



**PASTURE, RANGELAND, AND
FORAGE INSURANCE: MAKING
IT WORK FOR YOU**

Ballroom C

Speakers:

Chuck Coffey, Co-Owner, Double C Cattle Co.

Marc Shepard, Hargrove Ranch Insurance

Rafe Hargrove, Hargrove Ranch Insurance

Overview of USDA's Pasture, Rangeland, and Forage Program

TSCRA 2013 School for Successful Ranching

AGENDA

- ✦ Introduction
- ✦ Overview - Understanding the Rainfall Insurance Program
- ✦ Availability
- ✦ Application Process/Timeline
- ✦ Example Estimates
- ✦ Coverage Details
- ✦ Wrap Up/Strategies
- ✦ Q&A

INTRODUCTION

WHO WE ARE



Rafe Hargrove & Marc Shepard

INTRODUCTION
GOD MADE A FARMER



INTRODUCTION
WHEN IS IT GOING TO RAIN?



OVERVIEW

- ✦ PRF is managed by USDA's Risk Management Agency (RMA). This is the same branch of the USDA that manages the federal crop insurance program.
- ✦ Allows ranchers and hay farmers to insure a percentage of the average rainfall in selected two-month intervals throughout the year.
- ✦ USDA subsidizes up to 59% of the premium.
- ✦ While the PRF program is not perfect and the accuracy of individual intervals will vary, government subsidies ensure that the program will be to your long-term financial advantage.
- ✦ Unlike other forms of insurance (life, auto, home, health, etc.), if you stay in, you will make money.

OVERVIEW

- ✦ Based on insuring a percentage of average rainfall in your area for up to six, two-month periods.
- ✦ The historical and average rainfall for each two month period are recorded by NOAA's Climate Prediction Center.
- ✦ Claims are calculated and generally paid within 60 days from the end of each two-month period.
- ✦ Provides immediate relief to help cover increasing feed costs throughout the year.
- ✦ Generally requires only ONE two-month period receiving 35-45% of average rainfall to cover the premium for the entire year.
- ✦ Each interval is independent of all other intervals. An 8" rain in August will only impact intervals which include August rainfall.

OVERVIEW

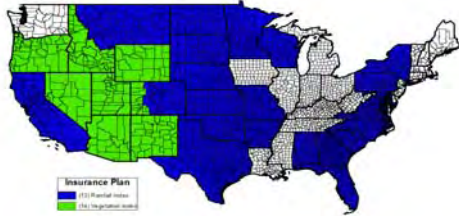
- ✦ The value of rain on hayland can vary from 5x to 25x that of normal grazingland depending on the area of the state that you are located in.
- ✦ It's simple. There are no record keeping or reporting requirements. Claims are automatically calculated and paid once NOAA finalizes the actual rainfall for the previous two-month period.
- ✦ There are no gross income or payment limits.

AVAILABILITY

- ✦ Prior to 2010, Oklahoma was based on a vegetative index taken from satellite imagery.
- ✦ In 2010, USDA moved Oklahoma to a rainfall-based index using actual rain gauges.
- ✦ Rainfall program is now available in all counties in Oklahoma, Texas, Arkansas, and Kansas.

AVAILABILITY

2013 and Succeeding Crop Years - Pasture, Rangeland, Forage Availability



APPLICATION PROCESS

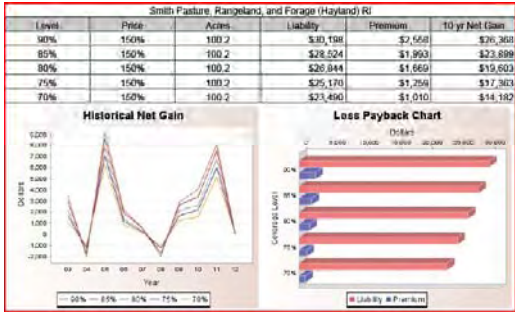
- ✘ Contact an Agent: www.rma.usda.gov/policies/ri-vi/
- ✘ You will need to know your Farm Serial Number (FSN). If you don't have an FSN, your local Farm Service Agency (FSA) office can assist you. This is free of charge.
- ✘ Together with the Agent, verify the grid(s) in which your ranch (FSN) is located and complete application/acreage report. Due by November 15, 2013 for a 2014 policy.
- ✘ 2014 policies follow the calendar year and go into effect on the first day of the first insured interval of 2014.
- ✘ Bills for outstanding premium on 2014 policies will be issued in early September, 2014, and due by September 30, 2014.

EXAMPLE ESTIMATES Area Comparisons

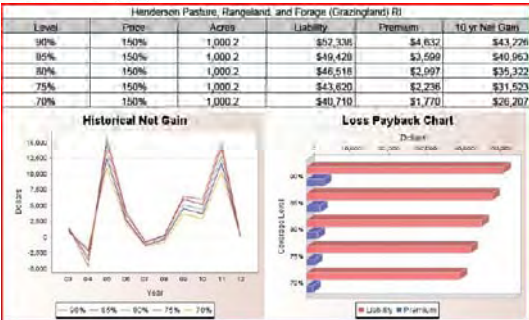
		70		75		80		85		90	
		Prem/Acre	10 Year Net/Acre	Prem/Acre	10 Year Net/Acre	Prem/Acre	10 Year Net/Acre	Prem/Acre	10 Year Net/Acre	Prem/Acre	10 Year Net/Acre
Far West TX	Jeff Davis County	\$0.63	\$11.93	\$0.72	\$12.18	\$0.91	\$13.85	\$1.03	\$15.23	\$1.27	\$15.57
	Carter County	\$0.79	\$14.51	\$0.94	\$17.26	\$1.21	\$19.00	\$1.41	\$21.54	\$1.78	\$22.50
Panhandle TX	Potter County	\$0.85	\$10.95	\$0.91	\$12.54	\$0.97	\$13.56	\$1.03	\$15.18	\$1.10	\$15.94
	McMullen County	\$0.88	\$15.72	\$1.02	\$17.59	\$1.27	\$18.53	\$1.44	\$20.44	\$1.77	\$20.94
East TX	Smith County	\$1.77	\$26.20	\$2.25	\$31.52	\$3.00	\$35.32	\$3.60	\$40.96	\$4.63	\$43.23

* Based on 2013 rates

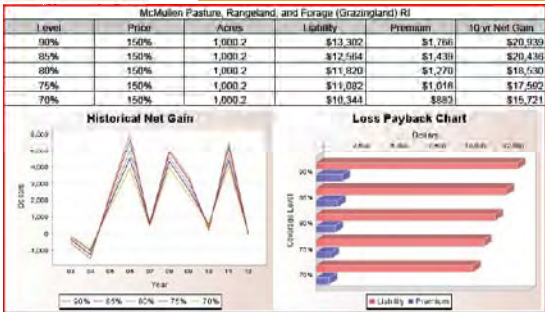
EXAMPLE ESTIMATES
East Texas Hay Estimate – Smith County
 (BASED ON COVERAGE ALL YEAR)



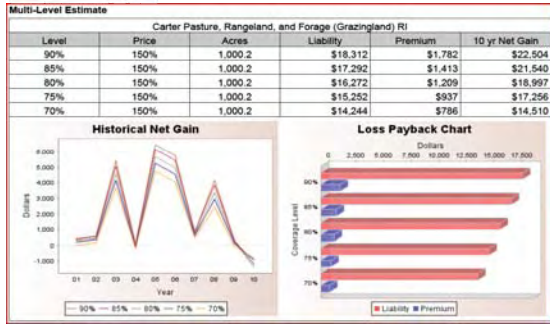
EXAMPLE ESTIMATES
East Texas Grazing Estimate – Henderson County
 (BASED ON COVERAGE ALL YEAR)



EXAMPLE ESTIMATES
South Texas Grazing Estimate – McMullen County
 (BASED ON COVERAGE ALL YEAR)



EXAMPLE ESTIMATES
OKLAHOMA GRAZING ESTIMATE – CARTER CTY.
 (BASED ON COVERAGE ALL YEAR)



COVERAGE DETAILS
Index Intervals – 2-month periods

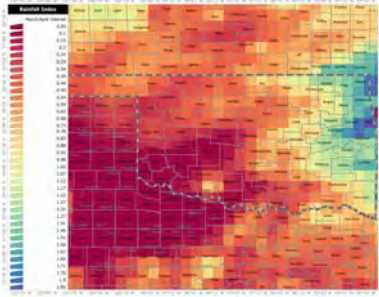
Index Interval	Percent of Value (%)	Policy Protection per Unit	Premium Rate per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
Jan-Feb	10	\$730	21.67	\$158	\$86	\$72	232.9	\$0
Feb-Mar	N/A	\$0	18.54	\$0	\$0	\$0	126.9	\$0
Mar-Apr	20	\$1,460	16.59	\$242	\$133	\$109	96.1	\$0
Apr-May	N/A	\$0	12.86	\$0	\$0	\$0	39.4	\$0
May-Jun	30	\$2,189	16.12	\$352	\$193	\$159	56.4	\$737
Jun-Jul	N/A	\$0	22.10	\$0	\$0	\$0	66.9	\$0
Jul-Aug	10	\$730	20.66	\$150	\$82	\$68	88.6	\$0
Aug-Sep	N/A	\$0	21.60	\$0	\$0	\$0	105.2	\$0
Sep-Oct	30	\$2,189	22.54	\$493	\$271	\$222	48.1	\$950
Oct-Nov	N/A	\$0	24.28	\$0	\$0	\$0	25.3	\$0
Nov-Dec	N/A	\$0	21.26	\$0	\$0	\$0	30.5	\$0
Per Acre	N/A	N/A	N/A	\$2.33	\$1.27	\$1.05	N/A	\$2.81
Policy Total	600	\$7,298	N/A	\$1,395	\$765	\$630	N/A	\$1,687

COVERAGE DETAILS
Index Intervals – 2-month periods

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	21.67	\$0	\$0	\$0	232.9	\$0
Feb-Mar		\$0	18.54	\$0	\$0	\$0	126.9	\$0
Mar-Apr	N/A	\$0	16.59	\$0	\$0	\$0	96.1	\$0
Apr-May	50	\$3,649	12.86	\$469	\$257	\$212	39.4	\$1,958
May-Jun	N/A	\$0	16.12	\$0	\$0	\$0	56.4	\$0
Jun-Jul	20	\$1,460	22.10	\$322	\$177	\$145	66.9	\$111
Jul-Aug	N/A	\$0	20.66	\$0	\$0	\$0	88.6	\$0
Aug-Sep	30	\$2,189	21.60	\$472	\$259	\$213	105.2	\$0
Sep-Oct	N/A	\$0	22.54	\$0	\$0	\$0	48.1	\$0
Oct-Nov		\$0	24.28	\$0	\$0	\$0	25.3	\$0
Nov-Dec		\$0	21.26	\$0	\$0	\$0	30.5	\$0
Per Acre	N/A	N/A	N/A	\$2.11	\$1.16	\$0.95	N/A	\$3.78
Policy Total	600	\$7,298	N/A	\$1,263	\$693	\$570	N/A	\$2,269

COVERAGE DETAILS

Index Intervals – 2-month period example results



COVERAGE DETAILS

HOW DO WE DETERMINE RAINFALL GRIDS

- ✦ Rainfall is measured in a series of grids across the U.S.
- ✦ THERE IS NOT A GAUGE IN EACH GRID.
- ✦ Gauges are turned in daily and used in the determination of rainfall based on their distance from the center of each grid.



COVERAGE DETAILS

OPTIONS ACROSS GRIDLINES

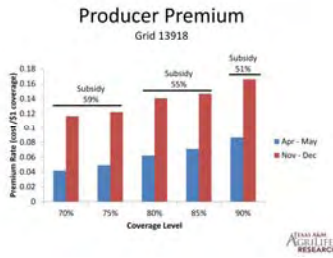


COVERAGE DETAILS
NUMEROUS COVERAGE OPTIONS

- ✦ Ranchers may insure from 70-90% of average rainfall at 60-150% of a predetermined value of rain on land in your area. Dr. John Walker, from Texas A&M AgriLife Research in San Angelo, calculated there to be more than 27 million different coverage options.
- ✦ The coverage level behaves much like an insurance deductible – meaning you can adjust how much of the loss you are willing to bare.
- ✦ The Productivity Factor may vary between 60% and 150% of a county based valuation of grazing/hay acres. Your selection is equivalent to the value used to insure your home or auto.

COVERAGE DETAILS
NOT ALL COVERAGES ARE CREATED EQUAL

- ✦ The government subsidizes 59% of 70 and 75 percent coverage, 55% of 80 and 85 percent coverage, and only 51% of 90% coverage.
- ✦ Beware of the man that pushes 90% coverage without showing you other options. The premiums are much higher on a wet year or in a year you don't receive the rainfall of those in surrounding areas.



COVERAGE DETAILS
NOT ALL COVERAGES ARE CREATED EQUAL

- ✦ Net returns on a per acre basis will generally be higher when insuring higher coverage levels (85% or 90% of average rainfall).
- ✦ ROI will be less because of decreasing government subsidies.
- ✦ Don't buy so much coverage that you get out with the first wet year (because you had to pay the premium). If you get in, and stay in, you will make money. A lot of people got out of the program in 2010 because the first half of the year was wet.

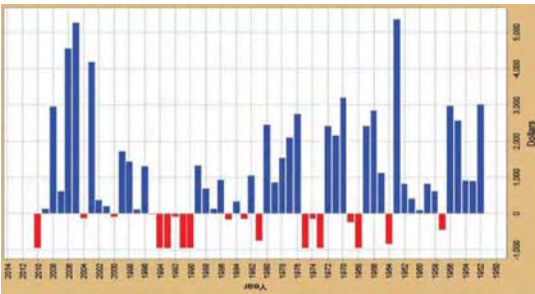
COVERAGE DETAILS

HOW MANY INTERVALS DO I INSURE?

- ✘ On average, the number of intervals insured does not materially impact the net return per acre. It is somewhat like betting on green on a roulette wheel. The payout of a single interval is higher when you load coverage into fewer intervals. However, you have fewer chances to have a claim.
- ✘ Be cautious when insuring only Jan/Feb and Nov/Dec because of high historical returns. Like 2012, you might find that a small rain during historically dry periods may materially reduce or eliminate claim payments during an otherwise dry year. Moreover, your feed bills may remain high because of lack of critical, growing season, rainfall.
- ✘ Note: this would be much easier if we could convince USDA to let us make our interval decisions at the end of the year.

COVERAGE DETAILS

IS IT WORTH IT?



RISK MANAGEMENT VS. FINANCIAL PERFORMANCE

- ✘ You may select those intervals best matching your need for rain. Your options would be to either get the rain needed for adequate forage growth or have a claim.
- ✘ Coverage is geared to when you need the rain.
- ✘ What are the risks with this approach?
 - + The grids are over 12 miles square. You may get credited for rainfall you don't receive.
 - + This approach will likely result in a lower ROI than options designed to maximize historical profitability.
 - + Historical trends and rainfall patterns may not be an accurate forecast of current or future weather trends

15 yr (2010 - 1996) Historical Loss Claims (Claims divided by Historical Premiums)											
Year	Jan-Feb	Feb-Mar	Mar-Apr	Apr-May	May-Jun	Jun-Jul	Jul-Aug	Aug-Sep	Sep-Oct	Oct-Nov	Nov-Dec
1997	2.86	1.40	2.57	3.20	3.96	2.75	3.12	2.85	2.98	2.51	1.91
1998	3.54	1.35	0.00	0.73	3.25	3.44	1.82	2.31	3.08	2.72	2.88

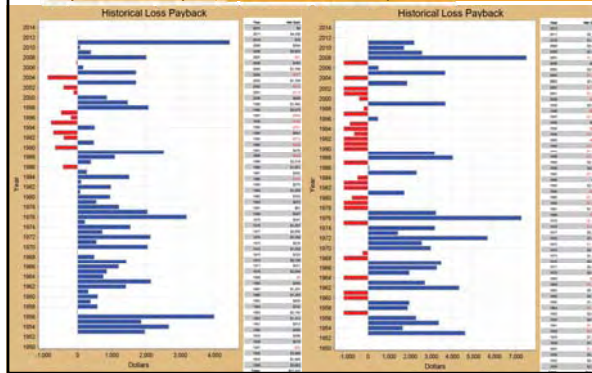
RISK MANAGEMENT VS. FINANCIAL PERFORMANCE

- ✘ Other options tend to focus on maximizing historical profitability by increasing coverage in selected two-month intervals and reducing or eliminating coverage in other intervals.
- ✘ This is not as easy as it may seem.
 - + The grids are still over 12 miles square. You may get credited for rainfall you don't receive. Picking higher performing grids gives you fewer chances to have a claim.
 - + What historical period most accurately reflects next year's rainfall? Is it the last 5, 10, 15, 25, or 60 years?
 - + Some approaches may be like betting green on a roulette wheel. The payout is much higher when you guess right, but there will be more years in which you have to pay the premium.
 - + Many of the more profitable periods do not match up with when you most need the rain to grow grass.
 - + You could end up getting small rains in Jan/Feb and Nov/Dec, have no claims during these normally dry periods, be required to pay a higher premium, and still owe large feed bills because you didn't get rain during the growing season..

Grid	15 yr (2010 - 1996) Historical Loss Ratio (Claims divided by Subsidized Premium)										
	Jan-Feb	Feb-Mar	Mar-Apr	Apr-May	May-Jun	Jun-Jul	Jul-Aug	Aug-Sep	Sep-Oct	Oct-Nov	Nov-Dec
16932	2.49	1.40	2.57	3.70	2.95	3.75	3.12	2.85	2.36	2.01	1.91

RISK MANAGEMENT VS. FINANCIAL PERFORMANCE

Do you insure all year or selected 2-month periods?

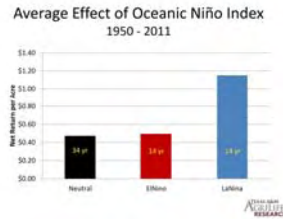


RISK MANAGEMENT VS. FINANCIAL PERFORMANCE

- ✘ The optimal model may be somewhere in between.
 - + Work with an agent to model various scenarios.
 - + Think about how much risk you want to bare.
 - + Understand that you will not always get the rain.
 - + Know, that over a longer period of time, you will receive more money in claims than you pay in premium.
 - + Pray for Rain..

EL NINO, LA NINA... DOES IT MATTER?

- ✘ Texas A&M AgriLife Research did some great research on the impact of El Nino and La Nina weather patterns.
- ✘ As expected, the historical return is much higher during La Nina Patterns.
- ✘ However, they all generated a positive return.



WRAP UP FARM BILL UPDATE

- ✘ Pending Farm Bill
- ✘ Senate passed/House out of Committee
- ✘ Rainfall Insurance left in tact
- ✘ Subsidy Changes?
- ✘ Payment Limit Changes?
- ✘ Livestock Forage Program (D3/D4 Drought) SURE program left unfunded
- ✘ Ad Hoc Disaster Payments a thing of the past?

WRAP UP STRATEGY

- ✘ What we have learned
 - + As Dr. Walker stated in an earlier presentation, we found out that the Weather Gods have not always studied the historical indices.
- ✘ Other options?
 - + NAP (Noninsured Crop Disaster Crop Assistance)
 - ✘ Covers forage crops (perennial or annual)
 - ✘ 50% coverage @ 55% of the price
 - ✘ Record keeping
 - ✘ Payment limitations
 - ✘ Administered by FSA

WRAP UP STRATEGIES?

Question / Answer

Thank you for your time.

CONTACT INFORMATION

- × Hargrove Ranch Insurance
- × 888-573-8975 – main office
- × www.hargroveinsurance.com

- × Rafe Hargrove
- × 325-725-3036 - cell
- × rafe@hargroveinsurance.com
- × Marc Shepard
- × 254-315-5860 - cell
- × marc@hargroveinsurance.com

Licensed Agents

Rafe Hargrove	Marc Shepard
Rafael Hargrove	Mark Mueller
Amy Hargrove	Craig Archer
Scott Van Poppel	Clay Powers

ECONOMICS

USDA Rainfall Insurance Protects Against Dry Weather

by Job Springer / jdspringer@noble.org



Farmers and ranchers can control many aspects of the farm or ranch business. For instance, a rancher can dictate the calving season, controlling when and

how their cattle are bred. They can determine what types of health care programs their cattle receive and the types of forages used for grazing and hay production. However, one production variable that ranchers have no control over is the weather, which creates substantial production risk.

In Oklahoma and Texas, dry spells and prolonged drought create the greatest threat of production risk for cattle producers. During dry spells and drought, available forage becomes scarce and sometimes non-existent. Consequently, baled hay becomes very expensive. In some cases, it becomes too expensive to purchase, forcing ranchers to reduce cattle numbers.

In response to the production risk caused by dry weather and prolonged drought, a relatively new program sponsored by the Risk Management Agency (RMA) of the United States Department of Agriculture (USDA) provides pasture, rangeland and forage insurance for pastures that



are grazed or used to produce hay. The programs are based on either a vegetation index or rainfall index. This article focuses on the potential benefits and costs associated with the rainfall index, the index used by RMA for ranchers operating in Oklahoma and Texas (Figure 1).

How does the program work?

Base land production values for hay and pasture are assigned by RMA for each county in terms of dol-

lars per acre. Producers determine the value of their hay and pasture acres compared to the county base value, choosing between 60 and 150 percent. Then producers decide what percent of normal rainfall they would like to insure. The producer can choose a percent of normal rainfall between 70 and 90. Finally, a decision needs to be made on which months to insure the property. The insurance is taken out with an approved private insurance company in two-month ▶

intervals with a minimum of two intervals for a single year.

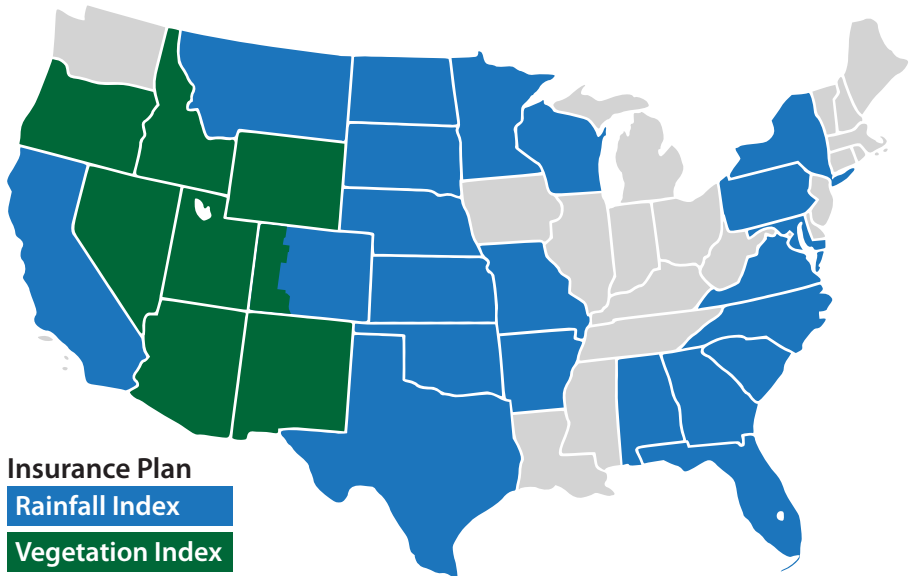
The rainfall index is based upon a rainfall grid system, with each grid being approximately 12 miles by 12 miles. Normal rainfall for each grid is based upon records that date back to 1948. For each two-month interval, if the rainfall was below the specified percent of normal, a payment is mailed automatically to the rancher within 60 days of the end of that period.

Who should use this product?

Normally, insurance products do not make financial sense long-term if a rancher can meet the cash flow needs of the enterprise in the short run. However, every producer that has land that is used for grazing or hay production should consider using this insurance product because a substantial portion of the premium is subsidized by the USDA. The subsidy ranges between 51 and 59 percent of the total premium, depending on the percent of normal rainfall chosen to insure by the rancher.

Figure 1.

2013 and Succeeding Crop Years - Pasture, Rangeland, Forage Availability



Where to get more information?

There is an Internet-based tool available that shows farmers and ranchers what the program would have paid them in previous years for different coverage levels had they participated in the program. The tool can be found at <http://agforceusa.com/rma/ri/prf/>

maps. The deadline for participation in this program is September of each year, so I strongly encourage anyone who is interested to give me a call at (580) 224-6443 or email me at jdspringer@noble.org to get more information about this insurance program. ■



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