

Livestock Price Risk Management AGEC 244-2



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www.ndsu.edu/livestockeconomics

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EXTENSION

Price Risk Management Tools

- Cash forward contract
- Video and internet auctions
- CME futures
- CME options
- Livestock Risk Protection (LRP)
- Livestock Gross Margin (LGM)
- Which one or combination fits your marketing plan?

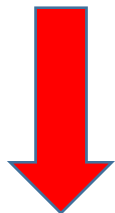
Which Is Best?

Depends on expected price trend



Uptrend:
(Bull)

cash market

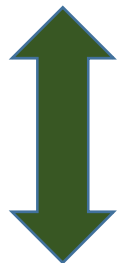


Downtrend:
(Bear)

futures

cash forward contract

video and internet auction



?:

options or LRP

(will always be 2nd best)

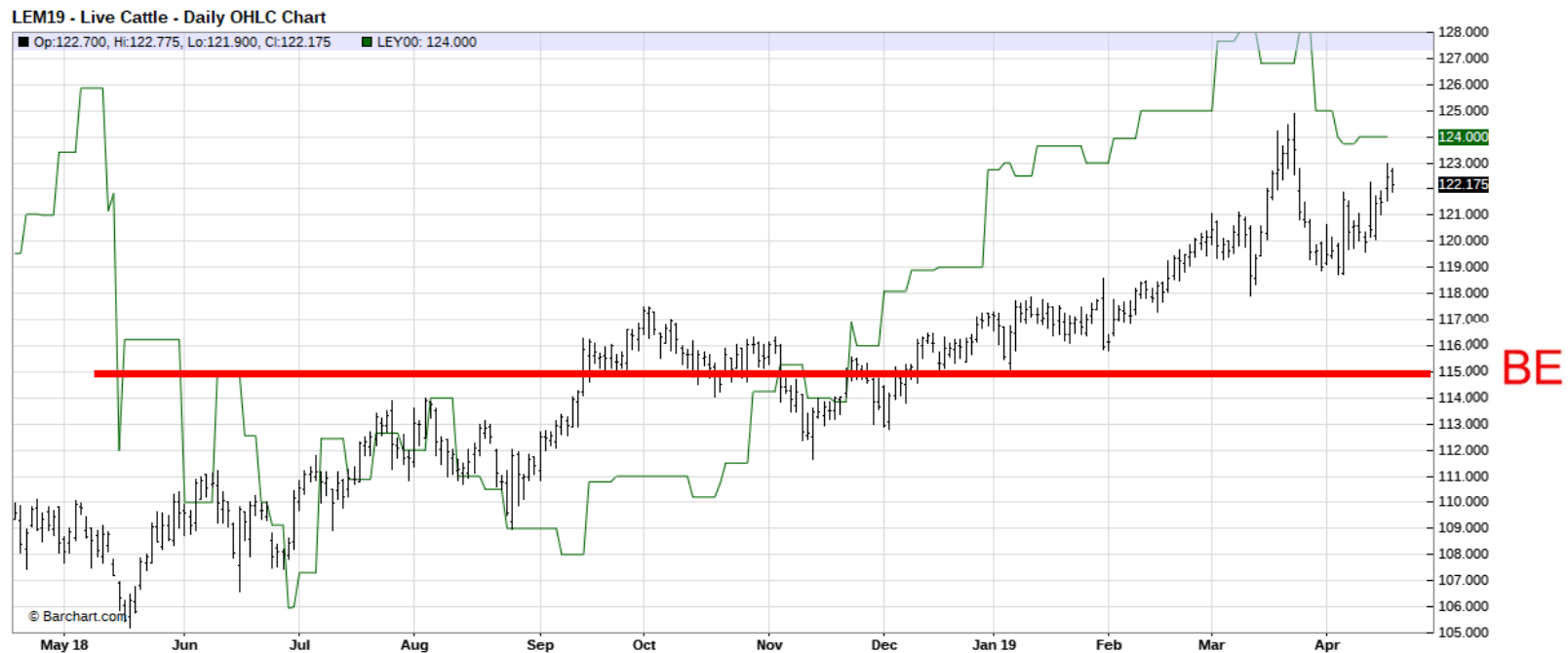


CME LIVESTOCK FUTURES CONTRACTS

1. Live Cattle

- 1050 – 1500 lb. (27-38) steers and heifers (1050-1350)
- 40,000 lbs., 400 cwt.
- Feb, Apr, Jun, Aug, Oct, Dec

JUN LV CAT



2. FEEDER CATTLE

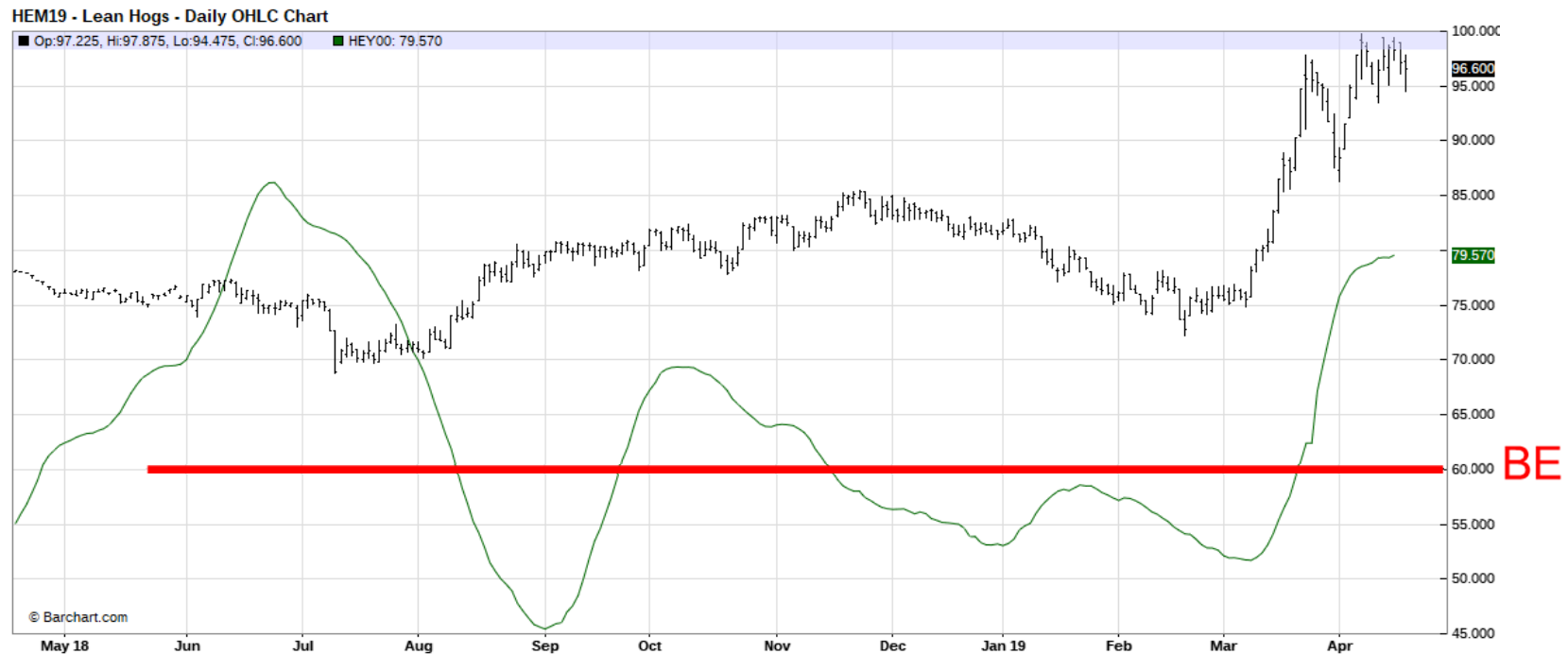
- 700 – 899 lb.- ave. 800 lb. (72-56 hd) steers
- 50,000 lbs., 500 cwt.
- Jan, Mar, Apr, May, Aug, Sep, Oct, Nov
MAY FDR CAT



3. LEAN HOGS

- 210 lb. avg. carcass weight (180 – 200 hd)
- 40,000 lb., 400 cwt.
- Feb, Apr, May , Jun, Jul, Aug, Oct, Dec

JUN LEAN HOGS



Options

- Similar to an insurance policy
- PUT: right to a short futures contract
- CALL: right to a long futures contract
- Buyer pays market determined premium
- Seller receives premium

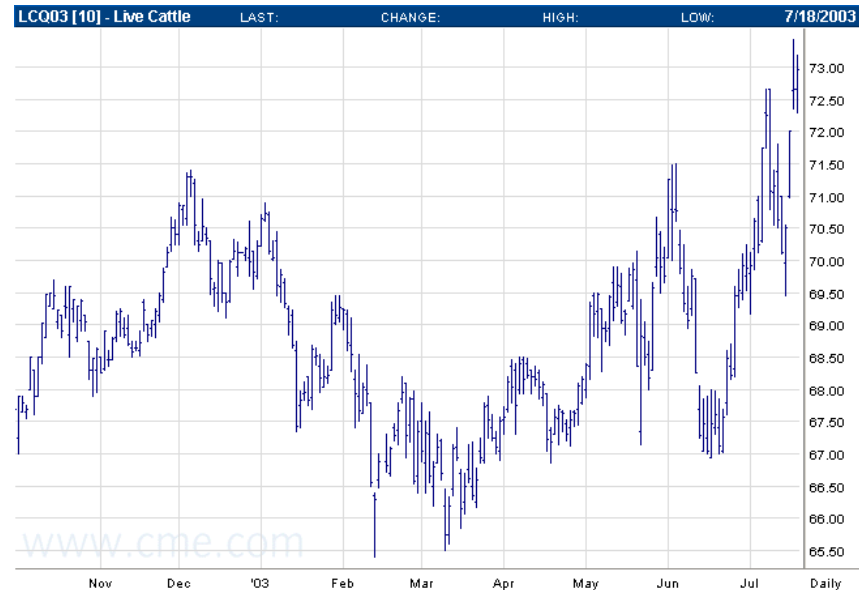
Why use options?

- Minimum price established for bear market, but can receive higher prices if bull market

Price		<u>cash</u>
Price		<u>futures</u>
Price ?		<u>options</u>

Options will always be 2nd best

When should I pull the trigger?



Most difficult part of using Futures and Options

Is there something easier?

Some Cattle Packers Offer Futures-based Forward Contracts

- No need for broker, margins, etc.
- Price is + or – futures contract price
- Other specifications

LM_CT153

St. Joseph, MO Mon Apr 15, 2019 USDA Market News

NATIONAL WEEKLY DIRECT SLAUGHTER CATTLE - PRIOR WEEK SLAUGHTER AND CONTRACT PURCHASES

For Week Ending Sunday, 04/14/2019

D: BASIS DISTRIBUTION

Delivery Mo./Basis Mo.

Jun '19/Jun

70 head =	-20.00
35 head =	-12.00
230 head =	-1.00
1,321 head =	-0.50
1,068 head =	0.00
379 head =	+1.00
1,917 head =	+2.00

APR 12: JUN LC FUT = \$121.50



Livestock Risk Protection (LRP)

A New Price Risk Management Tool for Livestock Producers

Tim Petry

Extension Livestock Marketing Economist

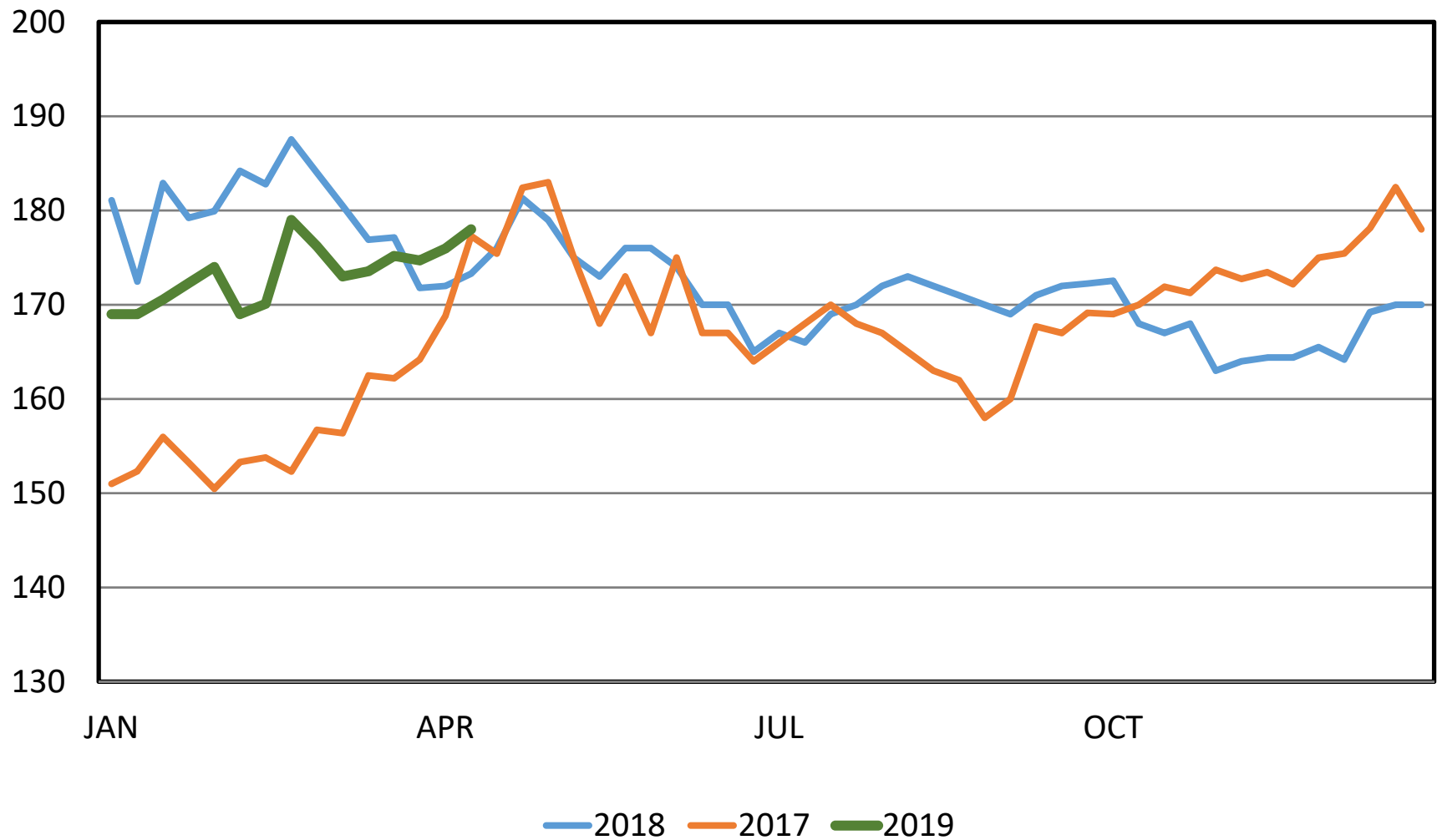
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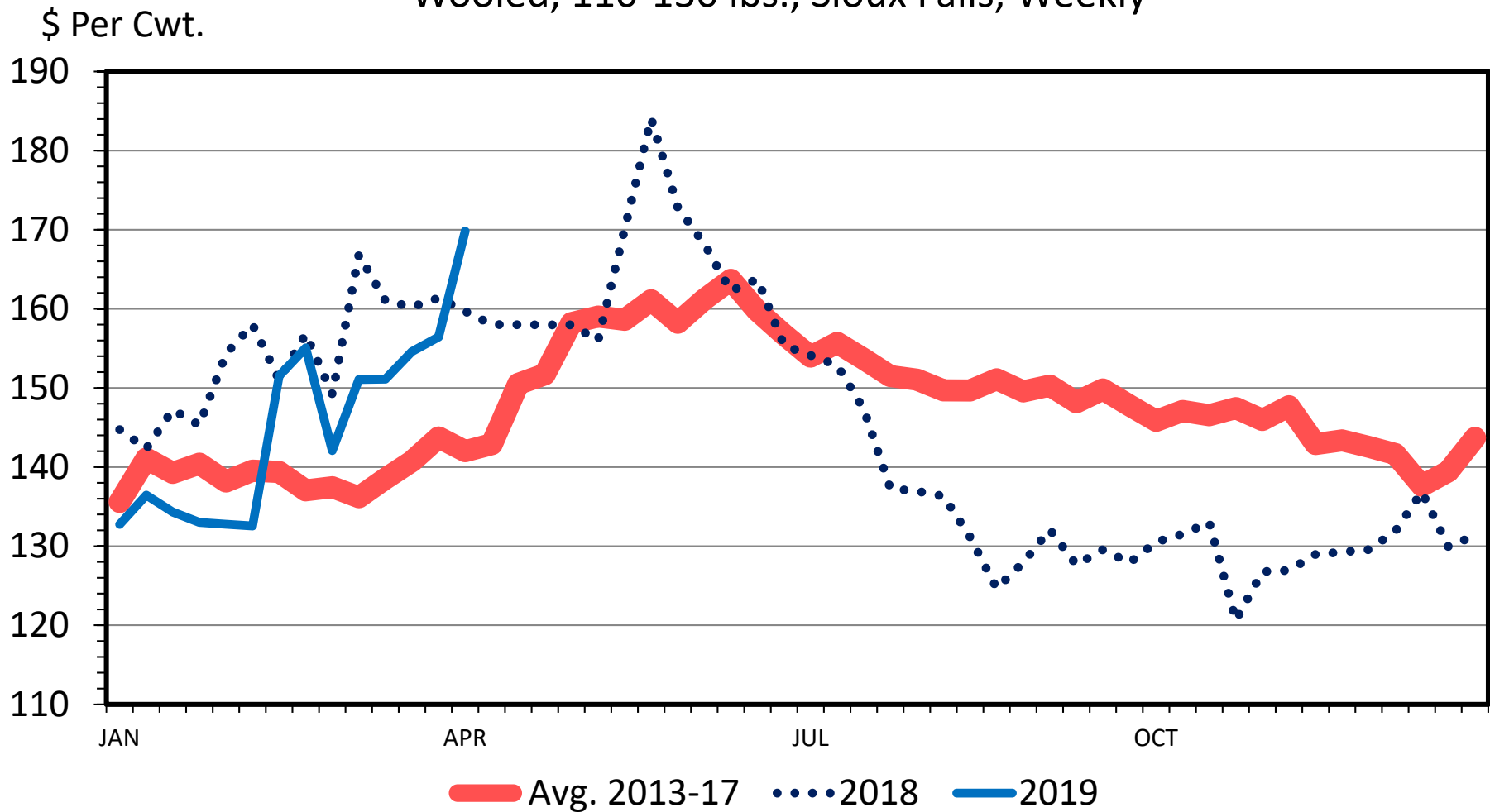
MED. FRAME #1 STEER CALF PRICES

550-600 Pounds, N.D., Weekly

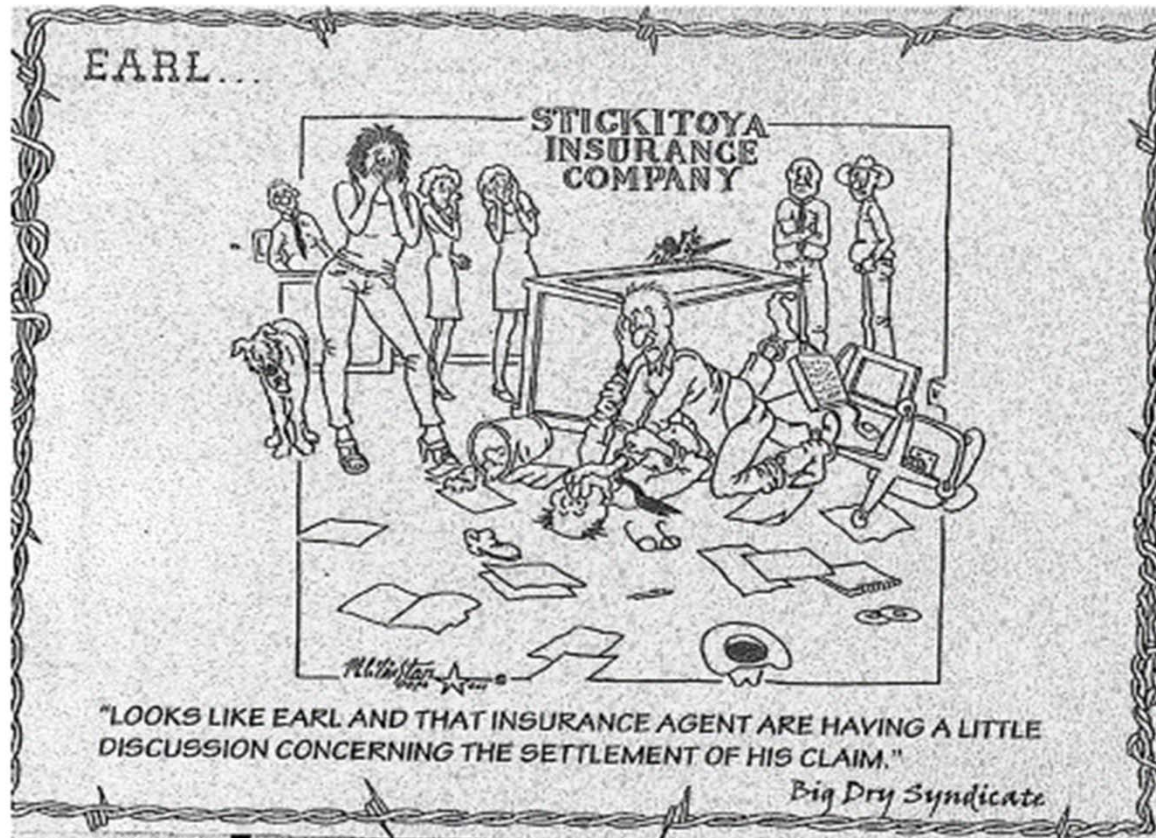


SLAUGHTER LAMB PRICES

Wooled, 110-130 lbs., Sioux Falls, Weekly



LRP – revenue insurance program that is reinsured and subsidized by the Federal Crop Insurance Corporation (FCIC)



LRP

- Insures against price declines
- Similar to put options
- 13% of premium is subsidized
- Sold by livestock (crop) insurance agents but do not have to offer
- List of approved agents at:

www.rma.usda.gov/en/Information-Tools/Agent-Locator-Page

Beginning Farmer

- 23% premium subsidy
- 5 yr. or less actively farming
- Does not include years when
 - under 18
 - full time military
 - post-secondary education

Premium Subsidy-Lambs

- Producers receive a premium subsidy
 - 13 weeks @ 20%
 - 26 weeks @ 35%
 - 39 weeks @ 38%
 - Additional 10% to beginning farmers
- RMA pays subsidy to insurance agent

LRP Contracts

- Feeder Cattle (beef, dairy, Brahman)
 - Under 600 lbs
 - Steers or heifers (beef)
 - 600 to 900 lbs.
 - Steers or heifers (beef)
- Fed cattle
- Hogs
- Lambs

Policy Size

- One head minimum
- Feeder Cattle
 - Any # up to 1,000 head per contract
 - 2,000 maximum per year (July 1-June 30)
- Fed Cattle
 - 2,000
 - 4,000
- Hogs
 - 10,000
 - 32,000
- Lambs
 - 2,000
 - 28,000

Insurance Period

- Policies **may** be available for the following weekly lengths:

CATTLE: 13,17,21,26,30,34,39,43,47,52

HOGS: 13,17,21,26

LAMBS: 13,~~20~~,26,39

LRP – Feeder Cattle

- Based on Chicago Mercantile Exchange (CME) feeder cattle price index which is available at www.cmegroup.com
- 700 to 899 lb., M & L #1, feeder steers at markets reported by USDA-AMS
- Current \$143.58

CME Feeder Cattle Index – Apr 10

			TTL HEAD	TTL WEIGH	WTD AVG	TTL PRICE	WTD AVG PRICE
4/10/2019	ABERDEEN	SD	418	351837	841.7153	48813106.26	138.7378
4/10/2019	ADA	OK	22	16206	736.6364	2281430.8	140.7769
4/10/2019	APACHE VIDEO (SC)	S	0	0	0	0	0
4/10/2019	BASSETT	NE	0	0	0	0	0
4/10/2019	BILLINGS PAYS	MT	37	27084	732	4099434.24	151.36
4/10/2019	BLOOMFIELD	IA	609	467695	767.9721	71678544.59	153.2592
4/10/2019	cattle country video (nc)	n	0	0	0	0	0
4/10/2019	CLOVIS	NM	390	305745	783.9615	42987901.23	140.6005
4/10/2019	DODGE CITY	KS	745	623261	836.5919	87016439.07	139.6148
4/10/2019	EL RENO	OK	1553	1250932	805.4939	177539301.6	141.9256
4/10/2019	FARMINGTON	MC	10	7450	745	992006.85	133.1553
4/10/2019	GREEN CITY	MC	0	0	0	0	0
4/10/2019	KEARNEY HUSS	NE	515	406298	788.9282	60023007.19	147.7315
4/10/2019	LAJUNTA LIVESTOCK	CO	22	15444	702	2162160	140
4/10/2019	MANDAN	ND	690	543955	788.3406	78927727.2	145.0997
4/10/2019	RUSHVILLE-SHERIDAN	NE	0	0	0	0	0
4/10/2019	ST. JOSEPH	MC	215	160330	745.7209	24110054.92	150.3777
4/10/2019	SOUTHERN OK VIDEO (SC)	S	57	49875	875	6708187.5	134.5
4/10/2019	SPRINGFIELD	MC	102	81810	802.0588	11636186.41	142.2343
4/10/2019	STERLING	CO	0	0	0	0	0
4/10/2019	TORRINGTON LIVESTOCK	WY	0	0	0	0	0
4/10/2019	VIENNA	MC	25	18923	756.92	2710060.68	143.2152
4/10/2019	WEST FARGO	NC	0	0	0	0	0
4/10/2019	WINDSOR	IA	108	83536	773.4815	12355668.78	147.9083
4/10/2019	DAILY TOTALS		5518	4410381	799.2717	634041217.4	143.7611
4/10/2019	SEVEN-DAY TOTALS		33088	26487488	800.5164	3797009085	143.351

CME Index and LRP

	Beef Steers	Beef Heifers	Brahman	Dairy
Under 600 lbs	110%	100%	100%	85%
600-900 lbs	100%	90%	90%	80%

Daily Offers

Coverage prices and rates change daily and are posted on the USDA Risk Management Agency (RMA) web site about 4 pm.

<https://public.rma.usda.gov/livestockreports/main.aspx>

Coverage levels will range from 80 to 100 percent of expected price

Lambs: 80 -95%

Over 600 lb. Feeder Steers

13% Prem. Subsidy

LRP Coverage Prices, Rates, and Actual Ending Values - Report for 04/17/2019

X .87

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
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$158.100	0.997200	0.030183	4.772	07/17/2019	
											4.15		
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$156.100	0.984600	0.023555	3.677	07/17/2019	
											3.20		
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$154.100	0.971900	0.017897	2.758	07/17/2019	
											2.40		
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$150.100	0.946700	0.009714	1.458	07/17/2019	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$148.100	0.934100	0.006793	1.006	07/17/2019	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$146.100	0.921500	0.004641	0.678	07/17/2019	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$142.100	0.896300	0.002125	0.302	07/17/2019	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	158.549	\$140.100	0.883600	0.001378	0.193	07/17/2019	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	997 No Practice Specified	2019	160.223	\$159.770	0.997200	0.032240	5.151	08/14/2019	

Current LRP Coverage

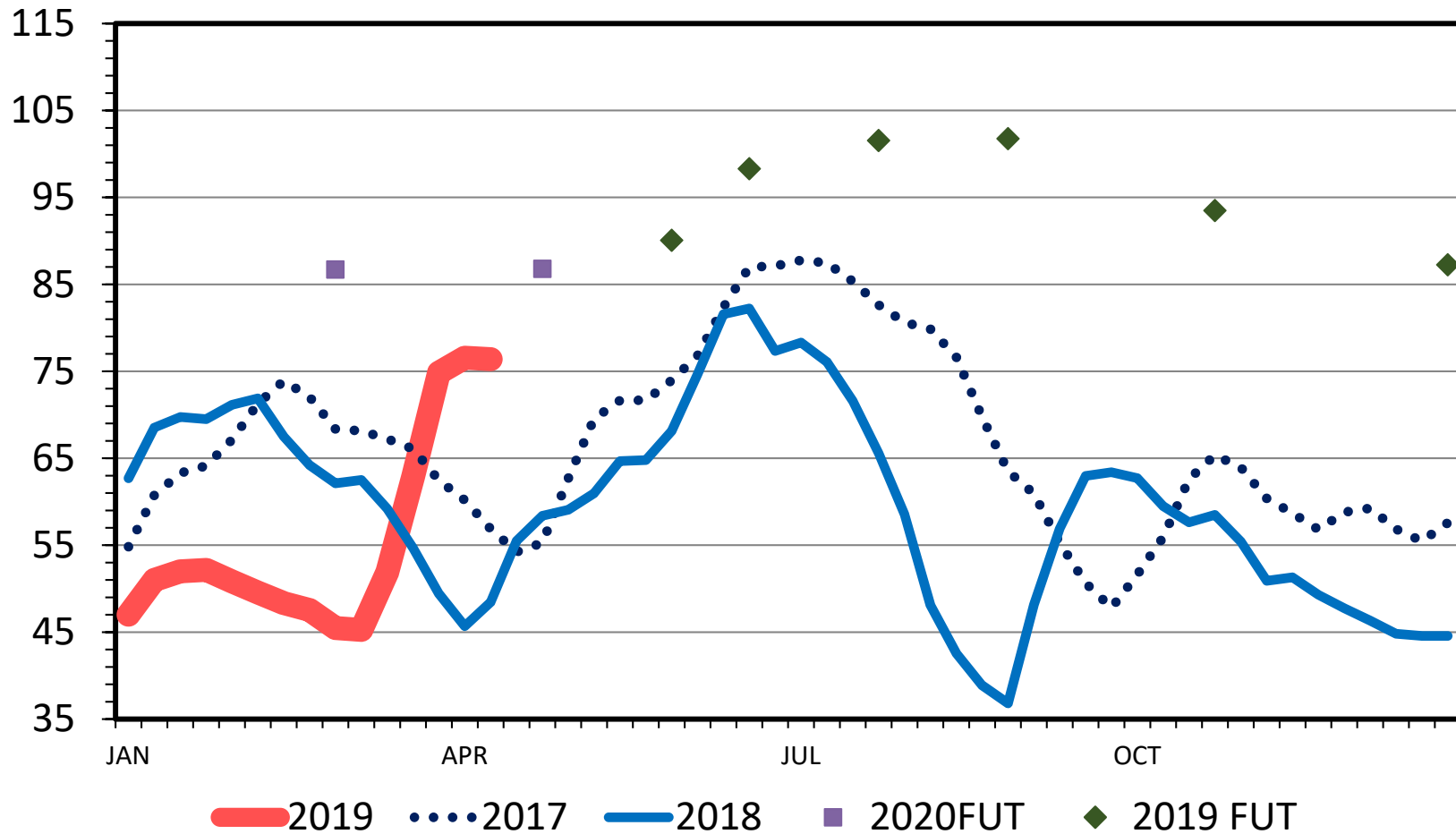
4/17/2019

LIVESTOCK	COVERAGE PRICE	COST/CWT	END DATE	CURRENT ACTUAL PRICE	FUTURES PRICE
Under 600 steer	175.96	5.48	10/16	157.94	
Over 600 steer	159.97	4.98	10/16	143.58	162.02
Fed cattle	117.76	4.91	10/16	124.12	120.20
Hogs	92.23	11.11	10/16	79.84	94.57
Lambs	143.29	5.23	10/14	142.03	

BARROW AND GILT PRICES

Iowa – So. Minnesota, Carcass Base Price, Weekly

\$ Per Cwt.



Indemnity Payment

- Payment based on difference between COVERAGE PRICE (CP) and CME CASH SETTLEMENT PRICE (CS)

CP = \$160/cwt

CS = \$155

\$ 5/cwt payment

Fall Steer Calf LRP Results

July 15 to Nov 15 (17 wk)

Year	Coverage Price	Premium	Actual Price	LRP Payment	LRP Profit
2005	105.78	1.67	127.75	--	-1.67
2006	114.42	1.49	107.55	6.87	5.38
2007	123.20	2.58	119.27	3.93	1.35
2008	127.38	5.46	107.37	20.01	14.55
2009	112.18	3.73	102.94	9.24	5.51
2010	121.02	2.88	122.61	--	-2.88
2011	149.57	5.00	156.92	--	-5.00
2012	155.75	4.00	158.33	--	-4.00
2013	171.29	3.13	181.97	--	-3.13
2014	231.16	7.25	264.95	--	-7.25
2015	229	7.17	199.41	29.59	22.42
2016	145.46	4.97	137.92	7.54	2.57
2017	165.04	8.20	175.42		-8.20
2018	165.03	6.21	165.65	.62	-5.59

63.74

77.80

14.06

Cattle LRP Timetable

MARKET CLASS	MARKET DATE	LRP CONTRACT			
		13	17	21	26
Under 600	Nov 15	AUG	JUL	JUN	MAY
Over 600	Feb 15	NOV	OCT	SEP	AUG
Fed	May 15	FEB	JAN	DEC	NOV

LRP

Advantages

- Small numbers can be hedged
- $\uparrow 600$, $\downarrow 600$, heifers, dairy
- Premium subsidized 13 percent (or more)
- No brokerage or margin
- Receive higher prices in bull market
- Available in months where no futures/options
- All coverage prices available daily

Disadvantages

- Not “flexible” like futures and options
- Must own the livestock

Steps to LRP

1. Submit eligibility application form with insurance agent
2. Select a SCE (coverage prices and premiums are available after 4 p.m. (CST) except holidays)
 1. Number of head
 2. Policy length closest to marketing date
 3. Estimated average market weight
 4. Choose coverage price
3. Pay premium to agent
4. Agent submits SCE form electronically (hours are between 4 p.m. and 9 a.m. (CST), Tues-Sat only)
5. Lamb: 10 a.m. – 7 p.m. Monday only

Volatile Prices – Price Risk Management Necessary!

Questions!

