

# Pasture, Rangeland, Forage Annual Forage Crop Insurance

Are these Good Risk Management Options  
for Me?

Presented by RMA

# Disclaimer

This information is provided for training only. Any discrepancy between the training material and the policy is not intended. The information provided in this training does not supersede policy and procedure. Any changes to the policy and procedures may make this training material obsolete. **If you use this training material check to assure it is still relevant.**

# Who are we?

USDA, Risk Management Agency (RMA)

- Mission: To promote, support, and regulate sound risk management solutions to preserve and strengthen the economic stability of America's agricultural producers.
  - Operate and manage the Federal Crop Insurance programs.
- We merely administer the program. We do NOT sell crop insurance products. Only crop insurance agents sell.
- RMA web site: <http://www.rma.usda.gov/>

# Challenges

- Various plant species
- Timing of plant growth
- Lack of individual/industry data
- Vast range of management practices across the industry
- Publicly announced prices not available
- Crop continuously harvested via livestock
- Various livestock species and segments

# Program Overview

## AREA plan 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 outcome/losses

# PRF

## Intended Use:

- Grazing

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

- Haying

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

# Annual Forage

Intended Use: Feed or Fodder including, but not limited to:

- Grazing
- Haying
- Silage
- Green Chop
- Hay/Grazing
- Any other method that results in livestock feed

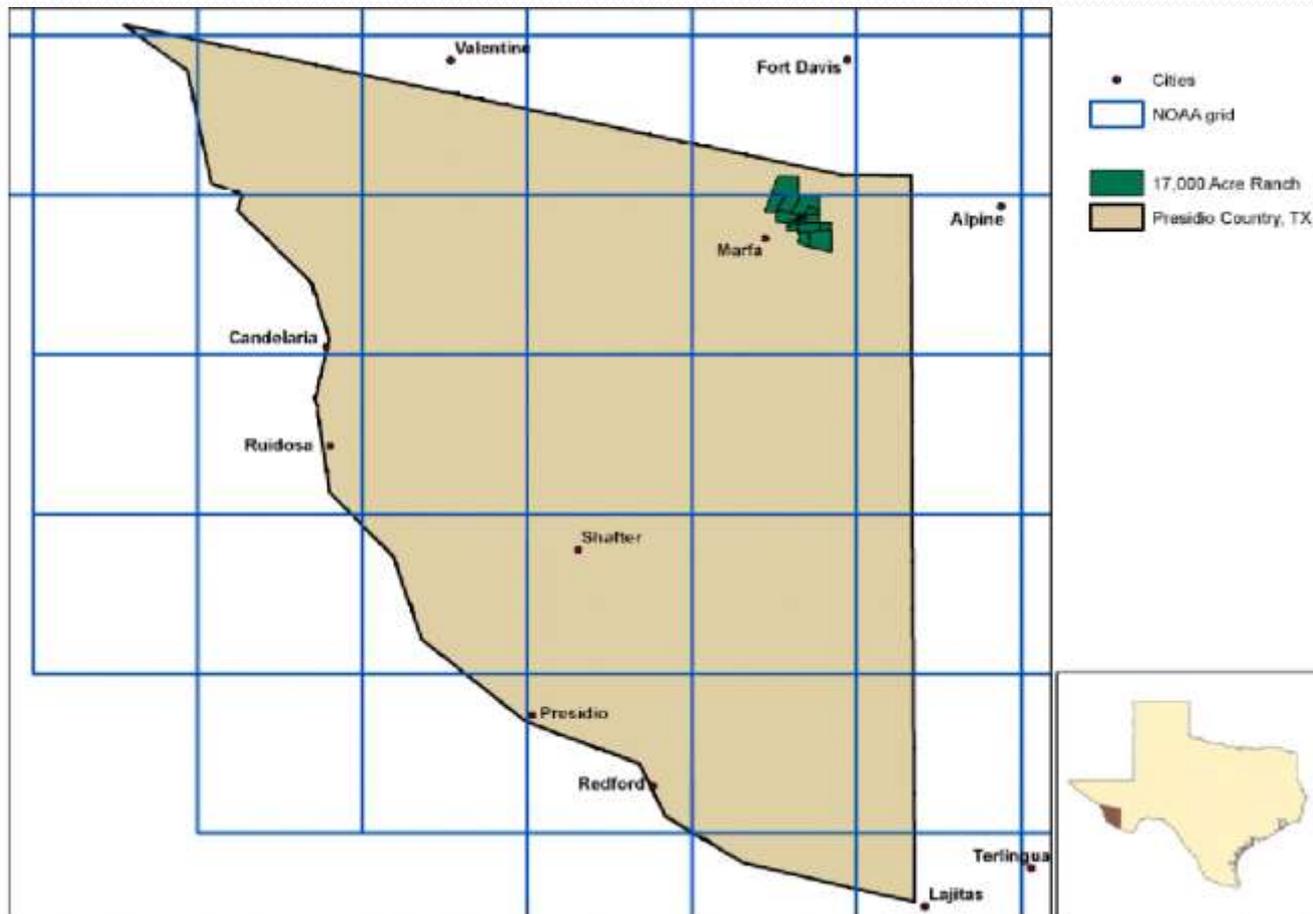
# Rainfall Index Overview

## Rainfall Index Program

- Area Based Plan
  - Approximately 0.25 degree grid vs. county area
- Utilizes NOAA Climate Prediction Center data
  - Utilizes multiple point data, not a single point system
- Deviation from Normal 1948 to present
- Single Peril vs. Multiple Peril
  - Lack of Precipitation is the only cause of loss
- Review of Historical Indices is critical

# Grid Overview

- Area of insurance =  $0.25^{\circ}$  grids



# Rainfall Index Overview

## Index Intervals

- Multiple Intervals offered – (11 intervals)
- Crop Year divided into 11, 2-month intervals
  - 1<sup>st</sup> Interval begins with January-February
- Ability for producers to manage appropriate timing risks
  - Correlate to individual growth patterns and production seasons and practices
- The 2-month intervals provide for greater reaction to precipitation events vs. a yearly average

# Rainfall Index Overview

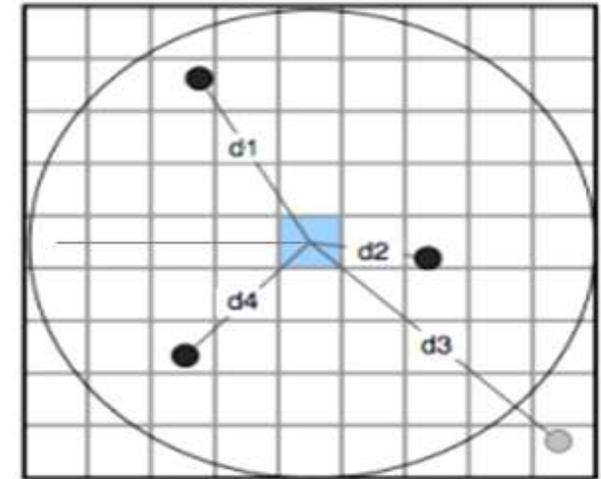
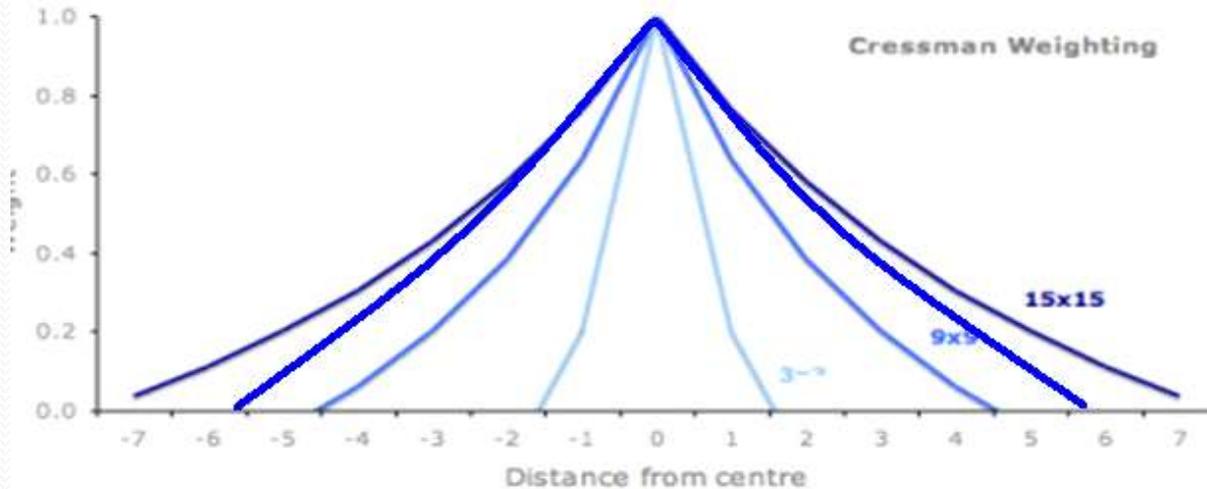
## Index Intervals

- The purpose of the program is to insure against lack of precipitation
  - Precipitation correlates to plant growth.
- PRF Producers must select at least two 2-month intervals
- Annual Forage – Index Intervals are offered based on fall planted and spring planted
  - Must insure three intervals within those offered for the applicable growing season with no more than 40% in each

# Technical Description of CPC Gridded Rainfall Data

- Gridded rainfall data is pre-processed by NOAA
  - **RMA does not further process or change data**
- Total 6,000 reporting stations daily – minimum
  - Normally over 15000 report daily
- Only stations reporting data by the cut off are used.
- Stations reporting weekly or monthly are not used
- Cressman interpolation translates point information into gridded information

# NOAA CPC Uses Weighted Averaging Method



- Four Passes – with each successive pass, the scan radius is decreased, the weight of the closest station has higher effect on the target grid
- 4 passes insures that distant stations influence rainfall prediction in target grid, but weighting with distance decreases the influence

# Will this work for me?

- All first order weather stations reporting to NOAA CPC by their DAILY cut off time are used IF they pass the NOAA CPC quality control steps.
  - NOAA CPC does not release which stations report
  - Reviewing NWS, NCDC, WFO, producer gauge results to calculate or estimate results is not appropriate and will not provide useful comparisons.
- ***Where the weather stations are located is not important***
- ***Producers should only use the Historical Tools to determine whether or not this product is appropriate***

# Will this work for me?

- Precipitation is interpolated to the grid and not measured within a grid.
  - You must understand that even if there is a weather station that reports daily to NOAA CPC inside your grid, the results will NOT equal that weather station
- Similar to NASS data used for area crop policies
  - Producers reporting to NASS – unknown
  - Surveys NASS eliminates in their quality control - unknown

# Program Overview – RI

## Indemnity Overview

- The only insurable cause of loss is when the final grid index value is less than the coverage level (deductible) selected by the producer
- Indexes are based on normal/historical and deviation from normal/historical

# SUBSIDY!!!

- Government subsidizes premium
- Coverage Level of 70% - Government Subsidy = 59%
- Coverage Level of 75% - Government Subsidy = 59%
- Coverage Level of 80% - Government Subsidy = 55%
- Coverage Level of 85% - Government Subsidy = 55%
- Coverage Level of 90% - Government Subsidy = 51%

# Will this work for me?

- Focus MUST be on the Historical Indices web site
  - Have past results tracked with observed results?
  - How did it perform in a “spotty dry” year?
  - Do production trends follow historical indices results?
- Booklet provided at meeting has great information producers should use:
  - Plant year precipitation – (page 4)
  - Critical Rain Months
  - What are your resources such as carry over production
    - Index Interval selections
    - Coverage level and Productivity Factor

# Summary: Rainfall & Vegetation

- Critical that the Historical and Decision Support Tools are understood and used
  - Must spend time reviewing the historical and comparing to past production
- The basis of decision to purchase MUST be based on an analysis between the historical results as compared to a producer's results.
- As with any area plan – results may not track 100% of the time
- Critical the appropriate Index Intervals are selected



# Questions?

Email: [rma.kcviri@rma.usda.gov](mailto:rma.kcviri@rma.usda.gov)

# RMA Tools

# How to get to the Web Based Tools

What's New | Newsroom | Programs | Blog | Site Map | A-Z Index | Advanced Search | Help | Search

**Popular Topics**

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

Thursday 8/14/2014

**RMA has taken steps to implement provisions in the 2014 Farm Bill**

**USDA Continues Farm Bill Implementation**

**RMA Interim Final Rule**

**RMA Farm Bill Page**



**Quick Links**

- Agent/company locator
- Calendar events
- Cost estimator
- Crop Indemnity Maps
- Crop Insurance Decision Tool (CIDT)
- 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

**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 Excess Rainfall Index (ERI)**



**www.rma.usda.gov**

Census of Agriculture

Civil Rights

Farm Risk Plans

Organic Crops

Prevented Planting

SRA

You are: Home / Information Browser / Rainfall and Vegetation Indices

### Popular Topics

- ▶ Appendix III/M-13
- ▶ Bulletins and Handbooks
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### Rainfall and Vegetation Indices

The Rainfall and Vegetation Index plans of insurance are designed as risk management tools to insure against declines in an index in a designated area called a grid. They are primarily intended for use by producers whose crop production tends to follow the average precipitation or vegetation patterns for the grid. It is possible for you to have low crop production on the acreage that you insure and still not receive a payment under these plans. Because the program is designed for producers whose crop production tends to follow average patterns and not individual crop production, you should review the historical indices, additional tools, and information provided to determine if these programs are suitable for your risk management needs.

#### Rainfall Index (RI)

Rainfall Index (RI) is based on weather data collected and maintained by NOAA's Climate Prediction Center. The index reflects how much precipitation is received relative to the long-term average for a specified area and timeframe.

- Crops covered:
  - Annual Forage
  - Apiculture
  - Pasture, Rangeland, Forage (PRF)

#### Vegetation Index (VI)

Vegetation Index (VI) is based on the U.S. Geological Survey's Earth Resources Observation and Science (EROS) normalized difference vegetation index (NDVI) data derived from satellites observing long-term changes in greenness of vegetation of the earth since 1989.

- Crops covered:
  - Apiculture
  - Pasture, Rangeland, Forage (PRF)

#### Contact Information

- For more information regarding these programs, contact a qualified **crop insurance agent**.
- For more information regarding the contents of this page, contact **RMA.KCVIRI@rma.usda.gov**.

Click on PRF link for either RI or VI as appropriate for your state

You are: [Home](#) / [Crop Policies and Pilots](#) / [Pasture, Rangeland, Forage](#)

## Popular Topics

- ▶ [Appendix III/M-13](#)
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## Pasture, Rangeland, Forage

Pasture, Rangeland, and forages cover approximately 55 percent of all U.S. land. Forage grows differently in different areas, so it's important for farmers and ranchers to know which types and techniques work best for their region. The following insurance programs for pasture, rangeland, and forage (PRF) utilize various indexing systems to determine conditions. Also see livestock policies or PRF NAP Table.

### PRF Archive

**Rainfall Index (RI)** - is based on weather data collected and maintained by NOAA's Climate Prediction Center. The index reflects how much precipitation is received relative to the long-term average for a specified area and timeframe.

- [County Availability \(PDF\): Map | Text](#)
- [Basic Provisions \(PDF\)](#) \*See mandatory Ineligibility Amendment, Farm Bill Amendment, and footnotes.
- [\\*Ineligibility Amendment \(15-Ineligibility\)](#)
- [\\*Farm Bill Amendment \(15-RIVI-Farm Bill\)](#)
- [Policy Provisions \(PDF\)](#)
- [Insurance Standards Handbook \(PDF\) \(Revised Apr 2013\)](#)
- [Grid ID Locator, Decision Support Tool, Historical Indices](#)

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- [Policy Provisions \(PDF\)](#)
- [Insurance Standards Handbook \(PDF\) \(Revised Apr 2013\)](#)
- [Grid ID Locator, Decision Support Tool, Historical Indices](#)
- [Downloadable Interactive PRF Spreadsheet - Total Loss Factor: XLS | PDF](#)

\*Ineligibility Amendment (15-Ineligibility) modifies the Rainfall and Vegetation Index Plan of Insurance Basic Provisions for the 2015 and succeeding crop years.

Click on tools link for either RI or VI as appropriate for your state



# Grid Locator

Pasture, Rangeland, Forage

Find a Location:

Search

Enter name, address, or latitude/longitude values. [More Info](#)

Vegetation

Rainfall

Grids:

Counties:

Marker Info:

Google Maps

Labels:

Labels:

### Current Location

**Grid ID:** 133944  
**Latitude:** 34.88593°N  
**Longitude:** 104.76562°W  
**County:** Guadalupe  
**State:** New Mexico  
**Address:** Santa Rosa, NM, USA

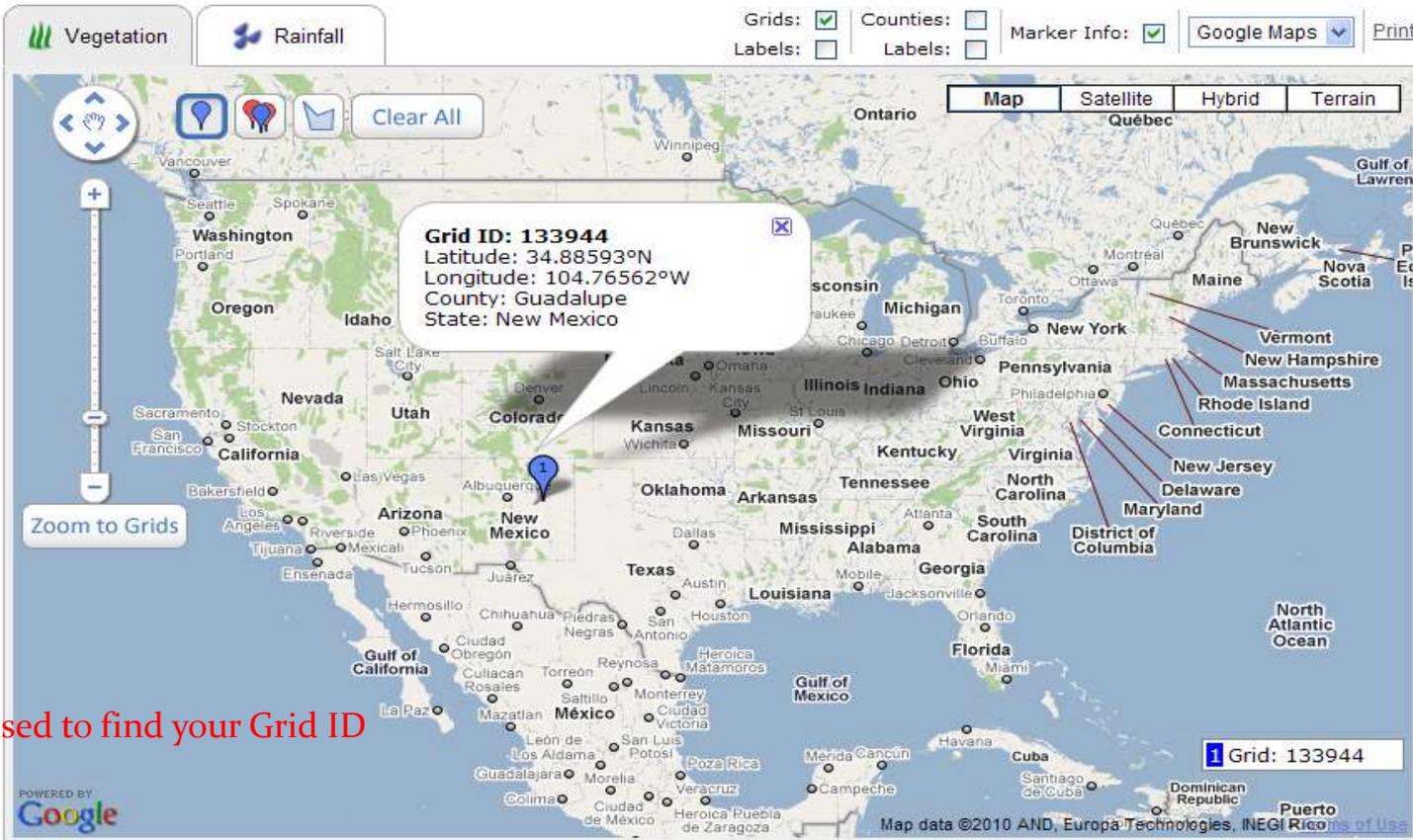
### Grid Tools:

- [Decision Support Tool](#)
- [Historical Vegetation Indices](#)
- [View Actuarial Info](#)
- [View Cost Estimator](#)

### Steps

1. Enter nearest town or address
2. Click Search
3. Navigate to property
4. Click a point on property
5. Print view for records
6. Note the Grid ID
7. Choose grid tool to view data

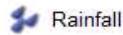
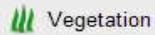
Grid Locator tool is used to find your Grid ID





Find a Location:  Search

Enter name, address, or latitude/longitude values. [More Info](#)



Grids:   
Labels:

Counties:   
Labels:

Marker Info:

Google Maps

[Print](#)

Current Location

**Grid ID:** 133944  
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**County:** Guadalupe  
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Steps

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The map displays a satellite view of a region in New Mexico, overlaid with a red grid. A blue location pin is placed on the grid, with a white callout box containing the text: "Grid ID: 133944 Latitude: 34.88593°N". A red arrow points from a white callout box with the text "Use the Zoom to Grids feature to find your location" to the "Zoom to Grids" button on the left side of the map. The map includes various UI elements: a navigation pad, a "Clear All" button, map style controls (Map, Satellite, Hybrid, Terrain), and a "Print" button. A small box in the bottom right corner of the map area displays "Grid: 133944".



Find a Location:

Search

Enter name, address, or latitude/longitude values. [More Info](#)

 Vegetation

 Rainfall

Grids:   
Labels:

Countries:   
Labels:

Marker Info:

Google Maps 

Print

**Current Location**

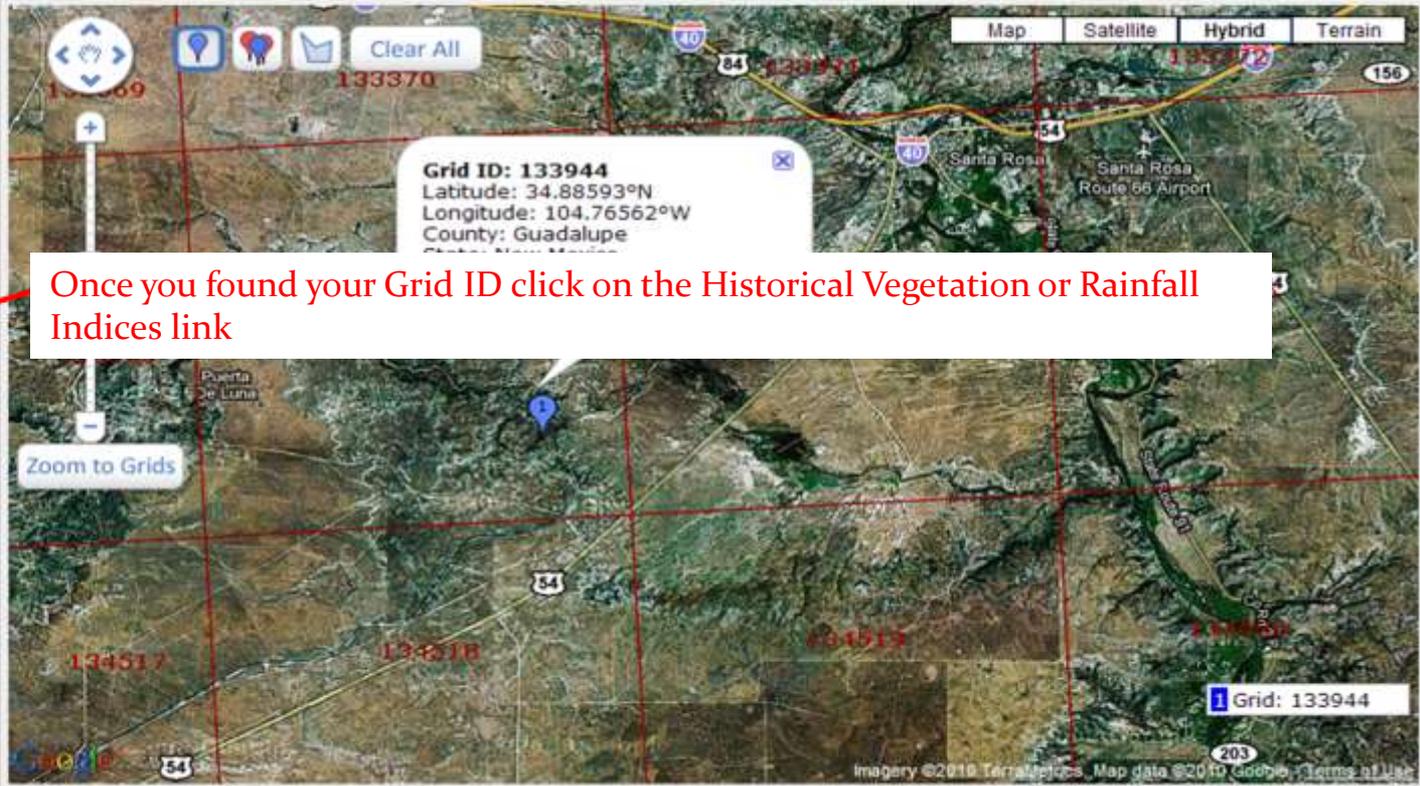
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**Grid Tools:**

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-  [Historical Vegetation Indices](#)
-  [View Actuarial Info](#)
-  [View Cost Estimator](#)

**Steps**

1. Enter nearest town or address
2. Click Search
3. Navigate to property
4. Click a point on property
5. Print view for records
6. Note the Grid ID
7. Choose grid tool to view data



Once you found your Grid ID click on the Historical Vegetation or Rainfall Indices link



# Decision Support Tool

## Pasture, Rangeland, Forage

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

Rainfall

Vegetation

Please Select a Location:

State:

County:

Grid:

 Grid Locator

 Print

### Protection Information



Intended Use:

Coverage Level (%):

Productivity Factor (%):

Insurable Interest (%):

Insured Acres:

Sample Year:

Refine the results

### Graph



Type:

Index Values  Estimated Indemnities

Range:

Start  End

Intervals:

Jan-Mar  Feb-Apr  Mar-May

Apr-Jun  May-Jul  Jun-Aug

Table

Graph

Click on graph view to view historical results

Graph View  Chart View

Year	Jan-Mar	Feb-Apr	Mar-May	Apr-Jun	May-Jul	Jun-Aug	Jul-Sep	Aug-Oct	Sep-Nov	Oct-Dec
2014	141.6	129.6	102.7	N/A						
2013	140.3	119.3	86.1	43.6	39.7	59.3	70.9	79.1	77.1	99.3
2012	119.4	104.2	72.3	44.0	28.8	23.6	23.3	29.5	44.7	71.9
2011	163.0	144.5	114.2	76.9	48.3	23.6	8.9	19.9	43.2	75.5
2010	143.0	156.0	160.5	142.9	111.0	100.7	121.8	134.0	150.0	148.9
2009	132.0	118.0	87.3	57.5	103.2	151.7	155.0	98.6	81.3	87.0
2008	104.2	83.2	58.7	53.8	97.3	169.6	183.6	161.1	131.7	130.2
2007	122.8	148.0	169.9	194.0	168.0	131.8	100.6	94.9	99.1	106.9
2006	118.4	98.5	75.3	52.7	47.3	63.1	119.4	156.9	175.4	155.9
2005	125.8	128.3	140.2	128.3	98.4	80.1	104.8	127.6	127.3	113.4
2004	101.9	130.3	153.3	160.6	127.7	118.7	111.0	109.4	112.4	118.4
2003	64.1	52.8	31.8	26.0	32.3	34.8	22.5	25.5	55.2	89.4
2002	50.9	43.6	22.3	14.7	11.5	23.7	64.0	97.6	119.9	110.5
2001	17.8	45.1	81.1	115.0	96.2	53.8	35.0	33.2	35.0	49.5
2000	137.1	131.1	126.0	95.3	70.3	36.7	35.9	22.6	14.0	5.9
1999	158.6	172.8	201.2	250.4	269.3	237.0	175.0	140.1	137.3	143.3
1998	121.4	137.5	167.0	183.6	169.2	124.3	108.7	119.1	141.7	150.8
1997	119.8	127.5	143.4	166.5	183.4	184.0	158.2	155.2	151.6	130.6
1996	108.4	95.9	74.7	59.9	100.9	100.4	90.7	154.9	104.9	110.9

Please Select a Location:

State:

County:

Grid:



### Protection Information

Intended Use:

Coverage Level (%):

Productivity Factor (%):

Insurable Interest (%):

Insured Acres:

Sample Year:

### Graph

Type:

Index Values  Estimated Indemnities

Range:

Start:  End:

Intervals:

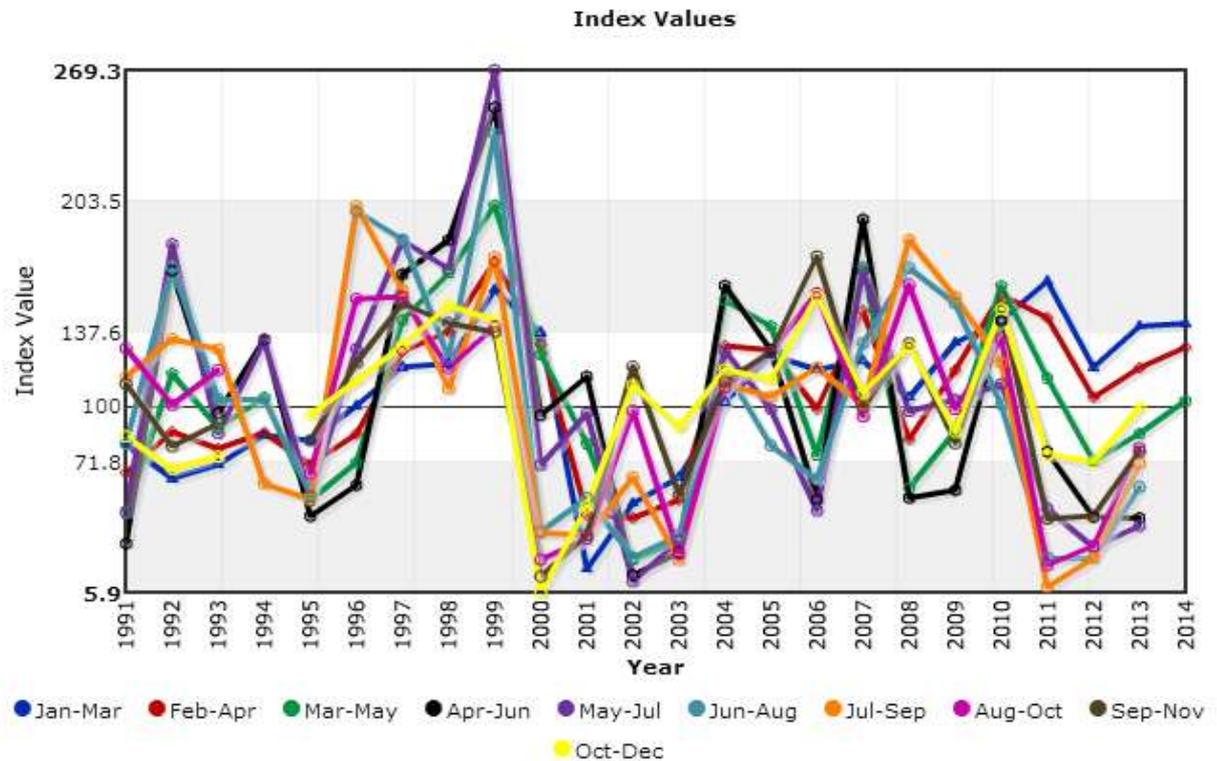
- Jan-Mar
- Feb-Apr
- Mar-May
- Apr-Jun
- May-Jul
- Jun-Aug
- Jul-Sep
- Aug-Oct
- Sep-Nov
- Oct-Dec

Table

Graph

Graph View  Chart View

Click on graph view



# Decision Support Tool

## Pasture, Rangeland, Forage

Rainfall

Vegetation

Please Select a Location:

State:

County:

Grid:

Grid Locator

Print

### Protection Information

Intended Use:

Coverage Level (%):

Productivity Factor (%):

Insurable Interest (%):

Insured Acres:

Sample Year:

### Graph

Type:  
 Index Values  Estimated Indemnities

Range:  
Start  End

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

Table  Graph

Click on table to get back to DST tools

Index Interval	Percent of Value (%)	Policy Protection per Unit	Premium Rate per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
<u>Jan-Mar</u>	Interval not valid for selected county.							
<u>Feb-Apr</u>	<input type="text"/>							
<u>Mar-May</u>	<input type="text"/>							
<u>Apr-Jun</u>	<input type="text"/>							
<u>May-Jul</u>	<input type="text"/>							
<u>Jun-Aug</u>	<input type="text"/>							
<u>Jul-Sep</u>	<input type="text"/>							
<u>Aug-Oct</u>	<input type="text"/>							
<u>Sep-Nov</u>	<input type="text"/>							
<u>Oct-Dec</u>	Interval not valid for selected county.							
Per Acre	N/A	N/A	N/A				N/A	
Policy Total	0		N/A				N/A	

Enter all required information

Select Percent of Value % for each interval you want to insure

County Base Value

Dollar Amount of Protection

Total Insured Acres

Coverage Level

Calculate

Once you entered all required information click the Calculate button

Please Select a Location:

State: New Mexico ▼

County: Chaves ▼

Grid: 140257 ▼



**Protection Information** ?

Intended Use: Haying ▼

Coverage Level (%): 90 ▼

Productivity Factor (%): 100 ▼

Insurable Interest (%): 100

Insured Acres: 1000

Sample Year: 2012 ▼

**Graph** ?

Type:

Index Values  Estimated Indemnities

Range:

Start 1991 ▼ End 2014 ▼

Intervals:

- Jan-Mar
- Feb-Apr
- Mar-May
- Apr-Jun
- May-Jul
- Jun-Aug
- Jul-Sep
- Aug-Oct
- Sep-Nov
- Oct-Dec

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
Interval not valid for selected county.								
<u>Jan-Mar</u>								
<u>Feb-Apr</u>	N/A	\$0	15.68	\$0	\$0	\$0	104.2	\$0
<u>Mar-May</u>	N/A	\$0	21.93	\$0	\$0	\$0	72.3	\$0
<u>Apr-Jun</u>	50	\$445,262	28.56	\$127,167	\$64,855	\$62,312	44.0	\$341,368
<u>May-Jul</u>	N/A	\$0	28.33	\$0	\$0	\$0	28.8	\$0
<u>Jun-Aug</u>	N/A	\$0	27.39	\$0	\$0	\$0	23.6	\$0
<u>Jul-Sep</u>	50	\$445,262	29.50	\$131,352	\$66,990	\$64,362	23.3	\$445,262
<u>Aug-Oct</u>	N/A	\$0	26.21	\$0	\$0	\$0	29.5	\$0
<u>Sep-Nov</u>	N/A	\$0	21.84	\$0	\$0	\$0	44.7	\$0
Interval not valid for selected county.								
<u>Oct-Dec</u>								
Per Acre	N/A	N/A	N/A	\$258.52	\$131.85	\$126.67	N/A	\$786.63
Policy Total	1,000	\$890,524	N/A	\$258,519	\$131,845	\$126,674	N/A	\$786,630

County Base Value	\$989.47
Dollar Amount of Protection	\$890.52
Total Insured Acres	1,000
Total Policy Protection	\$890,524
Subsidy Level	51.0%

**Calculate**

**Results from 2012**

# Historical Indices and Decision Support Tool

- Actuarial information will not change.
  - Actual Final Grid Index for past years.
- Tools are designed to be fluid and will change:
  - Updated annually; and
  - Final Grid Index values will reflect the change in average.