

Cattle Price Outlook and Price Risk Management

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www.ndsu.edu/livestockeconomics

December 1, 2020

EXTENDING KNOWLEDGE >> CHANGING LIVES

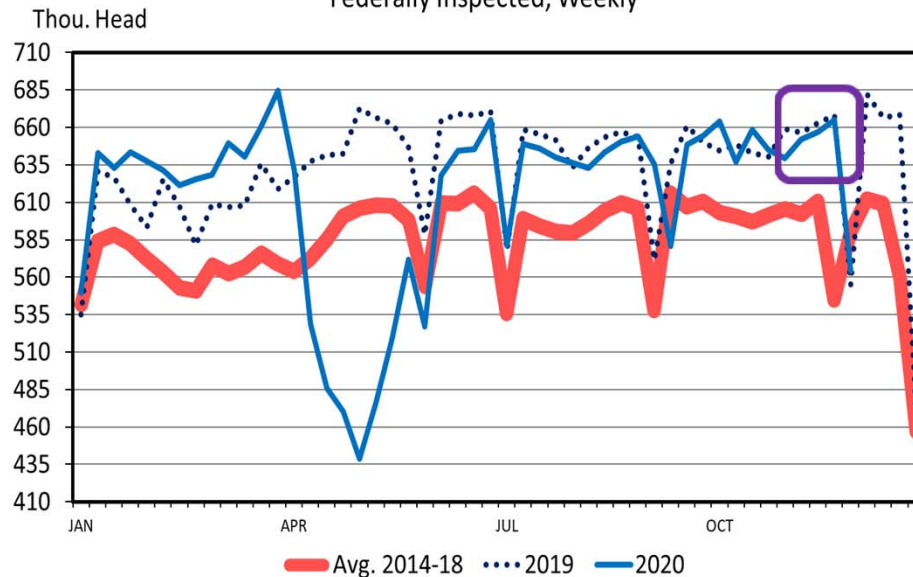
Agribusiness and
Applied Economics

NDSU

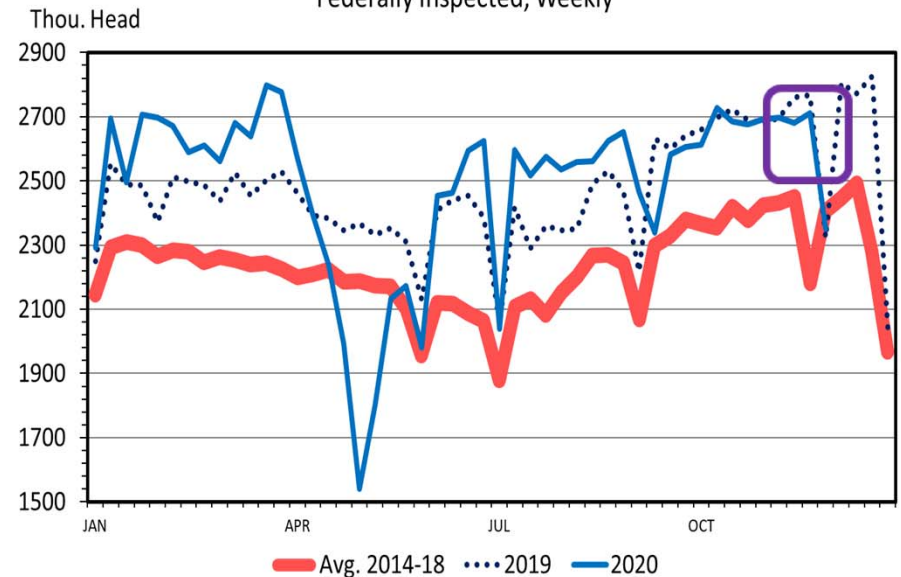
EXTENSION

COVID-19 CHAOS TO NORMAL?

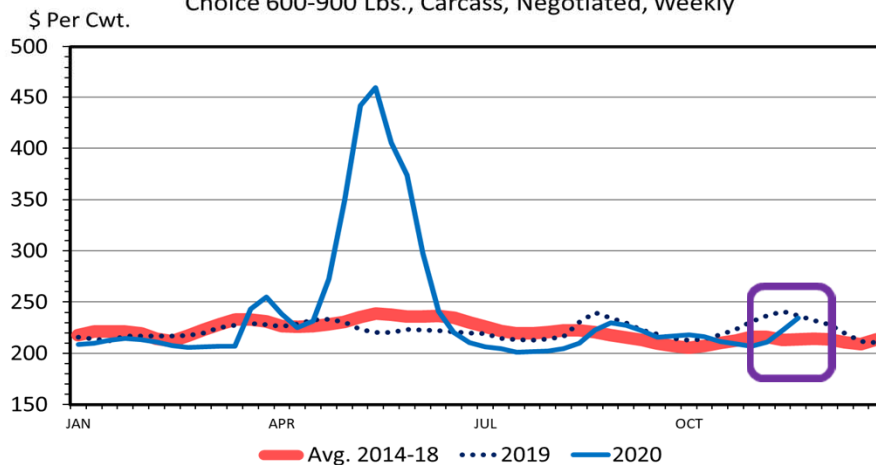
CATTLE SLAUGHTER
Federally Inspected, Weekly



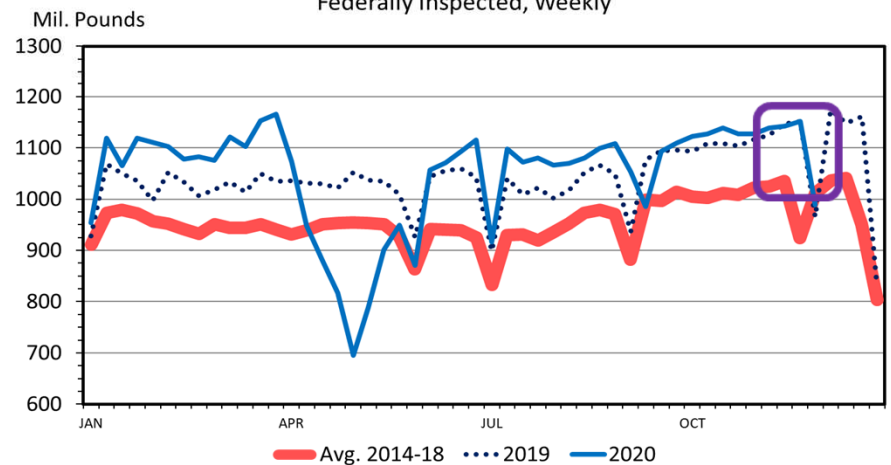
HOG SLAUGHTER
Federally Inspected, Weekly



BOXED BEEF CUTOUT VALUE
Choice 600-900 Lbs., Carcass, Negotiated, Weekly



TOTAL RED MEAT PRODUCTION
Federally Inspected, Weekly



World Agricultural Supply and Demand Estimates

U.S Meat Production and Prices

	2014	2015	2016	2017	2018	2019	2020 Forecast	2021 Forecast
Production	<i>Billion Pounds</i>		<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Beef	24.25	23.70	25.22	26.19	26.87	27.15	27.22	27.37
Pork	22.84	24.50	24.94	25.58	26.31	27.64	28.18	28.49
Broilers	38.55	40.05	40.7	41.66	42.60	43.91	44.71	45.10
Turkey	5.76	5.63	5.98	5.98	5.88	5.82	5.74	5.77
Total meat	92.17	94.63	97.6	100.17	102.43	105.26	106.61	107.47
Prices	<i>Dollars/cwt</i>		<i>Dollars/cwt.</i>				<i>Dollars/cwt.</i>	
Steers	154.56	148.12	120.85	121.52	117.12	116.78	108.71	114
Hogs	76.03	50.23	46.16	50.48	45.93	47.95	43.00	46.50
	<i>Cents/lb.</i>		<i>Cents/lb.</i>			<i>Cents/lb.</i>	<i>Cents/lb.</i>	
Broilers	104.9	90.5	84.3	93.5	97.8	88.6	71.8	78.80
Turkey	107.6	116.2	117.1	96.1	80.2	89.2	106.4	105.5

 record high

November 10, 2020

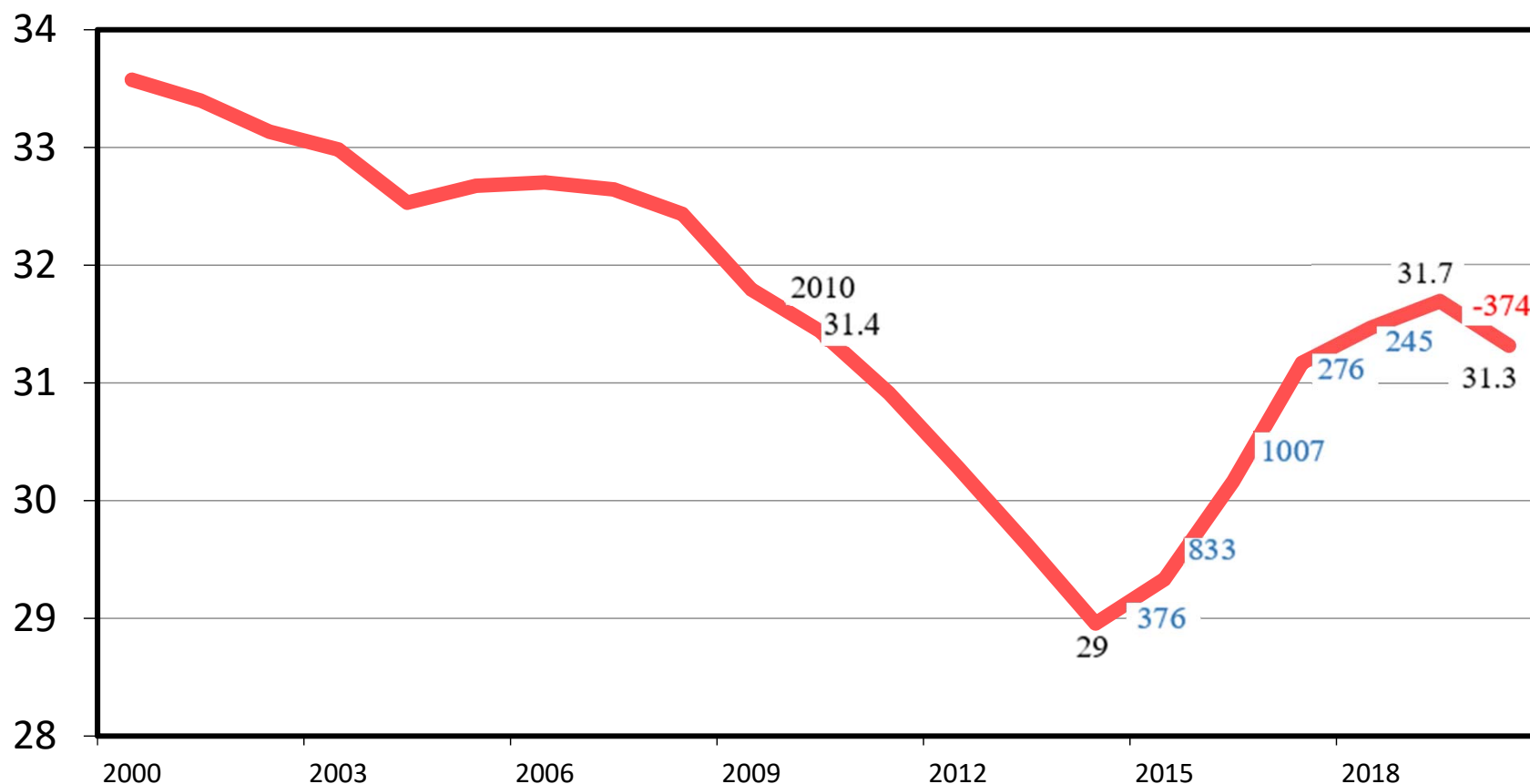


United States Department of Agriculture
National Agricultural Statistics Service

JANUARY 1 BEEF COW INVENTORY

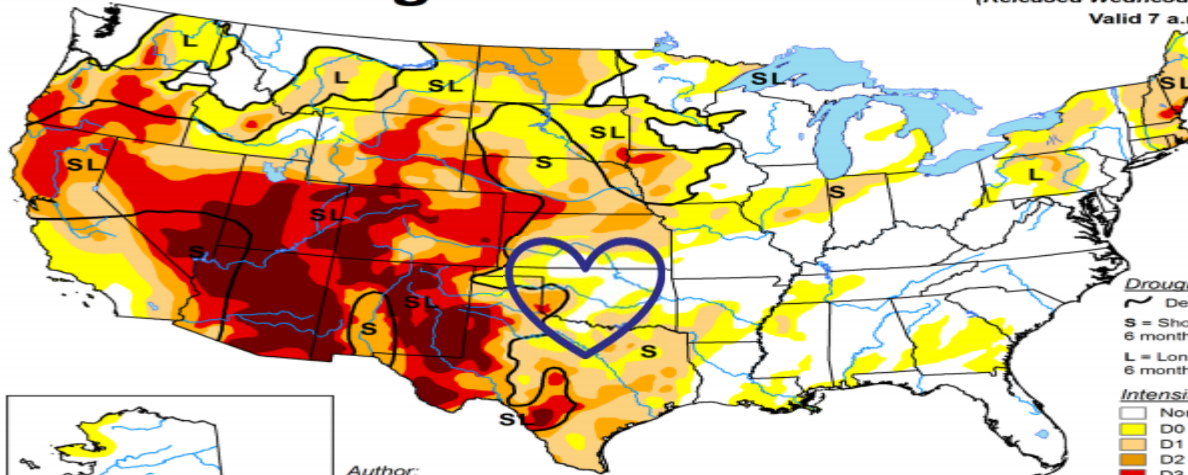
U.S., Annual

Mil. Head



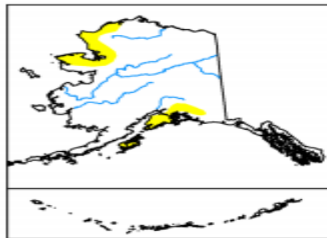
U.S. Drought Monitor

November 24, 2020
(Released Wednesday, Nov. 25, 2020)
Valid 7 a.m. EST

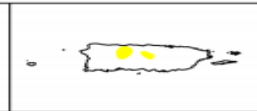


Drought
Del
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought



Author:
Richard Heim
NCEI/NOAA



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



droughtmonitor.unl.edu



U.S. Cattle Areas Experiencing Drought

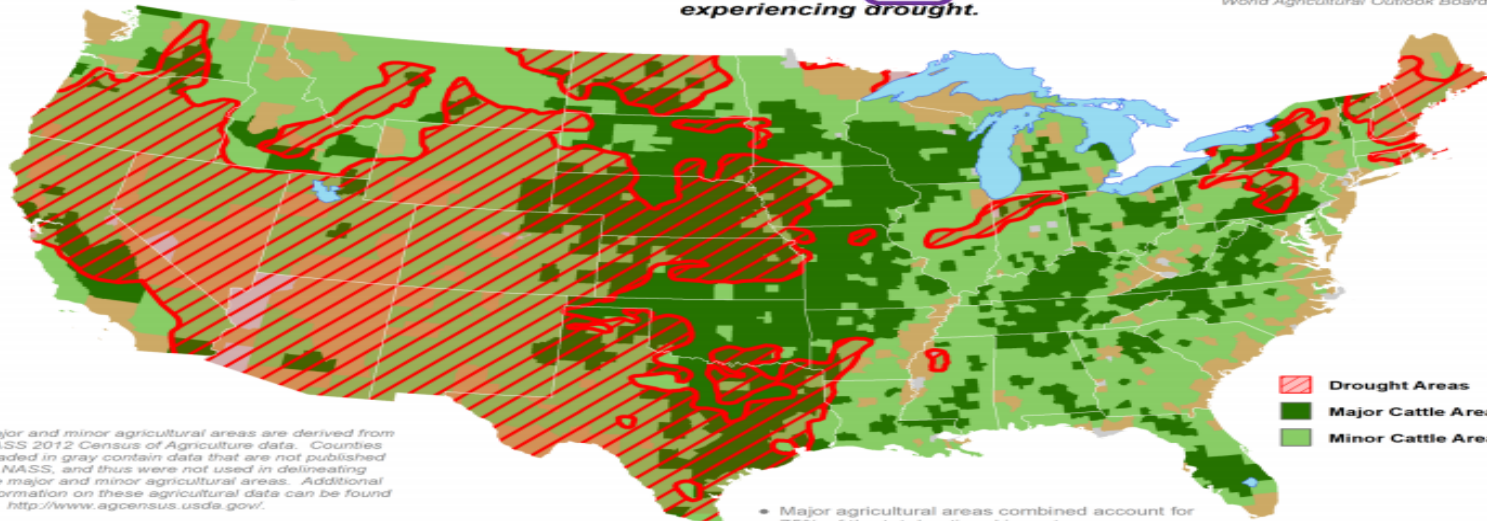
Reflects November 24, 2020
U.S. Drought Monitor data

Approximately **46%** of cattle inventory is within an area experiencing drought.



United States
Department of
Agriculture

This product was prepared by the
USDA Office of the Chief Economist
World Agricultural Outlook Board



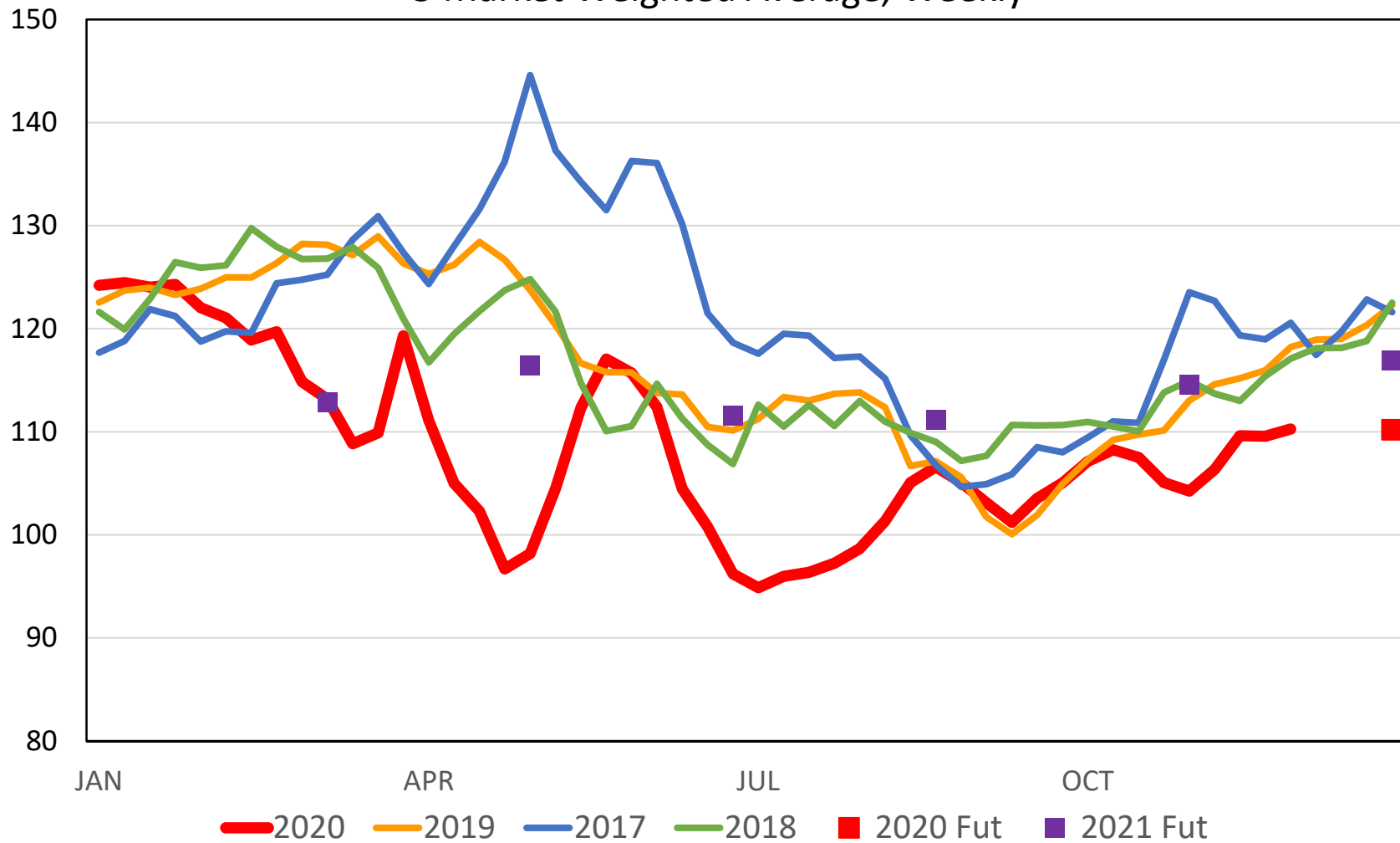
Major and minor agricultural areas are derived from NASS 2012 Census of Agriculture data. Counties shaded in gray contain data that are not published by NASS, and thus were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: <http://www.agcensus.usda.gov/>

• Major agricultural areas combined account for 75% of the total national inventory.

Drought Areas
 Major Cattle Area
 Minor Cattle Area

SLAUGHTER STEER PRICES

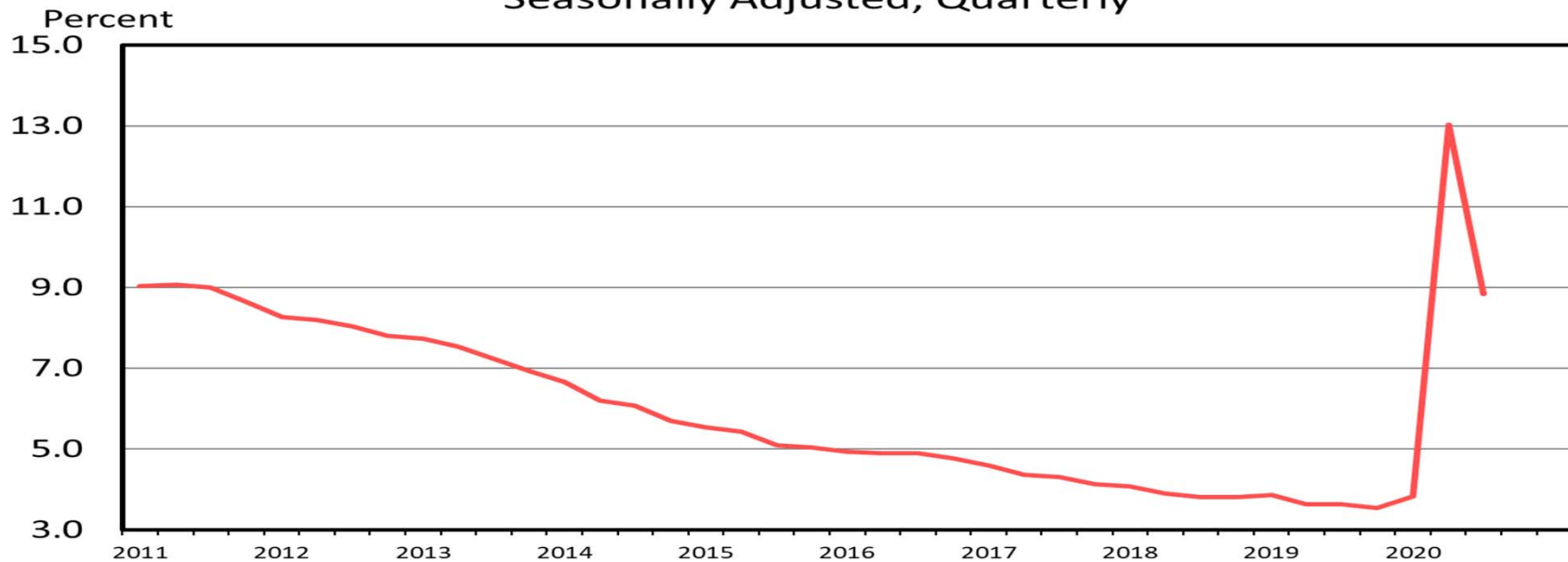
5 Market Weighted Average, Weekly



US ECONOMY ??



U.S. UNEMPLOYMENT RATE Seasonally Adjusted, Quarterly



Dow Jones Industrial Average Index

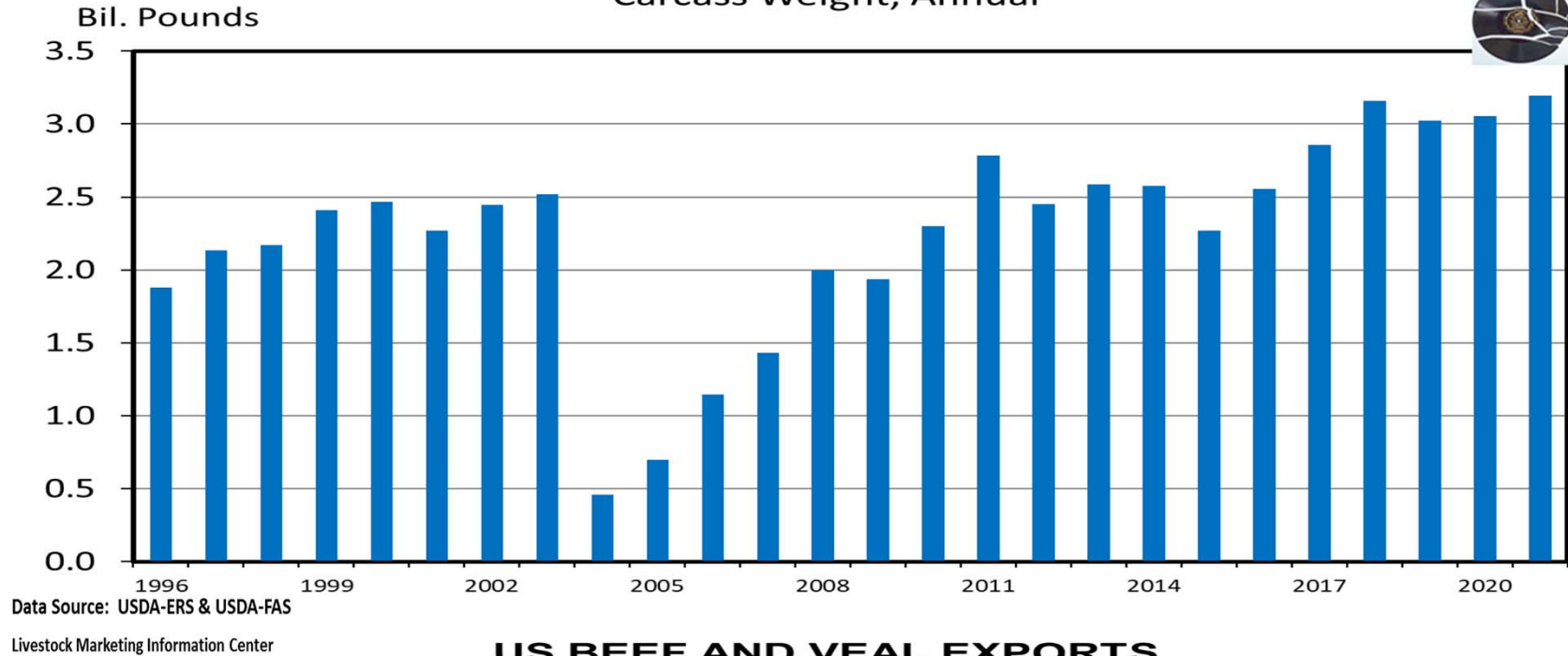


High 30046.24 on Nov 24, 2020

Low 18591.93 on Mar 23, 2020

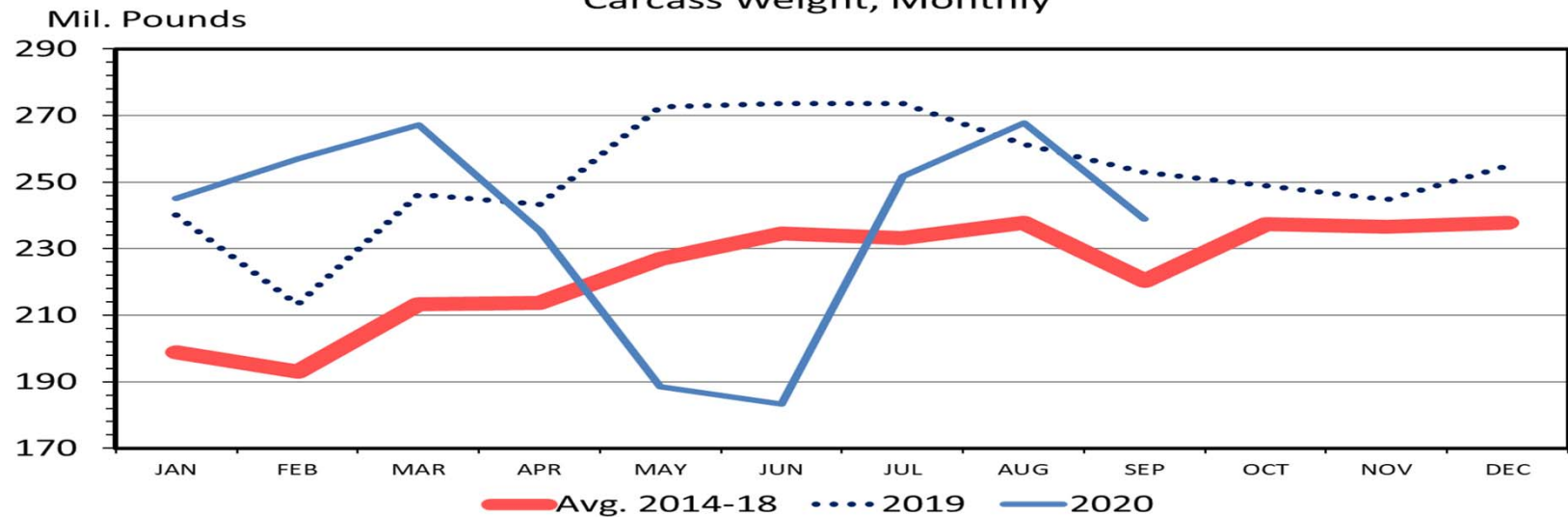
U.S. BEEF AND VEAL EXPORTS

Carcass Weight, Annual



US BEEF AND VEAL EXPORTS

Carcass Weight, Monthly



U.S. Ranking in World



Major U.S. Meat Export Customers

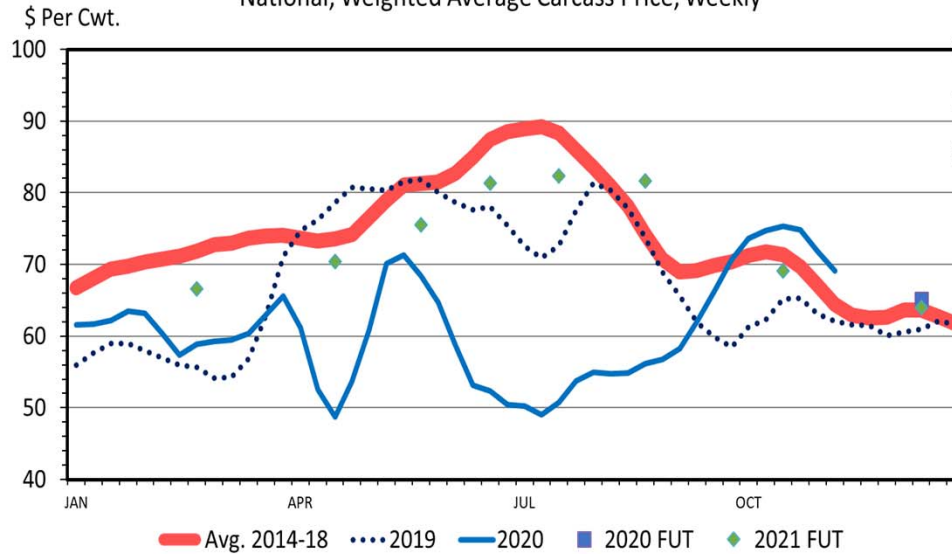
BEEF	PORK	CHICKEN
Japan	Mexico	Mexico
Korea	Japan	Canada
Mexico	Canada	Cuba
Canada	China	Hong Kong
Hong Kong	Korea	Taiwan
China?	Australia	China Ø



Other Livestock

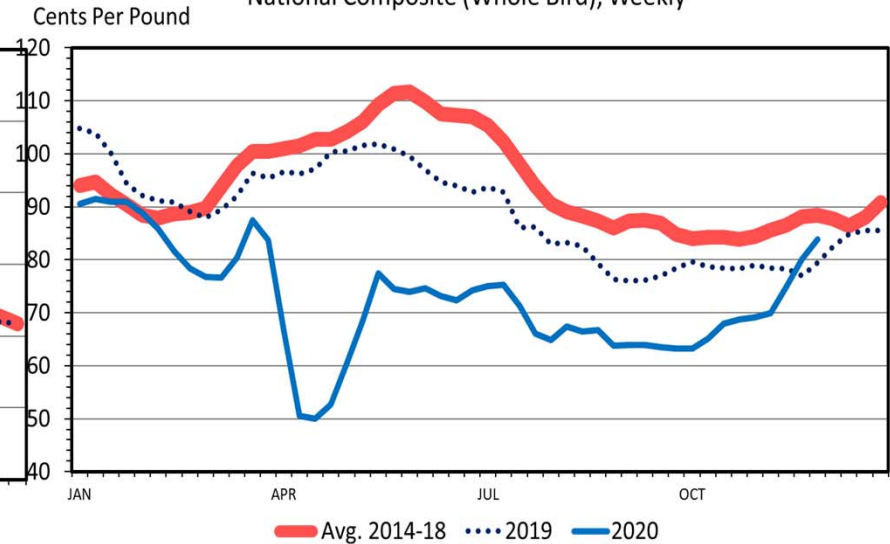
BASE SLAUGHTER HOG PRICES

National, Weighted Average Carcass Price, Weekly



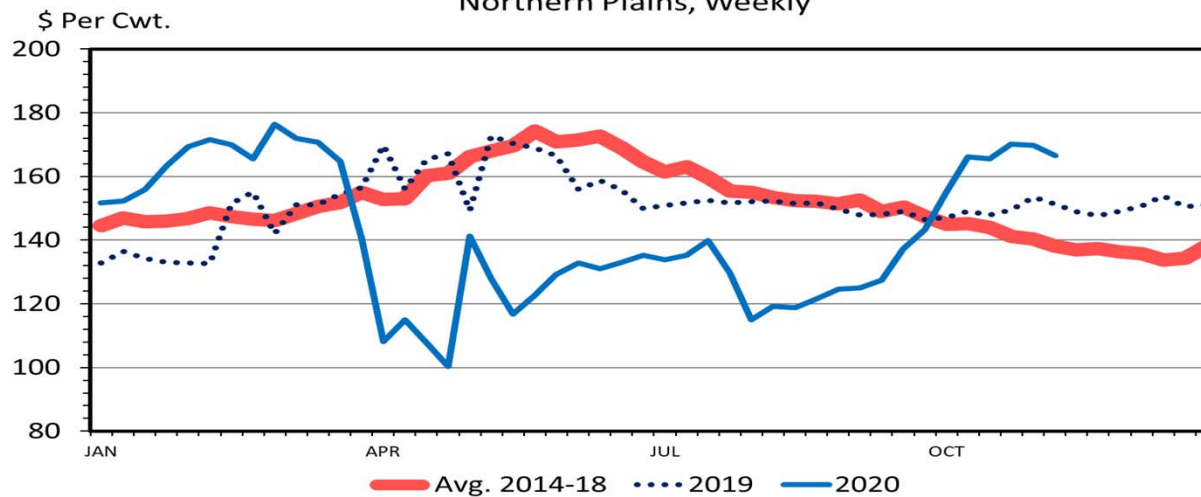
BROILER PRICES

National Composite (Whole Bird), Weekly



SLAUGHTER LAMB PRICES

Northern Plains, Weekly

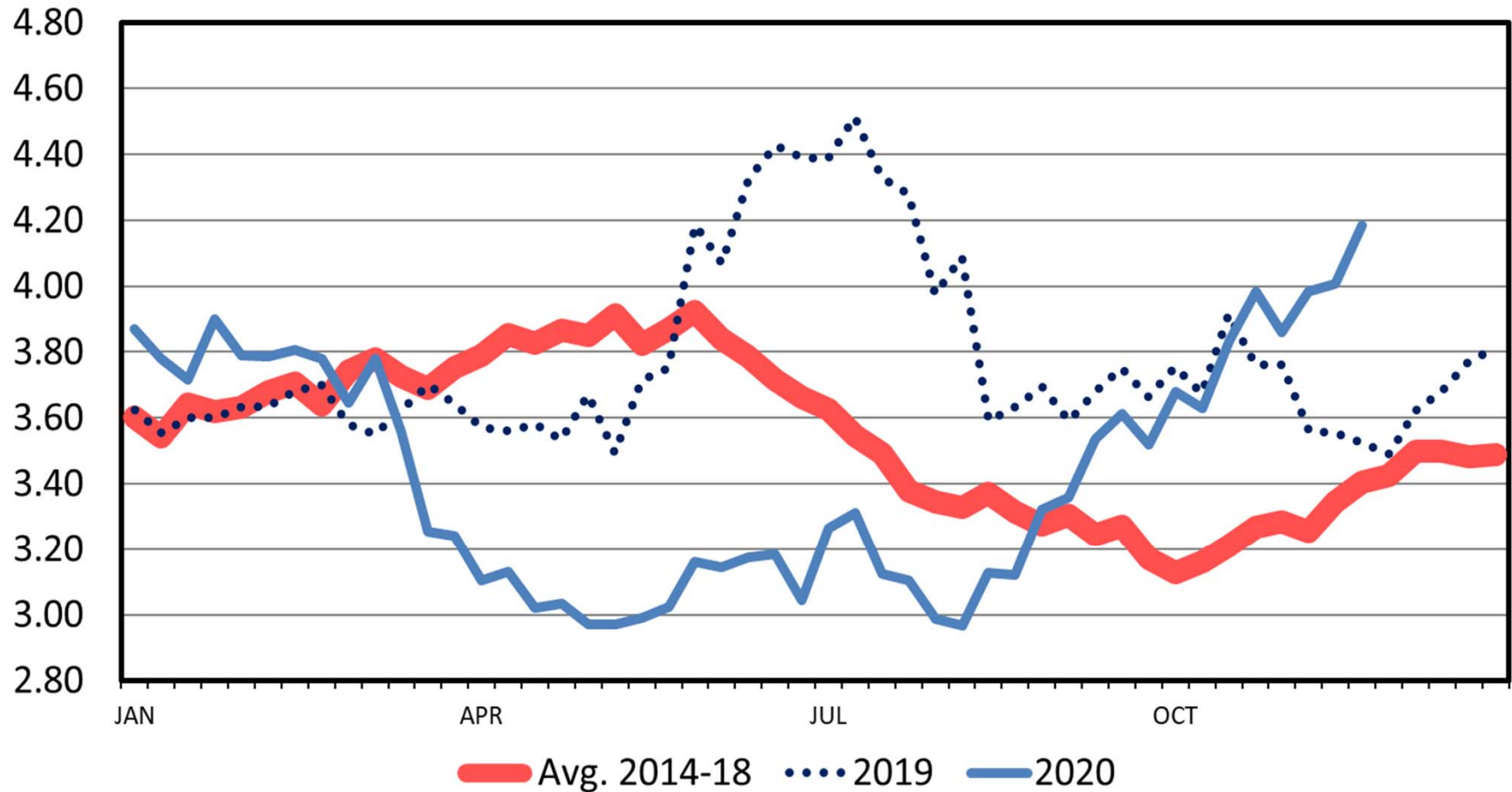


Data Source: USDA-AMS; Livestock Marketing Information Center

OMAHA CORN PRICES

Weekly

\$ Per Bu.



Data Source: USDA-AMS

Livestock Marketing Information Center

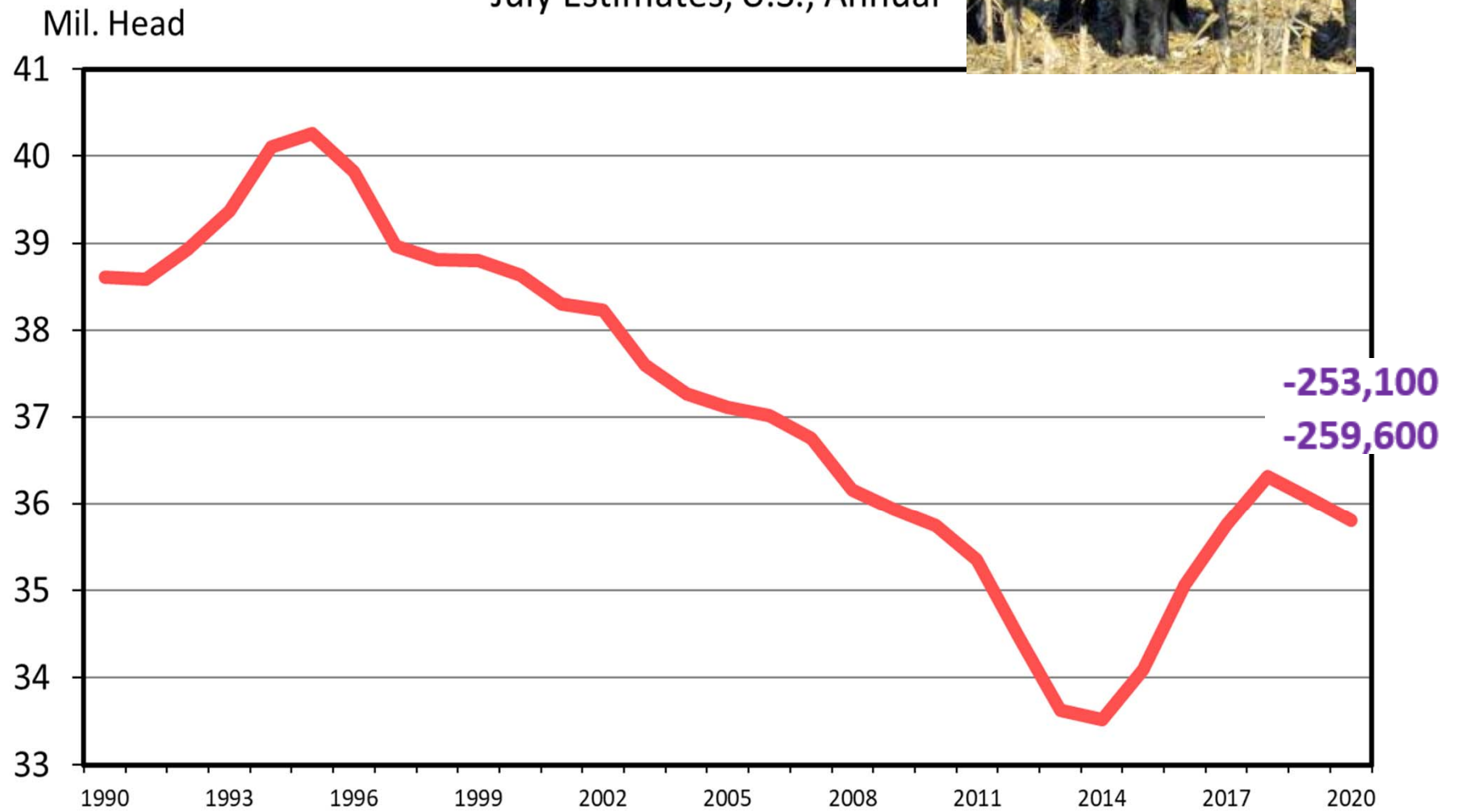
CALF PRICES FROM **COVID-19** TO CORN PRICES

JAN FDR CAT and DEC CORN



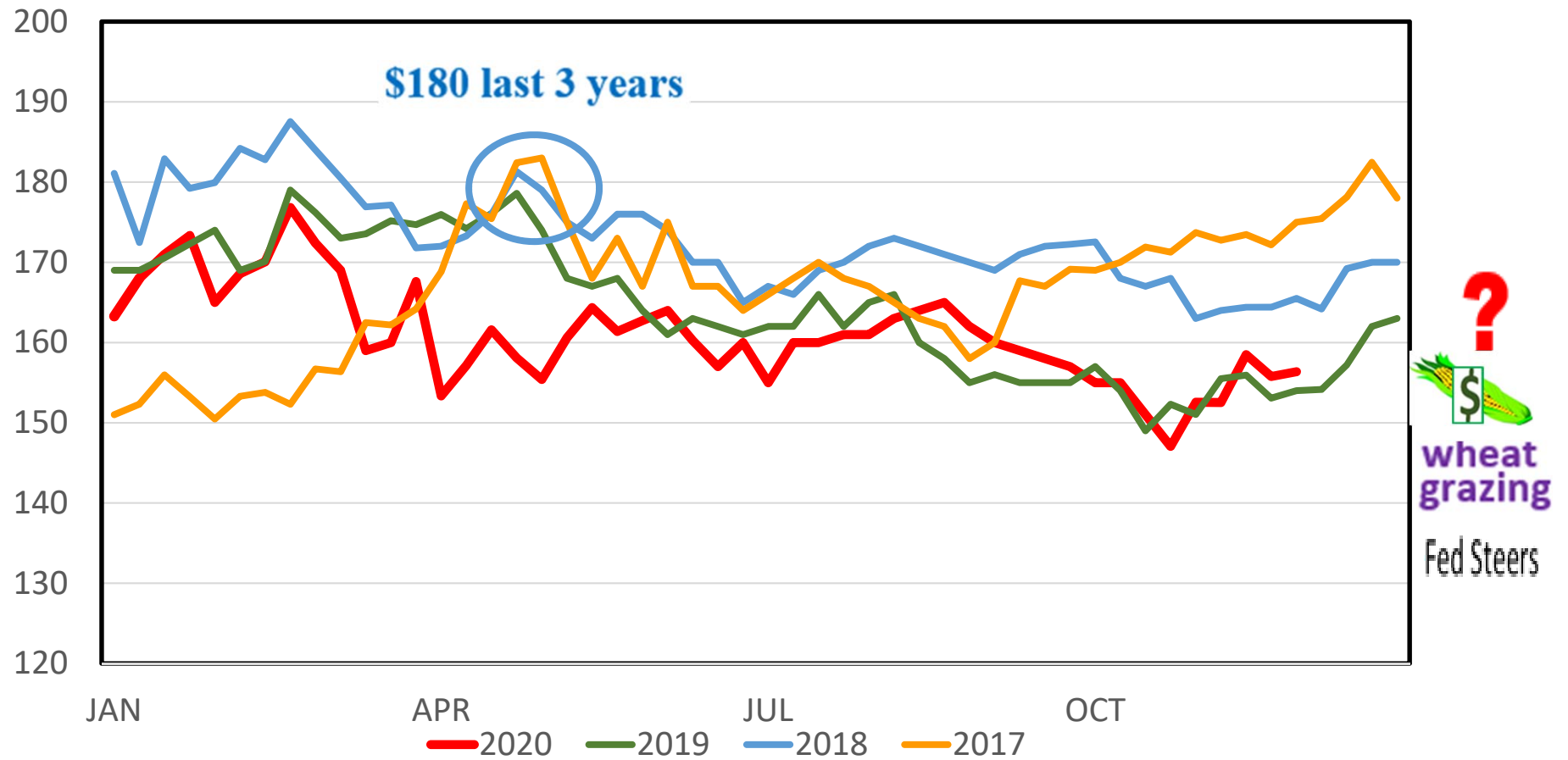
CALF CROP

July Estimates, U.S., Annual



MED. FRAME #1 STEER CALF PRICES

550-600 Pounds, N.D., Weekly

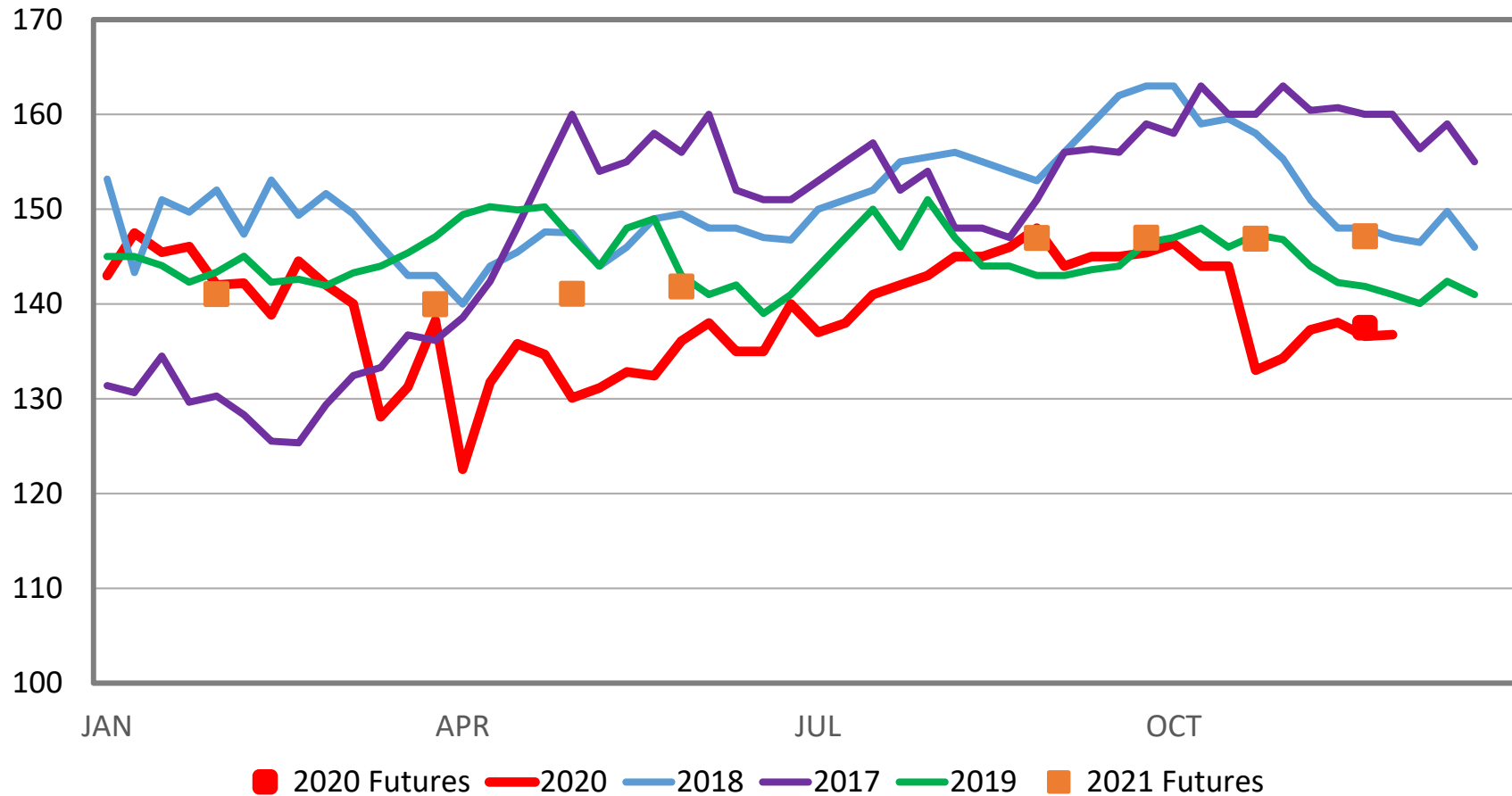


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MED. & LRG. #1 FEEDER STEER PRICES

750-800 Pounds, N.D., Weekly



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North Dakota Weekly Cattle Auction Summary
AMS Livestock, Poultry, & Grain Market News
North Dakota Dept of Ag Mrkt News

Sat Nov 28, 2020

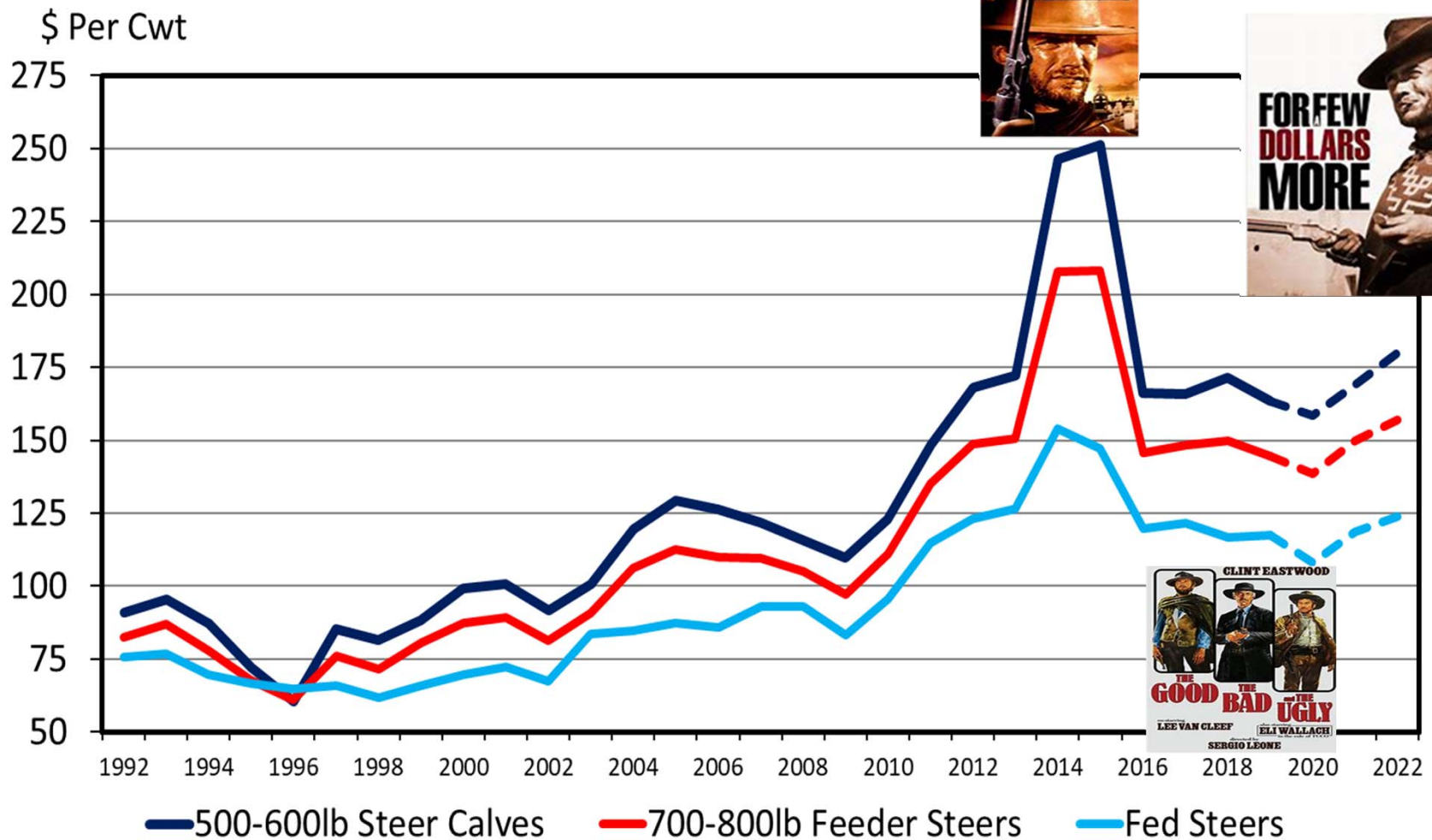
STEERS - Medium and Large 1 (Per Cwt / Actual Wt)

<u>Head</u>	<u>Wt Range</u>	<u>Avg Wt</u>	<u>Price Range</u>	<u>Avg Price</u>
25	419-423	420	195.00-205.00	201.78
133	450-498	477	159.00-179.50	173.22
220	508-549	527	152.50-175.00	163.26
437	559-598	587	148.00-163.00	156.37
380	602-646	624	140.50-156.50	151.90
337	650-697	666	136.00-151.00	147.74
254	700-748	721	141.25-146.00	142.43
14	758	758	137.50	137.50
12	812-819	817	136.00-138.50	137.88
5	877	877	133.50	133.50

HEIFERS - 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>
24	378-394	391	151.00-152.00	151.80
74	411-446	440	147.00-153.00	151.03
88	460-489	480	135.00-143.00	138.03
170	506-538	521	136.00-146.50	144.31
276	551-591	579	127.50-139.00	133.64
143	619-648	641	125.00-137.00	132.99
91	675-693	683	128.50-131.50	129.92
105	704-743	724	124.50-133.50	130.33
6	781	781	125.50	125.50
8	818	818	125.50	125.50
7	889	889	127.00	127.00

2021 CATTLE PRICES BACK TO 2018 LEVELS AND INCREASING AVERAGE ANNUAL CATTLE PRICES



Data Source: USDA-AMS Forecasts by LMIC

2021: COVID-19, Weather, and Economy?
Causing Volatility and Risk , especially on
seasonal basis. Flexible marketing plans
should include risk management tools



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

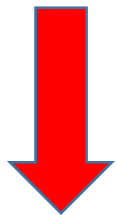


Which Is Best?

Depends on expected price trend



Uptrend: cash market



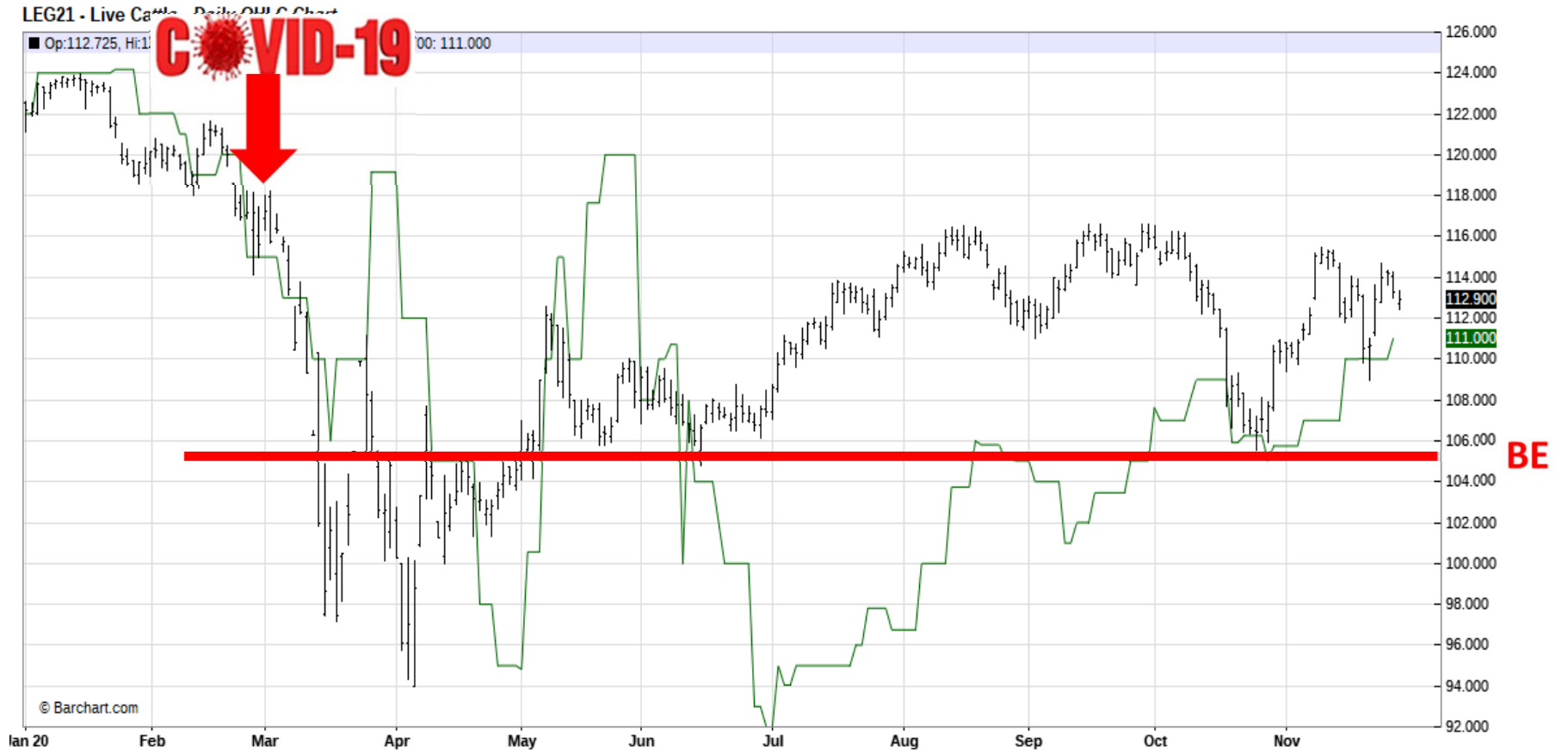
Downtrend: futures
cash forward contract
video and internet auction



?: options or LRP
(will always be 2nd best)



FEBLVCAT Futures/5-Area Cash



When should I pull the trigger?



Most difficult part of using Futures and Options
Is there something easier?



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[Register to Buy or Sell](#)

11/18/2020 Sale Results

930 head total, 543 head sold

Live Offering:

1-9 Day Delivery: 613 head total, 395 head sold, weighted average price
\$110.25

1-17 Day Delivery: 317 head total, 148 head sold, weighted average price
\$110.25

Status	Lot	Asking Price	Price/cwt	State	Delivery	Head	Sex	Weight In	Days On Feed	Weight Out	Dressed	ChoicePct	Beta Agonist
Unsold	5047	\$110.50	No Bid	TX	1-9 days	218	Steers	697	185	1375	63.20	65	No
Unsold	5048	\$110.00	No Bid	TX	1-17 days	169	Heifers	732	153	1210			Yes
Sold	5049	\$110.00	110.25	TX	1-17 days	148	Heifers	711	171	1220			Yes
Sold	5050	\$110.00	110.25	TX	1-9 days	182	Steers	803	188	1450	65.00	70	Yes
Sold	5051	\$110.00	110.25	TX	1-9 days	213	Steers	823	174	1425	65.00	70	Yes

Some Packers Offer Futures-based Forward Contracts

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



National Weekly Direct Slaughter Cattle - Prior Week Slaughter and Contract Purchases

Agricultural Marketing Service
Livestock, Poultry, and Grain Market News

November 30, 2020

[LM_CT153](#)

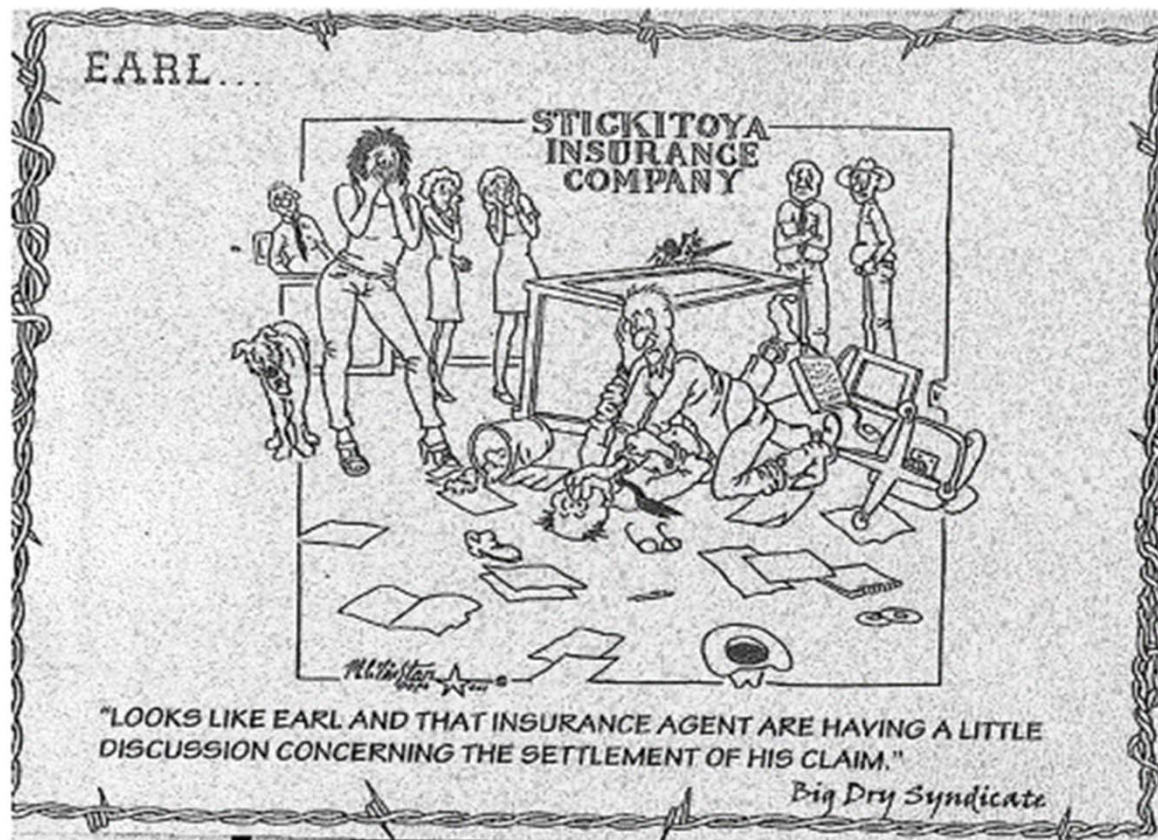
Delivery Mo./Basis Mo.

Feb '21/Feb	\$113
669 head = -1.00	\$- <u>.50</u>
8,500 head = -0.50	\$112.50

Apr '21/Apr	
2,225 head = 0.00	
54 head = +0.50	
793 head = +1.00	

May '21/Jun	
74 head = +2.50	
616 head = +3.00	
394 head = +4.00	
646 head = +5.00	

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
- 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

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 (currently not available)

Insurance Period

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

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

Policy Size

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

NEW Premium Subsidy Rates

<u>Coverage Level %</u>	<u>Subsidy Rate %</u>
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

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

Fed Cattle (Steers or Heifers)

- 1000 – 1400 lb., Select or higher, YG 1-3
- Based on 5-area weighted average 35 to 65 percent choice steer price available at:
www.ams.usda.gov/mnreports/ams_2477.pdf
- Released each Monday morning



5 Area Weekly Weighted Average Direct Slaughter Cattle

Agricultural Marketing Service
Livestock, Poultry, and Grain Market News

November 30, 2020

[LM CT150](#)

Email us with accessibility issues regarding this report.

Texas/Oklahoma/New Mexico; Kansas; Nebraska; Colorado; Iowa/Minnesota feedlots
(Includes all transactions regardless of delivery day)
For: Week Ending Sunday, 11/29/2020

Confirmed: 73,347 Week Ago: 88,881 Year ago: 51,310

Negotiated Cash Sales

	Head Count	Weight Range	Price Range	Avg Weight	Wtd Avg Price
STEERS: LIVE FOB					
Over 80% Choice	18,550	1,300 - 1,660	107.00 - 112.00	1,504	109.92
65 - 80% Choice	8,408	1,275 - 1,600	109.00 - 111.00	1,451	110.96
35 - 65% Choice	977	1,220 - 1,544	110.00 - 111.00	1,361	110.83
0 - 35% Choice		-	-		
Total all grades	27,935	1,220 - 1,660	107.00 - 112.00	1,483	110.27

FED CATTLE END OF FEB

LRP Coverage Prices, Rates, and Actual Ending Values - Report for 11/30/2020

**35% Subsidy
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	13	0802 Fed Cattle	820 Steers & Heifers	203 Endorsement Ending in March Yr1	2021	112.494	\$112.090	0.996400	0.045802	5.134 3.34	03/01/2021
38 North Dakota	998 All Counties	13	0802 Fed Cattle	820 Steers & Heifers	203 Endorsement Ending in March Yr1	2021	112.494	\$110.090	0.978600	0.036997	4.073 2.65	03/01/2021
38 North Dakota	998 All Counties	13	0802 Fed Cattle	820 Steers & Heifers	203 Endorsement Ending in March Yr1	2021	112.494	\$108.090	0.960900	0.029586	3.198 2.08	03/01/2021
38 North Dakota	998 All Counties	13	0802 Fed Cattle	820 Steers & Heifers	203 Endorsement Ending in March Yr1	2021	112.494	\$106.090	0.943100	0.023273 40%	2.469 1.48	03/01/2021

FEBLV CAT FUT-\$112.88/CURRENT CASH-\$110.83

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

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Indemnity

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

CP = \$112/cwt

AP = \$107

\$5/cwt payment

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

Steps to LRP

1. Submit eligibility application form with insurance agent
2. Select a policy (coverage prices and premiums are available **after 3 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)

LRP – Feeder Cattle

- Based on Chicago Mercantile Exchange (CME) feeder cattle price index which is available at www.cmegroup.com/market-data/reports/cash-settled-commodity-index-prices.html
- 700 to 899 lb., M & L #1&2, feeder steers at markets reported by USDA-AMS

CME FC Cash Index SPREADSHEET

11/19/20

NOV FDR CAT FUT-\$136.77

DATE	LOCATION	TTL HEAD	TTL WEIGHT	WTD AVG WEIGHT	TTL PRICE	WTD AVG PRICE
11/19/2020	APACHE	247	189319.002	766	24830734.16	131.16
11/19/2020	AVA	49	38174	779	4852376.57	127.11
11/19/2020	BILLINGS	120	95100.0013	793	12983337.16	136.52
11/19/2020	BUTLER	101	74861.0001	741	9811786.06	131.07
11/19/2020	CARTHAGE VIDEO (SC)	379	304337	803	41134964.10	135.16
11/19/2020	CENTERVILLE	21	15744	750	2043153.12	129.77
11/19/2020	CLARINDA	276	202104.991	732	27592973.48	136.53
11/19/2020	CLOVIS	244	190513.002	781	23542236.33	123.57
11/19/2020	DALHART	216	166551.996	771	21484497.82	129.00
11/19/2020	DICKINSON	104	75606	727	10399233.00	137.55
11/19/2020	FORT COLLINS	22	17655	803	2393197.90	135.55
11/19/2020	MITCHELL	569	456433.01	802	64880234.11	142.15
11/19/2020	MOBRIDGE	68	51572	758	6965889.12	135.07
11/19/2020	NAPOLEON	86	64166	746	8995549.30	140.19
11/19/2020	NEW CAMBRIA	138	103653	751	14979231.41	144.51
11/19/2020	OGALLALA	45	33966	755	4726224.00	139.15
11/19/2020	PRATT	465	392121.01	843	53139262.20	135.52
11/19/2020	SALINA	953	765568.016	803	105918437.98	138.35
11/19/2020	SAN ANGELO	72	53077	737	6412498.18	120.82
11/19/2020	SUPERIOR VIDEO (NC)	70	52500	750	7612500.00	145.00
11/19/2020	SUPERIOR VIDEO (SC)	1433	1098139.01	766	150870979.75	137.39
11/19/2020	TULIA	299	226217.994	757	28303727.30	125.12
11/19/2020	VALENTINE	86	68836.0032	800	10241268.75	148.78
11/19/2020	WOODWARD	896	710764.027	793	93582109.10	131.66
11/19/2020	DAILY TOTALS	6959	5446979.07	783	737696400.90	135.43
11/19/2020	SEVEN-DAY TOTALS	30856	24278467.1	787	3320153167.37	136.75

Risk Management?

MAR FDR CAT and CME Cash Index

GFH21 - 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- \$138.90

Over 600 lb. Feeder Steers



35% Subsidy
X.65

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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	13	0801 Feeder Cattle	810 Steers Weight 2	203 Endorsement Ending in March Yr1	2021	140.173	\$138.200	0.985900	0.041049	5.673 3.69	03/01/2021
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	203 Endorsement Ending in March Yr1	2021	140.173	\$136.200	0.971700	0.034941	4.759 3.09	03/01/2021
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	203 Endorsement Ending in March Yr1	2021	140.173	\$134.200	0.957400	0.029374	3.942 2.56	03/01/2021
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	203 Endorsement Ending in March Yr1	2021	140.173	\$132.200	0.943100	0.024599 40%	3.252 1.95	03/01/2021
38 North Dakota	998 All Counties	13	0801 Feeder Cattle	810 Steers Weight 2	203 Endorsement Ending in March Yr1	2021	140.173	\$130.200	0.928900	0.020276	2.640 1.58	03/01/2021

MAR FDR CAT Futures - \$139.98/CME FC INDEX-\$138.90

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

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 contracted
- $\uparrow$ 600, $\downarrow$ 600 feeder steers & 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

Disadvantages

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

2021: COVID-19, Weather and Demand Issues?
Causing Volatility and Risk , especially on
seasonal basis. Flexible marketing plans
should include risk management tools



NDSU

EXTENSION