



Economic Ranch Tools & Risk Management

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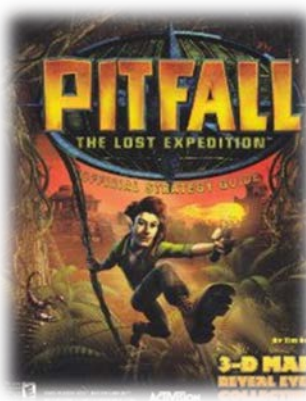


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Risk Management Agency (RMA).





Why Economic Analysis?



**GOOD BUSINESS IS
GOOD BUSINESS**





What Tools Do You Use?

Table 3. Enterprise Budget for Cow-Calf Ranch in Southeastern Wyoming

Receipts	Number of head	Average weight	Units	Sale price/unit	Value/cow	Total value
Steers	90	550	lbs	\$1.18	\$292.05	\$58,410.00
Heifers	90	500	lbs	\$1.05	\$236.25	\$47,250.00
Cull cows	30	1200	lbs	\$0.43	\$77.40	\$15,480.00
Cull bulls	2	1800	lbs	\$0.60	\$10.80	\$2,160.00
Total receipts					\$616.50	\$123,300.00
Expenses	Units/cow	Total units	Units	Cost per unit	Cost/cow	Total costs
Variable costs						
Feed Expense						
Grass hay	0.75	150	tons	\$106.00	\$79.50	\$15,900.00
Alfalfa hay	0.5	100	tons	\$116.00	\$58.00	\$11,600.00
Salt/mineral (50/50 mix)	0.25	7500	lbs	\$0.61	\$22.88	\$4,575.00
Protein supple-						

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 ▾

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AUM Value

Break-Even Budget

Cow Valuation Tool

Genetic Investment

Market Comparison

NPV Tool

Partial Budget

Price Slide Calculator

Sprayer Calibration

Stocking Rate

Wheat Price Calculator

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, operations. Each tool is accompanied with a fact sheet and instructions on utilizing the tool. If you need here contact me at bmfeuz@uwyo.edu and let me know what you would like to have added.

Marketing

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

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

Cow Value = Market Price ?



Cow Value

- Sum of the returns
 - Calf sales
 - Cull cow sale
- Less the sum of the costs
 - Annual cow costs
- Time Value of Money

Cow Valuation Tool

- John Ritten
- Steve Paisley
- Brian Lee
- Bridger Feuz

Before we get to the tool

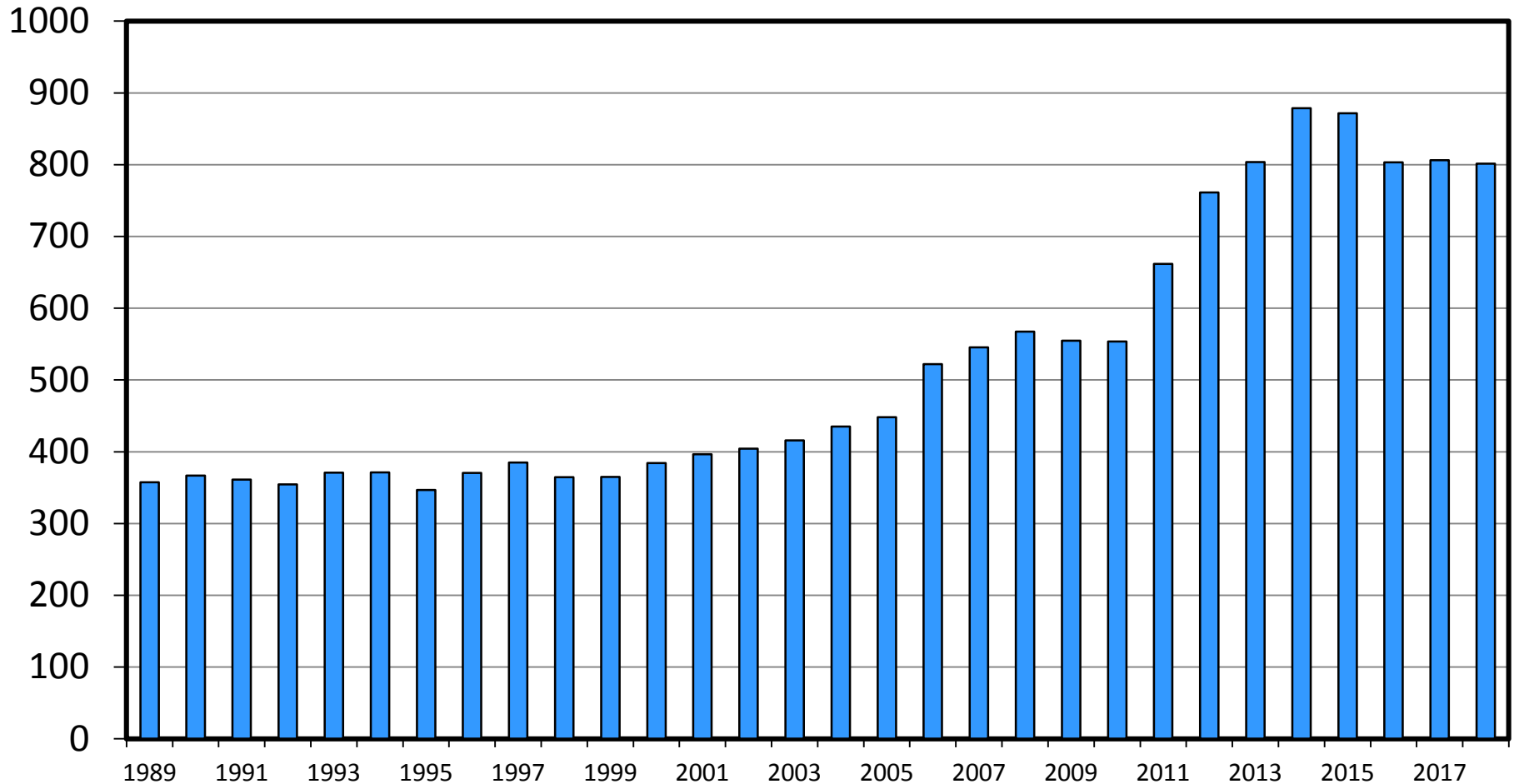
- Annual cow cost
- Expected weaning weights
- Expected calf prices
 - Use 5 year averages
- Expected cull cow weights
- Expected cull cow prices
 - Use 5 year averages



ESTIMATED AVERAGE COW CALF COSTS

Total Cash Cost Plus Pasture Rent, Annual

\$ Per Cow



Data Source: USDA & LMIC, Compiled by
LMIC

Livestock Marketing Information Center





Wyoming Master Stockman

Cow Valuation Tool

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

Individual Herd Information		Estimated Cow Value			
		Number of Calves	Prices Decreasing 5% per Year	Constant Cattle Prices	Prices Increasing 5% per Year
Annual costs per cow:	500	1	\$1,056	\$1,056	\$1,056
Sale weight of calves:	525	2	\$1,097	\$1,170	\$1,243
Calf price (per cwt):	135	3	\$1,110	\$1,280	\$1,449
Cull cow weight:	1100	4	\$1,097	\$1,384	\$1,671
Cull cow price (per cwt):	85	5	\$1,059	\$1,483	\$1,907
Discount Rate:	5	6	\$1,000	\$1,577	\$2,155
Weaning percentag:	95	7	\$922	\$1,667	\$2,413
		8	\$826	\$1,753	\$2,680
		9	\$714	\$1,835	\$2,955
		10	\$588	\$1,912	\$3,236

Where/how do you market calves?

- Order buyer
- Video
- Local Auction
- Regional Auction



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



Is the Price Slide Fair?





Wyoming Master Stockman

Price Slide Calculator

by Bridger Feuz and Hudson Hill

Contracted Price (CWT)	135.00
Contracted Weight	600
Projected Total Value	\$810.00

Contract Detail

Overweight Slide (CWT)	6.00
Underweight Slide (CWT)	4.00

Delivery Weight	640
-----------------	-----

Weight Difference	40
Calculated Slide Adjustment	\$2.40
Adjusted Final Price	\$132.60
Delivery Total Value	\$848.64

Value Difference	\$38.64
Break-even Cost of Gain	\$0.97





BEEFBASIS.COM

Decision Support for America's Beef Producers



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[Home](#) > Basis and Price Forecasting

Feeder Cattle Basis Forecast

State:

Location:

Expected Sale Date: 10/12/2016

Sex:

Frame:

Grade:

Weight: lbs/head

Head:

Feeder Cattle Futures Price:

\$/cwt

Corn Futures Price:

\$/bu

Reference Contract: Oct 2016
Transaction Date: Mar 04, 2016

Reference Contract: Dec 2016
Transaction Date: Mar 04, 2016

October 2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

RUN

Instructions:

- 1) Select values from each of the pulldowns, enter values in each of the text boxes.
- 2) Hover cursor over entry labels for explanation of value to be entered.
- 3) When all values have been entered, click the run button.
- 4) Results are displayed here.



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



The screenshot shows the USDA Risk Management Agency website. The header includes the USDA logo, the agency name, and navigation links like 'About RMA', 'Field Offices', 'Contact Us', and '¡En Español!'. A search bar is on the right. The main content area features a 'Popular Topics' list on the left, a central image collage of various farm products, and a 'RMA Announces Risk Management Education Awards' announcement on the right. Below this, there are sections for 'What's New' (including news about planting standards and organic producers), 'Quick Links', 'RMA's Priorities', and a sidebar with icons for various agricultural topics. The footer contains links to 'Risk in Agriculture', 'Associated Agencies and Organizations with MOUs', and 'Associated Partners and Resources'.

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

RMA Announces Risk Management Education Awards

Read More
Targeted States Table
Education Table

Producer Success Stories

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

What's New | Newsroom | USDA Blog

RMA clarifies prevented planting standards in the Prairie Pothole Region
Visit your crop insurance agent for more information.

Federal Crop Insurance Program Broadens Options for Organic Producers
Visit the RMA organics spotlight for more information. Fact Sheet. Secretary Vilsack's Vision.

Annual Forage Rainfall Index (RI)
Annual Forage Grid ID Locator, Decision Support, and Historical Indices Tool is now available.

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

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

When you buy insurance for this...



Is this what you are hoping for?



Feuz Ranch Example

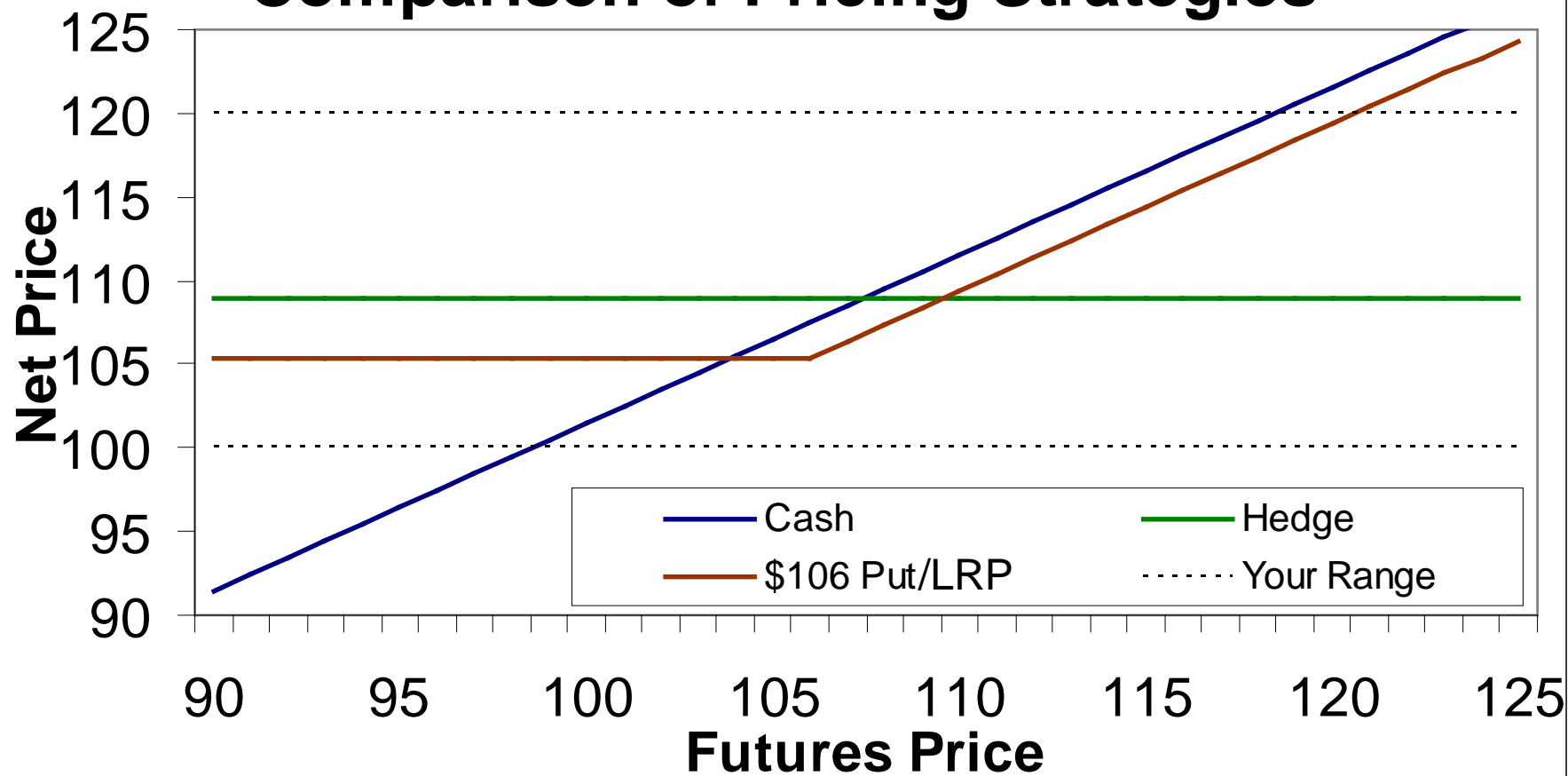




Price Risk is a real risk to producers

- **Nebraska Auctions 600-650 Steer Calf Price**
 - September 4, 2015 \$240.60 per cwt
 - October 9, 2015 \$205.05 per cwt
 - A difference of \$225 per calf sold
 - The prior 5 years the average difference was less than \$10 per head between Sept. and Oct.

Comparison of Pricing Strategies



Using Livestock Risk Protection (LRP) to Reduce Price Risk

- **Livestock Risk Protection Insurance**
 - Establishes a floor selling price
 - Pays producer if National cash price index falls below insured level
 - Does not insure your cash price
 - Very similar to purchasing a put option
 - Options are fixed in size (50,000 lbs)
 - LRP is flexible (1-1,000 hd)
 - LRP purchased through Crop Insurance Rep.
 - www.rma.usda.gov/pubs/rme/lrp-feedercattle.pdf

Use LRP to increase Market Power



Feeder Cattle LRP-FC Example

- Aug 4, 2010, Expect to sell 100 head of 550 lb steer calves in 13 weeks
- Expect to Sell Nov 2, 2010
- Expected Ending Value (EEV) = \$126.42/cwt
 - (Nov FC 114.93 X 1.10)
- Coverage Price = \$120.94/cwt
 - EEV X Coverage Level = \$126.42/cwt X 95.67%
- Rate = 0.01712
- Cost/Cwt = \$2.07/cwt
 - Coverage Price X Rate = \$120.94/cwt X 0.01712

Feeder Cattle LRP Actual Result

- Coverage Price \$120.94
- Actual Ending Value \$122.67
 - CME FC Index \$111.52 X 1.10 = \$122.67
- Actual Ending Value is higher than Coverage Price
 - No indemnity paid
- Net Price is $\$118.91 - \$2.07 = \$116.84$

Feeder Cattle LRP (Lower Scenario)

- Coverage Price \$120.94
- Actual Ending Value \$115.50
 - CME FC Index \$105 X 1.10 = \$115.50
- Actual Ending Value is lower than Coverage Price
 - Indemnity paid of \$5.44
 - $(\$120.94 - \$115.50)$
- Net Price is $\$112 + \$5.44 = \$117.44$

Pasture, Rangeland and Forage (PRF) 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

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



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
NE	1387	1.8M	\$44.3M	\$3.5M	.51
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



New for 2016

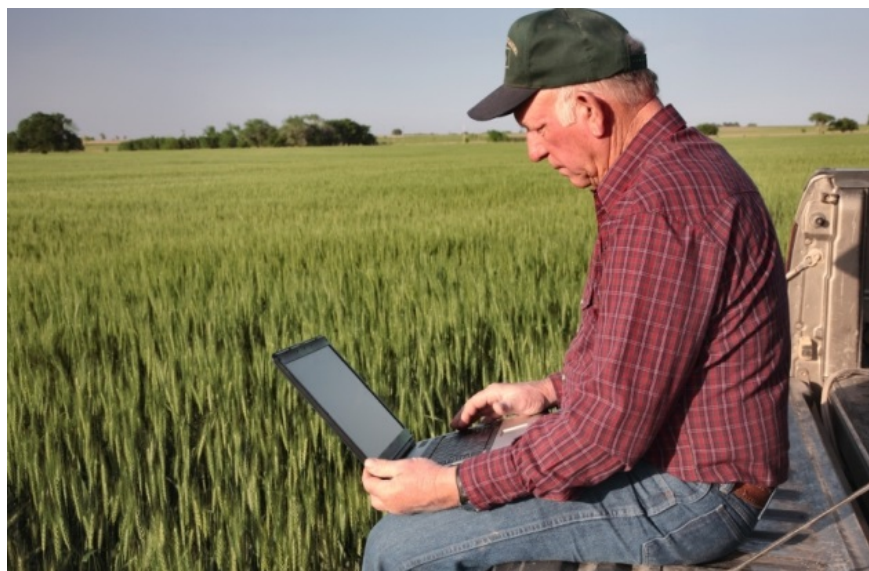
- Vegetation index no longer used
 - OR, ID, UT, WY, NV, AZ, NM and part of CO
- Rainfall index used in all states
 - 2016 crop year

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



Crop Insurance 101 - Getting Started

- www.masterstockman.com
 - Select Crop Insurance 101 Page
 - Click on the webinar link provided
 - Webinar can be viewed in English or Spanish

Evaluation



Bridger Feuz

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www.uwyoextension.org/ranchtools

