



# Kern Sheep Producer's Forum

Thanks to:

California Wool Growers Association

University of California Extension



California Wool Growers Association

Unifying the voice of the **California Sheep Industry** since 1860



**University of California**  
Agriculture and Natural Resources





# Ranch Tools for Wool Growers

Bridger Feuz

Livestock Marketing Specialist – UW Extension

Owner – Master Stockman Consulting



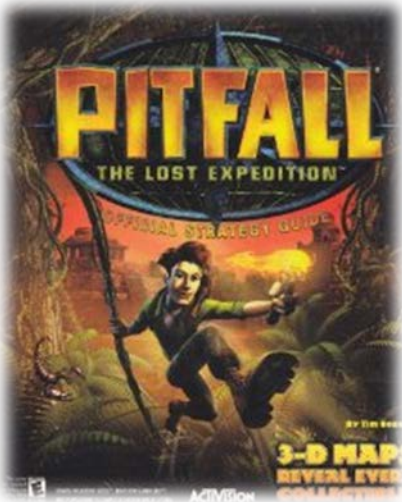
**LOW  
COST**  
Producer



=



# Why Economic Analysis?

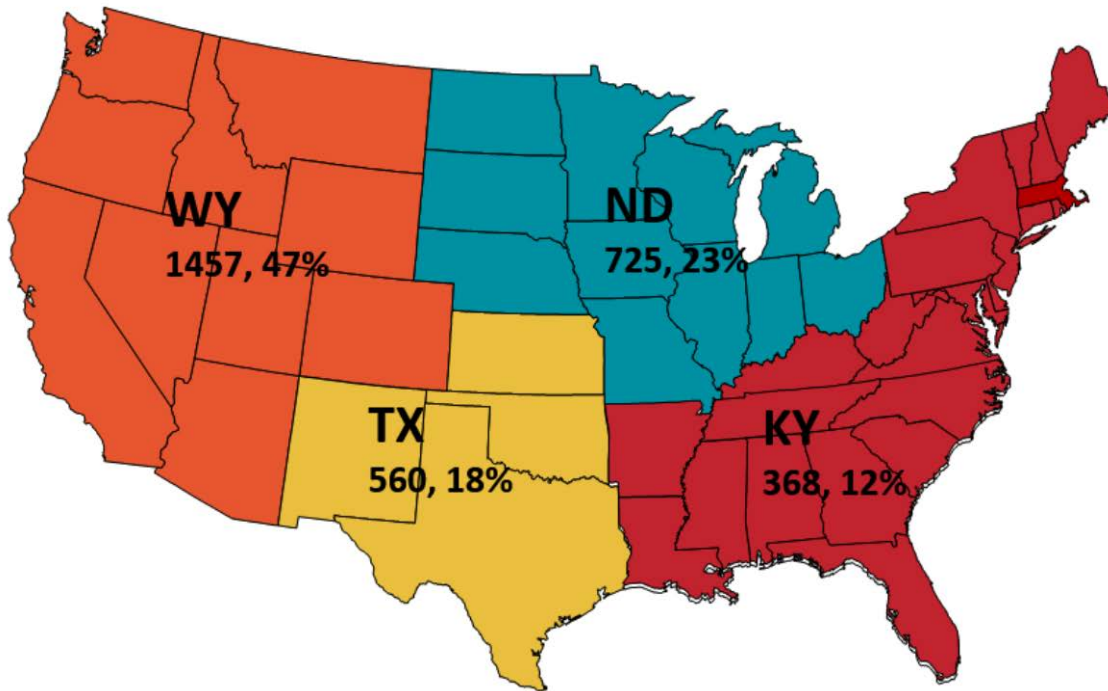




# U.S. Baseline Cost of Production

- **LMIC Working Group**
  - **Bridger Feuz – University of Wyoming**
  - **Tim Petry – North Dakota State University**
  - **David Anderson – Texas A&M University**
  - **Lee Meyer – University of Kentucky**
  - **Kenneth Andries – Kentucky State University**
  - **Jessica Sampson – LMIC**
  - **James Robb - LMIC**

# Cost of Production Regions





	\$/Ewe					
	2010	2011	2012	2013	2014	2015
	WY	WY	WY	WY	WY	WY
<b>GROSS RECEIPTS</b>						
Lambs	94.23	142.64	96.03	90.67	136.32	120.76
Cull ewes	13.65	16.77	13.72	10.25	15.10	17.90
Cull rams	0.55	0.57	0.54	0.41	0.48	0.62
Wool	7.60	12.23	15.95	12.64	13.22	13.47
<b>TOTAL RECIEPTS</b>	<b>116.04</b>	<b>172.21</b>	<b>126.24</b>	<b>113.98</b>	<b>165.13</b>	<b>152.76</b>
<b>VARIABLE COSTS</b>						
Pasture	13.68	13.68	13.68	13.68	13.68	13.50
Federal Range	2.57	2.57	2.57	2.57	2.57	2.54
Hay	7.32	7.32	7.32	7.32	7.32	7.22
PRF Rainfall Insurance	0.00	0.00	0.00	0.00	0.00	0.00
Feed Grain	1.53	1.53	1.53	1.53	1.53	1.51
Salt & Mineral	0.61	0.61	0.61	0.61	0.61	0.60
Vet & Medicine	0.64	0.64	0.64	0.64	0.64	0.63
Breeding (ram cost per ewe)	5.57	5.57	5.57	5.57	5.57	5.50
Marketing & Hauling	4.26	4.26	4.26	4.26	4.26	4.20
Fuel, lube, repairs, utilities	10.46	10.46	10.46	10.46	10.46	10.32
Shearing ewes	3.85	3.85	3.85	3.85	3.85	3.80
Shearing rams	0.23	0.23	0.23	0.23	0.23	0.23
Predator Control	1.01	1.01	1.01	1.01	1.01	1.00
Dog Food	2.03	2.03	2.03	2.03	2.03	2.00
ASI Checkoff	0.55	0.55	0.55	0.55	0.55	0.55
Operator/Family Labor	11.05	12.28	12.79	13.05	13.68	13.50
Hired Labor	36.02	40.02	41.69	42.53	44.60	44.00
Camp Supplies	4.09	4.55	4.74	4.83	5.07	5.00
Housing Improvement & Repair	0.59	0.65	0.68	0.70	0.73	0.72
Interest on Operating Capital	0.86	0.96	0.99	1.01	1.06	1.05
<b>TOTAL VARIABLE COSTS</b>	<b>106.93</b>	<b>112.78</b>	<b>115.22</b>	<b>116.44</b>	<b>119.46</b>	<b>117.87</b>
<b>FIXED COSTS</b>						
<i>Capital Recovery</i>						
Housing & Improvement	0.82	0.91	0.95	0.97	1.01	1.00
Machinery, Equipment, Vehicles	4.75	5.28	5.50	5.61	5.88	5.80
Interest on retained livestock	5.12	5.69	5.92	6.04	6.33	6.25
Taxes & Insurance	0.65	0.73	0.76	0.77	0.81	0.80
Overhead	6.71	7.46	7.77	7.93	8.31	8.20
<b>TOTAL FIXED COSTS</b>	<b>18.05</b>	<b>20.06</b>	<b>20.89</b>	<b>21.31</b>	<b>22.35</b>	<b>22.05</b>
<b>TOTAL COSTS</b>	<b>124.98</b>	<b>132.84</b>	<b>136.12</b>	<b>137.75</b>	<b>141.81</b>	<b>139.92</b>
<b>RETURNS</b>	<b>-8.95</b>	<b>39.37</b>	<b>-9.88</b>	<b>-23.77</b>	<b>23.32</b>	<b>12.84</b>



# Returns over cash costs

- From 2010 – 2015 which one made more money?







## Estimated Returns - Variable Costs plus Pasture Rent

Year	Cattle	Sheep
2010	\$43	\$20.20
2011	\$71	\$71
2012	\$30	\$22.60
2013	\$126	\$8.20
2014	\$530	\$54.60
2015	\$303	\$47.60
<b>Average</b>	<b>\$184</b>	<b>\$37.40</b>

Is this the final answer?





# Estimated Returns - Variable Costs plus Pasture Rent

Year	Cattle	Sheep	Sheep Adjusted
2010	\$43	\$20.20	\$101
2011	\$71	\$71	\$355
2012	\$30	\$22.60	\$113
2013	\$126	\$8.20	\$41
2014	\$530	\$54.60	\$273
2015	\$303	\$47.60	\$238
<b>Average</b>	<b>\$184</b>	<b>\$37.40</b>	<b>\$187</b>



# New Tools for Sheep Producers



# Ranch Budgeting Tools

- No matter what budgeting decision tool you decide to use start with a partial budget approach
  - Partial Budgeting
  - Sensitivity analysis
  - Break-even



# Partial Budgeting

- **Systematically organizes the answers to four questions**
  - **What new or additional costs will be incurred?**
  - **What current income will be lost or reduced?**
  - **What new or additional income will be received?**
  - **What current costs will be reduced or eliminated?**

# Wyoming Ranch Tools



Ranch Tools ▾

Fact Sheets ▾

Links ▾

Home

Partial Budget

Break-even

NPV Tool

Cow Valuation Tool

AUM Value

Genetic Investment

Stocking Rate

Sprayer Calibration

Market Comparison

## Welcome to Wyoming Ranch Tools

Designed and Maintained by Bridger Feuz  
University of Wyoming – Livestock Marketing Specialist/Area Educator

to provide usable tools to help ranchers (both large and small) be able to make better decisions, leading to . Each tool is accompanied with a fact sheet and instructions on utilizing the tool. If you don't see the tool you need [feuz@uwyo.edu](mailto:feuz@uwyo.edu) and let me know what you would like to have added.

se the partial budget tool to help make decisions such as; Should I sell calves or yearlings? Should I retain sifers? What should I do with my cull cows? Should I buy hay or put up my own?

t – Use the Break-Even Budget tool to help make market timing decisions for selling livestock.

Net Present Value (NPV) tool to make decisions when a significant capital investment is needed. The NPV tool also contains an EconoRange version which helps in making decisions on range and pasture improvement projects.

- **Cow Valuation** – This tool is designed to estimate the current value of a cow based on a projected number of calves. It can be used for all breeding age cows from heifers to short term cows. The tool was adapted from a spreadsheet developed by John Ritten, Steve Paisley and Brian Lee.

# When is the best time to market lambs?





This break-even tool works for multiple classes and species of livestock.

Proposed Change

Additional Costs			
Description	Number of Units	Price/ Cost	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Reduced Income			
Initial Weight	Number of Head	Market Price/CWT	Total
			\$0.00
	Days of Interest	Rate	
			\$0.00

Enter the initial weight of your livestock, number of head and price in dollars per cwt. Also enter the number of days that you are considering holding your livestock. Finally, enter the interest rate using either the rate on a loan if needed, or the rate that could be earned using this capital.

Total Additional Costs and Reduced Income \$0.00

Additional Income			
Final Weight	Number of Head	Breakeven Price	Total
		\$0.00	\$0.00

Enter the projected final weight of your livestock. Enter number of head you project to sell. Often this number is different than the original number due to death loss. The model will calculate the break-even price in \$/cwt.

Reduced Costs (Savings)			
Description	Number of Units	Price/ Cost	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00

Total Additional Income and Reduced Costs \$0.00

Breakeven Price \$0.00





## Wyoming Master Stockman

### Ewe Valuation Tool

by Dr. John Ritten, S. Paisley, B. Lee, B. Feuz - University of Wyoming Extension

Individual Herd Information	Estimated Lamb Value			
	Number of Lambs	Prices Decreasing 5% per Year	Constant Lamb Prices	Prices Increasing 5% per Year
Annual costs per ewe:	125	1	\$115	\$115
Sale weight of lambs:	85	2	\$144	\$155
Lamb price (per cwt):	180	3	\$165	\$192
Cull ewe weight:	160	4	\$177	\$228
Cull ewe price (per cwt):	45	5	\$183	\$260
Discount Rate:	7	6	\$182	\$291
Weaning percentag:	115	7	\$177	\$319
		8	\$166	\$346
		9	\$152	\$371
		10	\$134	\$394



# Wyoming Master Stockman

## Market Comparison Tool

by Bridger Feuz, Chris Bastian and John Ritten

Number of Head	75	
Weight	0	
	1	2
	Auction	Auction
Projected Market Price	145.00	148.00
Distance to Market	200	300
Trucking / IRS Mileage Cost	4.00	4.00
Trailer Capacity	85	85
Shrink	3%	2%
Commission Percentage	2%	2%
Yardage / video taping	0.00	5.00
Gross Revenue	\$0.00	\$0.00
Adjusted Revenue	\$-10.67	\$-21.00
Adjusted Price	\$-1.94	NaN



# Changes can come with Risk



# USDA / RMA

## Federal Crop Insurance Programs

Like Agriculture Itself, USDA/RMA  
Crop Insurance Programs are Dynamic...



**The information in this presentation does not replace or supersede any procedures or modify any provisions contained in the complete insurance policies.**





# Program Sponsorship, Coordination, and Delivery

The USDA and RMA websites offer information and tools to help producers make better decisions about managing risk and using Federal crop insurance programs.

[www.RMA.USDA.gov](http://www.RMA.USDA.gov)



**USDA** Risk Management Agency  
United States Department of Agriculture

About RMA | Field Offices | Contact Us | ¡En Español!

What's New | Newsroom | Programs | Blog

Site Map | A-Z Index | Advanced Search | Help | Search Tips

Wednesday 11/13/2013

**Popular Topics**

- Appendix III/M-13
- Bulletins and Handbooks
- Crop Policies and Pilots
- Federal Crop Insurance Corp
- Field Offices
- Frequently Asked Questions
- Information Browser
- Laws and Regulations
- Livestock Policies
- Reinsurance Agreements

**Quick Links**

- Agent/company locator
- Calendar events
- Cost estimator
- Crop Indemnity Maps
- Information Browser
- Price Discovery Report
- Rainfall-Veg Indices
- Summary of Business

**RMA's Priorities**

- Bulletins and Handbooks
- County Crop Programs
- Fact Sheets
- Opportunities
- Partnership Agreements
- Policies
- Publications
- State Profiles

**RMA Announces Risk Management Education Awards**

Read More

- Targeted States Table
- Education Table

**Producer Success Stories**

Census of Agriculture

Civil Rights

Farm Risk Plans

Organic Crops

Prevented Planting

SRA

**Risk in Agriculture**

- Crop Policies
- Disaster Assistance
- Government Programs & Risk Program Provisions
- Risk Management Overview
- Risk Management Strategies

**Associated Agencies and Organizations with MOUs**

USDA | FAS | FSA | NRCS | NASS | FFA | NCIS

**Associated Partners and Resources**

- Agriculture Production
- Ag Risk Education Library
- Commodity Futures Trading Commission



# Program Sponsorship, Coordination, and Delivery

**RMA Purpose:**  
To promote, support,  
and regulate sound  
risk management  
solutions to preserve  
and strengthen the  
economic stability of  
America's agricultural  
producers.





When you buy insurance for this...





Is this what you are hoping for?



# Key Programs for Sheep Producers

- Pasture, Rangeland, Forage (PRF)
- Livestock Risk Protection (LRP)
- Whole Farm Revenue Protection (WFRP)





# Pasture, Rangeland and Forage Pilot- Overview

- Area plans only –  
Losses cover an area called a grid
- No individual coverage –  
Does NOT measure actual individual production
- Index – based on deviation from  
normal/historical
- No loss adjustments, records, etc.
- Timely payments
- Does not reward poor management practices –  
Producer cannot influence outcomes/losses

# Pasture, Rangeland and Forage Pilot- Overview

## Intended Use - Grazing

- Established acreage of perennial forage
- Intended for grazing by livestock
- Acreage must be suitable for grazing

## Intended Use - Haying

- Established acreage of perennial forage
- Intended for haying
- Acreage must be suitable for haying

## New for 2016

- **Vegetation index no longer used**
  - OR, ID, UT, WY, NV, AZ, NM and part of CO
- **Rainfall index used in all states**
  - 2016 crop year

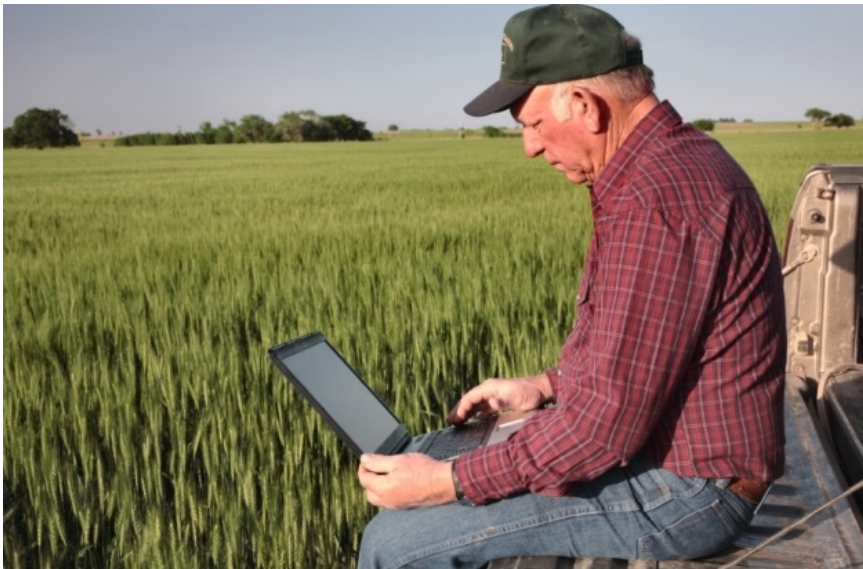
# Rainfall Index

- National Oceanic and Atmospheric Administration Climate Prediction Center
  - NOAA CPC Data
- Grid is approximately 17X17 miles
- Must select at least two 2-month periods



# Supplemental Information -RMA Website

- Grid ID Locator
- Historical Indices Tool
- Decision Support Tool

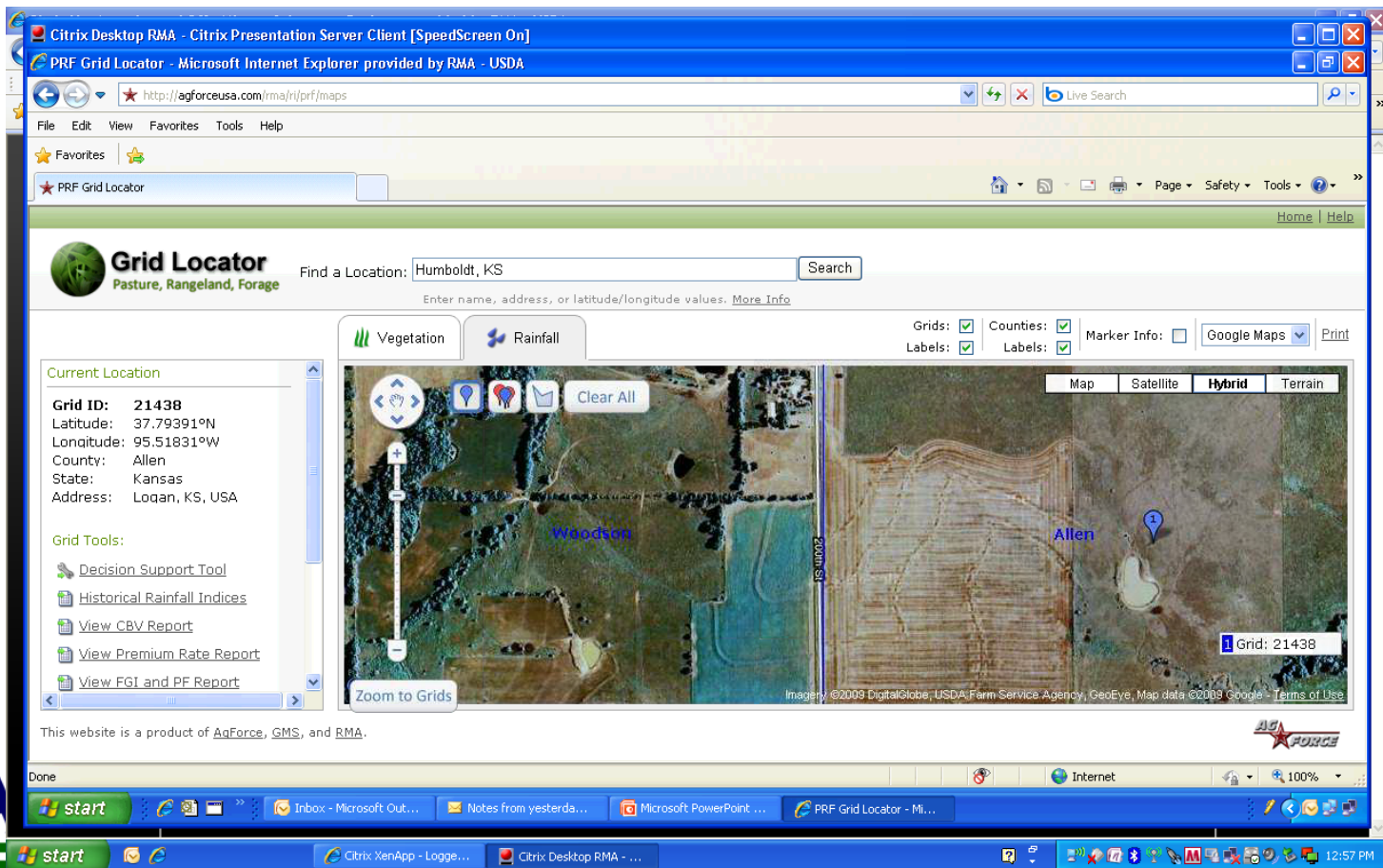


# RMA Website

The screenshot shows the RMA website homepage. At the top left is the USDA logo and the text "Risk Management Agency, United States Department of Agriculture". Navigation links include "About RMA", "Field Offices", "Contact Us", and "¡En Español!". A search bar is located on the right. Below the header is a "Popular Topics" section with a list of links such as "Appendix III/M-13", "Bulletins and Handbooks", and "Crop Policies and Pilots". A central banner features a barn icon and the text "THE FARM BILL". To the right of the banner, a date "Wednesday 7/23/2014" is shown above a news item: "RMA has taken steps to implement provisions in the 2014 Farm Bill". Below this is another news item: "USDA Continues Farm Bill Implementation RMA Interim Final Rule RMA Farm Bill Page". A "Quick Links" section includes "Agent/company locator", "Calendar events", and "Cost estimator". A "RMA's Priorities" section lists "Bulletins and Handbooks", "County Crop Programs", and "Fact Sheets". On the right side, there is a vertical list of icons for "Census of Agriculture", "Civil Rights", "Farm Risk Plans", "Organic Crops", "Prevented Planting", and "SRA". At the bottom, there are sections for "Risk in Agriculture", "Risk Management Publications", "Associated Agencies and Organizations with MOUs", and "Associated Partners and Resources".

<http://rma.usda.gov>

# PRF Decision Support Tool - Grid Locator Tool



The screenshot displays the PRF Grid Locator web application within a Citrix Desktop RMA environment. The browser window shows the URL <http://agforceusa.com/rma/prf/maps>. The application interface includes a search bar with the text "Humboldt, KS" and a "Search" button. Below the search bar, there are tabs for "Vegetation" and "Rainfall", and a set of checkboxes for "Grids", "Counties", "Labels", and "Marker Info". The main map area shows a satellite view of a rural landscape with a grid overlay. A blue pin marker is placed on the map, and a tooltip displays "Grid: 21438". The left sidebar contains a "Current Location" section with the following details: Grid ID: 21438, Latitude: 37.79391°N, Longitude: 95.51831°W, County: Allen, State: Kansas, and Address: Loqan, KS, USA. Below this, there are links for "Grid Tools" such as "Decision Support Tool", "Historical Rainfall Indices", "View CBV Report", "View Premium Rate Report", and "View FGI and PF Report". The bottom of the screenshot shows the Windows taskbar with the start button and several open applications, including Microsoft Outlook, PowerPoint, and the PRF Grid Locator application. The system clock in the bottom right corner indicates the time is 12:57 PM.

# PRF Decision Support Tool

Decision Support Tool  
Pasture, Rangeland, Forage

This tool is for illustration purposes only. Your actual information may differ.  
 For additional information, please [click here](#).

Please Select a Location:
State: 
County: 
Grid:

Rainfall
 Vegetation

Grid Locator
 Print

**Protection Information**

Intended Use:

Coverage Level (%):

Productivity Factor (%):

Insurable Interest (%):

Insured Acres:

Sample Year:

**Table** Graph

Index Interval	Percent of Value (%)	Policy Protection per Unit	Premium Rate per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
Jan-Feb		\$0	25.60	\$0	\$0	\$0	65.9	\$0
Feb-Mar	N/A	\$0	20.90	\$0	\$0	\$0	110.9	\$0
Mar-Apr	20	\$1,474	15.62	\$230	\$117	\$113	145.7	\$0
Apr-May	N/A	\$0	12.89	\$0	\$0	\$0	119.5	\$0
May-Jun	20	\$1,474	12.45	\$183	\$93	\$90	119.0	\$0
Jun-Jul	N/A	\$0	16.86	\$0	\$0	\$0	148.9	\$0
Jul-Aug	30	\$2,211	17.51	\$387	\$197	\$190	122.5	\$0
Aug-Sep	N/A	\$0	16.15	\$0	\$0	\$0	99.3	\$0
Sep-Oct	30	\$2,211	18.84	\$416	\$212	\$204	82.7	\$179
Oct-Nov	N/A	\$0	19.10	\$0	\$0	\$0	99.7	\$0
Nov-Dec		\$0	25.38	\$0	\$0	\$0	123.8	\$0
Per Acre	N/A	N/A	N/A	\$2.03	\$1.03	\$1.00	N/A	\$0.30
Policy Total	600	\$7,370	N/A	\$1,216	\$619	\$597	N/A	\$179

County Base Value	\$13.65
Dollar Amount of Protection	\$12.29
Total Insured Acres	600
Total Policy Protection	\$7,370
Subsidy Level	51%
Maximum Percent of Value per Index Interval	60.0%

**Graph**

Type:  Index Values  Estimated Indemnities

Range: Start  End

Intervals:

Jan-Feb  Feb-Mar  Mar-Apr

Apr-May  May-Jun  Jun-Jul

Jul-Aug  Aug-Sep  Sep-Oct

Oct-Nov  Nov-Dec

Calculate

 Product of RMA, AqForce, and GMS | [Terms of Use](#)



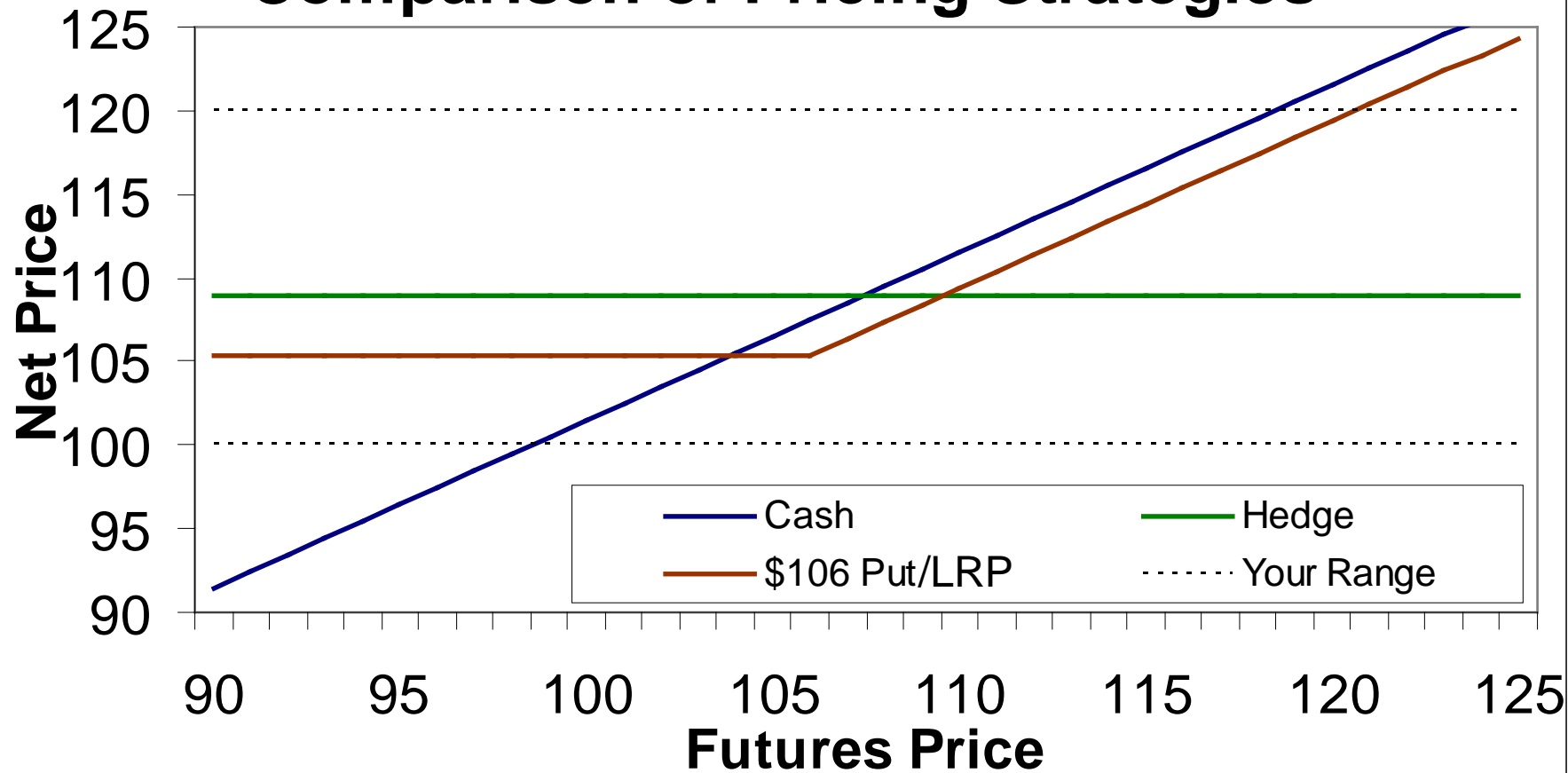


# PRF \*2015 Program Results

State	Policies	Acres Insured	Liability	Indemnities	Loss Ratio
CA	508	3.0M	\$44.5M	\$18.4M	1.49
ID	15	94,000	\$2.0M	\$687,648	1.69
NV	65	1.8M	\$26.9M	\$17.1M	2.57
UT	14	354,000	\$2.9M	\$1.1M	1.89
WY	173	1.5M	\$12.1M	\$326,891	.14
All U.S.	20,801	54.7M	\$1.0B	\$26.1M	.58



## Comparison of Pricing Strategies



# Livestock Risk Protection (LRP)

- Lamb
- Feeder Cattle
- Fed Cattle
- Swine



Insures against declining market prices

## Changes in 2015

- New price prediction model
- Revised definition of insured lambs
- Removal of 20 week endorsement
- Added language to prevent assignment of indemnities to businesses buying, selling, marketing, or packing lambs;
- Changes to the daily and annual sales limit
- Modifications to how the actual ending values are calculated.



# Livestock Risk Protection (LRP) How Is Coverage Obtained?

Insurance attaches when the  
SCE is obtained.

- For up to 2,000 head of lamb per endorsement.
- Annual limit is 28,000 head.
- Length of insurance is 13, 26, or 39 weeks.
- Coverage available for feeder or slaughter lambs with an expected weight between 50 and 150 pounds at the end of period.

# Livestock Risk Protection

- Application can be filled out at any time and insurance attaches when a Specific Coverage Endorsement is accepted
- Protects against price declines
- Based on AMS price series NOT actual cash price received





**Bridger Feuz**

**[bmfeuz@uwyo.edu](mailto:bmfeuz@uwyo.edu)**

**[www.uwyoextension.org/ranchtools](http://www.uwyoextension.org/ranchtools)**

**[www.masterstockman.com](http://www.masterstockman.com)**

