## Risk Management for Stocker Cattle

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## Let's talk about risk

- It is NOT uncertainty!
- It is the negative outcome associated with an unforeseen event.
- Good risk managers
  - Know the odds
  - Don't risk a lot to make a little.
  - Don't risk more than they can afford lose.







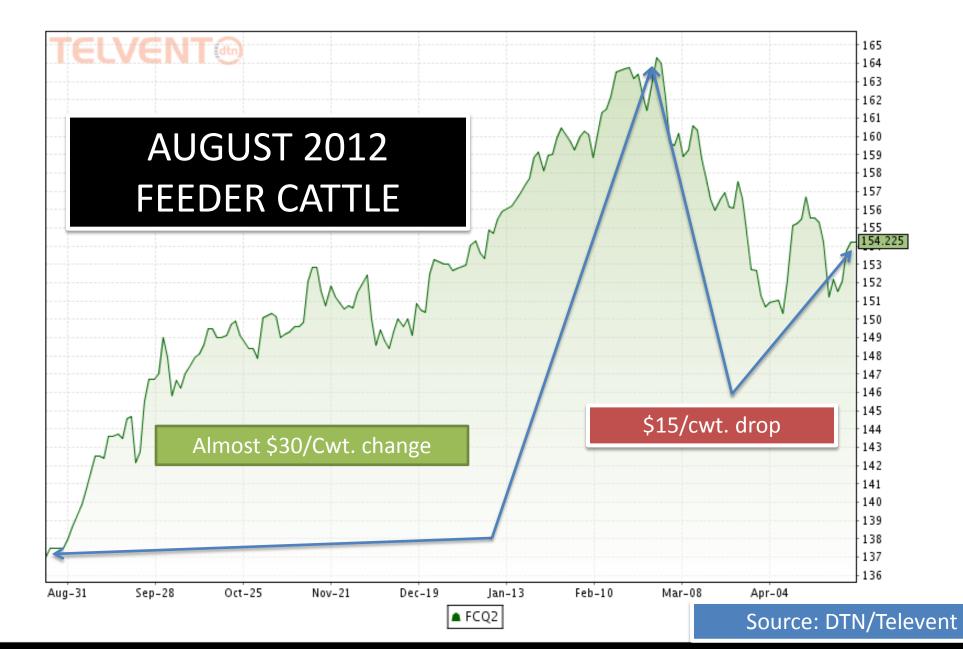
## Five Types of Risk

- 1. Price (input and output)
- 2. Production (weather, health, etc.)
- 3. Financial (financing, management, etc.)
- 4. Legal
- 5. Human

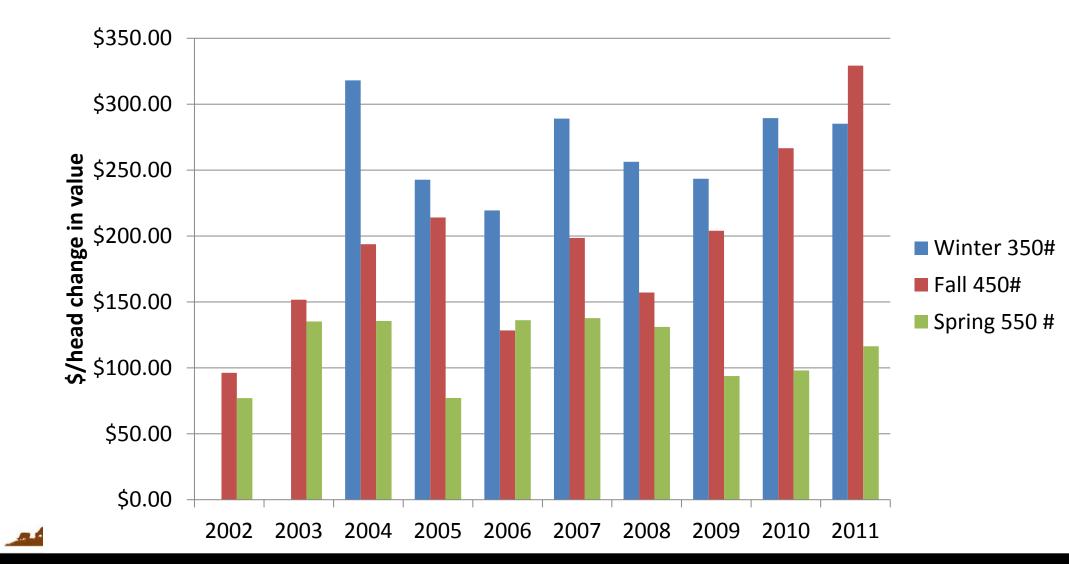




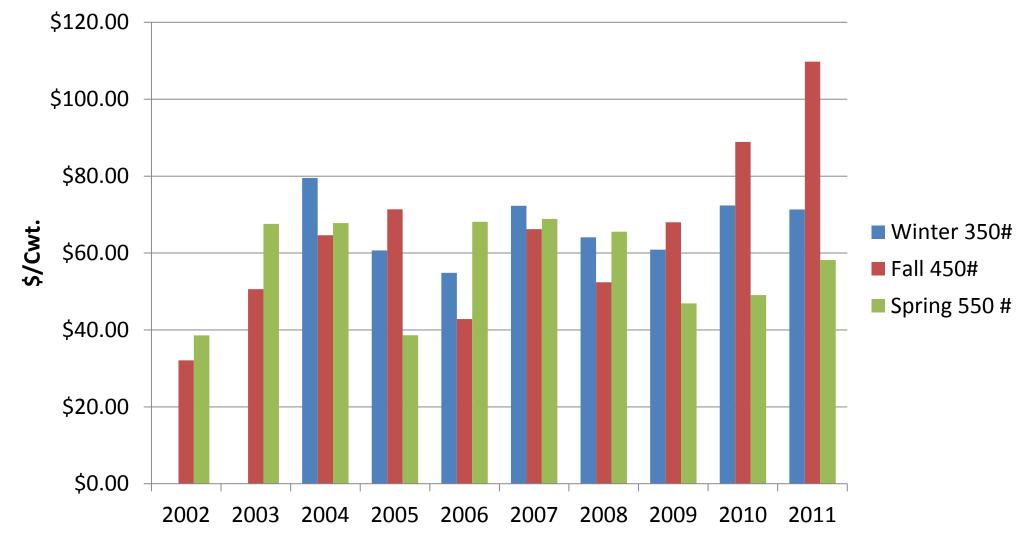




## **Estimated Gross Margins for Stockering**



# Value of Gain (aka Breakeven Cost of Gain) for Stockering



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## Managing Risk: What is Your Goal?

- Protect Profits
  - Maximize Price Received
  - Aggressive Marketing Strategy
- Protect Equity
  - Establish Minimum Price Received
  - Requires Knowledge of Cost Structure
- Protect the Farm
  - Minimize Maximum Loss
  - Most Alternatives
  - Least Costly





## Developing a Risk Management Plan

- 1. Define/establish what constitutes a "wreck" or a catastrophic loss.
- 2. Determine those factors or scenarios that will cause a wreck.
- 3. Determine the likelihood of those events occurring.
- 4. Develop a risk management plan for these critical factors.





#### Stockering 450# Steers on Overseeded Cropland - Fall 2011 (Variable Cost Budget)

NUMBER OF ACRES	50.00	In Date	11/01/11
STOCKING RATE (HEAD/ACRE)	2.00	Out Date	03/30/12
NUMBER OF CALVES PLACED	100		
DEATH LOSS (%)	2.00		
NUMBER OF CALVES SOLD	98		
FEEDING PERIOD (DAYS)	150.00		

	BEST	OPT.	<b>MEDIAN</b>	PESS.	WORST
PAYWEIGHT TO PAYWEIGHT	3.00	2.25	2.00	1.75	1.50
DAILY GAIN (LBS./DAY)					
NET SELLING WEIGHT (CWT.)	9.00	7.88	7.50	7.13	6.75
SELLING PRICE (\$/CWT.)	\$145.00	\$135.00	\$125.00	\$120.00	\$115.00

Item	Unit	Units Per Head	Total Quantity (units)	Unit Price (\$/Unit)	Total Amount
VARIABLE COSTS:	•	•		•	•
CALF	CWT.	4.50	450	\$135.00	\$60,750
PROCUREMENT COST	HEAD	1.00	100	\$10.34	\$1,034
WINTER GRAZING	ACRE	0.50	50	\$202.90	\$10,145
HAY	TON	0.08	8	\$55.00	\$413
RECEIVING RATION	TONS	0.26	26	\$225.00	\$5,906
SUPPLEMENTAL FEED	TONS	0.29	29	\$225.00	\$6,518
MINERAL + IONOPHORE	LBS.	37.50	3,750	\$0.28	\$1,050
MEDICATION, WORM, VAC.	HEAD	2.00	200	\$4.00	\$800
GROW.STIMULANT	IMPLANT	2.00	200	\$1.00	\$200
REPAIRS	HEAD	1.00	100	\$0.80	\$80
LAND RENTAL	ACRE	0.50	50	\$0.00	\$0
LABOR	HRS.	1.25	125	\$9.02	\$1,128
DEATH LOSS	PERCENT	1.00%	88,023	\$880.23	\$880
INTEREST ON CALF	PERCENT	7.00%	60,750	\$0.03	\$1,748
INTEREST ON OTHER EXPENSES	PERCENT	7.00%	18,009	\$0.03	\$518
AUCTION AND HAULING	HEAD	1.00	100	\$18.75	\$1,875

#### TOTAL VARIABLE COST

#### COST OF GAIN SUM MARY AND MAX. BREAKEVEN CALF PRICE

	\$/CWT.
FEED ONLY COST OF GAIN (\$/CWT.)	\$83.46
FEEDING COST OF GAIN (\$/CWT.)	\$102.05
TOTAL COST OF GAIN (\$/CWT.)	\$102.05
MAX. BREAKEVEN PURCHASE PRICE OF CALF	\$140.16

#### **EXPECTED BREAKEVEN TABLE**

ITEM	TOTAL AMOUNT	\$ / CWT.	\$/HD.
VARIABLE COST	\$93,044	\$123.56	\$949.43
	\$O	\$0.00	\$0.00
TOTAL COST	\$93,044	\$123.56	\$949.43

## Managing Risk in Stocker Cattle

- What Is Your Goal?
  - Protect Profits
  - Protect Equity
  - Protect the Farm
- Available Risk Management Alternatives
  - Price
    - Seasonal purchases
    - Futures & Options
    - LRP
  - Production
    - Rainfall Index Insurance







## **MANAGING PRICE RISK**





## Ways to Manage Price Risk

Selling price

- 1. Set the future sales price  $\rightarrow$  hedge with futures
- 2. Set a minimum sales price
  - 1. Options
  - 2. Price Insurance (LRP)

Purchase price for cattle and feed

- 1. Set the price with futures
- 2. Set a maximum price with options
- 3. Using seasonal information to make purchases





## Quick note on Futures and Options

#### **Futures**

- Allow you to pre-buy or pre-sell commodities without having to pay the entire amount at one time.
  - Feeder cattle (stockers)
  - Corn
- Utilize futures contracts and margins to make sure everyone is playing "fair"
  - 50,000 pounds for feeder cattle
  - 1,000 and 5,000 bushels for corn

#### Options

- Allow you the OPPORTUNITY to set a price on a futures contact.
- Useful for setting a maximum purchase or minimum sales price.
- You pay a price for this opportunity → premium.
- Same contract specs apply





## Using Livestock Risk Protection (LRP) insurance to set a floor price



#### Adapted from Dr. Darrell Mark, University of Nebraska





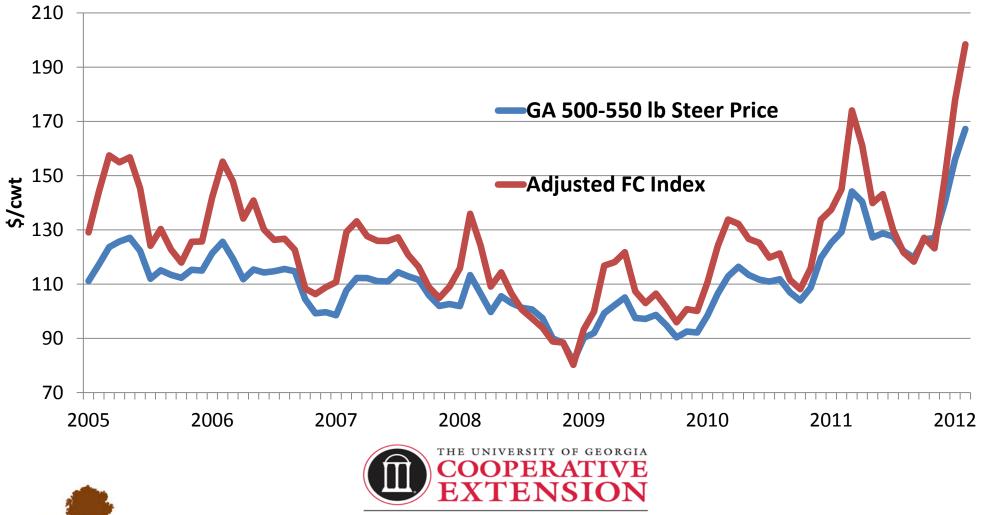
## LRP Is Price Risk Protection

- Establishes A Floor Selling Price For Livestock
- Pays Producers If A Regional/National Cash Price Index Falls Below A Set Price
  - Does Not Guarantee A Cash Price Received
  - Basis Risk Must Still Be Considered
- Covers Feeder Cattle, Fed Cattle, & Swine





## GA LRP BASIS, 2005-2012



College of Agricultural and Environmental Sciences College of Family and Consumer Sciences

**Cattle** Advisor

Southeast

## **Key Points**

- All Owners Of Eligible Livestock In LRP States
- Once Enrolled, Producers Have The Right *But Not The Obligation* To Purchase Coverage
- Coverage Obtained With A Specific Coverage Endorsement (SCE)
- Livestock Has To Be In Eligible State
  - Owners Can Be In Other States





## **Eligible Cattle**

- Feeder Cattle
  - Feeder Steers, Bulls, & Heifers < 600 lbs
  - Feeder Steers & Heifers From 600-900 lbs
  - Includes Dairy & Brahman Breeds
- Fed Cattle
  - Steers & Heifers
  - Select Or Higher, Yield Grade 1-3
  - Weight: 1,000-1,400 lbs.





## **Insurance Agents**

- Available Through Crop Insurance Agent System
- Agent Locator Tool On USDA Website
- http://www3.rma.usda.gov/apps/agents/







## **Coverage Availability**

- Coverage Available About 5pm To 9am CST
  - Available Sat Mornings Until 9am, But Not Sun, Mon, & Holidays
- Coverage Initiated With Specific Coverage Endorsement (SCE)
  - No Limit On Number Of SCEs
- Producers Have Flexibility On The:
  - Timing Of Purchase
  - Time Length Of The SCE
  - Number Of Head Covered





### Limitations On Number Of Head Insured

	Fed Cattle	Feeder Cattle
Per Specific Coverage Endorsement	2,000	1,000
Per Crop Year July 1-June 30	4,000	2,000





## LRP Compared to Hedging or Options

- Advantages
  - No need to establish brokerage accounts
  - Can insure animals on individual basis
  - "Guaranteed" availability for price protection for far-off futures contracts

- Disadvantages
  - Paperwork can take a while
  - Available only for animals in certain states
  - Can't "lock-in" a price
  - Can't exercise or "sell back" contract if market goes up





#### LRP Coverage Prices, Rates, and Actual Ending Values - Report for 5/2/2012 USDA subsidizes 13 percent of total LRP premium

State	County	Endorsement Length	Commodity	Туре	Practice	Crop Year	Exp. End Value	Coverage Price	Coverage Level	Rate	Cost Per CWT	End Date	Actual End Value
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$151.630	0.985600	0.028490	4.320	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$149.630	0.972600	0.023485	3.514	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$147.630	0.959600	0.018424	2.720	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$145.630	0.946600	0.014303	2.083	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$143.630	0.933600	0.010471	1.504	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$141.630	0.920600	0.007569	1.072	08/01/2012	
12 Florida	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	153.851	\$139.630	0.907600	0.005572	0.778	08/01/2012	
12 Florida	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	154.225	\$152.000	0.985600	0.031336	4.763	08/29/2012	
12 Florida	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	154.225	\$150.000	0.972600	0.026613	3.992	08/29/2012	
12 Florida	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	154.225	\$148.000	0.959600	0.021588	3.195	08/29/2012	
12 Florida	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	154.225	\$146.000	0.946700	0.017432	2.545	08/29/2012	
12 Florida	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2012	154.225	\$144.000	0.933700	0.013333	1.920	08/29/2012	

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## **LRP Summary**

- LRP is a relatively new price risk management tool available to cattle producers
- It is price insurance not enhancement
- To be eligible cattle must located in one of the program states
- More information is available at: <u>http://www3.rma.usda.gov/apps/livestock\_reports/</u>





## USING SEASONAL INFORMATION TO MAKE FEED PURCHASING DECISIONS





## **Using Seasonal Price Information**

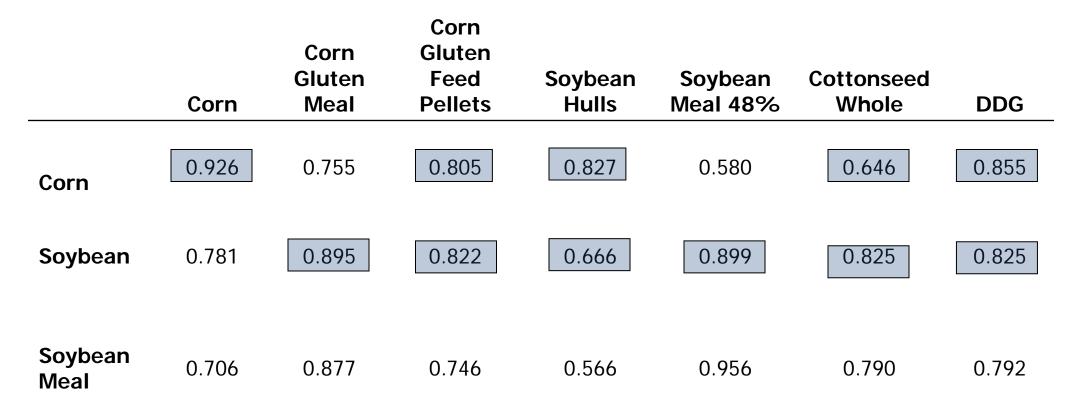
- Stocker operators use many types of feeds including coproducts and by-products.
- There is usually a seasonal pattern associated with these products.
- Stocker producers can use this information to make decisions.





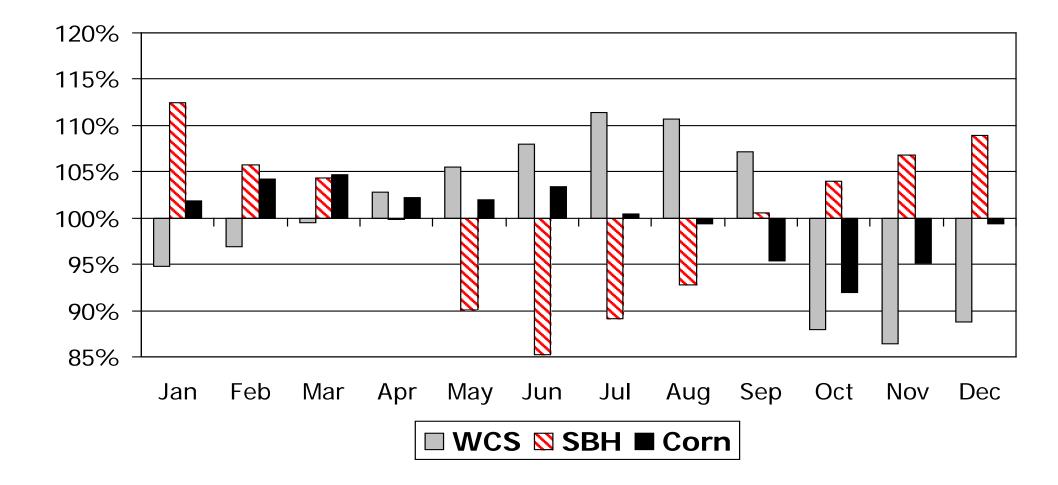


## Correlations of Traded Commodities and Common By-products



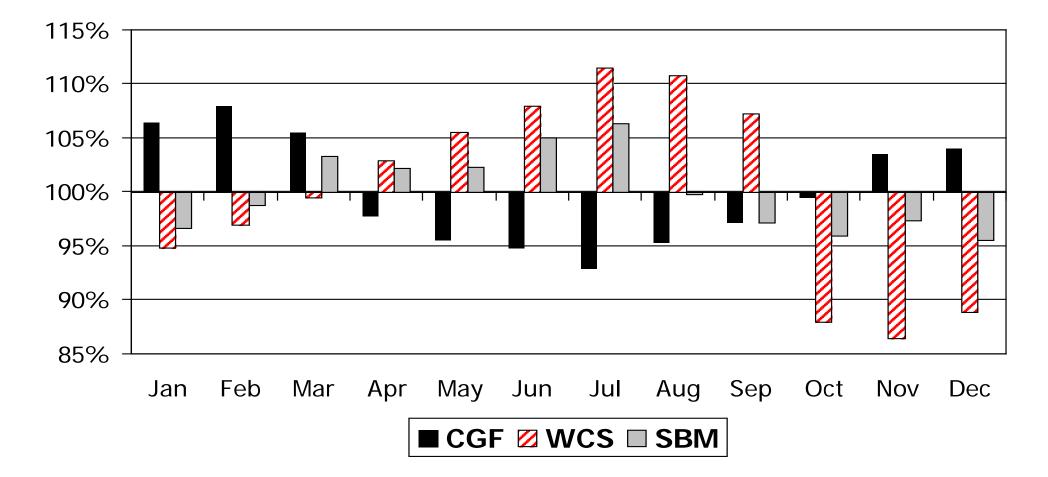
Source: Tammy McKinley, University of Tennessee

## Combined Indices for Energy Feeds 2001-2007



Adapted from McKinley, University of Tennessee

## Combined Protein Indices, 2001-2007



Adapted from McKinley, University of Tennessee

## Seasonal Price Summary

- Seasonal patterns are useful but not 100%
- Can be used in combination with futures and options.







Production/Financial Risk Management

## **RAINFALL INDEX INSURANCE**

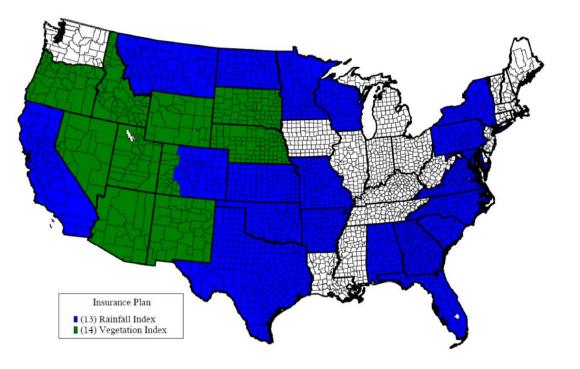




## Rainfall Index Insurance

- New for 2012 in select states and counties.
- Based on a rainfall **index** as calculated by NOAA.
- Producers insure a grid-area
  =.25 degrees latitude X .25
  degrees longitude →
  approximately 12 mi. X 12 mi.
- Producers insure for specific 2-month time periods

2012 and Succeeding Crop Years - Pasture, Rangeland, Forage Availability







## **Rainfall Index Insurance**

- Participants choose
  PRODUCTION levels from
  70-90% and PAYMENT
  levels from 100-150%.
- Indemnity triggers when your GRID rainfall index falls below your coverage level.







## **Rainfall Index Insurance**

# Deadline for sign-up is September 30, 2012.





## Example for Alachua County (Gainesville, FL) -

2011

Index Interval	Insured Acres per Index Interval	Policy Protection per Unit	Premium Rate per \$100	Total Premium (\$/acre)	Premium Subsidy (\$/acre)	Producer Premium (\$/acre)	Actual Index Value	Indemnity (\$/acre)
Jan-Feb	20	\$261	17.94	\$2.34	\$1.19	\$1.15	124.9	\$0.00
Feb-Mar	N/A <u>?</u>	\$0	16.92	\$0.00	\$0.00	\$0.00	88.8	\$0.00
Mar-Apr	20	\$261	18.08	\$2.36	\$1.20	\$1.16	89.6	\$0.06
Apr-May	N/A <u>?</u>	\$0	19.81	\$0.00	\$0.00	\$0.00	77.4	\$0.00
May-Jun	20	\$261	10.59	\$1.38	\$0.70	\$0.68	68.8	\$3.07
<u>Jun-Jul</u>	N/A <u>?</u>	\$0	6.22	\$0.00	\$0.00	\$0.00	80.3	\$0.00
Jul-Aug	20	\$261	5.61	\$0.73	\$0.37	\$0.36	82.7	\$1.06
Aug-Sep	N/A <u>?</u>	\$0	8.69	\$0.00	\$0.00	\$0.00	69.8	\$0.00
Sep-Oct	0	\$0	15.41	\$0.00	\$0.00	\$0.00	88.1	\$0.00
Oct-Nov	N/A <u>?</u>	\$0	19.37	\$0.00	\$0.00	\$0.00	118.9	\$0.00
Nov-Dec	20	\$261	21.18	\$2.76	\$1.41	\$1.35	44.9	\$6.54
Per Acre	N/A	N/A	N/A	\$1.92	\$0.98	\$0.94	N/A	\$2.15
Policy Total	100	\$1,305	N/A	\$192	\$98	\$94	N/A	\$215
County Base Value per Acre \$14.49							ulate	
Dollar Amount of Protection per Acre \$13.04 Total Insured Acres 100								_
Total Policy F	\$1,304							
Subsidy Leve					51%			
-	of Insured Acres per In	50.0%						

# Example for Alachua County (Gainesville, FL) - 2009

Index Interval	Insured Acres per Index Interval	Policy Protection per Unit	Premium Rate per \$100	Total Premium (\$/acre)	Premium Subsidy (\$/acre)	Producer Premium (\$/acre)	Premium Index	
Jan-Feb	20	\$261	17.94	\$2.34	\$1.19	\$1.15	74.8	\$2.20
Feb-Mar	N/A <u>?</u>	\$0	16.92	\$0.00	\$0.00	\$0.00	68.0	\$0.00
Mar-Apr	20	\$261	18.08	\$2.36	\$1.20	\$1.16	88.7	\$0.19
Apr-May	N/A <u>?</u>	\$0	19.81	\$0.00	\$0.00	\$0.00	226.5	\$0.00
May-Jun	20	\$261	10.59	\$1.38	\$0.70	\$0.68	158.7	\$0.00
Jun-Jul	N/A <u>?</u>	\$0	6.22	\$0.00	\$0.00	\$0.00	82.4	\$0.00
Jul-Aug	20	\$261	5.61	\$0.73	\$0.37	\$0.36	102.1	\$0.00
Aug-Sep	N/A <u>?</u>	\$0	8.69	\$0.00	\$0.00	\$0.00	86.6	\$0.00
Sep-Oct	0	\$0	15.41	\$0.00	\$0.00	\$0.00	52.2	\$0.00
Oct-Nov	N/A <u>?</u>	\$0	19.37	\$0.00	\$0.00	\$0.00	82.1	\$0.00
Nov-Dec	20	\$261	21.18	\$2.76	\$1.41	\$1.35	112.5	\$0.00
Per Acre	N/A	N/A	N/A	\$1.92	\$0.98	\$0.94	N/A	\$0.48
Policy Total	100	\$1,305	N/A	\$192	\$98	\$94	N/A	\$48
County Base Value per Acre \$14.49							ulate	
Dollar Amount of Protection per Acre \$13.04								
Total Insured /	100							
Total Policy Pr Subsidy Level		\$1,304 51%						
-	Maximum % of Insured Acres per Index Interval 50.0%							
	50.078							

## Trigger levels of Rainfall Index Insurance at 90% coverage since 2002

Year	Jan-Fel🗾	Feb-Ma	Mar-Ap	Apr-Ma	May-Ju	Jun-Jul 🞽	Jul-Au 🝸	Aug-Se	Sep-O	Oct-No	Nov-D
2011	124.9	88.8	89.6	77.4	68.8	80.3	82.7	69.8	88.1	118.9	44.9
2010	155	164.2	111.7	95.1	117.4	101	120.5	93.8	25.3	31	45
2009	74.8	68	88.7	226.5	158.7	82.4	102.1	86.6	52.2	82.1	112.5
2008	115.1	108.8	86.3	31.9	71.1	110.8	148.2	118.3	66.4	68.2	46.7
2007	122	108	76.8	45.8	74.6	95.7	80.1	80.1	141.2	150.1	55.9
2006	85.9	59.7	32.1	45.2	55.7	87.2	78.9	55.2	50.6	56.7	79.6
2005	40.2	83.1	144.6	159.5	100.7	110.1	114.4	76.7	56	68.6	100
2004	90.1	98.3	51.8	59.2	85.8	77.1	99.9	191.4	199.3	61.4	107.2
2003	89.3	152.2	121.1	51.5	116.5	105.5	78.4	80.7	89.7	108.8	57.2
2002	52.9	41.9	58.6	61.5	101.7	129.4	116.3	105.5	110.5	131.6	193.3

Red cells indicate an index below 90%



## Practical Suggestions for Selecting Rainfall Index Insurance

- Choose those 2-month intervals that are critical to your forage production.
- Evaluate the appropriate coverage level.
- Choose the appropriate payment level.







## Managing Risk in Agriculture

- What Is Your Goal?
  - Protect Profits
  - Protect Equity
  - Protect the Farm
- Available Risk Management Alternatives
  - Futures and Options
  - Seasonal pricing
  - LRP
  - Rainfall Index Insurance





## **Risk Management Strategies**

- No One Alternative Protects Against Everything
  - Understand Your Risks!
  - Know Your Operation
- Combining Risk Management Alternatives
  - Comprehensive
  - Requires Knowledge of Different Alternatives
- Keep it Simple





## Risk Management for Stocker Cattle

## www.secattleadvisor.com



