
- Each practice can elect a different productivity factor

Туре	Practice	Coverage Level	Price Election Percent (Productivity Factor)		
30 (Hay)	425	70%	120%		
30 (Hay)	526	80%	100%		
70 (Grazing)	NULL	75%	90%		

Each practice must submit intervals within a grid with percent of values that sum to 1.00

Grid ID (Sub county)	Practice	Coverage Level	Percent of Value	Insured Share	Total Insured Acres	
10001	526	80%	25%	100%	444	
10001	528	80%	15%	100%	444	
10001	530	80%	30%	100%	444	
10001	532	80%	30%	100%	444	
-		SUM	100%	j		

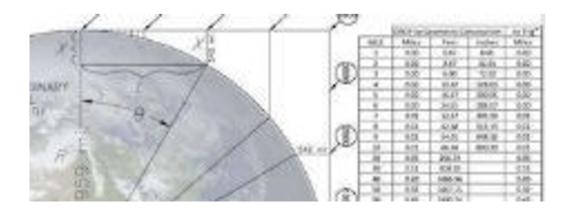
- Practices cannot have overlapping intervals, ie Jan-Feb interval cannot be elected with Feb-March
- However, the insured could elect Jan-Feb and March-April for Irrigated hay and also elect Feb-March and April-May for Non-irrigated hay.

Insurable Acre Requirements

- Not required to insure 100% of acreage
 - May choose to insure either Grazing, Haying, or both crop types
 - May elect to insure all or a portion of your insurable acreage in the county
- Cannot insure the same acreage with an intended use of both Haying and Grazing in the same year
 - If insured intends to hay <u>and</u> graze the acreage and acreage meets requirements to be insured as either, must select one intended use
- Cannot have PRF Haying and APH plan Forage Production on the same acres
 - Could insure PRF Grazing only, and have a Forage Production policy on eligible acres
 - > Could insure over-age Forage under PRF haying if no longer insurable under the Forage APH policy
- Cannot insure same acres under Annual Forage RI and PRF RI
 - Annual forage designed for annual crops, PRF for perennial crops

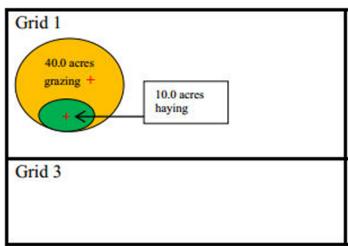
What is a Grid?

- .25 degrees latitude by .25 degrees longitude
 - > 17 miles x 17 miles at the equator
 - > Policy defines Grid as 8 km x 8 km, which is about 12.9 miles
 - Grid sizes will vary due to the curvature of the earth
- Grids do not follow state/county boundaries
- Created by NOAA CPC and assigned a specific grid ID
 - Each grid individually rated based on historical precipitation data for that grid



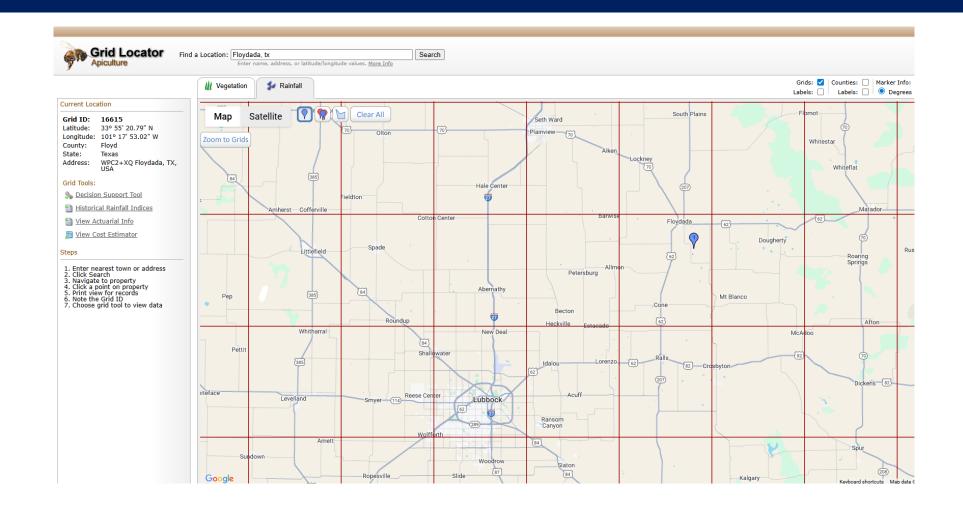
Selecting a Grid

- Insured must select the grid where insured acreage is physically located, or assigned, if acreage stretches between two grids
- Insured must provide a Point of Reference (POR) within the grid
- PORs must be established by Intended Use (hay/graze) and Irrigation Practice. Two PORs would be required in the scenario below due to Intended Use.



 The Grid selection is done on the acreage report by providing the lat/long for the insured acres

Grid Locator



Percent of Value

- Insureds must allocate a percent of value to each unit
- Insureds allocate a percentage of the total insured value to each selected index interval
- There is a minimum and maximum percent of value that can be allocated to an index interval
 - Minimum is always 10%, maximum varies by state and is listed in Special Provisions
 - NE/KS is 60%, SD/ND are 70%, NC/SC are 50%
- Must indicate percent of value on the application and acreage report
- The sum of the percentages for all index intervals within a grid ID, share, irrigated practice, organic practice (if applicable) and intended use must equal 100%

Index Intervals

- Specified period of time in which precipitation data is collected, resulting in a grid index
- 11, 2 month time periods beginning Jan-Feb, Feb-March, March-April, April-May, etc...last one is Nov-Dec
- Producer can insure any interval, but must choose at least two and those two months cannot overlap
 - April-May and May-June would overlap
- Intervals act as "mini insurance periods"
 - Indemnities payable in one interval are not dependent on results from other intervals

Application Requirements

- All the normal information, plus, for each county:
 - Name of crop: PRF
 - > Plan of Insurance: Rainfall
 - Coverage Level: 70, 75, 80, 85, or 90%, one per county, crop, intended use, organic practice, and irrigation practice
 - > Productivity Factor: 60-150%, 1% increments, only one factor per county, crop, intended use, organic practice, and irrigation practice
 - Intended Use: Haying and/or Grazing
 - Grid ID: list those where acreage located
 - Index Interval: at least 2 per grid ID, intended use, and irrigation practice
 - Percent Value: sum of percentages for all Index Intervals by grid ID, share, intended use, and practice must equal 100%
- Disclaimer is part of the Application and must be submitted

Acreage Report Requirements

Acreage Report must include:

- Share
- Irrigated Practice
- Intended Use
- Point of Reference longitude and latitude
- Grid ID, and
- Land Identifier for the acreage (e.g. FSA farm, tract, and field numbers, common land unit, or RMA resource land unit, etc.)

Insureds must have verifiable records to support the information on their A/R (18,B in RI Handbook)

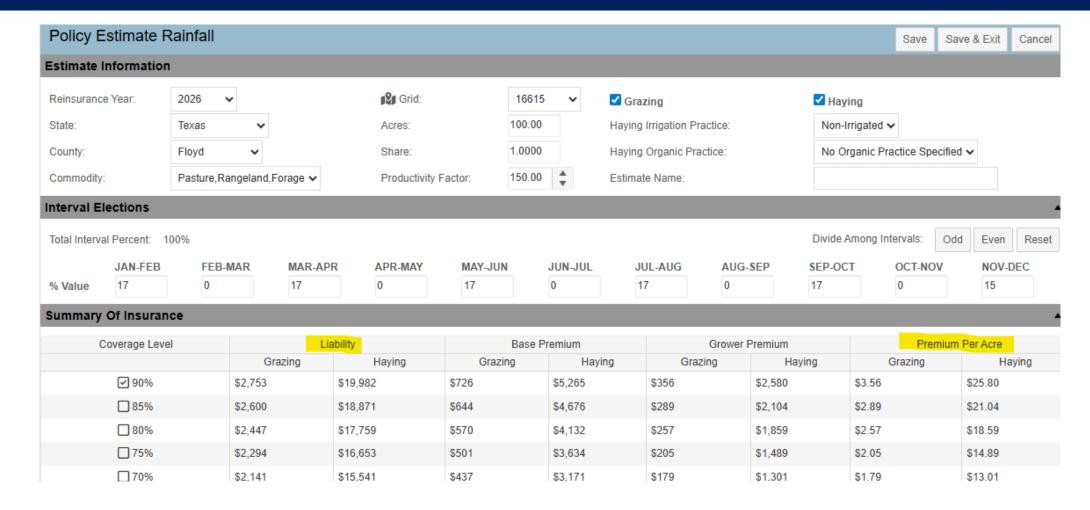
Insurable acres and Insured acres

- Do not have to insure all acres
- There is no minimum number of acres that must be insured under PRF-RI
 - Except in AZ, UT and NV insured acreage must be a minimum of 60 insured contiguous acres for the intended use of grazing

Acreage Not Insurable

- Grazing-if so steeply sloped or so far from water source that livestock would not normally graze
- Haying-if so steeply sloped or covered by water such that it is impractical or impossible to hay such acreage using normal haying equipment
- Cannot insure acreage that is annually planted
 - Over seeding not considered annual planting
 - Annual Forage policy is designed for acreage that is annually planted
- Cannot insure acreage acquired after the ARD
 - Acreage is not insurable if planted after July 1st of the previous crop year

PRF – Quote



PRF - Historical Returns

DOUBLE B CROP INSURANCE

Agency Code: 42-5013

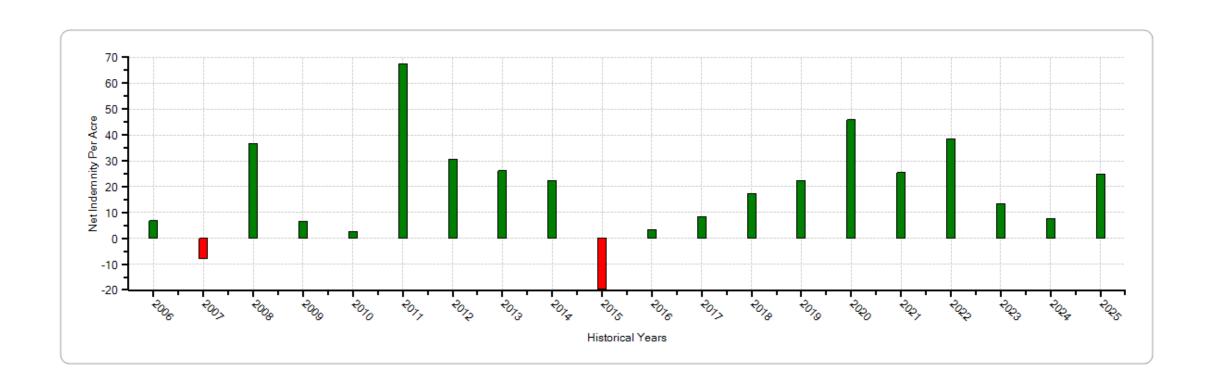
		AGENCY LLC PO BOX 180 SILVERTON, TX 79	9257	(806)823-2102 (806)823-2103 byronbrock@do		State: Texas County: 153 - Floyo	1	Crop PRF - 153		Plan	Price Fact \$0.00 150	tor Options	Value \$20.40	Exp % 100%
Year	Unit	State / (County		Crop		Plan	Acres	s (Grid ID	Percent of Val	ue / Productivity	Factor	
2025	0001-0001-000	Texas / 15	i3 - Floyd	PRF	/ JAN-FEBINT / G	GRAZNG	RI	17.00)	16615	1	7% / 150%		
2025	0001-0002-000	Texas / 15	3 - Floyd	PRF /	MAR-APRINT / 0	GRAZNG	RI	17.00		16615	1	7% / 150%		
2025	0001-0003-000	Texas / 15	3 - Floyd	PRF /	MAY-JUNINT / (GRAZNG	RI	17.00		16615	1	7% / 150%		
2025	0001-0004-000	Texas / 15	3 - Floyd	PRF	JUL-AUGINT / G	GRAZNG	RI	17.00		16615	1	7% / 150%		
2025	0001-0005-000	Texas / 15	3 - Floyd	PRF /	SEP-OCTINT / C	GRAZNG	RI	17.00		16615	1	7% / 150%		
2025	0001-0006-000	Texas / 15	3 - Floyd	PRF /	NOV-DECINT / 0	GRAZNG	RI	15.00		16615	1:	5% / 150%		
		JAN-FI	EBINT	MAR-A	PRINT	MAY-JU	JNINT		JUL-AU	IGINT	SEP-0	CTINT	NOV-DE	CINT
		Act. Index	Indem/Acre	Act. Index	Indem/Acre	Act. Index	Indem/Ad	cre Act.	Index	Indem/Acre	Act. Index	Indem/Acre	Act. Index	Indem/Acre
	2006	45.1	\$ 13.71	92.9	-	70.0	\$	6.12	62.3	\$ 8.47	189.2	-	180.8	
	2007	62.3	\$ 8.47	278.2	-	169.0		-	158.1	-	76.6	\$ 4.12	86.2	\$ 1.13
	2008	25.5	\$ 19.71	48.7	\$ 12.65	100.5		-	116.3	-	259.6	-	5.9	\$ 25.73
	2009	46.5	\$ 13.29	76.0	\$ 4.29	60.0	\$	9.18	130.2	-	86.0	\$ 1.24	98.8	-
	2010	211.0	-	355.5	-	109.1		-	212.3	-	101.6	-	11.3	\$ 24.07
	2011	43.1	\$ 14.35	9.5	\$ 24.65	11.2	\$ 2	4.12	20.2	\$ 21.35	75.1	\$ 4.59	151.1	
	2012	52.0	\$ 11.65	80.7	\$ 2.82	72.6	\$	5.29	51.0	\$ 11.94	73.4	\$ 5.06	39.6	\$ 15.40
	2013	191.0	-	6.3	\$ 25.59	50.3	\$ 1	2.12	101.8	-	57.7	\$ 9.88	105.2	
	2014	13.2	\$ 23.47	23.1	\$ 20.47	160.9		-	146.7	-	125.0	-	143.3	
	2015	143.1	-	97.6	-	236.7		-	84.1	\$ 1.82	96.0	-	158.6	
	2016	53.2	\$ 11.24	93.7	-	76.2	\$	4.24	107.5	-	59.0	\$ 9.47	161.5	
	2017	302.7	-	166.7	-	77.4	\$	3.88	180.1	-	112.2	-	4.5	\$ 26.13
	2018	20.0	\$ 21.41	56.5	\$ 10.24	79.9	\$	3.12	76.7	\$ 4.06	198.1	-	101.8	
	2019	2.4	\$ 26.82	143.6	-	126.6		-	34.0	\$ 17.12	133.9	-	128.2	
	2020	91.9	-	129.0	-	41.0	\$ 1	5.00	37.2	\$ 16.18	30.3	\$ 18.24	31.2	\$ 18.00
	2021	128.0	-	111.2	-	127.6		-	128.4	-	21.7	\$ 20.88	4.8	\$ 26.07
	2022	34.3	\$ 17.06	0.2	\$ 27.47	66.1	\$	7.29	110.0	-	74.8	\$ 4.65	78.3	\$ 3.60
	2023	51.9	\$ 11.65	34.4	\$ 17.00	120.4		-	69.6	\$ 6.24	138.7	-	145.3	
	2024	126.5	-	117.0	-	107.1		-	39.4	\$ 15.47	44.9	\$ 13.82	368.5	
	2025	12.3	\$ 23.76	168.8		87.9	•	0.65	88.7**	\$ 0.41**	19.4**	\$ 21.59**		

2025

County Base

malcates estimated value. NinA has not released final value

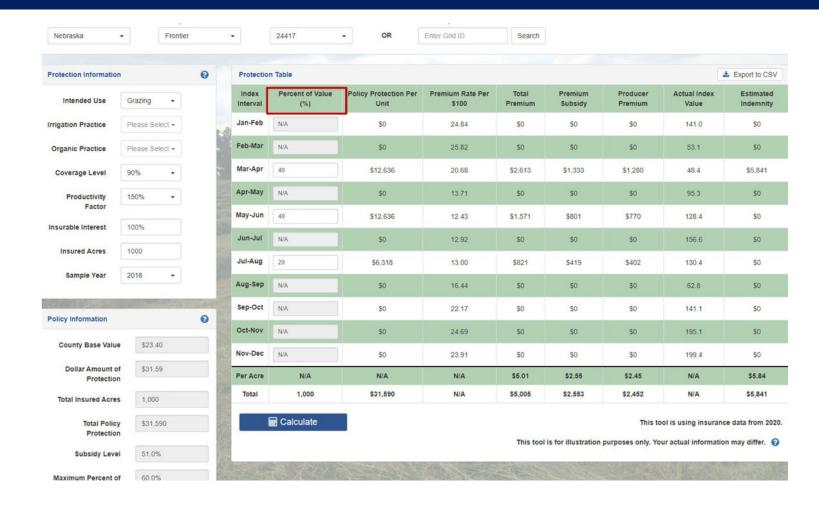
PRF – Historical Returns



PRF – Historical Returns

	Average	Total	Average Index	Total Indemnity / Acre
20 Years	82.8	\$216.59	97.7	\$836.51
10 Years	82.3	\$111.94	92.9	\$422.76
5 Years	70.6	\$52.47	90.6	\$235.61
Rate Of Return	20 Years	(13) 2.36	20 Years**	(63) 1.94
	10 Years	(6) 2.44	10 Years**	(31) 1.97
	5 Years	(3) 2.29	5 Years**	(17) 2.19

RMA Website – Decision Support Tool



Questions / Contacts

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