



# Cattle Price Risk Management



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April 20, 2021

ANSC486 4-20-21.pptx

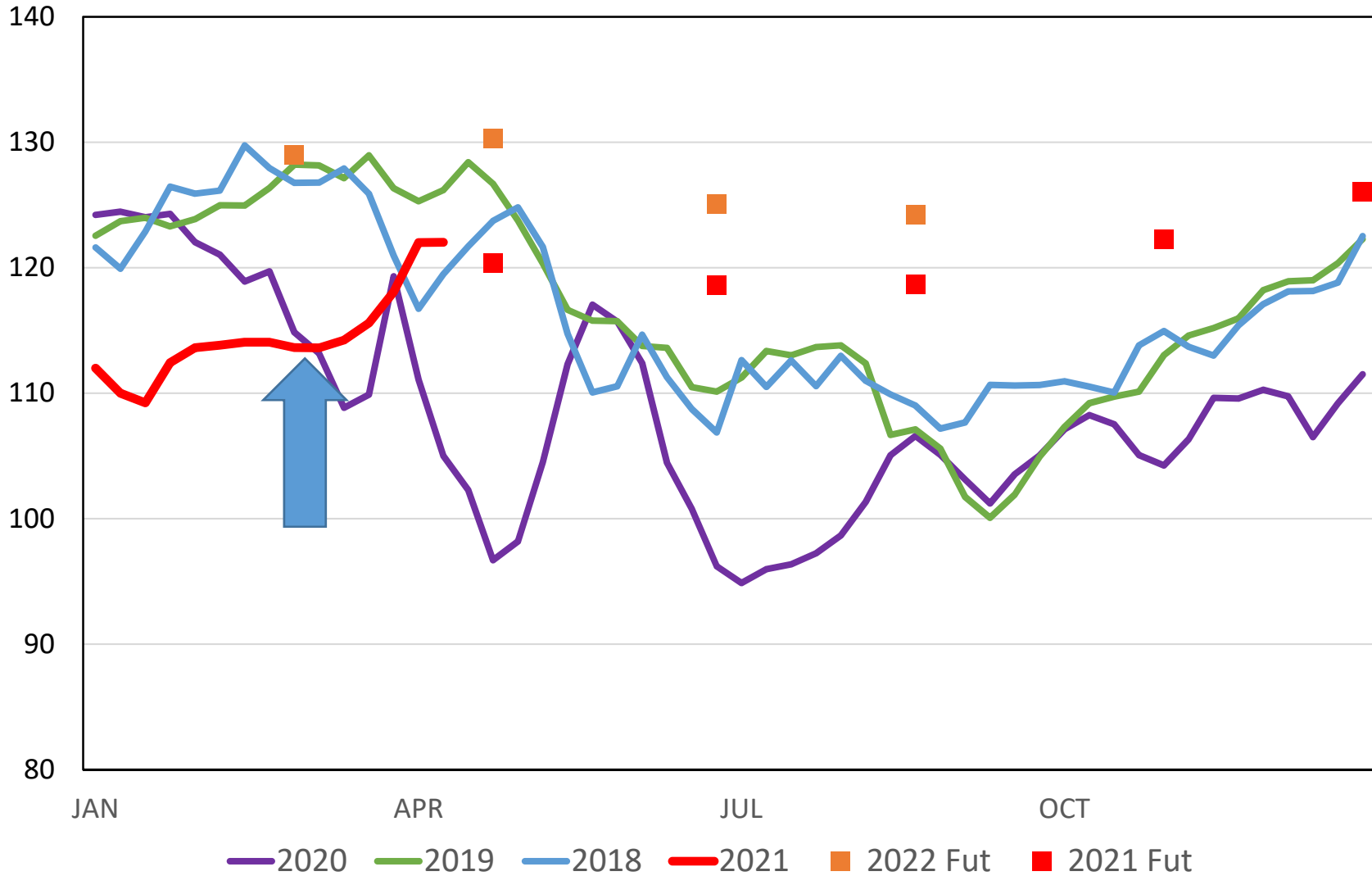
EXTENDING KNOWLEDGE >> CHANGING LIVES

**NDSU**

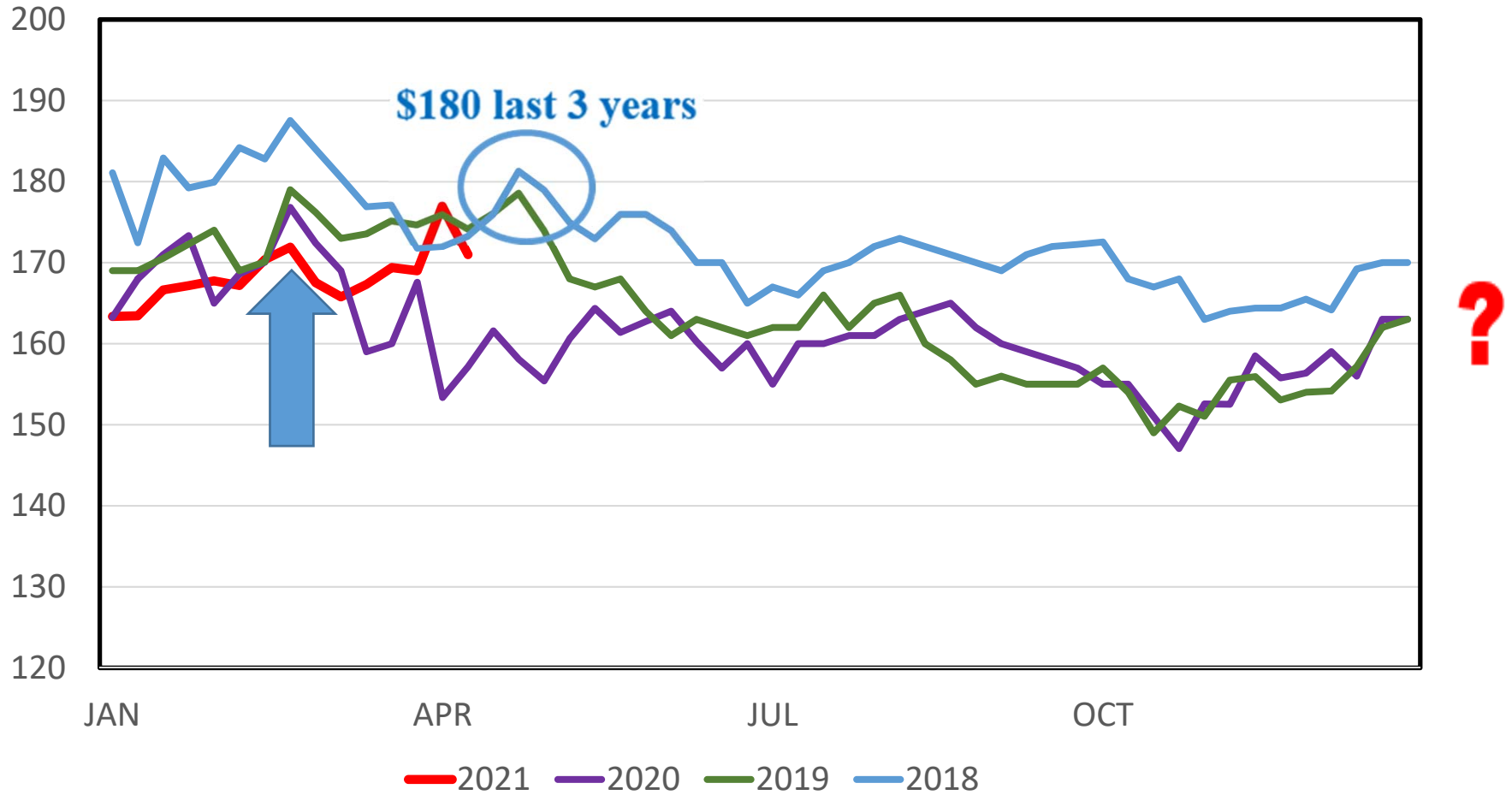
EXTENSION

# SLAUGHTER STEER PRICES

## 5 Market Weighted Average, Weekly

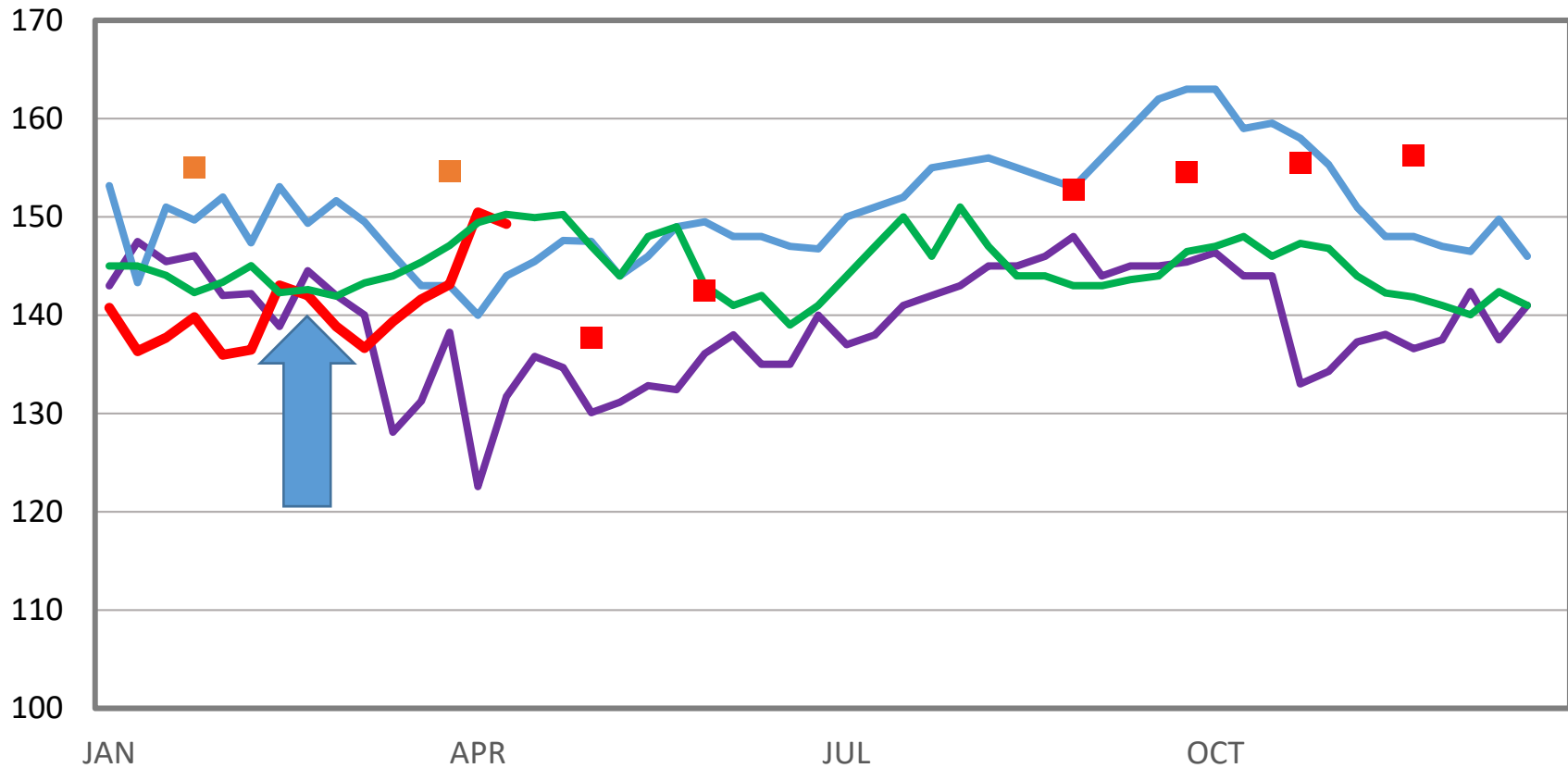


# MED. FRAME #1 STEER CALF PRICES 550-600 Pounds, N.D., Weekly



# MED. & LRG. #1 FEEDER STEER PRICES

## 750-800 Pounds, N.D., Weekly



2022 Futures 2020 2018 2021 2019 2021 Futures

# HINDSIGHT IS 2020 BUT 2021?



African Swine Fever

Record Meat  
Production



**Exports**



**Trade Agreements**



**Drought/Blizzards/Floods**

**Corn Prices**

**Consumer Demand**

**COMPETING MEATS**

# Volatile Prices Will Continue

## MAY CORN FUTURES

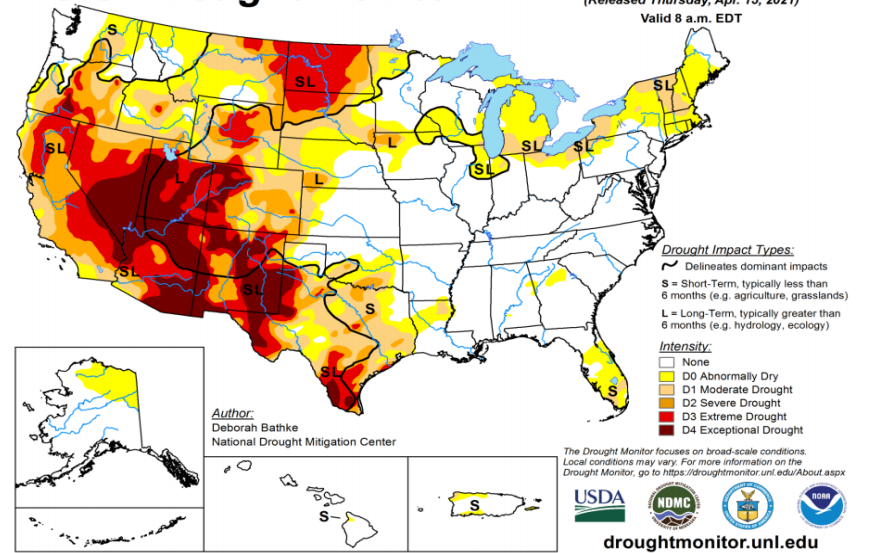


## MAY FDR CAT FUT



## U.S. Drought Monitor

April 13, 2021  
(Released Thursday, Apr. 15, 2021)  
Valid 8 a.m. EDT





### COMMODITIES April 19, 2021



#### Funds Prune Long Cattle Position; Get Longer Corn

ZCK21 (May '21)	592-0s	+6-4
GFK21 (May '21)	142.475s	-1.250

# Price Risk Management Tools

- Cash forward contract
- Video and internet auctions
- CME futures
- CME options
- Livestock Risk Protection (LRP)
- Which one or combination fits your marketing plan?
- **“If you don’t manage risk, risk will manage you”**



# PICK YOUR POISON

Cash

Forward Contract/  
Video Auction

LRP

Futures/Options

Easy



Difficult



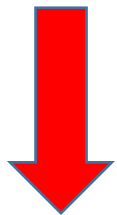


# Which Is Best?

Depends on expected price trend



Uptrend: cash market



Downtrend: futures  
cash forward contract  
video and internet auction



?: options or LRP  
(will always be 2<sup>nd</sup> best)



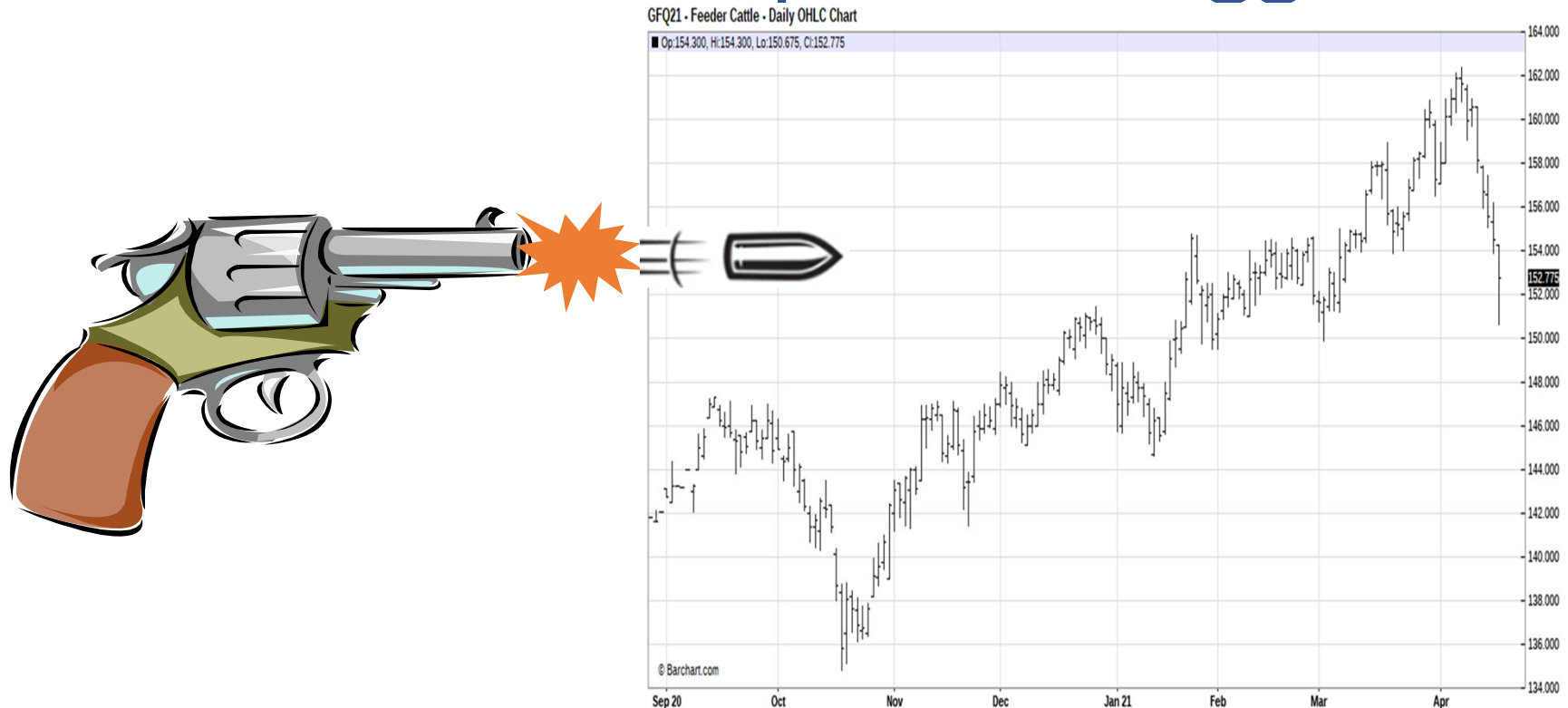
# FEEDER CATTLE FUTURES

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

GFQ21 - Feeder Cattle - Daily OHLC Chart



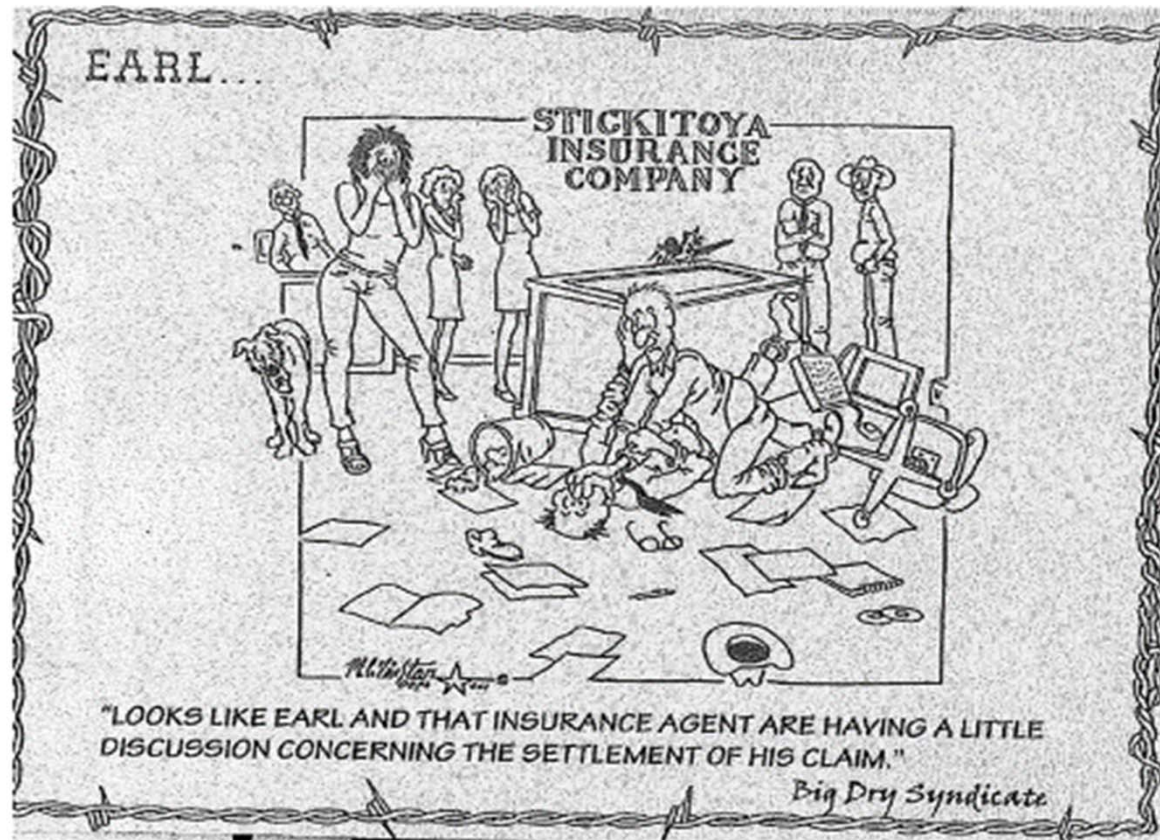
# When should I pull the trigger?



Most difficult part of using Futures and Options

**Is there something easier?**

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



# LRP

- Insures against price declines with floor price
- Similar to put options
- Premium is subsidized
- Sold by livestock (crop) insurance agents who do not have to offer
- List of approved agents at:

[www.rma.usda.gov/en/Information-Tools/Agent-Locator-Page](http://www.rma.usda.gov/en/Information-Tools/Agent-Locator-Page)

# LRP CONTRACTS

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



# LRP – Feeder Cattle

- Based on Chicago Mercantile Exchange (CME) feeder cattle price index which is available at [www.cmegroup.com](http://www.cmegroup.com)
- 700-899 lb, M & L # 1 and #2, feeder steers at markets reported by USDA-AMS
- Current Index - **\$140.13**

# CME FC Cash Index SPREADSHEET

## 4/15/2021

[www.cmegroup.com/ftp/cash\\_settled\\_commodity\\_index\\_prices/daily\\_data/feeder\\_cattle/](http://www.cmegroup.com/ftp/cash_settled_commodity_index_prices/daily_data/feeder_cattle/)

DATE	LOCATION	TTL HEAD	TTL WEIGHT	WTD AVG WEIGHT	TTL PRICE	WTD AVG PRICE
4/15/2021	APACHE	298	245610	824	32980680.44	134.28
4/15/2021	AVA	16	11880	743	1618078.16	136.20
4/15/2021	BILLINGS	26	18568	714	2797320.24	150.65
4/15/2021	BRUSH	15	12326	822	1626962.00	131.99
4/15/2021	BUTLER	17	12560	739	1787324.48	142.30
4/15/2021	CENTERVILLE	92	69361	754	10327468.70	148.89
4/15/2021	CLARINDA	443	357231.001	806	50164271.29	140.43
4/15/2021	CLOVIS	86	68155	793	8993507.36	131.96
4/15/2021	DALHART	174	139599	802	18767657.30	134.44
4/15/2021	DICKINSON	34	27599	812	3881985.25	140.66
4/15/2021	MITCHELL	466	372276.999	799	53222266.81	142.96
4/15/2021	NAPOLEON	517	389264	753	57818546.38	148.53
4/15/2021	NEW CAMBRIA	147	108610	739	16755888.88	154.28
4/15/2021	OGALLALA	549	455927	830	66631233.86	146.14
4/15/2021	PRATT	1002	817858.025	816	115486926.50	141.21
4/15/2021	SALINA	1180	950935	806	133802652.93	140.71
4/15/2021	SAN ANGELO	15	11480	765	1570200.00	136.78
4/15/2021	TULIA	434	349317.003	805	46688978.80	133.66
4/15/2021	WOODWARD	614	486655	793	67693520.14	139.10
4/15/2021	WESTERN VID WEBSITE (SC)	130	110500	850	15414750.00	139.50
4/15/2021	DAILY TOTALS	6255	5015712.03	802	708030219.52	141.16
4/15/2021	SEVEN-DAY TOTALS	33530	27088339.2	808	3837767979.27	141.68



Stockmen's Livestock Exchange - Dickinson, ND  
 AMS Livestock, Poultry, & Grain Market News  
 North Dakota Dept of Ag Mrkt News

Thu Apr 15, 2021

Napoleon Livestock Auction - Napoleon, ND  
 AMS Livestock, Poultry, & Grain Market News  
 North Dakota Dept of Ag Mrkt News

**STEERS - Medium and Large 1 (Per Cwt / Actual Wt)**

<u>Head</u>	<u>Wt Range</u>	<u>Avg Wt</u>	<u>Price Range</u>	<u>Avg Price</u>
13	581	581	162.00	162.00
12	680	680	164.00	164.00
11	715	715	140.00-152.50	147.95
23	858	858	137.75	137.75
8	901	901	125.00	125.00

**STEERS - Medium and Large 1 (Per Cwt / Actual Wt)**

<u>Head</u>	<u>Wt Range</u>	<u>Avg Wt</u>	<u>Price Range</u>	<u>Avg Price</u>
4	365	365	212.00	212.00
17	418	418	197.75	197.75
54	454-481	461	190.50-196.50	194.83
32	510-544	535	173.50-183.50	179.18
129	560-592	567	165.25-180.00	176.54
214	608-647	618	155.00-171.75	168.11
135	650-691	658	150.50-160.00	158.19
274	706-748	729	146.00-152.25	150.83
195	755-796	769	140.00-153.00	149.28
31	803-833	815	135.00-140.50	138.32
10	851-874	860	127.50-133.00	129.74
38	933-946	941	130.00-130.50	130.32
7	998	998	128.00	128.00

# APR FDR CAT and CME Cash Index

GFJ21 - Feeder Cattle - Daily OHLC Chart



# CME Index and LRP

	Beef Steers	Beef Heifers	Brahman	Dairy
Under 600 lbs	110%	100%	100%	50%
600-900 lbs	100%	90%	90%	50%

**Current CME Index- \$140.13**

## Insurance Period

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

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



1/17/2022

## Policy Size

- **One** up to 6,000 head per policy
- 12,000 maximum per year (July 1 – June 30)







# **NEW Premium Subsidy Rates**

Coverage Level %

Subsidy Rate %

95-100

35

90-94.99

40

85-89.99

45

80-84.99

50

70-79.99

55

**Effective 9-14-2020/Retroactive to 7-1-2020**


**(13% Subsidy for many years)**



# Beginning Farmer

- 10% additional premium subsidy
- 5 yr. or less actively raising livestock
- Does not include years when
  - under 18
  - full time military
  - post-secondary education

# Steps to LRP

1. Submit eligibility application form with insurance agent
2. Select a policy (coverage prices and premiums are available **after 3:30 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~~ - **Pay at maturity** 
4. Agent submits form electronically (hours are between **4 p.m. and 9 a.m.** (CST), Tues-Sat only)

# Coverage Prices and Rates

Change daily and are posted on the USDA Risk Management Agency (RMA) web site

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

Coverage levels will range from 70-100% of expected price

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	207 Endorsement Ending in July Yr1	2021	150.983	\$150.210	0.994900	0.038286	5.751	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$148.210	0.981600	0.032009	4.744	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$146.210	0.968400	0.026571	3.885	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$144.210	0.955100	0.021899	3.158	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$142.210	0.941900	0.017903	2.546	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$140.210	0.928600	0.014657	2.055	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$138.210	0.915400	0.012040	1.664	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$136.210	0.902200	0.009830	1.339	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$134.210	0.888900	0.007853	1.054	07/19/2021	
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	207 Endorsement Ending in July Yr1	2021	150.983	\$132.210	0.875700	0.006270	0.829	07/19/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$151.880	0.994900	0.041427	6.292	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$149.880	0.981800	0.035608	5.337	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$147.880	0.968700	0.030444	4.502	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$145.880	0.955600	0.025946	3.785	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$143.880	0.942500	0.021956	3.159	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$141.880	0.929400	0.018671	2.649	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$139.880	0.916300	0.015914	2.226	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$137.880	0.903200	0.013519	1.864	08/16/2021	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$135.880	0.890100	0.011282	1.533	08/16/2021	

# Over 600 lb. Feeder Steers



**35% Subsidy**

**LRP Coverage Prices, Rates, and Actual Ending Values - Report for 04/19/2021**

**X.65**

State	County	Endorsement Length	Commodity	Type	Practice	Crop Year	Exp. End Value	Coverage Price	Coverage Level	Rate	Cost Per CWT	End Date
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$151.880	0.994900	0.041427	6.292	08/16/2021
											<b>4.09</b>	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$149.880	0.981800	0.035608	5.337	08/16/2021
											<b>3.47</b>	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$147.880	0.968700	0.030444	4.502	08/16/2021
											<b>2.93</b>	
38 North Dakota	998 All Counties	17	0801 Feeder Cattle	810 Steers Weight 2	208 Endorsement Ending in August Yr1	2021	152.651	\$139.880	0.916300	<b>40%</b>	2.226	08/16/2021
											<b>1.34</b>	

**AUG FDR CAT Futures - \$152.78/CME FC INDEX-\$140.13**

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



## Summer 2021 Grazing Budget (costs - \$/head)

	Example	Your #s
1. Pasture ( <u>4</u> A @ \$ <u>20.00</u> )	80.00	( <u>   </u> A @ \$ <u>   </u> ) 0.00
2. Minerals, salt	0.50	
3. Purchased Feed and Supplement	_____	<input style="width: 100px; height: 20px;" type="text"/>
4. Veterinary, drugs, implants	12.00	
5. Marketing (brand inspection, commission, check off, hauling)	20.00	
6. Shrink	2.00	
7. Utilities, fuel, oil	5.00	
8. Hired Labor	_____	
9. Repairs (fencing, waterers, etc.)	3.00	
10. Interest on calf and operating	15.00	
11. Death loss (1%)	9.52	
12. Miscellaneous	1.00	
13. Fixed Costs (insurance, taxes, depreciation)	3.00	
<b>A. Total Production Costs (sum 1 thru 13)</b>	<b>151.02</b>	<b>0.00</b>
B. Operator Labor and Management	_____	
C. Total Costs (A + B)	151.02	0.00
D. Hundredweight produced	2.5	
E. Feed Cost / cwt gain (1 + 2 + 3 / D)	32.20	#DIV/0!
F. Total Cost / cwt gain (C / D)	60.41	#DIV/0!
G. Beginning calf value ( <u>550</u> lbs @ \$ <u>1.73</u> )	951.50	( <u>   </u> lbs @ \$ <u>   </u> ) 0.00
H. Sale Weight (cwt)	8	
J. Breakeven Price / cwt (C + G / H)	137.82	#DIV/0!
K. Expected Selling Price / cwt ( \$ <u>153.00</u> ) Projected profit/hd	121.48	( \$ <u>   </u> ) #DIV/0!
L. 10% Higher Selling Price ( \$ <u>168.30</u> ) Projected profit/hd	243.88	( \$ <u>0.00</u> ) #DIV/0!
M. 10% Lower Selling Price ( \$ <u>137.70</u> ) Projected profit/hd	-0.92	( \$ <u>0.00</u> ) #DIV/0!
N. Breakeven Purchase Price at Expected Sales Price (\$/lb)	1.95	#DIV/0!

# Indemnity

- Payment based on difference between **COVERAGE PRICE (CP)** & actual **CME INDEX** price (AP)

$$CP = \$150/\text{cwt}$$

$$AP = \$140$$

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$$\$10/\text{cwt payment}$$

- Producers must submit 04-LRP-Claim Form within 60 days of end of contract

# LRP

## Advantages

- Small numbers can be hedged
- $\uparrow 600$ ,  $\downarrow 600$ , heifers, dairy
- Premium subsidized 35-55%
- No brokerage or margin
- Receive higher prices in bull market
- Available in months where no futures/options
- All coverage prices available daily
- **Good way to learn about risk management**

## Disadvantages

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

# 2021 Calf Marketing Plan

100 Cow Spring Calving Herd  
46-575 lb. steer calves  
26-550 lb. heifer calves (20 replacement)  
Expected Market Date Nov. 15

Goal: Pre-price 50 % of production

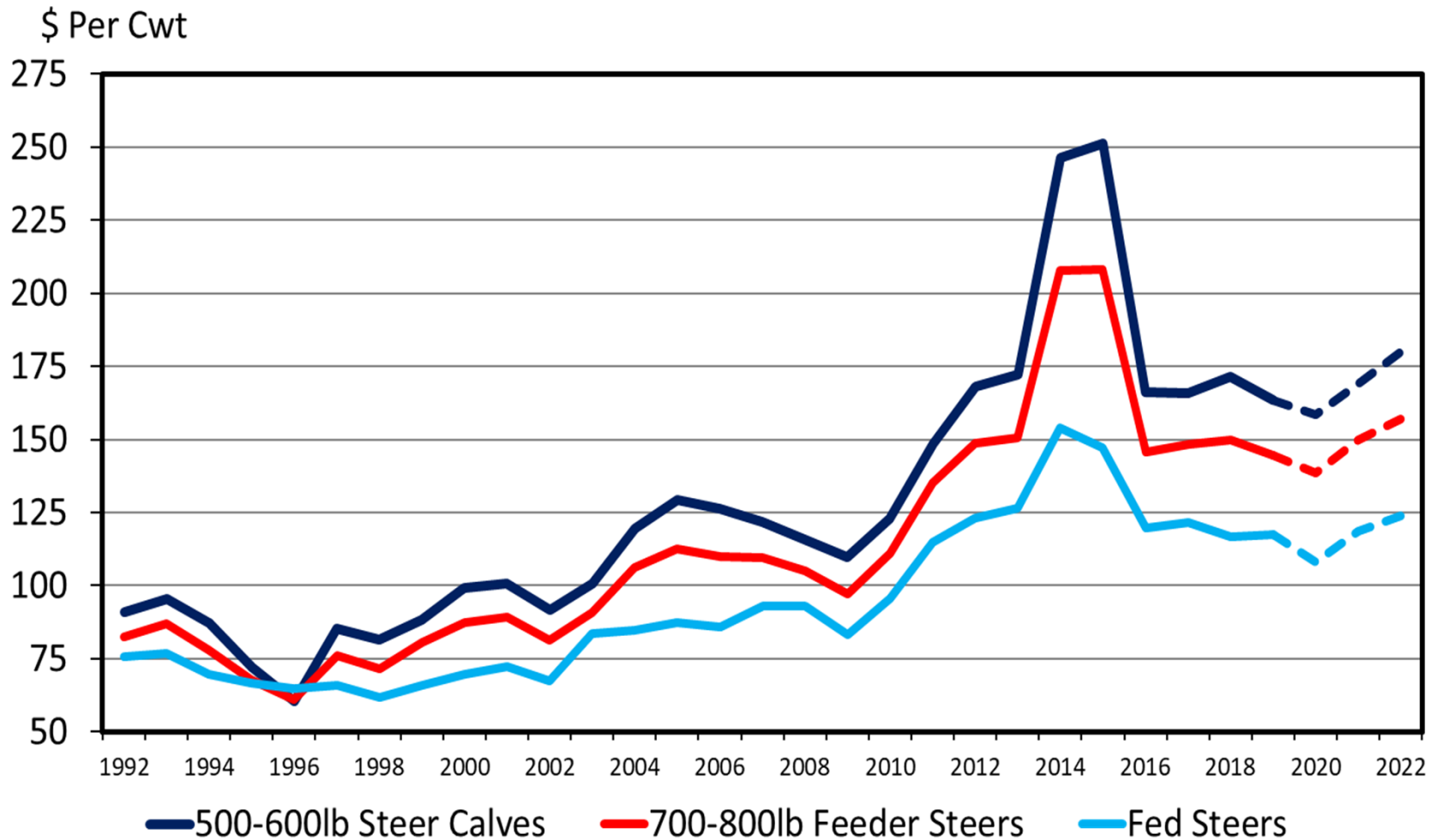
Expected price trend Up BUT?

Best Strategy: LRP-Under 600 lbs.

<u>Strategy</u>	<u># of Head</u>	<u>Price Objective</u>	<u>Time Deadline</u>
LRP-26 wk.	12 steers 7 heifers	\$170 \$153	May 15
LRP-13 wk.	11 steers 6 heifers	\$180 \$162	Aug. 15
Market	46 steers 26 heifers		Nov. 15

# CATTLE PRICE CYCLE

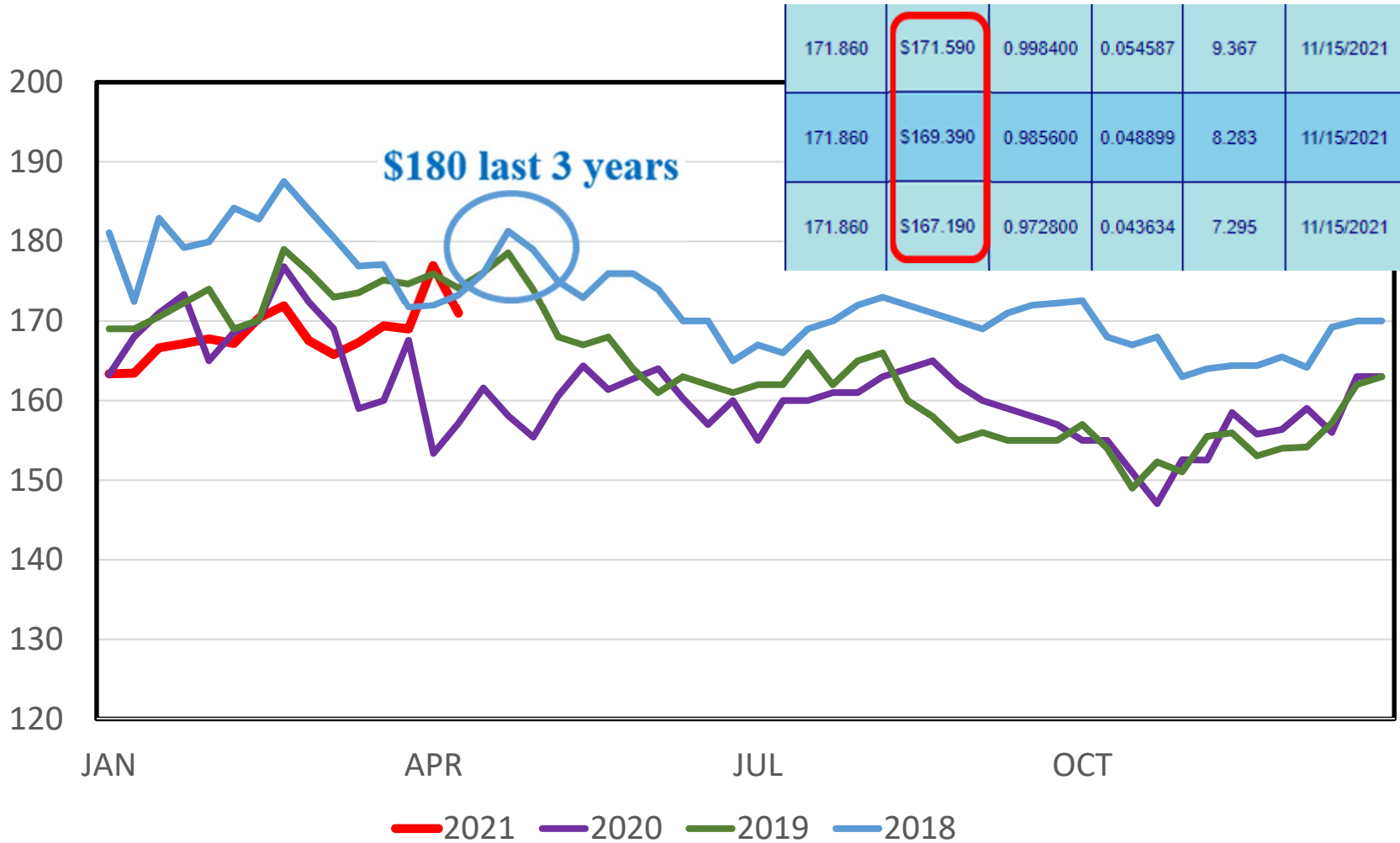
## AVERAGE ANNUAL CATTLE PRICES



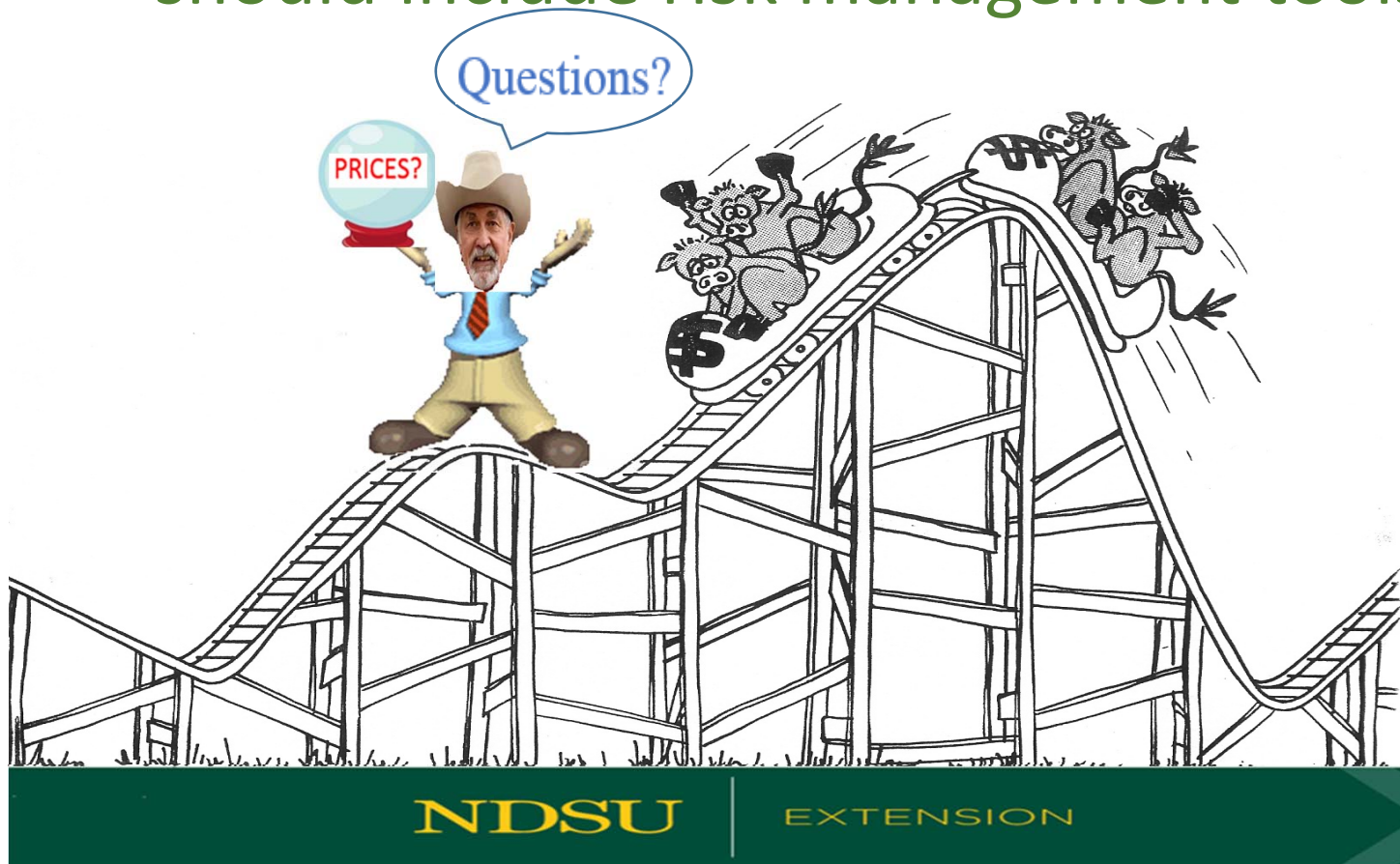
Data Source: USDA-AMS Forecasts by LMIC

# MED. FRAME #1 STEER CALF PRICES

## 550-600 Pounds, N.D., Weekly



2021: **COVID**, Weather, Corn, and Economy?  
Causing **Volatility** and **Risk**, especially on  
seasonal basis. Flexible marketing plans  
should include risk management tools



NDSU

EXTENSION