

Livestock Risk Protection (LRP) for Virginia Feeder Cattle Producers



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Colorado State University

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University of Wyoming



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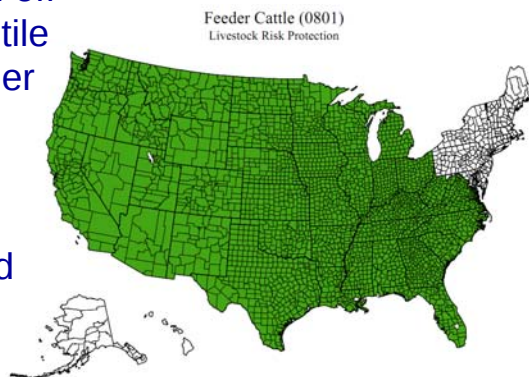
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LRP Feeder Cattle

- LRP for feeder cattle offers *price* protection for feeder cattle producers based off of the Chicago Mercantile Exchange Group Feeder Cattle Index.
- Now available in all counties of Virginia and across several other states



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LRP Feeder Cattle

- It does not cover sickness or death of the cattle or insure against possible rising feed costs.
- Producers remain subject to **basis price risk**



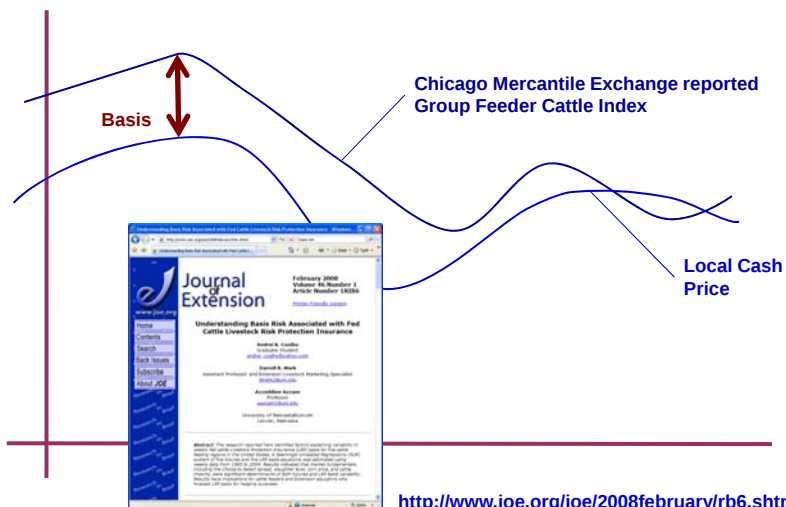
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Basis Risk



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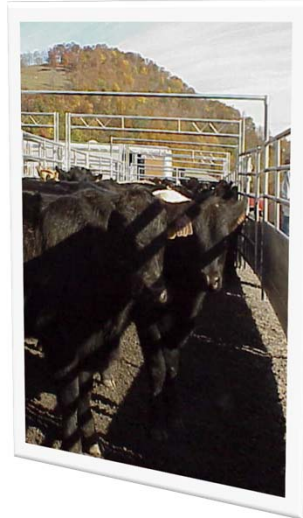
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Basics of LRP for Feeder Cattle

- **Product Offered:** Protection for producer against decline in cattle prices below the established coverage price
- **Insurance Period:** Offered for 13, 17, 21, 26, 30, 34, 39, 43, 47 or 52-week periods
 - The producer will choose a time closest to the time cattle will be marketed or time when cattle will reach the desired weight



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Basics of LRP for Feeder Cattle

- **Application:** An application is required to purchase insurance coverage
- **Specific Coverage Endorsement:** A producer must file a Specific Coverage Endorsement for each group of feeder cattle to be insured. Several endorsements may be filed under one application as long as beneficial interests are the same



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LRP for Feeder Cattle: Types and Weights Insurable

- Steer feeder cattle < 6.0 cwt for steers and bulls and steers only from 6.0 to 9.0 cwt
- Heifer feeder cattle < 6.0 cwt and heifer feeder cattle from 6.0 to 9.0 cwt
- Predominantly Brahman heifers, steers, and bulls < 6.0 cwt and predominantly Brahman heifers and steers from 6.0 cwt to 9.0 cwt
- Predominately dairy heifers, steers and bulls < 6.0 cwt and predominately dairy heifers and steers 6.0 to 9.0 cwt

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Basics of LRP for Feeder Cattle

- “Crop” year: [July 1 to June 30]
 - **Annual Policy Limits:** *The maximum number of head of feeder cattle that may be covered during a crop year is 2,000 head per producer*
- Endorsement Limits:
 - *A limit of 1,000 head of feeder cattle may be insured under any one Specific Coverage Endorsement*



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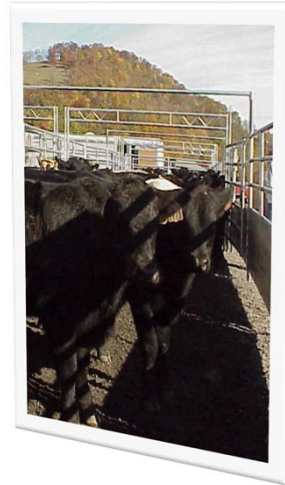
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LRP for Feeder Cattle: Coverage Prices and Levels

- Coverage Prices
 - the prices that may be insured by the producer
- Coverage Levels
 - based on the chosen coverage price and range from 70 to 100% of the expected end value
- Price Adjustment Factors
 - account for differences between steer prices and prices of other types and weight of cattle
 - adjustments are applied prior to posting on the RMA website



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LRP for Feeder Cattle: Actual and Expected End Value of Feeder Cattle

- Expected End Value
 - This is the expected prices at the end of an insurance period for each specific type and weight of feeder cattle announced daily on the RMA website
- Actual End Value
 - This is the value of the cash settled CME feeder cattle index on the end date of the insurance period, adjusted by RMA for feeder cattle type and weight
- Subsidy Level
 - RMA provides a 13% subsidy on LRP feeder cattle premiums

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Cost Estimator


United States Department of Agriculture
Risk Management Agency

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Detailed Estimate

CE0301

Detailed Criteria

- * Insurance Plan : Livestock Risk Protection 81
- * Commodity Year : 2012
- * State : Virginia 51
- * County : Rockbridge 163

* - indicates required field.

Continue Reset

Data valid as of: 9/4/2012

The Cost Estimator only provides a general premium estimate. Refer to your crop insurance agent and policy for specific information regarding insurance coverage, actuarial information, conditions and exclusions.

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Cost Estimator

<http://www.rma.usda.gov>


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Risk Management Agency

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Detailed Estimate

Back Save

Selected Initial Criteria

- * Insurance Plan : Livestock Risk Protection 81
- * Commodity Year : 2012
- * State : Virginia
- * County : 51
- * August 015

Feeder Cattle 0001 Add Item Refresh

Commodity	Type	Practice	Effective Date	Endorsement Length	Number of Head	Target Weight	Insured Share Percent
Feeder Cattle 0801	Steers Weight 1 809	No Practice Specified 997	02/17/2012	26 Weeks	100	5.5 (Enter in CWT)	1.0

Get Estimates

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Data valid as of: 2/16/2012

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Producer and Detail Worksheets for Estimate 106980

Back Save Print/Export

Selected Initial Criteria
* Insurance Plan : Livestock Risk Protection 81 * Commodity Year : 2012 * State : Virginia 51
* County : Augusta 019

Detailed Item Manager
Feeder Cattle 0801: Item 1 << Show Item Details >>

99 % 98 % 97 % 95 % 94 % 93 % 92 % 91 %

Detail Worksheet **Producer Worksheet**

Section 1: Insured Value (Liability)

1.01 Calculate the Insured Value . (Rounded to the nearest whole dollar)				
1	Number of Head	Target Weight	Coverage Price	Share
	100	2	\$179.17	1.000
				Insured Value
				\$97,994.00

Section 2: Total Premium

2.01 Calculate the Total Premium . If total premium is less than \$1, set it to \$1. (Rounded to the nearest whole dollar)			
1	Insured Value	Rate	Total Premium
	\$97,994.00	0.024482	\$2,379.00

Section 3: Producer Premium

3.01 Calculate the Subsidy . (Rounded to 3 decimal places)			
1	Total Premium	Subsidy Factor	Subsidy
	\$2,379.00	0.130	\$439.00
3.02 Calculate the Producer Premium . (Rounded to nearest whole dollar)			
1	Total Premium	Subsidy	Producer Premium
	\$2,379.00	\$439.00	\$2,940.00

Miscellaneous Calculations

Calculate the A&O Expense Subsidy Amount .			
	Total Premium Amount	A&O Expense Subsidy Percent	A&O Expense Subsidy Amount
	\$2,379.00	0.222	\$750.14

THIS WORKSHEET IS INTENDED TO ASSIST IN ESTIMATING PRODUCER PREMIUM ONLY.

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Data valid as of: 2/16/2012

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Home > Information Browser > Cost Estimator > Detailed Estimate

Log In

Detailed Estimate

CE0301

Detailed Criteria

* Insurance Plan	: Livestock Risk Protection 81
* Commodity Year	: 2012
* State	: Virginia 51
* County	: Rockbridge 163

* - indicates required field.

Continue Reset

Data valid as of: 9/4/2012

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Livestock Reports

Main Menu | Print 9/6/2012 12:29:15 AM

LRP Coverage Prices, Rates, and Actual Ending Values Criteria

Select a Type. Type selection is not required.

Effective Date: 09/05/2012
 State: 51 Virginia
 Commodity: 0801 Feeder Cattle
 Type: 810 Steers Weight 2

Report Type: ☒ Web Output ☐ Formatted for Printing

<< Back Create Report

Holidays where LRP Sales Data will be Unavailable

- 10/08/2012 Columbus Day *
- 11/12/2012 Veteran's Day *
- 11/22/2012 Thanksgiving Day
- 12/25/2012 Christmas Day
- 01/01/2013 New Year's Day
- 01/21/2013 Birthday of Martin Luther King, Jr. *

Livestock Reports

Select Criteria | Main Menu | Print 9/6/2012 12:41:35 AM

LRP Coverage Prices, Rates, and Actual Ending Values - Report for 09/05/2012

* See notes at bottom of page

State	County	Endorsement Length	Commodity	Type	Practice	Crop Year	Exp. End Value	Coverage Price	Coverage Level	Rate	Cost Per CWT	End Date	Actual End Value
51 Virginia	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	148.894	\$148.440	0.997000	0.028692	4.259	12/05/2012	
51 Virginia	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	148.894	\$148.440	0.983500	0.021948	3.214	12/05/2012	
51 Virginia	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	148.894	\$144.440	0.970100	0.016443	2.375	12/05/2012	
51 Virginia	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	148.894	\$142.440	0.956700	0.012096	1.723	12/05/2012	
51 Virginia	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	148.894	\$140.440	0.943200	0.008530	1.198	12/05/2012	
51 Virginia	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	150.047	\$149.600	0.997000	0.031671	4.738	01/02/2013	
51 Virginia	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2013	150.047	\$147.600	0.983700	0.025251	3.727	01/02/2013	

Livestock Reports

Main Menu | Print

9/6/2012 12:53:22 AM

LRP Coverage Prices, Rates, and Actual Ending Values Criteria

Select a Type. Type selection is not required.

Effective Date: 03/01/2012

State: 51 Virginia

Commodity: 0801 Feeder Cattle

Type: 809 Steers Weight 1

Report Type: ☒ Web Output ☐ Formatted for Printing

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Create Report

Holidays where LRP Sales Data will be Unavailable

- 10/08/2012 Columbus Day *
- 11/12/2012 Veteran's Day *
- 11/22/2012 Thanksgiving Day
- 12/25/2012 Christmas Day
- 01/01/2013 New Year's Day
- 01/21/2013 Birthday of Martin Luther King, Jr. *
- 02/18/2013 Washington's Birthday *
- 03/29/2013 Good Friday (market holiday)

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Select Criteria | Main Menu | Print

9/6/2012 12:56:17 AM

LRP Coverage Prices, Rates, and Actual Ending Values - Report for 03/01/2012

* See notes at bottom of page

State	County	Endorsement Length	Commodity	Type	Practice	Crop Year	Exp. End Value	Coverage Price	Coverage Level	Rate	Cost Per CWT	End Date	Actual End Value
51 Virginia	998 All Counties	13	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	179.663	\$177.130	0.985900	0.024300	4.304	05/31/2012	167.530
.....													
51 Virginia	998 All Counties	21	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.572	\$160.440	0.888500	0.006129	0.963	07/26/2012	147.600
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$178.200	0.986000	0.032617	5.812	08/30/2012	153.960
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$176.000	0.973800	0.027331	4.810	08/30/2012	153.960
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$173.800	0.961700	0.022854	3.972	08/30/2012	153.960
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$171.600	0.949500	0.018949	3.252	08/30/2012	153.960
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$165.000	0.913000	0.011373	1.877	08/30/2012	153.960
51 Virginia	998 All Counties	26	0801 Feeder Cattle	809 Steers Weight 1	997 No Practice Specified	2012	180.730	\$160.600	0.888600	0.007973	1.280	08/30/2012	153.960

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Livestock Insurance: LRP for Feeder Cattle Example

Contract Data	Value
Number of Steers	100
Expected Weight	700
Current Date	Sep. 5
Marketing Date	Jan. 2
Insurance Period	17 Weeks
Expected Ending Value	150.047
Coverage Level	0.997
Coverage Price	149.60



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Livestock Insurance: LRP for Feeder Cattle Example

Contract Data	Value	Source
Insured Value	\$105,033	100 hd x 7 cwt/hd x 150.047/cwt
Premium Rate	0.031671	RMA
Total Premium	\$3,327	105,033 x 0.031671
Subsidy Rate	13%	RMA
Subsidy Amount	\$433	3,327 x 0.13
Producer Premium	\$2,894	3,327 - 433

Producer Premium = 2,894/(700 cwt) = \$4.13/cwt



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Livestock Insurance: LRP for Feeder Cattle Example

- Suppose the CME-reported actual ending value is \$142.00/cwt.
- Indemnity calculation

$$\text{Indemnity} = 100 \text{ hd} \times 7 \text{ cwt/hd} \times (150.047 - 142.00) = \underline{\$5,633}$$

- This is independent of your actual marketing decision and outcome.

Livestock Insurance: LRP for Feeder Cattle Example

- Suppose you actually market your steers for \$127.00/cwt. at the local auction.
- Net Revenue Calculations

$$\text{Sales Revenue} = 100 \text{ hd} \times 7 \text{ cwt/hd} \times 127 = \$88,900$$

$$\text{Net Revenue} = \text{Sales} + \text{Indemnity} - \text{Producer Premium}$$

$$\text{Net Revenue} = 88,900 + 5,633 - 2,894 = \$91,639$$

$$\text{Net Revenue per Cwt.} = 91,639 / (100 \times 7) = \underline{\$130.91/\text{cwt.}}$$

LRP Feeder Cattle - History

Federal Crop Insurance Corporation
Reinsurance Year Statistics for 2012
As of: 9/5/2012
Nationwide Summary - By State/Commodity

Commodity	Ins Plan	Pol Sold	Pol Earn Prem	Pol Indem	Units Earn Prem	Units Indem	Number of Head *	Liabilities	Total Premium	Subsidy	Indemnity	Loss Ratio
VIRGINIA												
FEEDER CATTLE	LRP	56	23	12	42	19	1,843	1,984,994	40,916	5,319	45,932	1.12
Grand Total		56	23	12	42	19	1,843	1,984,994	40,916	5,319	45,932	1.12




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Price Risk Analysis: Futures, Options, LRP Comparison

Table: Price Risk Analysis - Futures, Options, LRP Comparison

Introduction	Futures	Options	LRP	Summary Results	Cost Of Production	Save, Load, Delete a Scenario
Conditions at Time of Purchase						
Futures Price: Options Strike Price: LRP Coverage	\$115.55	\$114.00	\$121.50			
Expected Basis Entered by User	\$6.00	\$6.00				
Brokerage and Other Misc Costs	\$0.30	\$0.30	\$0.18			
Margin Call Transaction Costs: \$/Cwt	\$0.00					
Net Predicted Cash/Floor Price	\$121.25	\$115.15	\$117.39			
Percent Hedged or With Price Protection	87.0%	87.0%	100.0%			
Conditions at Time of Sale/Exercise/Offset For Futures/Options/Insurance						
Futures Price at Sale/Exercise/Offset	\$115.00	\$115.00				
Cash Settlement Index Value Termination/Sale/Offset			\$115.00			
Profit/Loss on Futures/Options OR LRP Indemnity, if any	\$0.55	-4.55	\$2.39			
Cash Conditions at Time of Sale						
Cash Price at Sale Time	\$121.00	\$121.00	\$121.00			
Net Price Received @ Sale (Cash - Brokerage-Trading) +/- Hedge P/L Adj % Coverage	\$121.22	\$116.78	\$123.21			
Cost of Production Per Cwt (Cow/Calf/Feeder)	\$105.00	\$105.00	\$105.00			
Net Income Received Per Cwt of Production	\$16.22	\$11.78	\$18.21			
Check Current LRP Coverage Levels at the RMA Web Site.						
Check Current Futures/Options Prices on the Web.						
Click to toggle graphic/table display						
These three values MUST be changed together for correct results.						
Current Futures Price-Initial Position	\$115.55					
Put Option Strike Price at Purchase	\$114.00					
Put Option Premium @ Strike Price	\$4.55					
Expected Basis at Sale Time	\$6.00					
LRP Coverage Price Level Selected	\$121.50					
Coverage Rate for LRP Coverage Price	0.038859					
RMA Premium for Coverage Level	\$4.7212					
At Sale						
Futures Price @ Sale/Offset Time	\$115.00					
Local Cash Price at Sale Time	\$121.00					
Actual Basis at Sale Time	\$6.00					
CHE Cash Settlement Index @Sale/Offset	\$115.00					
Total Cost of Production Cow/Calf	\$105.00					
Number of animals considered	100					
Expected Average Cwt at time of Sale	5.75					
LRP Ownership Share of these cattle	100%					
Number of feeder Contracts needed	1.15					
Number of feeder Contracts Purchased	1					
Percent Hedged	86.96%					




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- Farm Management Wiki tool "Futures, Options, LRP Comparison"
- <http://FarmManagement.org/Wiki>
- Click on Contents > Tools > "Futures Options LRP Comparison"



Questions?

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