

Crop and Livestock Insurance for diversified and Specialty Operations

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OUTLINE

1. Overview of Insurance Considerations
2. Whole Farm Revenue Protection (WFRP)
3. Rangeland Insurance

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How are Small/Diverse Operations Different?

1. Crop insurance products are harder to develop
 - No futures market
 - Lack of homogeneous producers
 - Producers often lack production history
2. Record keeping is a challenge
3. Insurance single commodity is usually not the goal.

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Some Recent Changes to Overcome These Issues

1. Use of marketing contract orders are helpful for producers with forward contracts
2. Expansions to WFRP and NAP aimed to insure products difficult to insure individually
3. Record keeping is still a challenge with WFRP

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Top Insurance Products in Montana (2016)

Rank	Commodity	Liability
1	Wheat	\$572.5 Million
2	Dry Peas	\$172.8 Million
3	Barley	\$101.2 Million
4	Whole Farm Revenue Protection	\$64.0 Million
5	Forage Production	\$50.5 Million
6	Pasture Rangeland Forage	\$30.7 Million
7	Sugar Beets	\$28.9 Million
8	Corn	\$14.0 Million
9	Potatoes	\$9.2 Million
10	Apiculture	\$8.2 Million

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WFRP is Well-Suited for Whom?

1. Highly diverse farms
2. Farms with specialty or organic commodities
3. Farms selling to direct markets, specialty markets, regional or local markets

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Basics of Whole Farm Risk Protection

1. Covers up to \$8.5 million of combined revenue from ALL commodities produced on the farm
 - Includes animals and animal products
2. Historic revenue (based on Schedule F) is used to establish revenue guarantee
 - Expansion factors up to 35% allowed
3. Can combine WFRP with single commodity policies.

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WFRP Premium Subsidy Schedule

WFRP Subsidy: Percentage of Total Premium Paid by Government								
Coverage Level	50%	55%	60%	65%	70%	75%	80%	85%
Basic Subsidy- Qualifying Commodity Count: 1	67%	64%	64%	59%	59%	55%	N/A	N/A
Whole-Farm Subsidy- Qualifying Commodity Count: 2	80%	80%	80%	80%	80%	80%	N/A	N/A
Whole-Farm Subsidy- Qualifying Commodity Count: 3 or more	80%	80%	80%	80%	80%	80%	71%	56%

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Example Farm

- Diverse Roosevelt County Operation
- Dry Peas (30%), Barley (21%), Sunflowers (21%), What (19%), and Hay (8%)
- Average annual crop sales of \$140,000
- Some livestock revenue (<35% in all years)
- Insurance premium around \$1,000

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The screenshot shows the 'Quick Estimate' tool interface. It includes a sidebar with 'Popular Topics' such as 'Appendix 1(B)-13', 'Buletins and Handbooks', 'Crop Policies and Plans', 'Federal Crop Insurance Corp', 'Field Offices, RDNs | COs', 'Frequently Asked Questions', 'Information Browser', 'Cost Estimator', 'Main Menu', 'Quick Estimate', 'Detailed Estimate', 'Saved Estimates', 'Laws and Regulations', 'Livestock Policies', and 'Reinsurance Agreements'. The main area is titled 'Quick Estimate' and contains 'Quick Criteria' (Commodity, Commodity Year, State, County, Type, Practice), 'Individual Coverage' (Whole Farm Revenue Protection %), and a table of commodity values.

Commodity	Total Value/Units	Remove All
Barley (Designated) 0856 (M)	-28855	X
Dry Peas 0067 (M)	-38364	X
Gross Hay (Nonirrigated) 0856 (M)	-10230	X
Sunflowers (Designated) 1043 (M)	-28855	X
Wheat (Designated) 0948 (M)	-24297	X

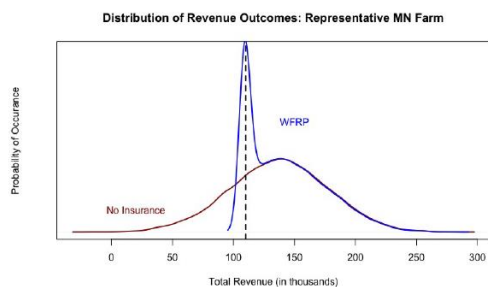
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Hypothetical Insurance Scenario (75% Coverage Level)

Year	2014	2015	2016
Farmer Premium	1,013	1,011	1,013
Average Historical Revenue	127,881	113,578	137,179
Revenue Guarantee	95,911	85,198	102,884
Actual Crop Sales	112,677	150,178	92,178
Indemnities	0	0	10,696

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Distribution of Revenue



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

1. Insurance product that allows a producer to insure against below average rainfall in 0.25 degree grid
 - a. Approximately a 12x16 mile region
2. Rainfall serves as a proxy for range and pasture production
3. Producer chooses a coverage level
4. Producer chooses a productivity factor that reflects their forage production value

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

5. Premium subsidies range from 51% to 59% depending on coverage level
6. Premiums vary based on selected coverage levels, productivity factors, county, and crop value

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

7. Indemnities are triggered by below average rainfall in your grid
 - a. Not by rainfall on your property
8. Signup by November 15 for the coming calendar year
9. This is a pilot program
 - a. Expect changes between years

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PRF Crop Year and Intervals

1. Crop year is January 1 to December 31
2. The crop year is divided into 11, two-month intervals (e.g., Jan/Feb, Feb/Mar)
 - a. Cannot insure consecutive intervals
3. Cannot insure more than 70% of eligible acreage in any single interval
 - a. You need to choose at least 2 intervals if you are going to insure 100% of eligible acreage
 - b. Select intervals most important to your operation's rainfall needs

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PRF Insurance Terminology

1. **County Base Value** is the dollar value of forage production per acre in a county (RMA)
2. **Coverage Level** is the percent of the County Base Value
 - a. Producer chooses 70, 75, 80, 85, or 90%
3. **Productivity Factor** is selected by a producer from between 60% to 150%
 - a. This adjusts the County Base Value to your particular situation

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PRF Rainfall Index Rangeland Insurance Example

1. Roosevelt County rancher has 1,000 acres of rangeland
2. Rainfall serves as a proxy for range and hay production
3. Producer chooses a coverage level
4. Producer chooses a productivity factor that reflects their forage production value
5. Producer chooses interval(s)

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PRF Rainfall Insurance Example

Contract Data	Value	Source
County Base Value	\$15.70/ac	RMA
Production Factor	120%	producer*
Coverage Level	90%	producer*
Dollar Value	\$16.96/ac	\$15.70/ac x 1.20 x 0.90
(1) Interval IV: Apr-May	60%	producer*
(2) Interval VII: Jul-Aug	40%	producer*
Premium Rate: IV	0.1807	RMA
Premium Rate: VII	0.2060	
Expected Grid Index	100	RMA ²¹

PRF Rainfall Insurance Example

Contract Data	Value	Source
Unit Protection	\$16,956	\$16.96/ac x 1,000 acres
Total Premium	\$1,838	\$16,956 x 0.60 x 0.1807
	\$1,397	\$16,956 x 0.40 x 0.2060
	\$3,236	
Subsidy Rate	51%	RMA
Premium Subsidy	\$1,651	\$3,236 x 0.51
Producer Premium	\$1,585	\$3,236 - \$1,651
Per Acre	\$1.59/ac	\$1,585 / 1,000 acres
Trigger Index	90	100 x 0.90 ²²

PRF Rainfall – Example

1. Spring rainfall is above average (Interval IV)
 - a. The **Final Grid Index** is 116.2
 - b. This is above your Trigger Index of 90, so you will not receive an indemnity
2. Late summer rainfall is below average (Interval VII)
 - a. The **Final Grid Index** is 87.7
 - b. This is below your Trigger Index of 90, so you will receive an indemnity

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PRF Rainfall – Example

3. Indemnity Calculation for Interval VII
 - a. $400 \text{ acres} \times \$16.96 \times [(90-87.7)/90]$
 $= \$6,784 \times 0.0256$
 - b. \$173
4. Your premium was \$1,585

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PRF Rainfall Decision Tool

Decision Support Tool
Pasture, Rangeland, Forage

This tool is for illustrative purposes only. Real actual information may differ from actual information provided in the tool.

Notes:
The year selected has not been completed. Policy total indemnities are provided as a courtesy, but indemnity values from intervals where such information is not available have not been included in the calculation of the totals.

Please Select a Location: State: **Montana** County: **Roosevelt** Grid: **33698** [Grid Locator](#) [Print](#)

Protection Information

Intended Use: **Grazing**
Coverage Level (%): **99**
Productivity Factor (%): **120**
Insured Acres: **1000**
Sample Year: **2015**

Graph

Type: Index Values Estimated Indemnities

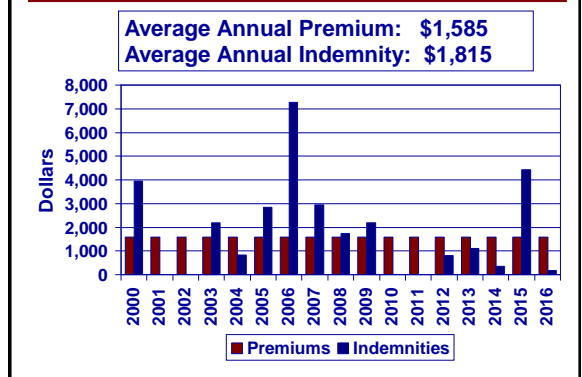
Range: Start: **2012** End: **2016**

Intervals:
 Jan-Feb Feb-Mar Mar-Apr
 Apr-May May-Jun Jun-Jul
 Jul-Aug Aug-Sept Sept-Oct
 Oct-Nov Nov-Dec

Index Interval	Percent of Value (%)	Policy Protection Rate per Unit	Premium Rate per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
Jan-Feb	NA	\$0	28.51	\$0	\$0	\$0	94.3	\$0
Feb-Mar	NA	\$0	24.75	\$0	\$0	\$0	85.4	\$0
Mar-Apr	100	\$0	22.87	\$0	\$0	\$0	139.7	\$0
Apr-May	50	\$10,174	18.07	\$1,808	\$0	\$0	116.2	\$0
May-Jun	NA	\$0	17.42	\$0	\$0	\$0	105.9	\$0
Jun-Jul	100	\$0	16.75	\$0	\$0	\$0	120.7	\$0
Jul-Aug	40	\$5,782	20.50	\$1,207	\$713	\$494	87.7	\$173
Aug-Sept	NA	\$0	25.12	\$0	\$0	\$0	115.4	\$0
Sept-Oct	NA	\$0	27.09	\$0	\$0	\$0	196.9	\$0
Oct-Nov	NA	\$0	25.96	\$0	\$0	\$0	152.1	\$0
Nov-Dec	NA	\$0	24.51	\$0	\$0	\$0	NA	\$0
Per Acre	NA	NA	NA	\$7.24	\$1.65	\$1.58	NA	\$0.17
Policy	NA	NA	NA	\$7,240	\$1,650	\$1,580	NA	\$173
County Base Value	NA	NA	NA	\$16,750	NA	NA	NA	NA
County Annual of Production	NA	NA	NA	\$16,750	NA	NA	NA	NA
Total Insured Acres	NA	NA	NA	1,000	NA	NA	NA	NA
Total Policy Protection	NA	NA	NA	\$16,800	NA	NA	NA	NA
Subsidy Level	NA	NA	NA	61.0%	NA	NA	NA	NA
Maximum Percent of Value per Index Interval	NA	NA	NA	70.0%	NA	NA	NA	NA

Calculate

PRF Rainfall Outcomes



Summary of PRF

1. Insurance “transfers risk” from those who don’t want it to those who do
2. The cost of transferring this risk is called the “premium”
3. A “deductible” is that portion of risk that is not transferred to others
 - a. Deductibles reduce bad behavior and fraud
 - b. Lower deductibles cost more than higher deductibles
4. “Indemnities” are payments from an insurance company for losses that exceed a deductible

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Summary of PRF

5. Because this is a pilot program, you can also carry FSA’s NAP coverage and receive indemnities for both
 - a. NAP costs \$250 for all of your range in a county
6. Important issues
 - a. Correlation of rainfall on your land with those of the grid
 - b. Year-to-year impacts on grass²⁸

QUESTIONS?

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