

Lockhart Small Acreage Sheep and Goat Workshop:

Cost of Production Analysis and PRF Insurance

August 29, 2013

Lockhart, TX

Coordinated by: Michael Haynes, Caldwell County CEA-AG

Presented by: Bill Thompson, Extension Economist, San Angelo, TX

TEXAS A&M
AGRI LIFE
EXTENSION



Today's Agenda

- Cost of Production Analysis
 - Meat Goats
 - Hair Sheep
- PRF Insurance –
 - Introduction and review of program
 - Caldwell county usage data

<http://sanangelo.tamu.edu/extension/west-central-agricultural-economics/>

[2013 Texas Agricultural Custom Rates](#)

[Recent Programs, Handouts & Other Materials](#)



[Crop & Livestock Budgets](#)

[Marketing Your Commodities](#)

[Analytical Tools](#)

[Internet Resources](#)

[Small Acreage Resources](#)

[Risk Management](#)

[Master Marketer Website](#)

[Department of Agricultural Economics, Texas A&M University](#)
[Texas AgriLife Extension](#)

Cost of Production Analysis:

Meat Goats

- Production Budget

- Gross Income

- Assumes: 40 acres
20 Acres/ AU
12 Nannies
1 Billy
120% weaned kid crop (14 kids per year)
Sell 12 kids and 2 nannies per year
Sell billy every other year (.5 each year)



Cost of Production Analysis:

Meat Goats

– Direct Expenses (selected):

- Let me know if you want to discuss a particular line item

- Purchased feed:

- No purchased forage budgeted, in drought there may be some purchased. See risk management.
- We are **not** going to supplement with grain to flush prior to breeding.
- We are going to supplement with grain (cottonseed) during late gestation/lactation

- Marketing expense:

- Typical sale/auction barn expenses are listed here. Private treaty sale may cost less.

Cost of Production Analysis:

Meat Goats

- Repairs & Maintenance
 - See fixed costs
- Fuel
 - I am allocating very limited fuel to this enterprise
 - Essentially one tank of fuel
- Risk Management
 - I did purchase PRF insurance. Any indemnities can be used to purchase supplemental feed in a drought

Cost of Production Analysis:

Meat Goats

- Other expenses
 - You will need to visit with your tax preparer.
 - Hobby farm losses are an issue.
 - » IRS Fact Sheet FS-2008-23

An activity is presumed for profit if it makes a profit in at least three of the last five tax years, including the current year (or at least two of the last seven years for activities that consist primarily of breeding, showing, training or racing horses).

If an activity is not for profit, losses from that activity may not be used to offset other income. An activity produces a loss when related expenses exceed income. The limit on not-for-profit losses applies to individuals, partnerships, estates, trusts, and S corporations. It does not apply to corporations other than S corporations.

Cost of Production Analysis:

Meat Goats

– Fixed Cost Analysis

Small Acreage: Fixed Assets Cost Analysis

Allocation of expenses by
Livestock Enterprise

Description	Size	Fair Market Value	Original Purchase Price	Estimated Life	Remaining Life	S.V. as % of Cost	Accumulated Depr.	Remaining Basis	Total Annual Depreciation	R&M as % of cost	R&M Cost Per Year	2 AU Example		
Livestock Panels - 10	8ft	\$ 700	\$ 1,750	20	15	40	\$ 263	\$ 1,488	\$ 53	0	\$ -	100%		
Misc Livestock equip. (drench guns, Hoof trimmers, Syringes, etc.)	N/A	\$ 250	\$ 350	10	3	0	\$ 245	\$ 105	\$ 35	2	\$ 1	100%		
Pickup (1/8 interest)	3/4 t	\$ 4,375	\$ 4,707	8	5	35	\$ 1,147	\$ 3,559	\$ 382	12	\$ 71	100%		
livestock trailer - bumper hitch	16	\$ 990	\$ 4,500	10	0	22	\$ 4,500	\$ -	\$ -	10	\$ 45	100%		
Perimeter and cross fences	1.5	\$ 10,500	\$ 15,000	40	2	10	\$ 12,825	\$ 2,175	\$ 338	20	\$ 75	100%		
Llama		\$ 100	\$ 200	7	7	50	\$ -	\$ 200	\$ 14	0	\$ -	100%		
Poly tub w/ float	400 g	\$ 150	\$ 200	10	8	75	\$ 10	\$ 190	\$ 5	0	\$ -	100%		
							\$ -	\$ -	\$ -	0	\$ -	100%		
Property Taxes and Insurance			\$ 56									100%		
Totals		\$17,065	\$26,707				\$ 18,990	\$ 7,717	\$ 827		\$ 191			

Cost of Production Analysis:

Meat Goats

- Residual Returns
 - Total Enterprise **-\$112.00**
 - Per A.U. **-\$56.00**
 - Per head **-\$9.33**

Weaning %	Gross sales	Average Break Even	Average Break Even
		Kid Price to Cover Variable Cost	Kid Price to Cover Total Cost
140%	\$1,764.90	\$51.27	\$163.76
130%	\$1,642.80	\$55.79	\$178.21
120%	\$1,480.00	\$61.19	\$195.46
110%	\$1,398.60	\$67.75	\$216.40
100%	\$1,276.50	\$75.88	\$242.36

Cost of Production Analysis:

Meat Goats

Table 1. Weighted Average Kid and Nanny Prices at San Angelo, TX Auction.

		Selection 1 Kids			Nannies 1-2s		
		Total Hd	Avg Wgt	Price (\$/Cwt.)	Total Hd	Avg Wgt	Price (\$/Cwt.)
Annual Data	2009	44,826	58	\$ 129.86	36,199	103	\$ 43.96
	2010	43,834	57	\$ 164.02	28,362	104	\$ 65.20
	2011	38,510	53	\$ 188.18	51,236	97	\$ 63.07
Quarterly Data	2012 I	7,180	56	\$ 215.82	2,790	107	\$ 101.82
	2012 II	9,382	59	\$ 188.12	3,315	115	\$ 101.01
	2012 III	9,218	58	\$ 169.20	6,189	113	\$ 79.40
	2012 IV	9,399	60	\$ 181.34	3,828	114	\$ 94.76
	2013 I	8,379	57	\$ 210.81	3,063	111	\$ 96.84
	2013 II	7,663	58	\$ 187.34	4,854	105	\$ 77.93
	2013 III	3,364	58	\$ 167.82	2,538	111	\$ 78.03
	2013 IV	-	-	-	-	-	-

Figure 1. Monthly Weighted Average Selection 1 Kid Price at San Angelo, TX Auction.

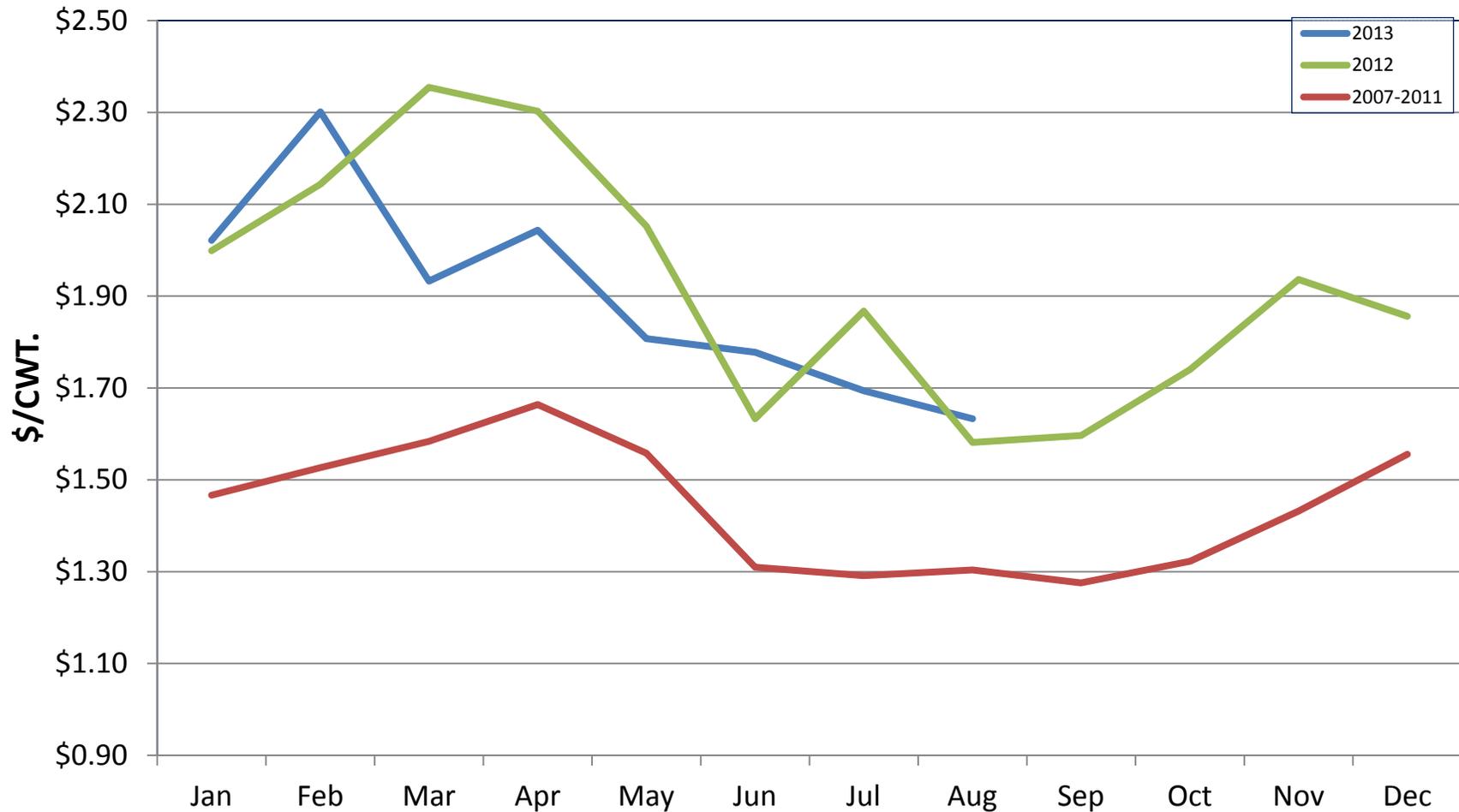


Figure 2a. Monthly Weighted Average and Seasonal Price Index for Selection 1 Kids at San Angelo, TX Auction.

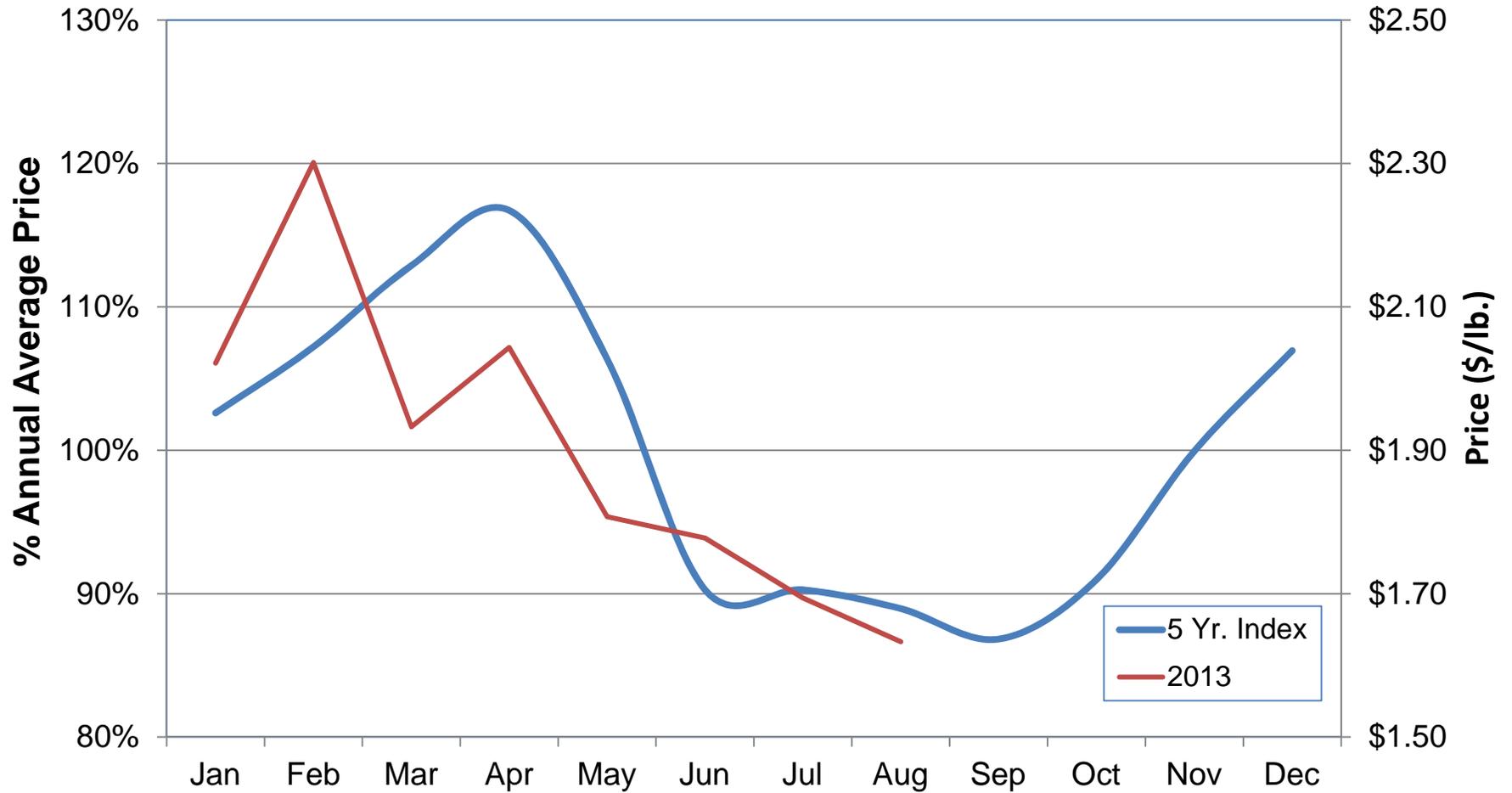
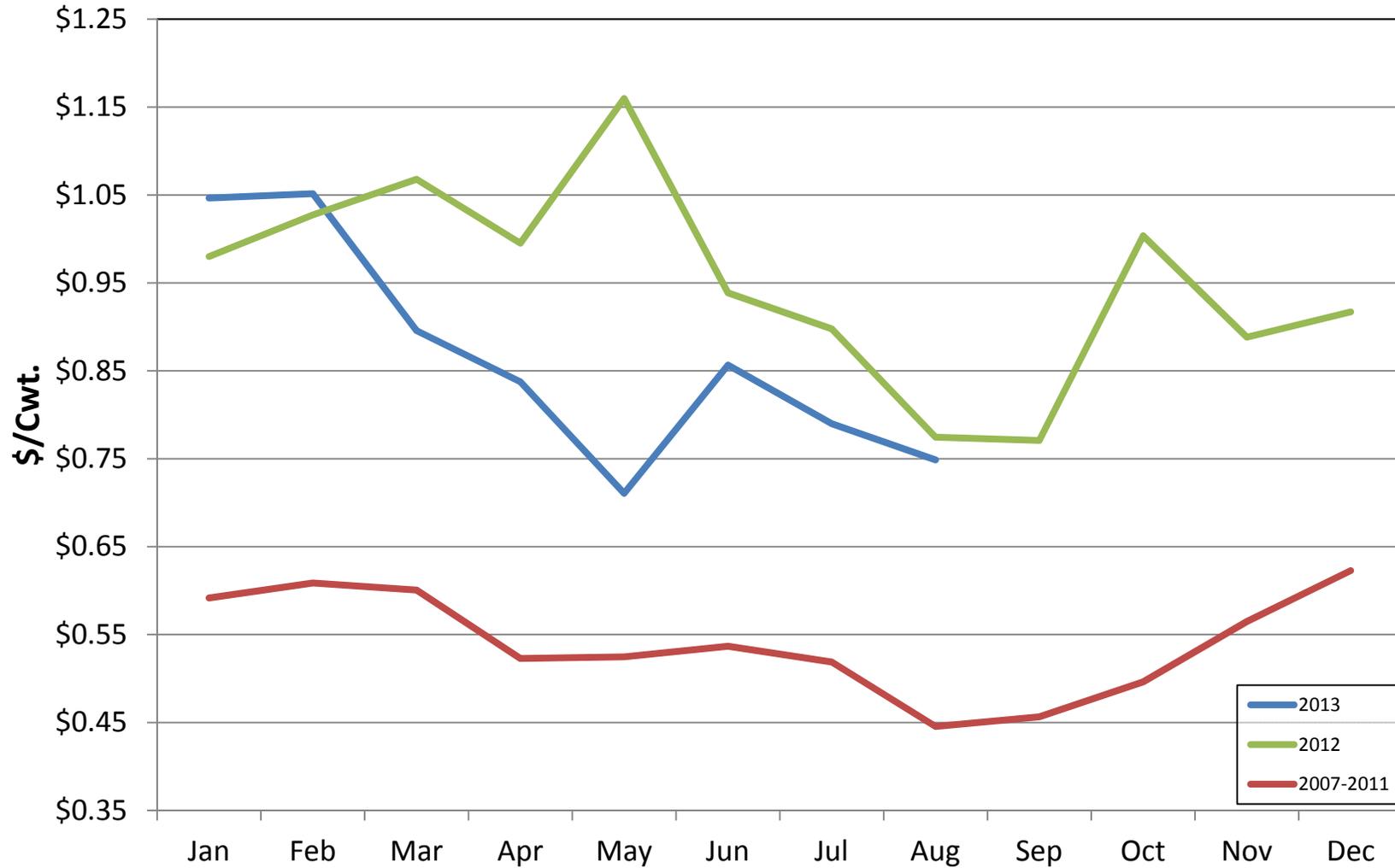


Figure 3. Monthly Weighted Average Nanny Selection 1 and 2 Price at San Angelo, TX Auction.



Cost of Production Analysis:

Hair Sheep

- Production Budget

- Gross Income

- Assumes: 40 acres

20 Acres/ AU

12 Ewes

1 Ram

120% weaned lamb crop (14 lambs per year)

Sell 12 lambs and 2 ewes per year

Sell ram every other year (.5 each year)



Cost of Production Analysis:

Hair Sheep

- Only real difference is I have eliminated drenching due to the hair sheep's natural parasite resistance.



Cost of Production Analysis:

Hair Sheep

- Residual Returns
 - Total Enterprise **-\$475.69**
 - Per A.U. **-\$237.84**
 - Per head **-\$39.64**

Weaning %	Gross Sales	Average Break Even Lamb Price to Cover Variable Cost	Average Break Even Lamb Price to Cover Total Cost
140%	\$1,386.00	\$49.55	\$132.04
130%	\$1,287.00	\$65.69	\$143.70
120%	\$1,155.00	\$72.04	\$157.60
110%	\$1,089.00	\$65.48	\$174.49
100%	\$990.00	\$73.33	\$195.43

Cost of Production Analysis:

Hair Sheep

Table 2. Weighted Average Feeder Lamb, Slaughter Lamb and Ewe Prices at San Angelo, TX Auction.

		Feeder Lambs, 1 and 2s			Slaughter Lambs			Ewes, Utility and Good		
		Total Hd	Avg Wgt	Price (\$/Cwt.)	Total Hd	Avg Wgt	Price (\$/Cwt.)	Total Hd	Avg Wgt	Price (\$/Cwt.)
Annual Data	2009	19,155	75	\$ 109.40	43,611	70	\$ 106.99	23,601	139	\$ 44.14
	2010	23,082	76	\$ 150.85	54,777	71	\$ 135.92	20,122	135	\$ 61.21
	2011	18,894	69	\$ 221.97	47,895	65	\$ 171.89	17,537	125	\$ 67.84
Quarterly Data	2012 I	788	78	\$ 193.89	7,169	72	\$ 188.03	1,163	126	\$ 88.18
	2012 II	4,492	79	\$ 151.99	9,988	75	\$ 139.05	2,443	132	\$ 57.70
	2012 III	3,134	82	\$ 97.78	8,056	79	\$ 104.04	3,250	135	\$ 56.63
	2012 IV	1,877	86	\$ 101.43	8,122	77	\$ 117.07	2,693	135	\$ 58.66
	2013 I	7,759	79	\$ 130.85	12,326	77	\$ 138.71	2,065	138	\$ 62.01
	2013 II	6,670	75	\$ 103.26	12,276	71	\$ 107.43	3,998	135	\$ 44.69
	2013 III	4,936	77	\$ 100.14	7,658	76	\$ 102.69	2,269	133	\$ 48.21
	2013 IV	-	-	-	-	-	-	-	-	-

Figure 7. Monthly Weighted Average Slaughter Lambs (1-2s) Price at San Angelo, TX Auction.

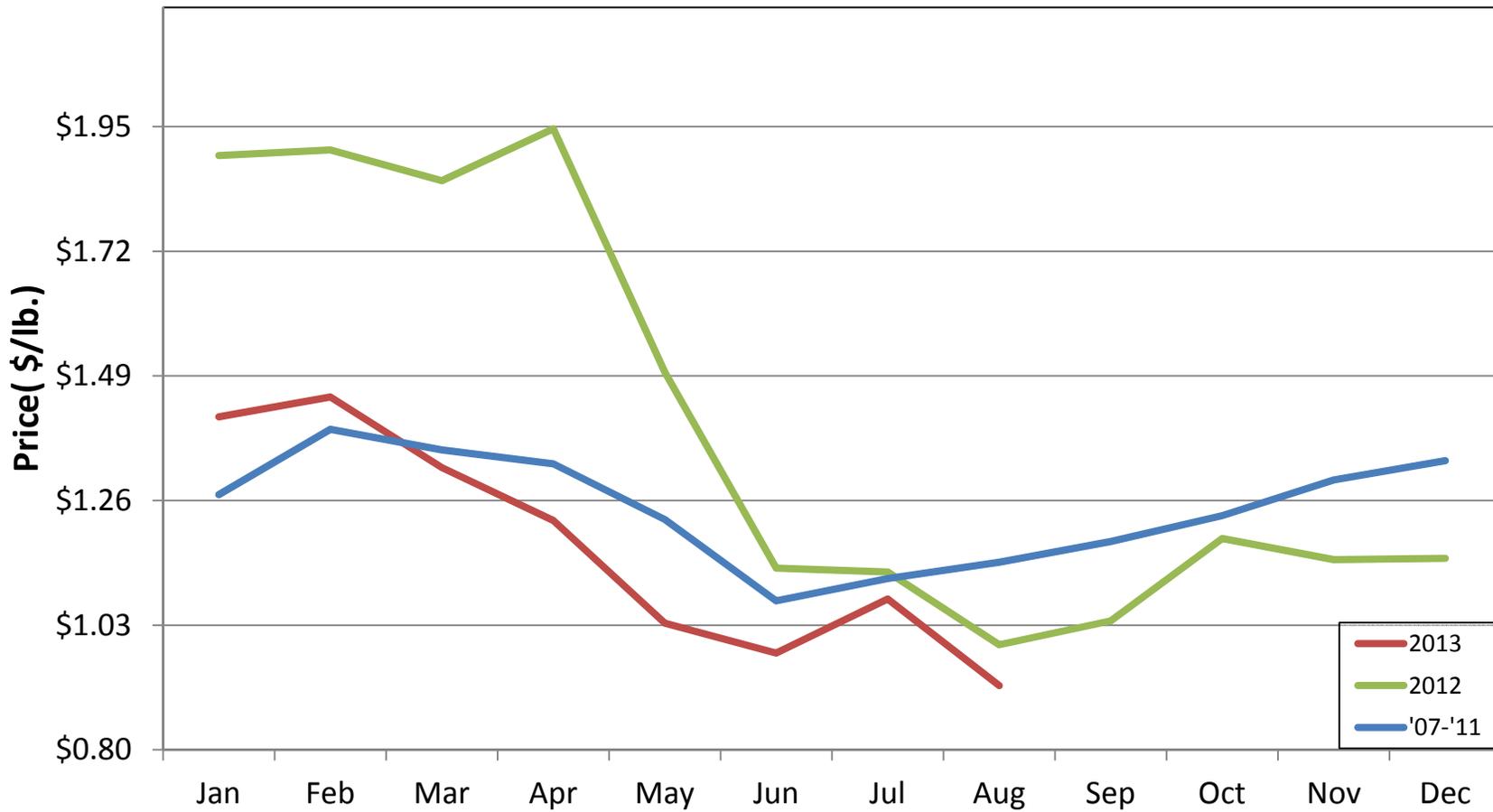


Figure 8. Seasonal Price Index and Weighted Average Monthly, Good and Choice 1-2 Slaughter Lamb Price at San Angelo, TX Auction.

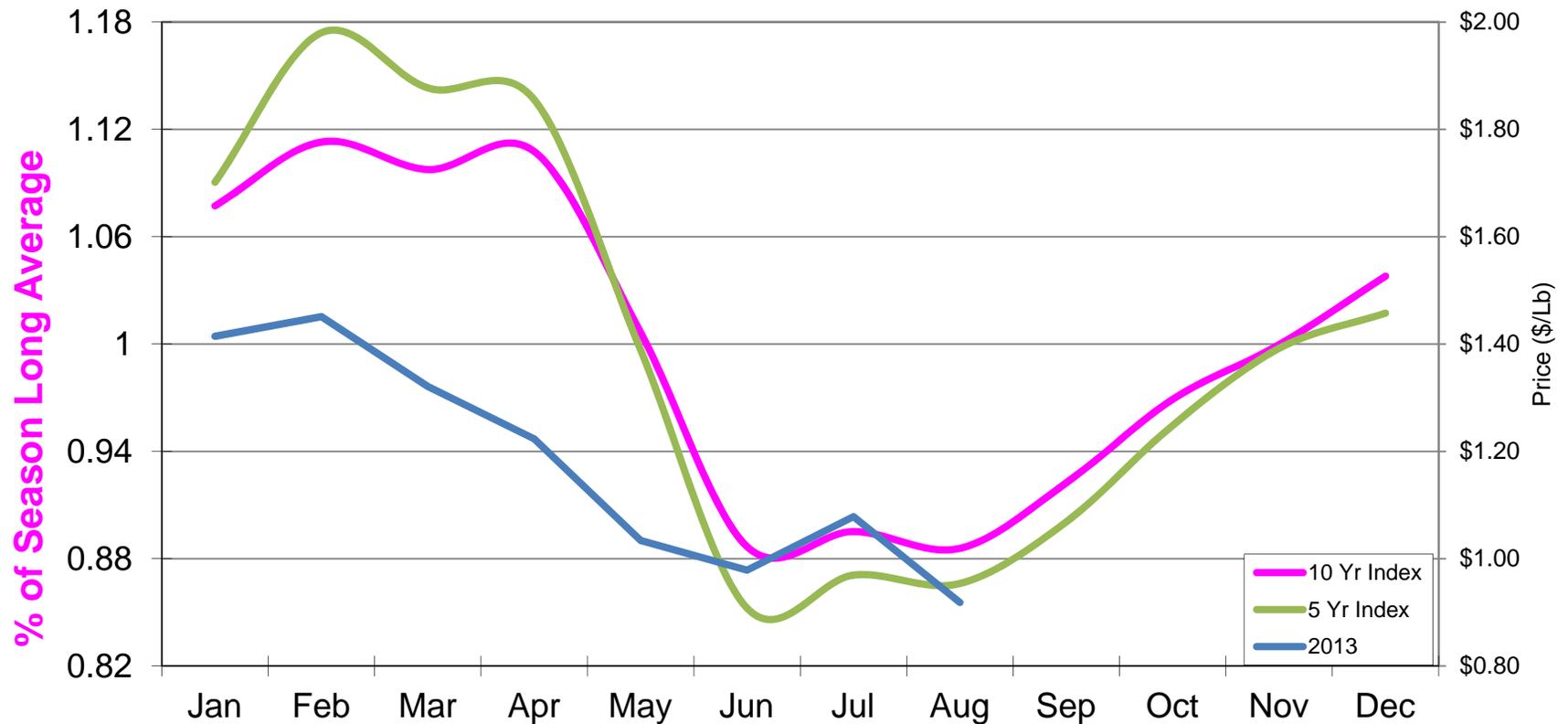
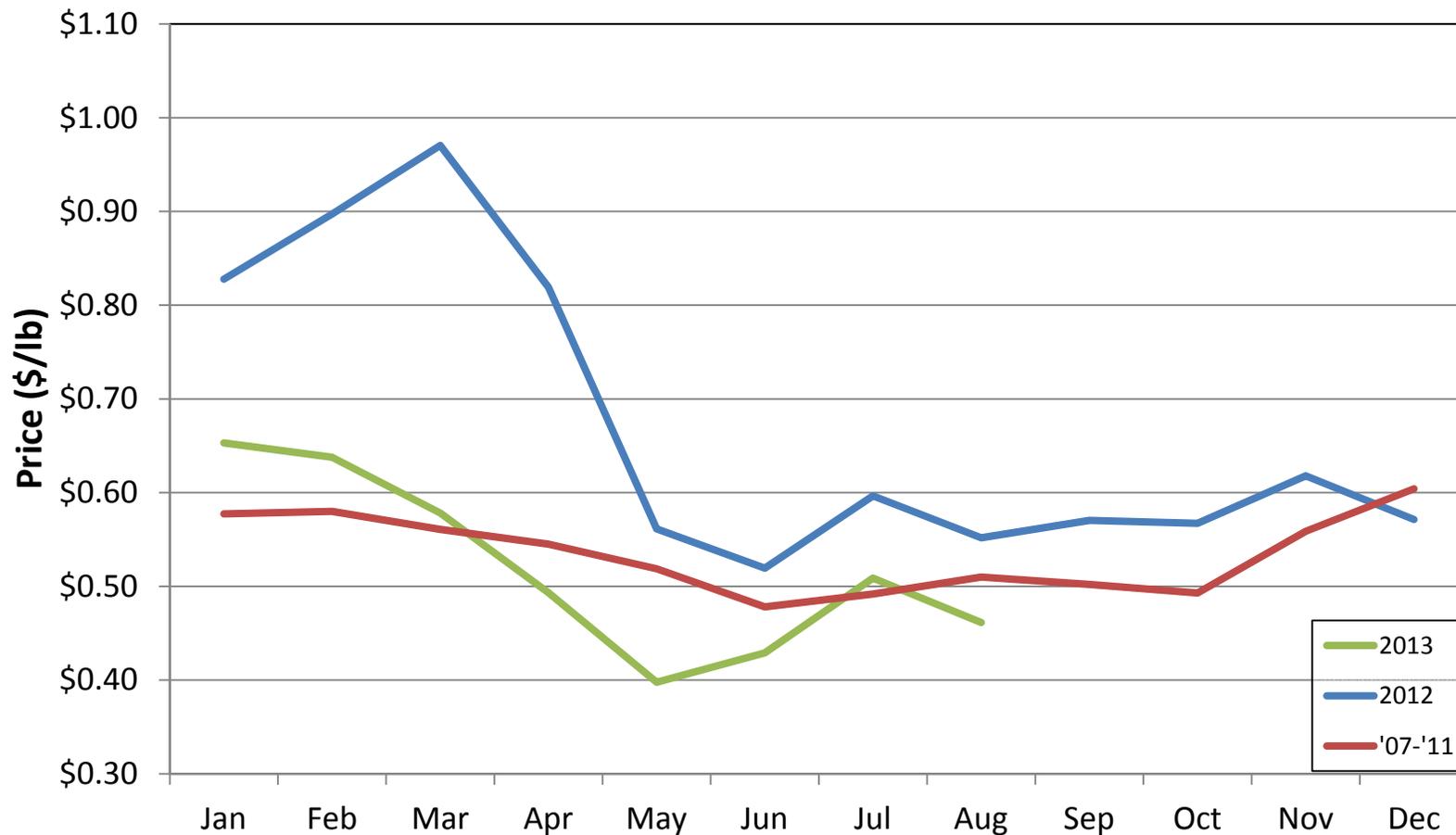


Figure 9. Monthly Weighted Average Price for Utility and Good Ewes at San Angelo, TX Auction.



FSA Disaster Programs

1. SURE

Crop losses incurred before September 30, **2011**

2. Livestock Indemnity Program (LIP)

Livestock losses (deaths) before September 30, **2011**

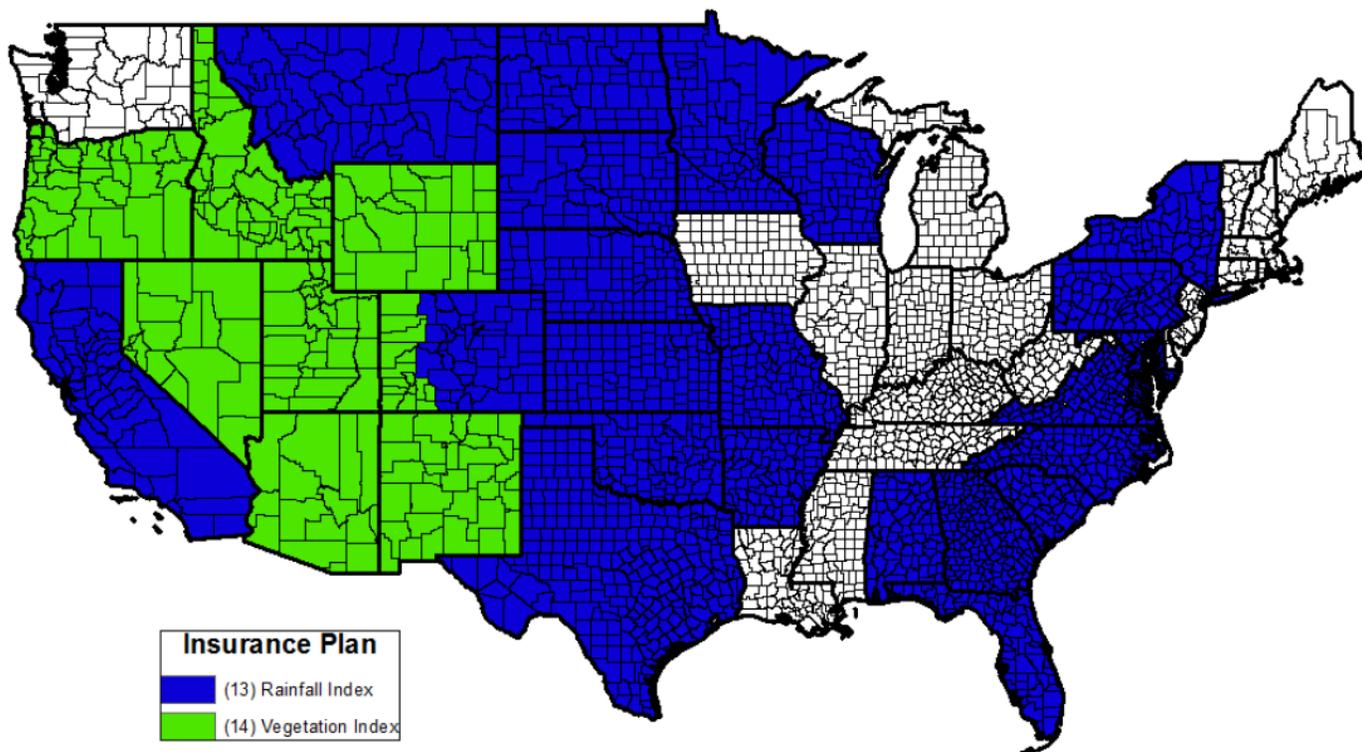
3. Livestock Forage Program (LFP)

Grazing losses incurred before September 30, **2011**

4. NAP – We should be familiar with this program by now.

Pasture Rainfall Forage (PRF), Indexed Rainfall Insurance

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



PRF Usage: Caldwell County, TX

245,937 acres of Rangeland

- 2011
 - 28 contracts covering 13,118 acres (5.3%), 469 ac/pol
 - \$455,522 insured value
 - \$248,627 pd indemnities
- 2012
 - 41 contracts covering 28,931 acres (12%), 706 ac/pol
 - \$1,128,731 insured value
 - \$270,112 pd indemnities.

63% of policies at
90% coverage!

PRF Insurance – Caldwell Co.

- County Base per Acre:
 - Grazing Land = \$16.15
 - Hay land= \$223.26
- Coverage Level
 - 70% to 90% of indexed rainfall
- Productivity Factor
 - 60% to 150% (of County Base)

Caldwell County Grazing Land Example

When do you need the rain most?

What are your objectives?

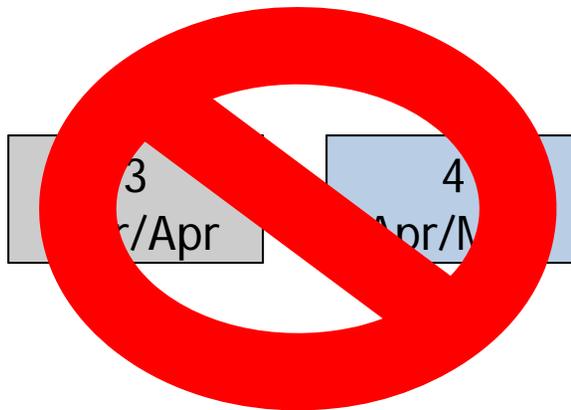
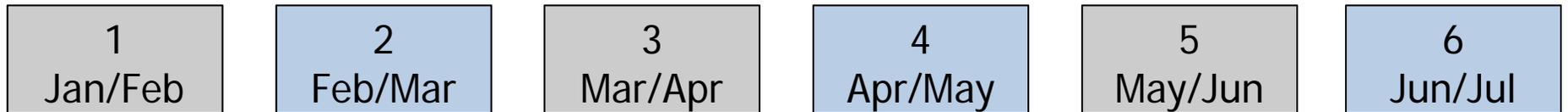
Insure periods where precipitation is essential to forage production

Spread coverage over entire year

Maximize returns – Analysis of deviation of each two month interval

- There are eleven 2-month **intervals** to allocate coverage as a percentage
- Must chose at least two;
 - At least 10% in selected interval,
 - Not more than 50% in any interval

Eleven 2 Month Intervals



http://agforceusa.com/rma/ri/prf/maps

Grid Locator
Pasture, Rangeland, Forage

Find a Location: Search
Enter name, address, or latitude/longitude values. [More Info](#)

Grids: Counties: Marker Info:
Labels: Labels: Degrees Decimal Google Maps

Current Location
Grid ID: 11830
Latitude: 29° 48' 21.51" N
Longitude: 98° 42' 44.15" W
County: Caldwell
State: Texas
Address: 1303 Westfork Road,
Lockhart, TX 78644,
USA

Grid Tools:
[Decision Support Tool](#)
[Historical Rainfall 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

Vegetation Rainfall

Zoom to Grids

Grid: 11830

This website is a product of AgForce, GMS, and RMA.



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

Notice:

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:

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

Table Graph

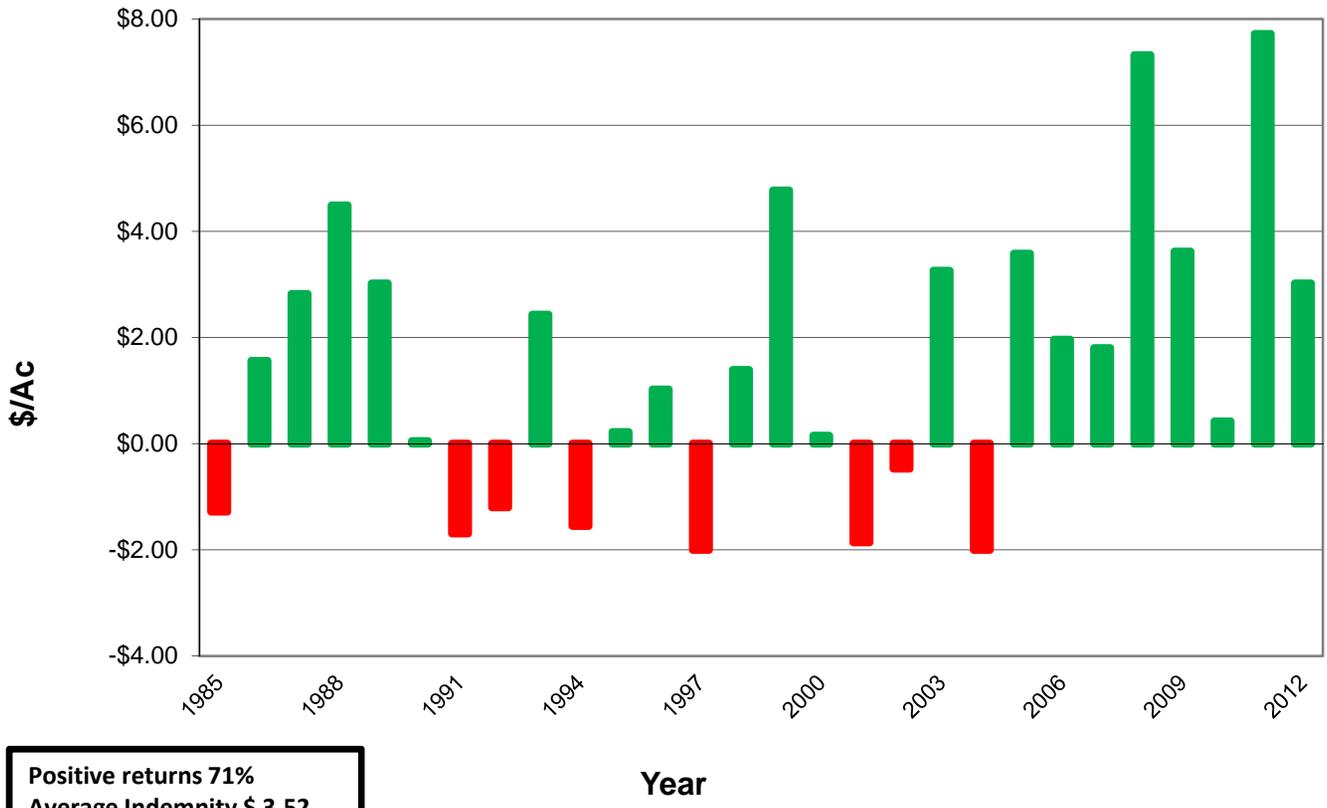
Index Interval	Percent of Value (%)	Policy Protection per Unit	Premium Rate per \$100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
Jan-Feb	16	\$1,890	20.59	\$389	\$198	\$191	86.9	\$65
Feb-Mar	N/A	\$0	19.99	\$0	\$0	\$0	27.7	\$0
Mar-Apr	17	\$2,008	21.28	\$427	\$217	\$210	59.4	\$683
Apr-May	N/A	\$0	17.27	\$0	\$0	\$0	58.6	\$0
May-Jun	17	\$2,008	18.33	\$368	\$187	\$181	41.0	\$1,093
Jun-Jul	N/A	\$0	22.83	\$0	\$0	\$0	N/A	\$0
Jul-Aug	17	\$2,008	24.97	\$501	\$255	\$246	N/A	N/A
Aug-Sep	N/A	\$0	20.77	\$0	\$0	\$0	N/A	\$0
Sep-Oct	17	\$2,008	21.38	\$429	\$218	\$211	N/A	N/A
Oct-Nov	N/A	\$0	25.55	\$0	\$0	\$0	N/A	\$0
Nov-Dec	16	\$1,890	25.89	\$489	\$249	\$240	N/A	N/A
Per Acre	N/A	N/A	N/A	\$4.07	\$2.07	\$2.00	N/A	\$2.88
Policy Total	640	\$11,812	N/A	\$2,603	\$1,324	\$1,279	N/A	\$1,841

County Base Value	\$16.15
Dollar Amount of Protection	\$18.46
Total Insured Acres	640
Total Policy Protection	\$11,812
Subsidy Level	51%
Maximum Percent of Value per Index Interval	50.0%

Calculate

Historical Per Acre Net Returns

Caldwell County Grid: 11830 Coverage
Level: 90% Productivity Factor: 127%



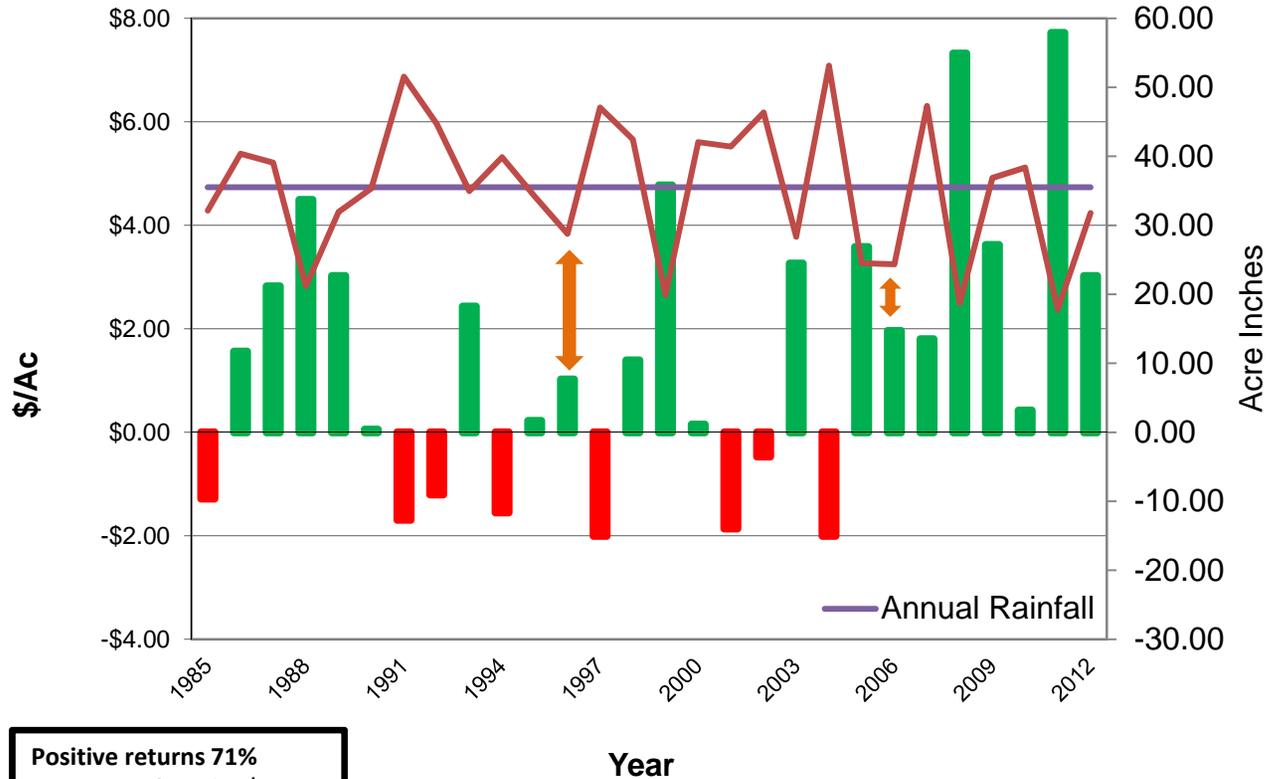
Positive returns 71%
Average Indemnity \$ 3.52

PRF Insurance – Lampasas Co.

- At 75% coverage and 129% protection
 - For every \$1 of premium paid, \$1.76 was returned over a 28 year period (1985-2012).
- A significant disaster program! *(but still not perfect)*

Historical Per Acre Net Returns

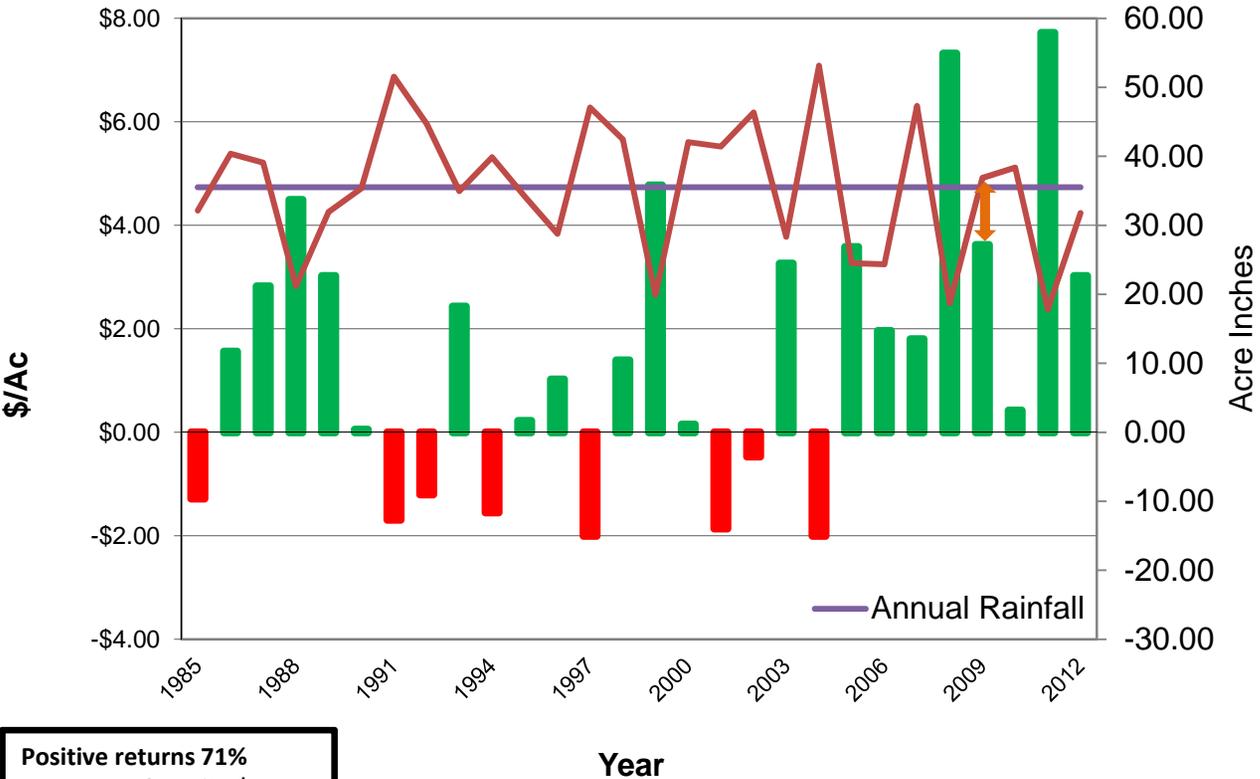
Caldwell County Grid: 11830 Coverage
 Level: 90% Productivity Factor: 127%



Positive returns 71%
 Average Indemnity \$ 3.52

Historical Per Acre Net Returns

Caldwell County Grid: 11830 Coverage
Level: 90% Productivity Factor: 127%



Positive returns 71%
Average Indemnity \$ 3.52

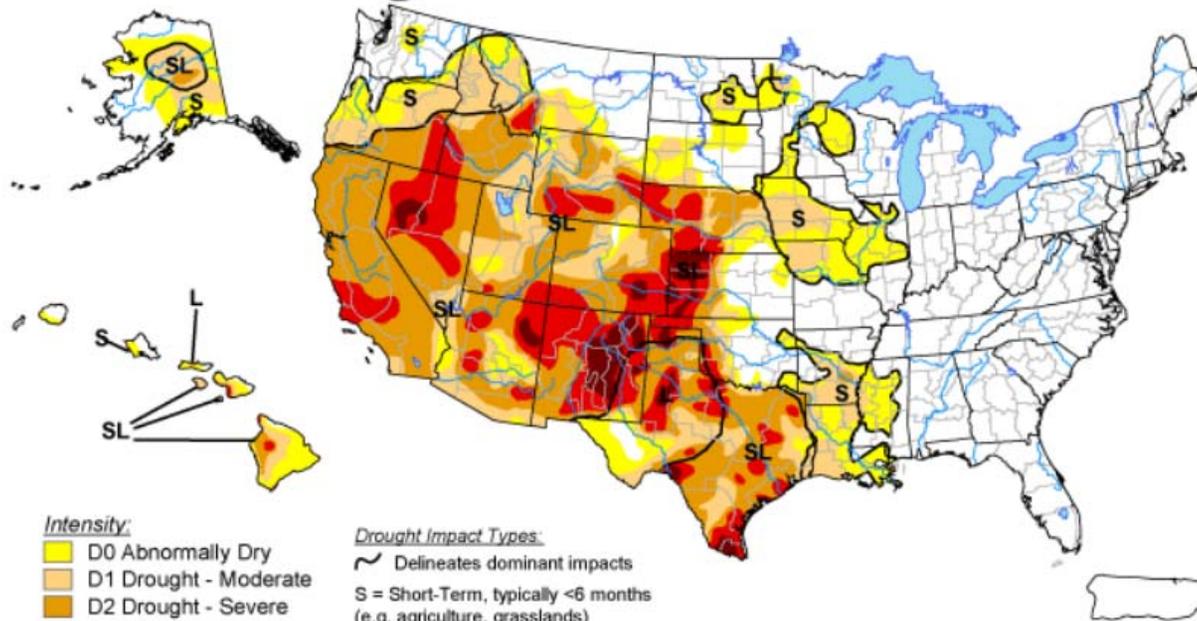
2011 Analysis as a Disaster Program

- 2011 net returns were \$7.72/Ac.
\$7.72 per acre
X 20 acres per A.U.
\$154.40/AU for supplemental feed purchases.

U.S. Drought Monitor

August 13, 2013

Valid 7 a.m. EDT



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

-  Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu/>



Released Thursday, August 15, 2013

Author: Michael Brewer/L. Love-Brotak, NOAA/NESDIS/NCDC

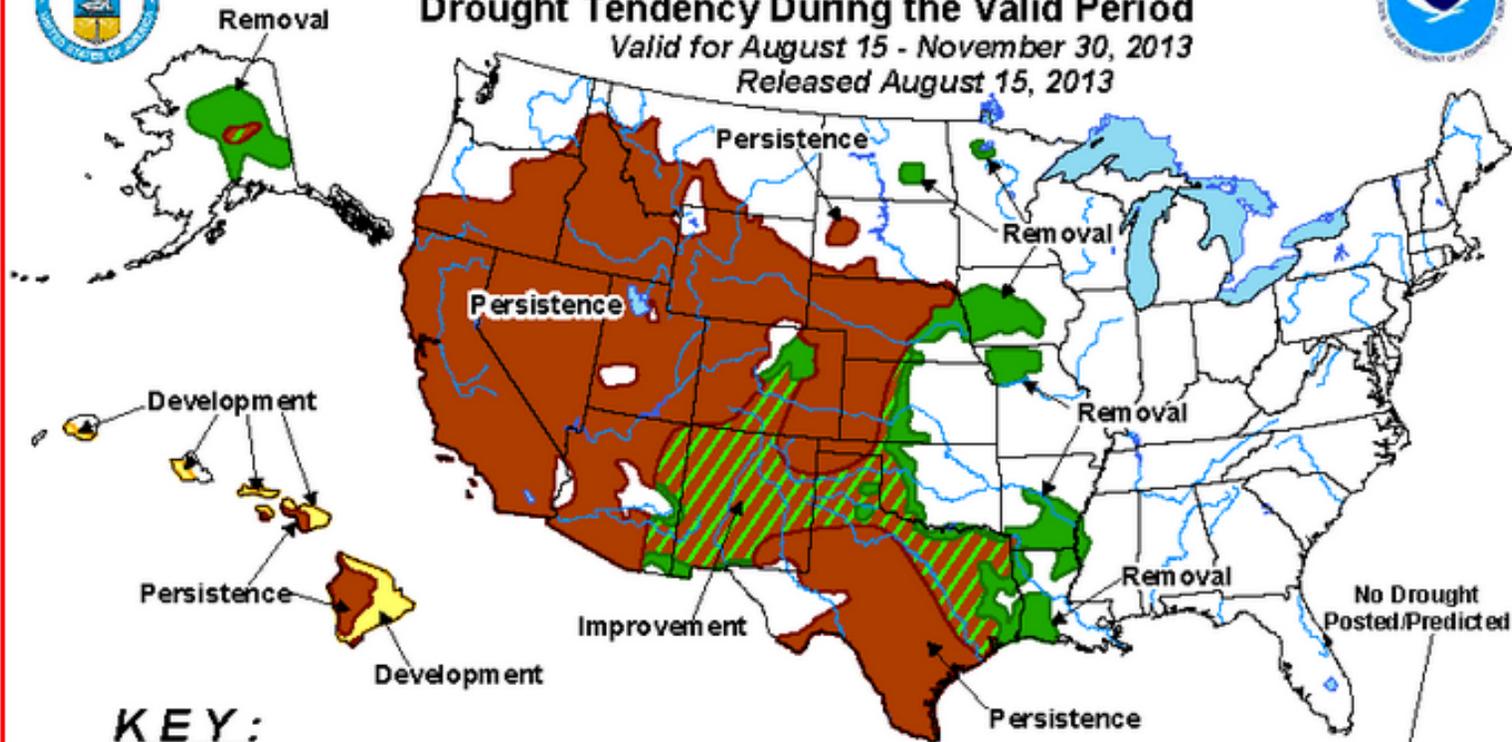
The U.S. Drought Monitor is produced in partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration.



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for August 15 - November 30, 2013
Released August 15, 2013



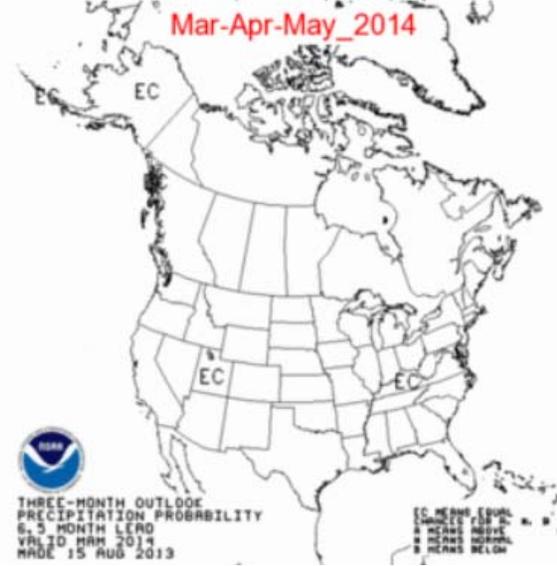
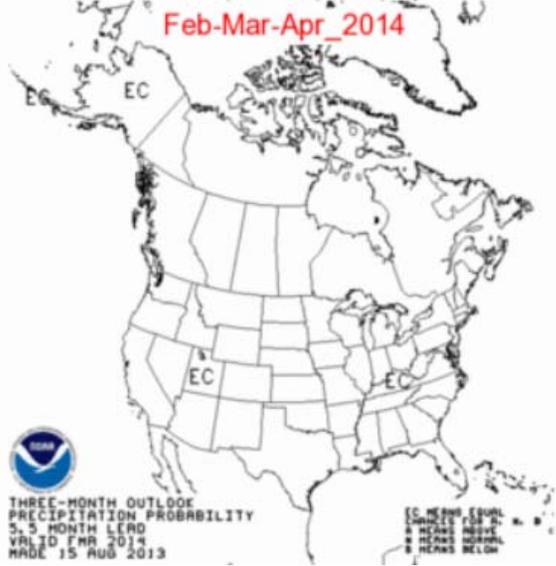
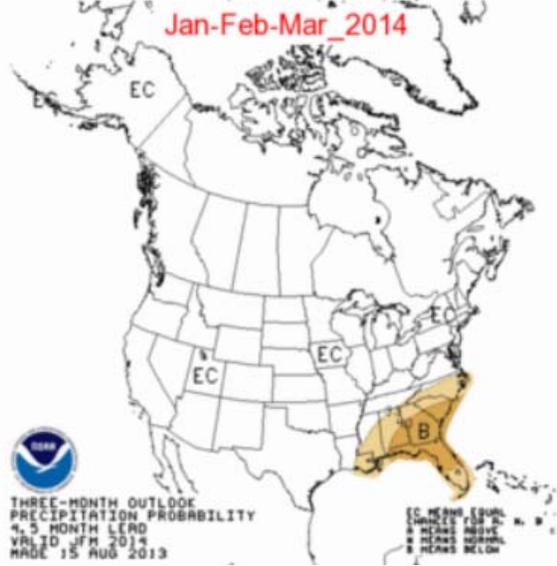
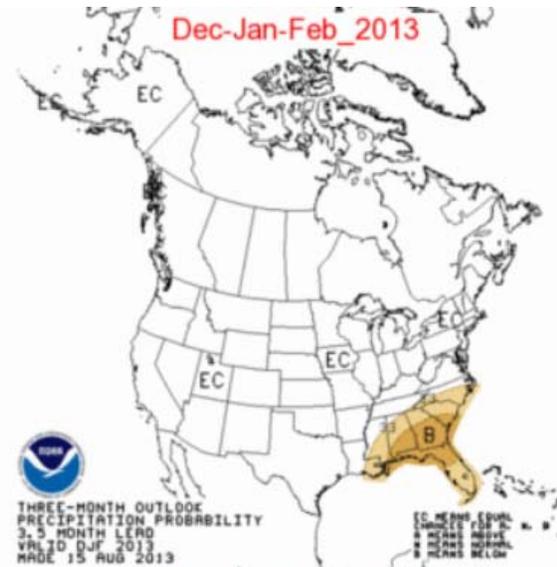
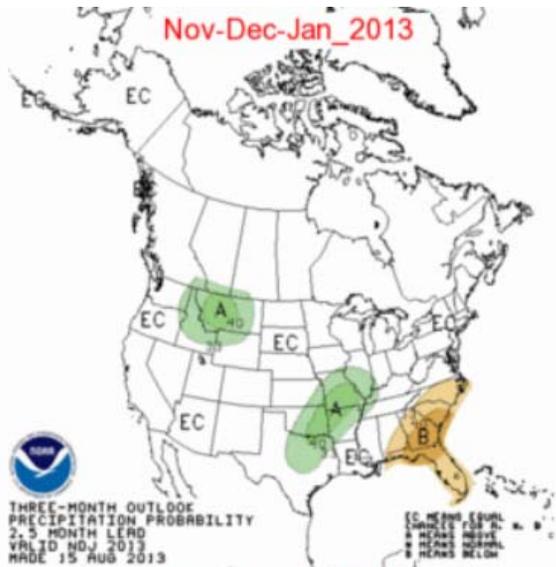
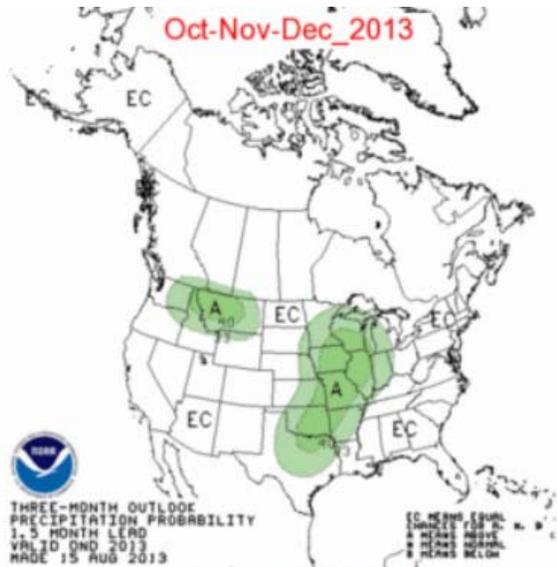
KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

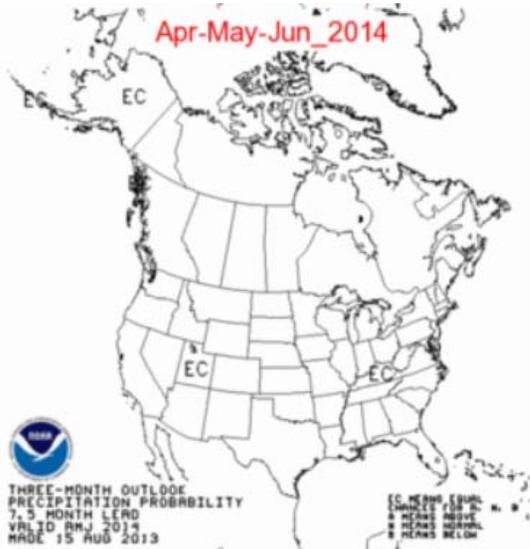
Author: Brad Pugh, Climate Prediction Center, NOAA
http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

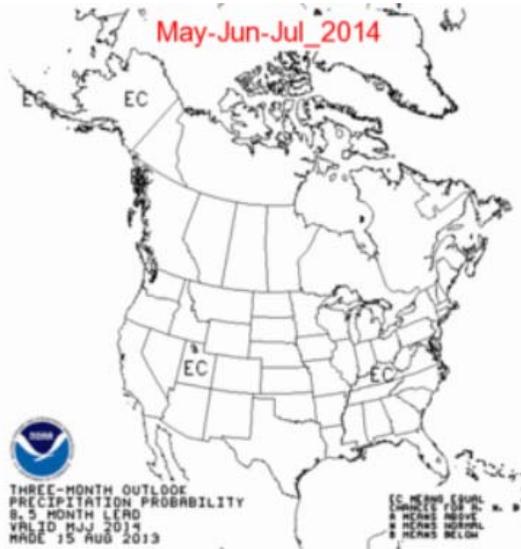
NOTE: The Green and Brown hatched areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)



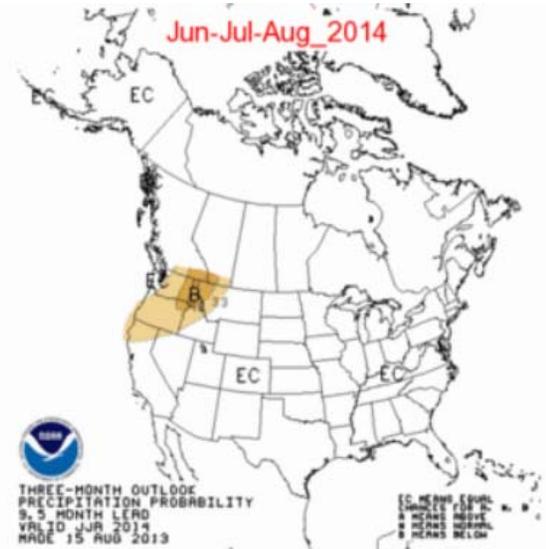
Apr-May-Jun_2014



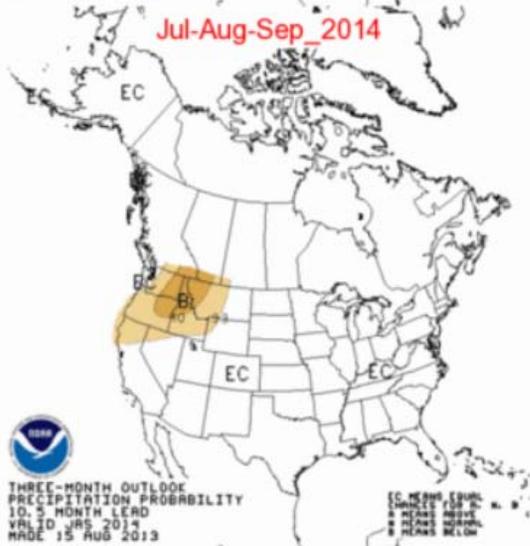
May-Jun-Jul_2014



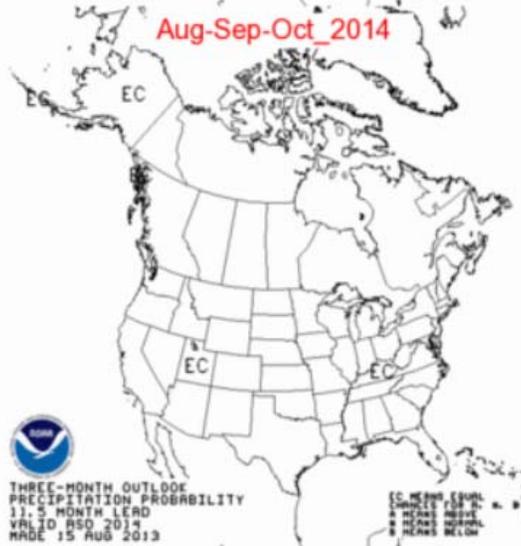
Jun-Jul-Aug_2014



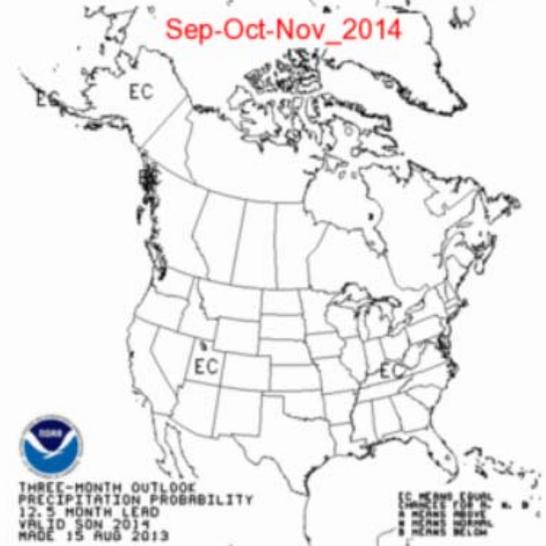
Jul-Aug-Sep_2014



Aug-Sep-Oct_2014



Sep-Oct-Nov_2014



Now What?

- Contact a local crop insurance vendor.
 - These guys have picked this product up and have done an impressive job of mastering the program.
 - Contact me if you don't have a continuing relationship with a crop insurance vendor.

Questions?

- Thank You

Give me a call or an email

Bill Thompson

Texas A&M AgriLife Extension Economist

San Angelo, TX

325-653-4576

w-thompson@tamu.edu

