

Ag Price Analysis

February 2019



Tim Petry

Livestock Economist

www.ndsu.edu/livestockeconomics

AGEC344 FEB2019

NDSU

EXTENSION



“If you read about something for only 1 hour a day, after 5 weeks you will be one of the world’s leading authorities on that subject!”

Source: Pat Williams, Senior Vice President, Orlando Magic

Forecasting Competition Winners 2017-2018

Crop Prices Competition

First Place – **Brian Williams, Mississippi State**

Livestock Prices Competition

First Place – **Chris Hurt, Purdue &
Tim Petry, North Dakota State**

Overall Crop & Livestock Prices Competition

First Place – **Chris Hurt, Purdue**

HISTORIC and PROJECTED PLANNING PRICES

BEEF

Year*	400-500 lb. Steers	500-600 lb. Steers	600-700 lb. Steers	700-800 lb. Steers	800-900 lb. Steers	1,100-1,700 lb. Cull Cows	5-Area Direct Slaughter Steers
	(cwt) Fourth quarter prices	(cwt) Fourth quarter prices	(cwt) Fourth quarter prices	(cwt) First quarter prices	(cwt) First quarter prices	(cwt) Annual prices	(cwt) Annual prices
2013	205.43	183.90	174.19	175.12	163.59	78.29	125.88
2014	323.38	285.52	259.17	220.47	202.00	104.20	154.56
2015	234.07	206.55	188.32	161.62	150.26	99.00	148.12
2016	151.26	137.89	128.09	133.67	126.58	74.30	120.85
2017	194.23	177.01	166.22	151.40	141.74	68.80	121.52
Historic avg. (2013-2017)	221.67	198.17	183.20	168.46	156.83	84.92	134.19
2018 (to date)	187.67	169.21	157.80	145.00**	140.00**	64.62	117.11
2019 short-term	185.00	165.00	155.00	145.00**	140.00**	65.00	118.00
2020	190.00	170.00	160.00	150.00**	142.00**	70.00	120.00
2021	195.00	175.00	165.00	155.00**	147.00**	75.00	125.00
2022	200.00	180.00	170.00	160.00**	152.00**	80.00	127.00
2023	205.00	185.00	175.00	165.00**	157.00**	85.00	130.00
2024	205.00	185.00	175.00	165.00**	157.00**	85.00	133.00
Projected long-term avg. (2020-24)	199.00	179.00	169.00	159.00	151.00	79.00	127.00

www.ag.ndsu.edu/pubs/agecon/market/ec1090.pdf

How did we do?

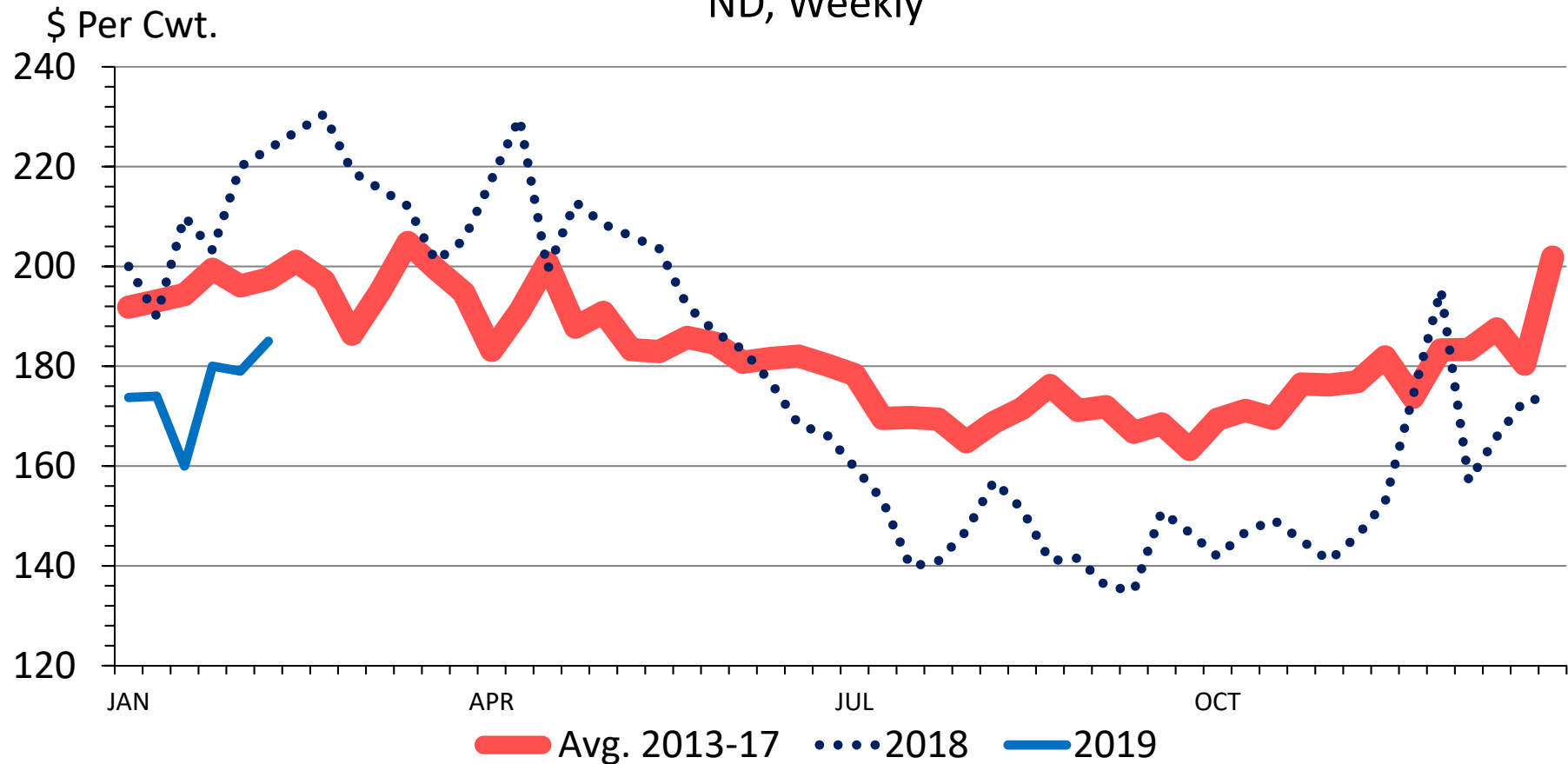
BEEF

Year*	400-500 lb. Steers	500-600 lb. Steers	600-700 lb. Steers	700-800 lb. Steers	800-900 lb. Steers	1,100-1,700 lb. Cull Cows	5-Area Direct Slaughter Steers
	(cwt) Fourth quarter prices	(cwt) Fourth quarter prices	(cwt) Fourth quarter prices	(cwt) First quarter prices	(cwt) First quarter prices	(cwt) Annual prices	(cwt) Annual prices
Projected for 2018							
2018 short-term	185.00	165.00	155.00	145.00**	137.00**	75.00	120.00
Actual in 2018							
2018 (to date)	187.67	169.21	157.80	145.00**	140.00**	64.62	117.11

"A Picture is Worth 1000 Words"

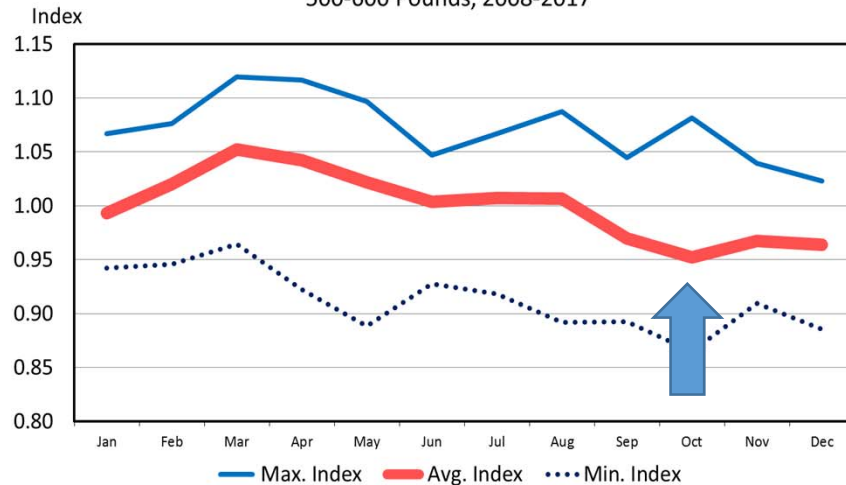
FEEDER LAMB PRICES

ND, Weekly

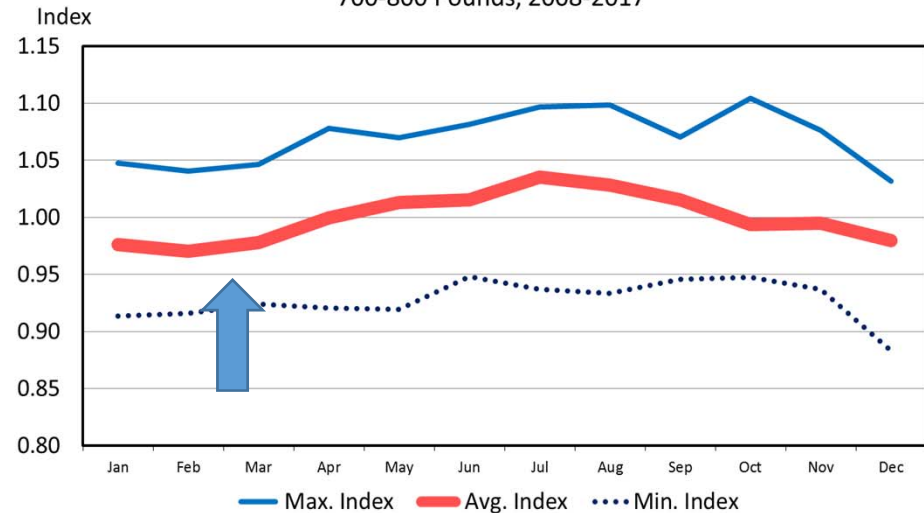


Seasonal Price Patterns are the Most Important Price Prediction and Marketing Tool

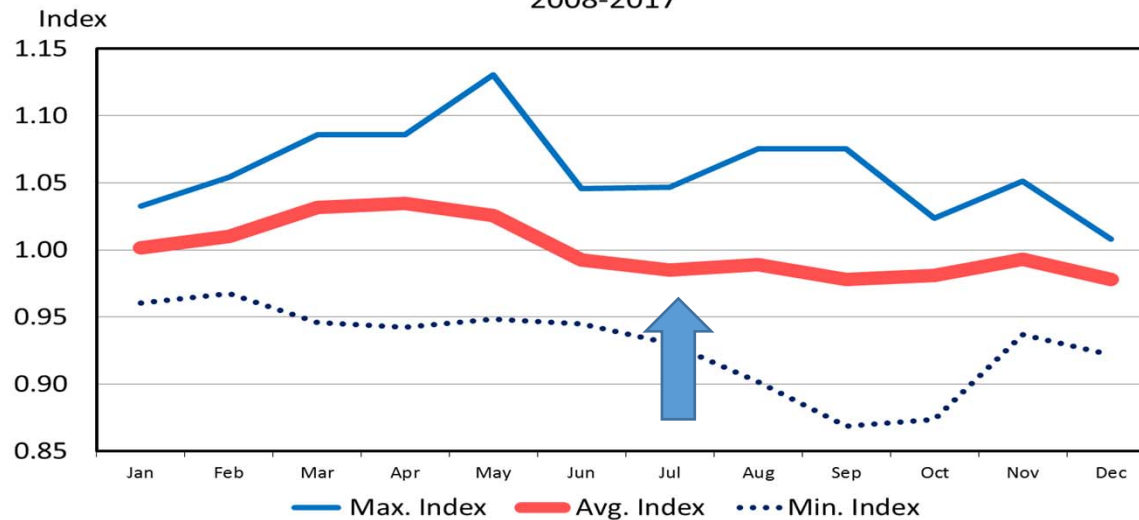
SEASONAL PRICE INDEX – STEER CALVES
500-600 Pounds, 2008-2017



SEASONAL PRICE INDEX – FEEDER STEERS
700-800 Pounds, 2008-2017



SEASONAL PRICE INDEX – FED STEERS
2008-2017



Livestock Marketing Information Center

What causes seasonal price patterns?

1. Both supply and demand

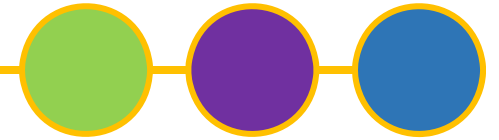
- Supply
 - Production (harvest)
 - Carryover
 - Imports
 - Weather?

2. Demand

- Change is usually slow
 - Consumer incomes
 - Number of consumers
 - Consumer tastes
 - Consumer expectations
 - Prices of related goods
 - Substitutes/complements
 - Domestic vs export

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Cattle Situation and Outlook

Tim Petry, Livestock Economist

www.ndsu.edu/livestockeconomics

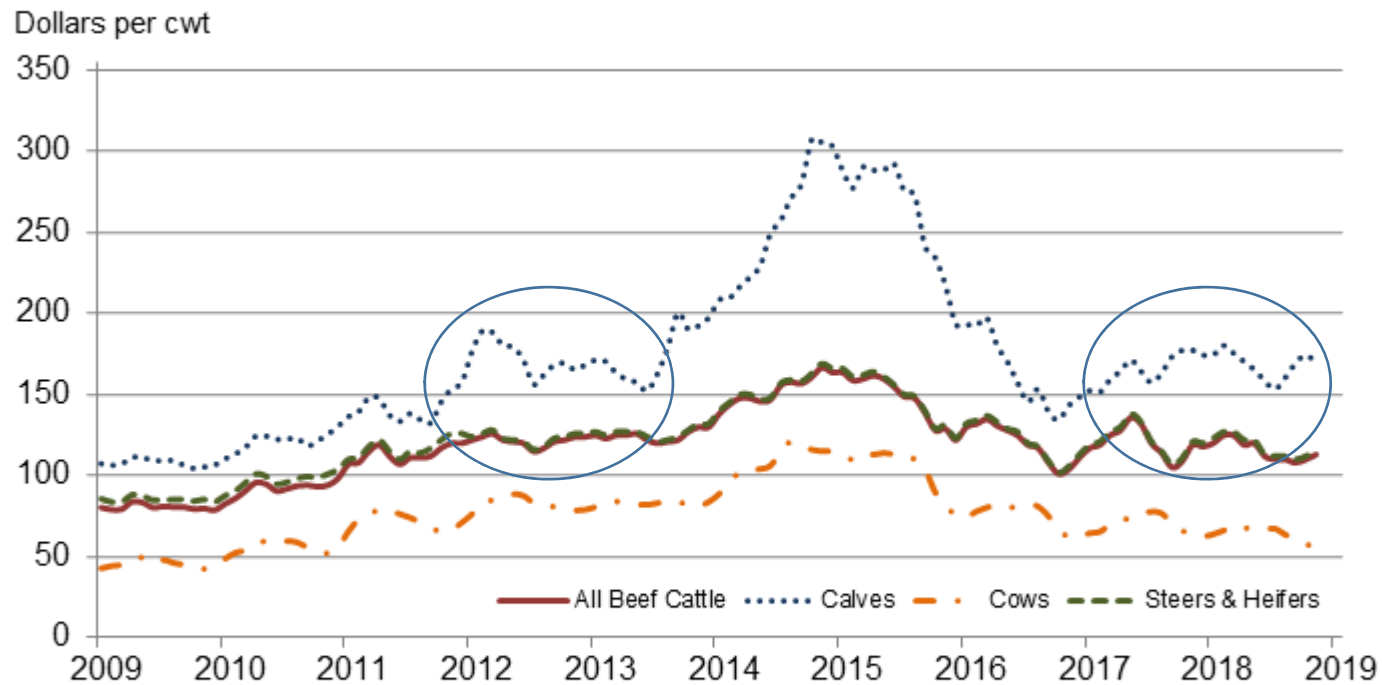
FEB2019



**Due to a lapse in federal funding,
this USDA website will not be
actively updated. Once funding
has been reestablished, online
operations will continue.**

Back to the Future?

Prices Received for Cattle by Month – United States



USDA – NASS
12/27/2018

WASDE

U.S. Meat Production and Prices

	2014	2015	2016	2017	2018	Change from 2017	2019 Forecast	Change From 2018
Production	<i>Billion Pounds</i>		<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Percent</i>	<i>Pounds</i>	<i>Percent</i>
Beef	24.25	23.70	25.22	26.19	26.86	2.6	27.61	2.8
Pork	22.84	24.50	24.94	25.58	26.32	2.9	27.34	3.9
Broilers	38.55	40.05	40.7	41.66	42.54	2.1	43.10	1.3
Turkey	5.76	5.63	5.98	5.98	5.89	-1.5	5.92	.5
Total meat	92.17	94.63	97.6	100.17	102.38	2.2	104.74	2.3
Prices	<i>Dollars/cwt</i>		<i>Dollars/cwt.</i>					
Steers	154.56	148.12	120.85	121.52	117.12	-3.6	118.50	1.2
Hogs	76.03	50.23	46.16	50.48	45.93	-9	42.75	-6.9
	<i>Cents/lb</i>		<i>Cents/lb.</i>					
Broilers	104.9	90.5	84.3	93.5	97.8	4.6	97	-.8
Turkey	107.6	116.2	117.1	96.1	80.2	-16.6	85.8	7

 record high

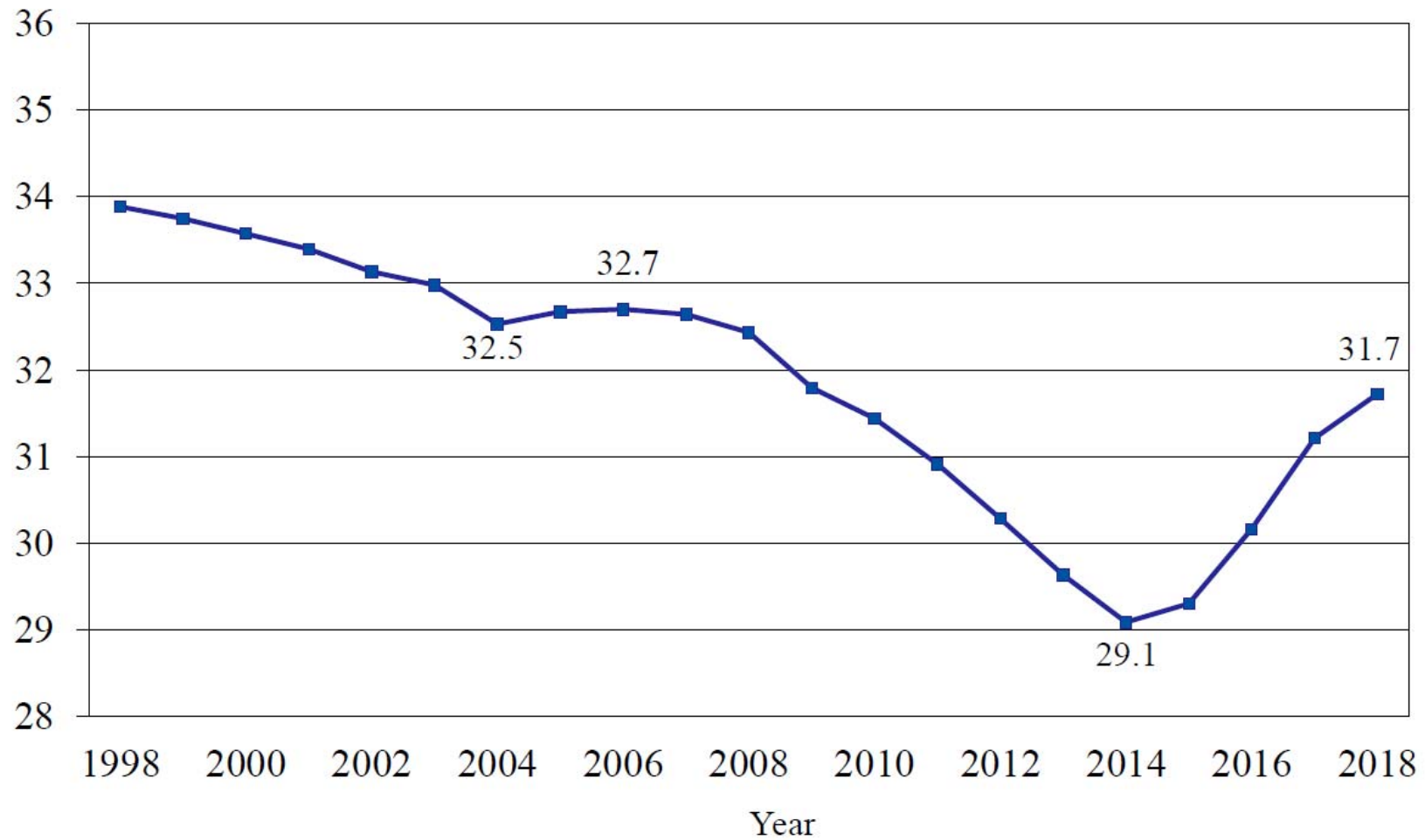
Feb 8, 2019



U.S. Beef Cows

January 1, 1998 - 2018

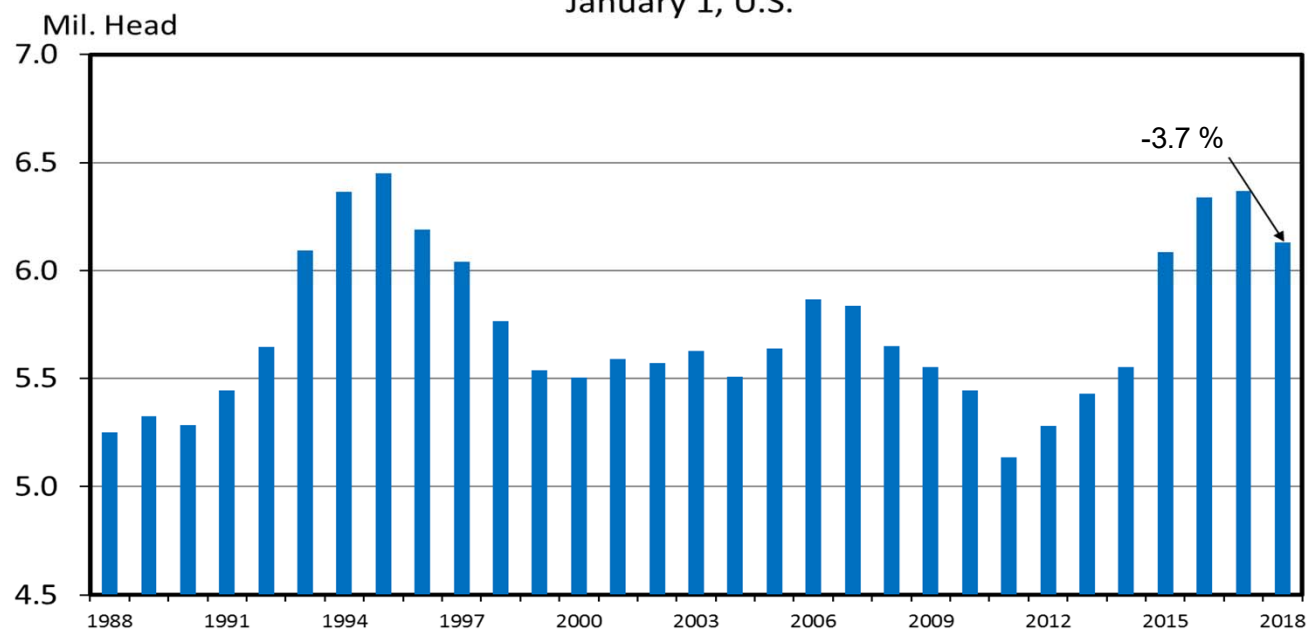
Million head



January 31, 2018

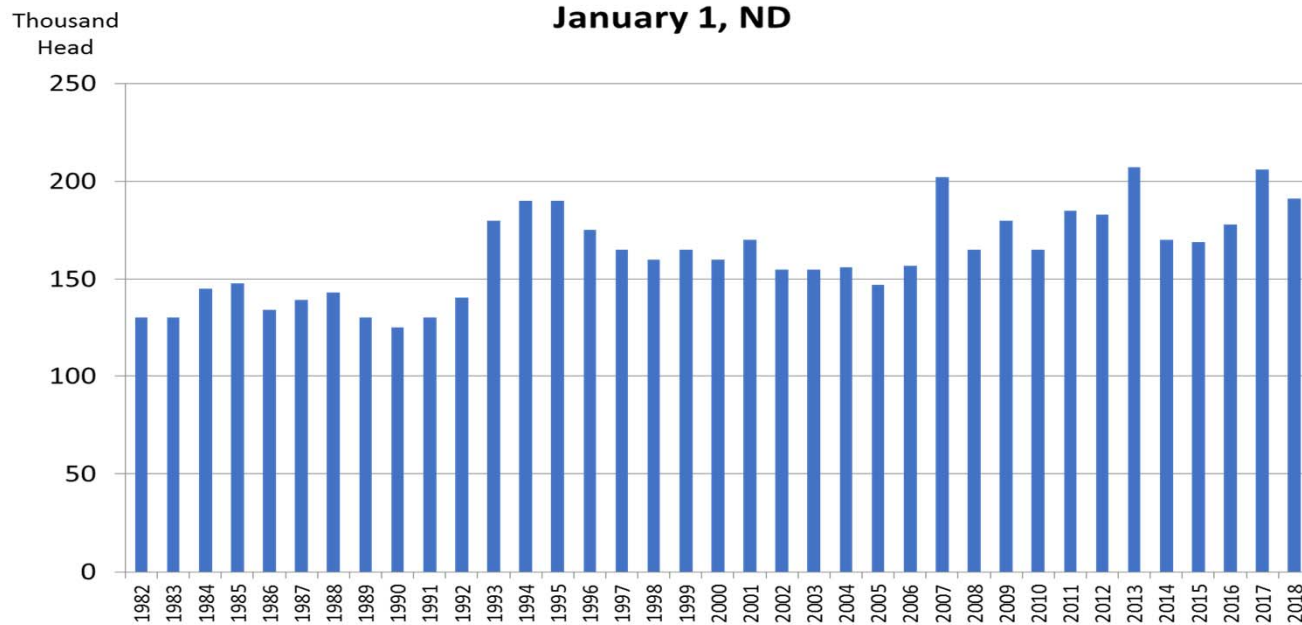
HEIFERS HELD AS BEEF COW REPLACEMENTS

January 1, U.S.



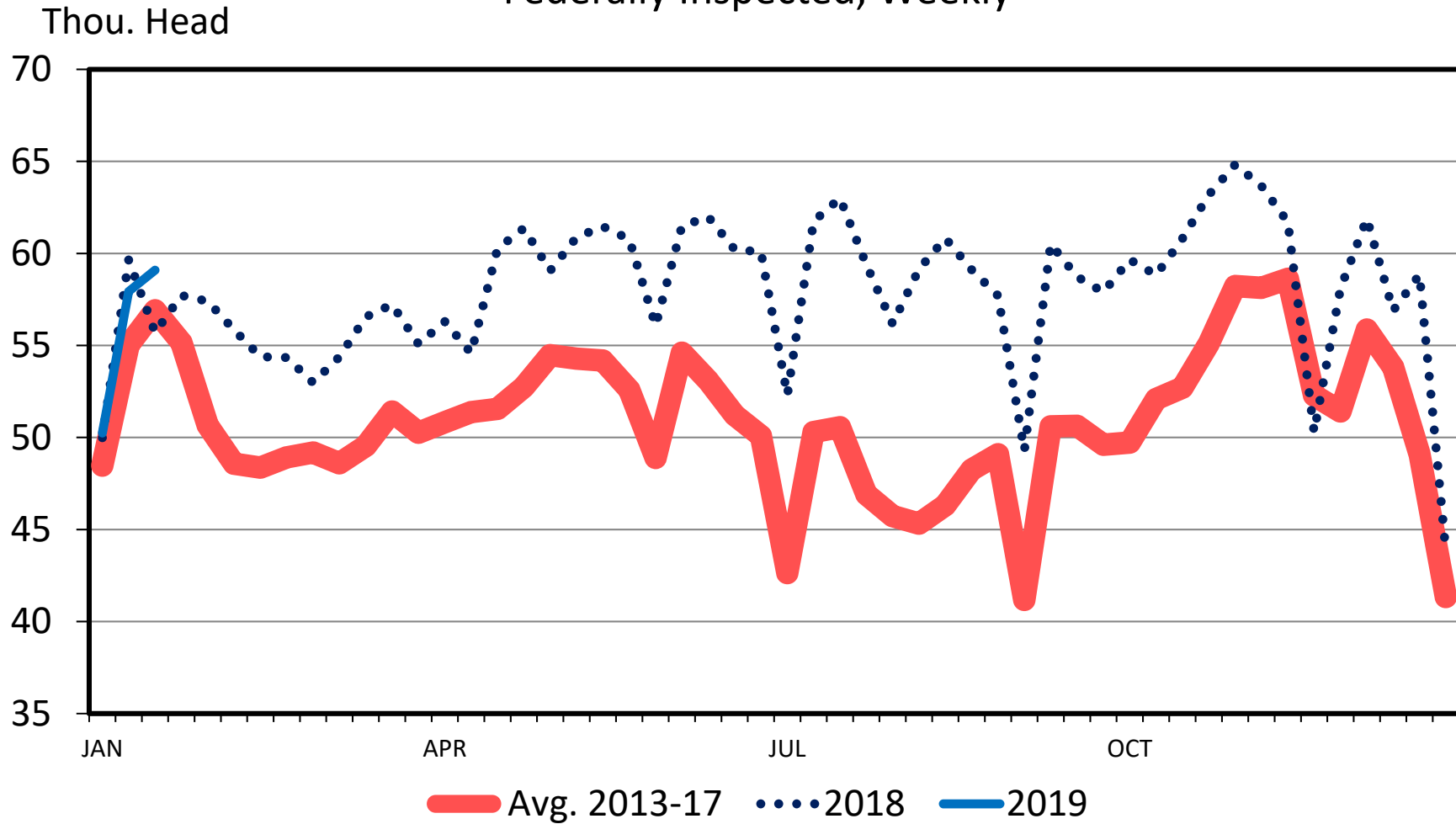
HEIFERS HELD AS BEEF COW REPLACEMENTS

January 1, ND



BEEF COW SLAUGHTER

Federally Inspected, Weekly



Data Source: USDA-AMS & USDA-NASS

Livestock Marketing Information Center

U.S. Cattle Areas Experiencing Drought

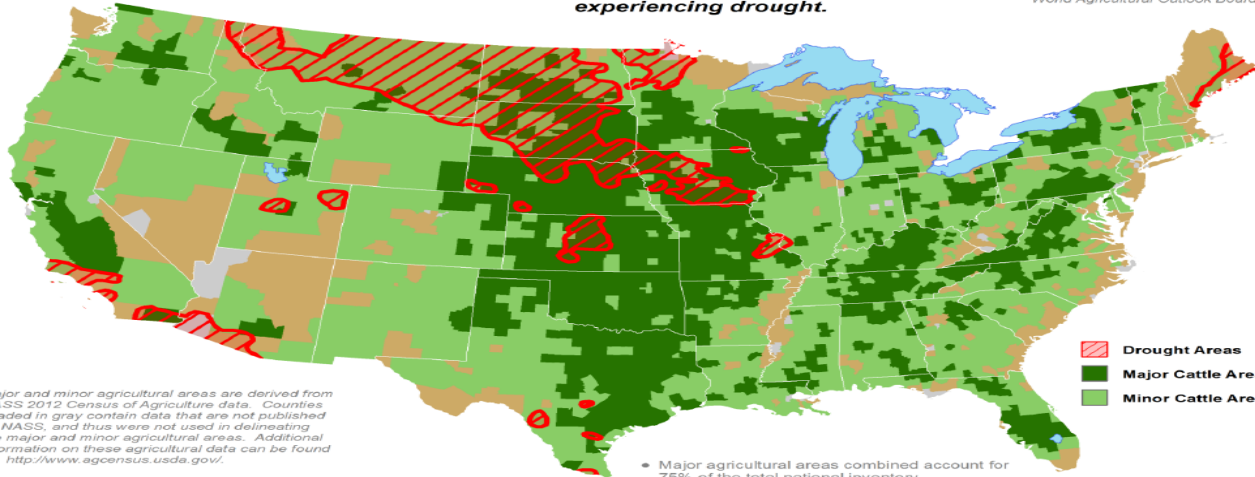
Reflects **August 15, 2017**
U.S. Drought Monitor data

Approximately **13%** 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/>.

Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://droughtmonitor.unl.edu/>.

- Major agricultural areas combined account for 75% of the total national inventory.
- Major and minor agricultural areas combined account for 99% of the total national inventory.

Drought Areas
 Major Cattle Area
 Minor Cattle Area

U.S. Cattle Areas Experiencing Drought

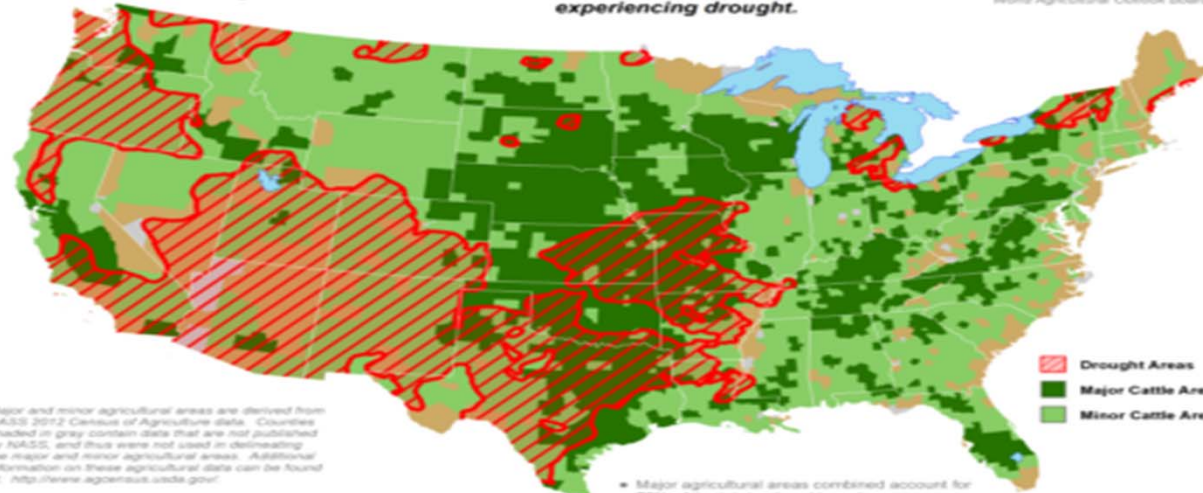
Reflects **August 7, 2018**
U.S. Drought Monitor data

Approximately **30%** 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/>.

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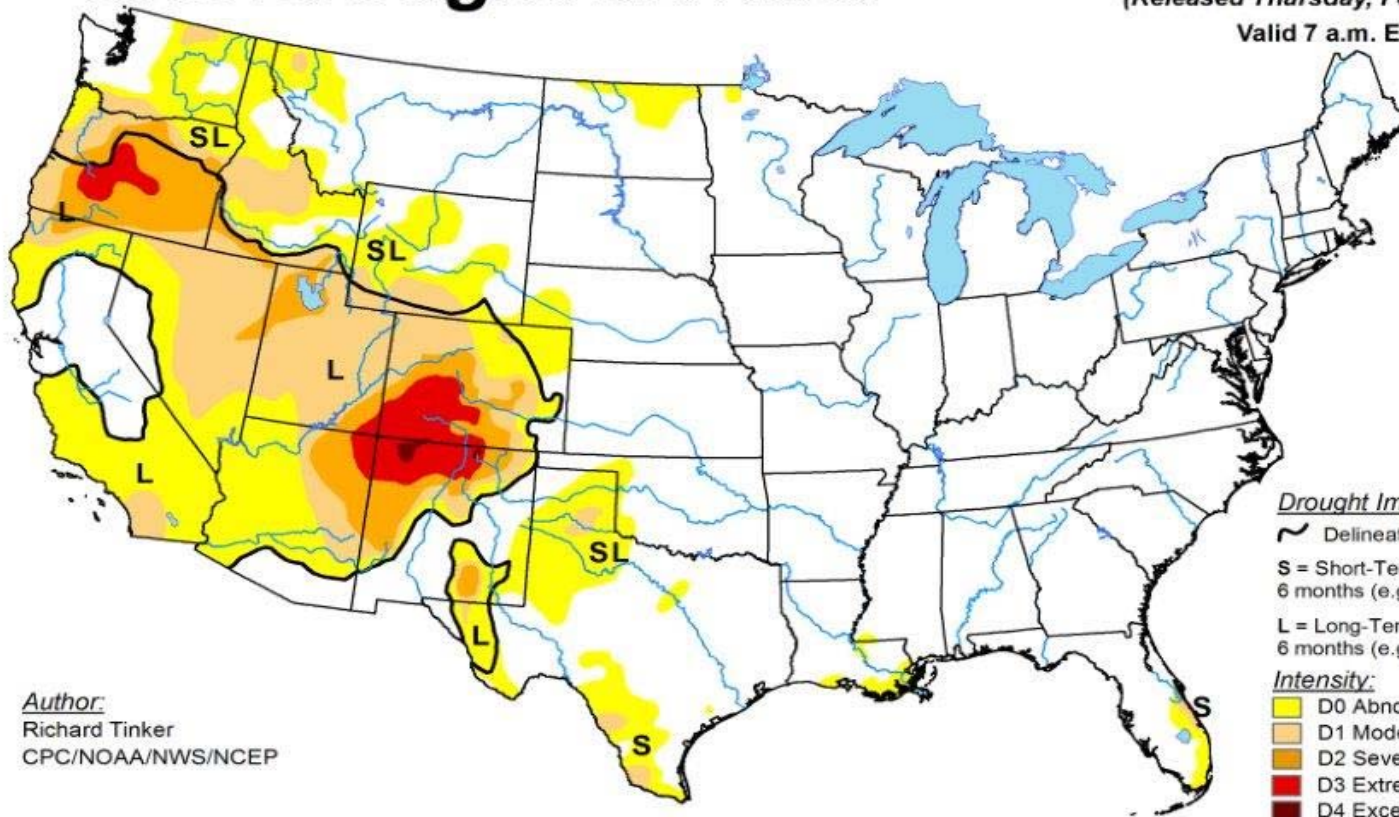
- Major agricultural areas combined account for 75% of the total national inventory.
- Major and minor agricultural areas combined account for 99% of the total national inventory.

Drought Areas
 Major Cattle Area
 Minor Cattle Area

U.S. Drought Monitor

February 12, 2019
(Released Thursday, Feb. 14, 2019)

Valid 7 a.m. EST



Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

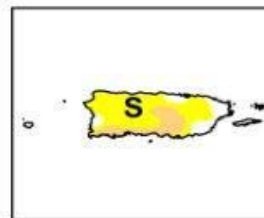
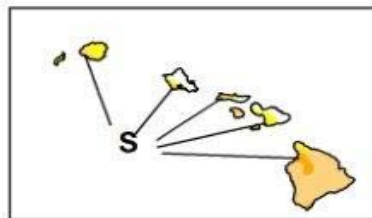
Drought Impact Types:

- ~ Delineates dominant impacts
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:

- D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought

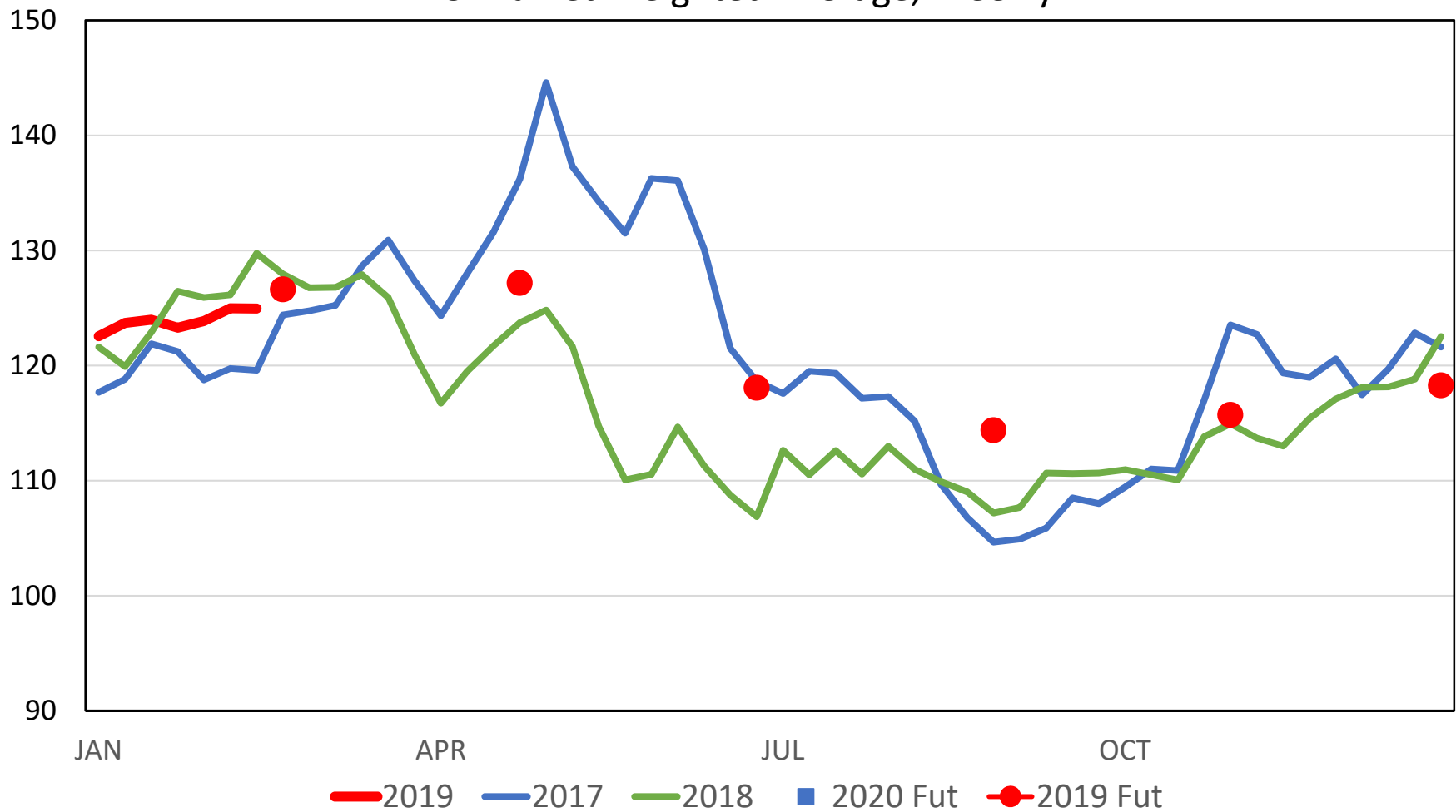
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

SLAUGHTER STEER PRICES

5 Market Weighted Average, Weekly



RBG19 - Gasoline RBOB - Daily OHLC Chart

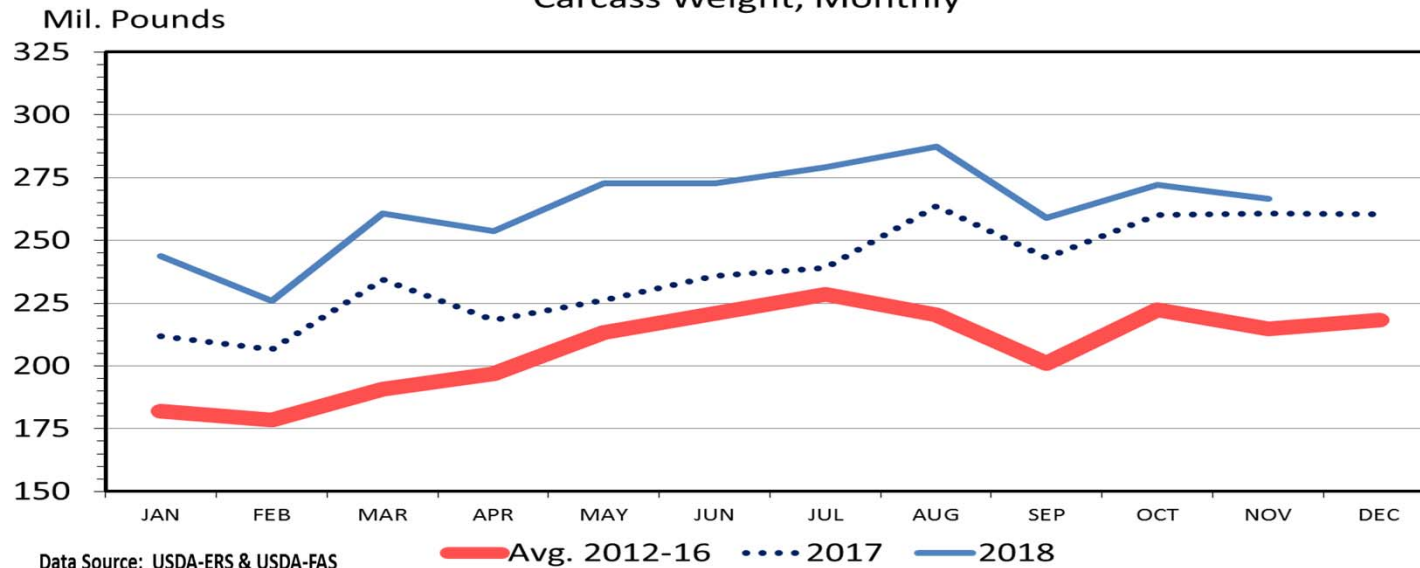


SDOWI - Dow Jones Industrials - Daily OHLC Chart



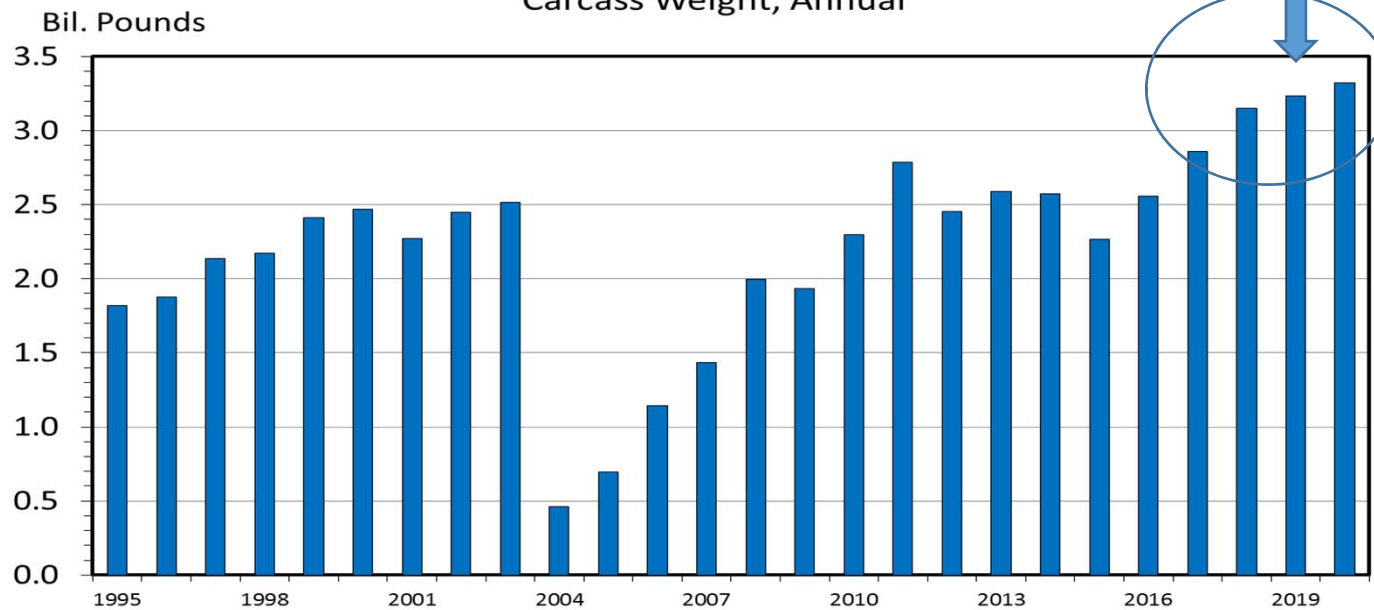
US BEEF AND VEAL EXPORTS

Carcass Weight, Monthly



US BEEF AND VEAL EXPORTS

Carcass Weight, Annual



U.S. Ranking in World



Major U.S. Meat Export Customers

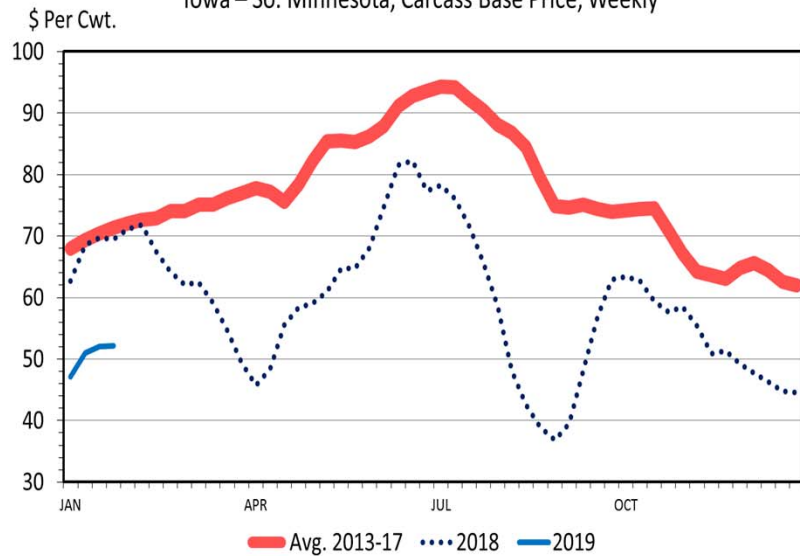
BEEF	PORK	CHICKEN
Japan	Mexico	Mexico
Korea	Japan	Canada
Mexico	Canada	Cuba
Canada	China	Hong Kong
Hong Kong	Korea	Taiwan
China?	Australia	China



Other Livestock

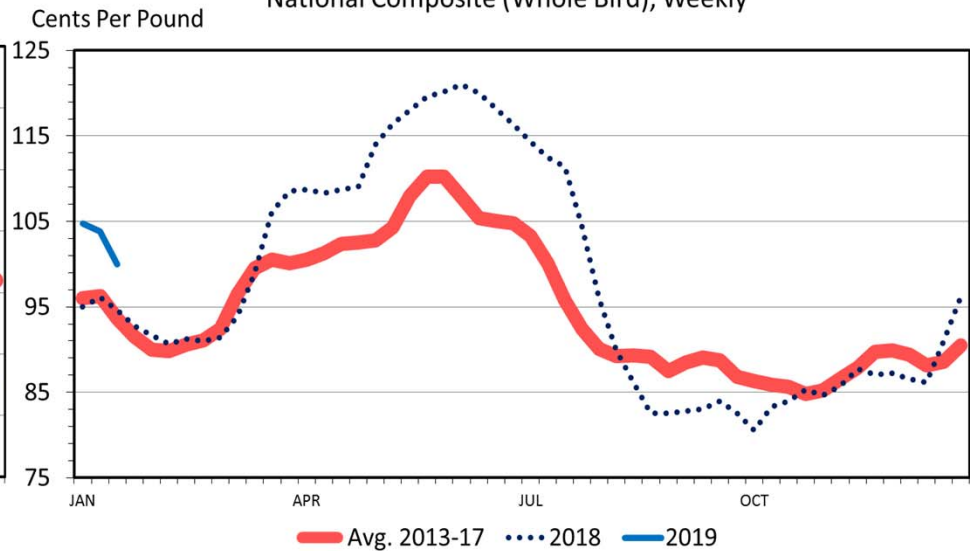
BARROW AND GILT PRICES

Iowa – So. Minnesota, Carcass Base Price, Weekly



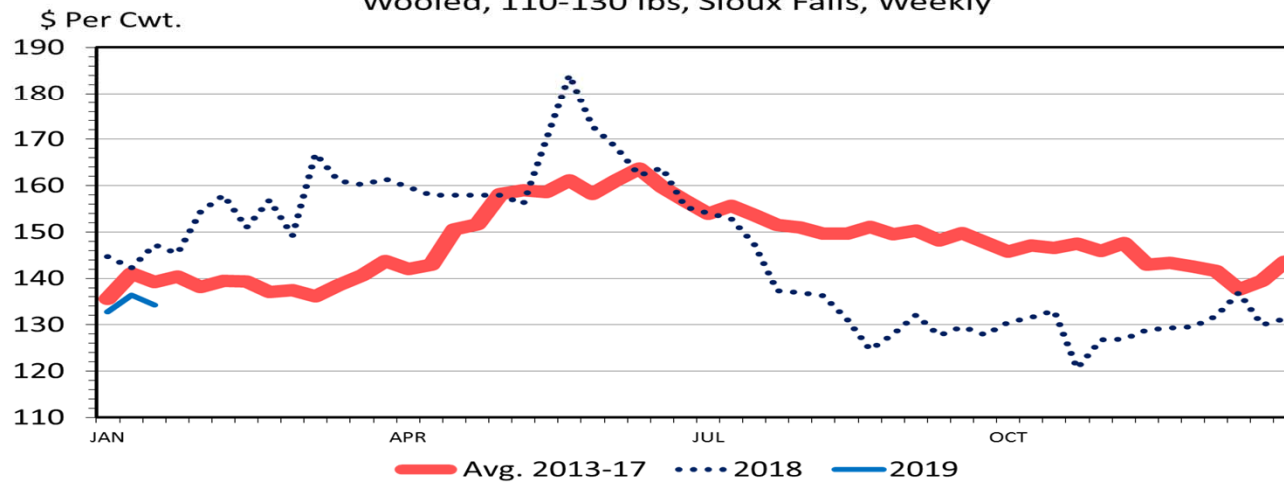
BROILER PRICES

National Composite (Whole Bird), Weekly



SLAUGHTER LAMB PRICES

Wooled, 110-130 lbs, Sioux Falls, Weekly



Data Source: USDA-AMS; Livestock Marketing Information Center

BIG CORN CROP



Bearish corn prices



Bullish calf prices

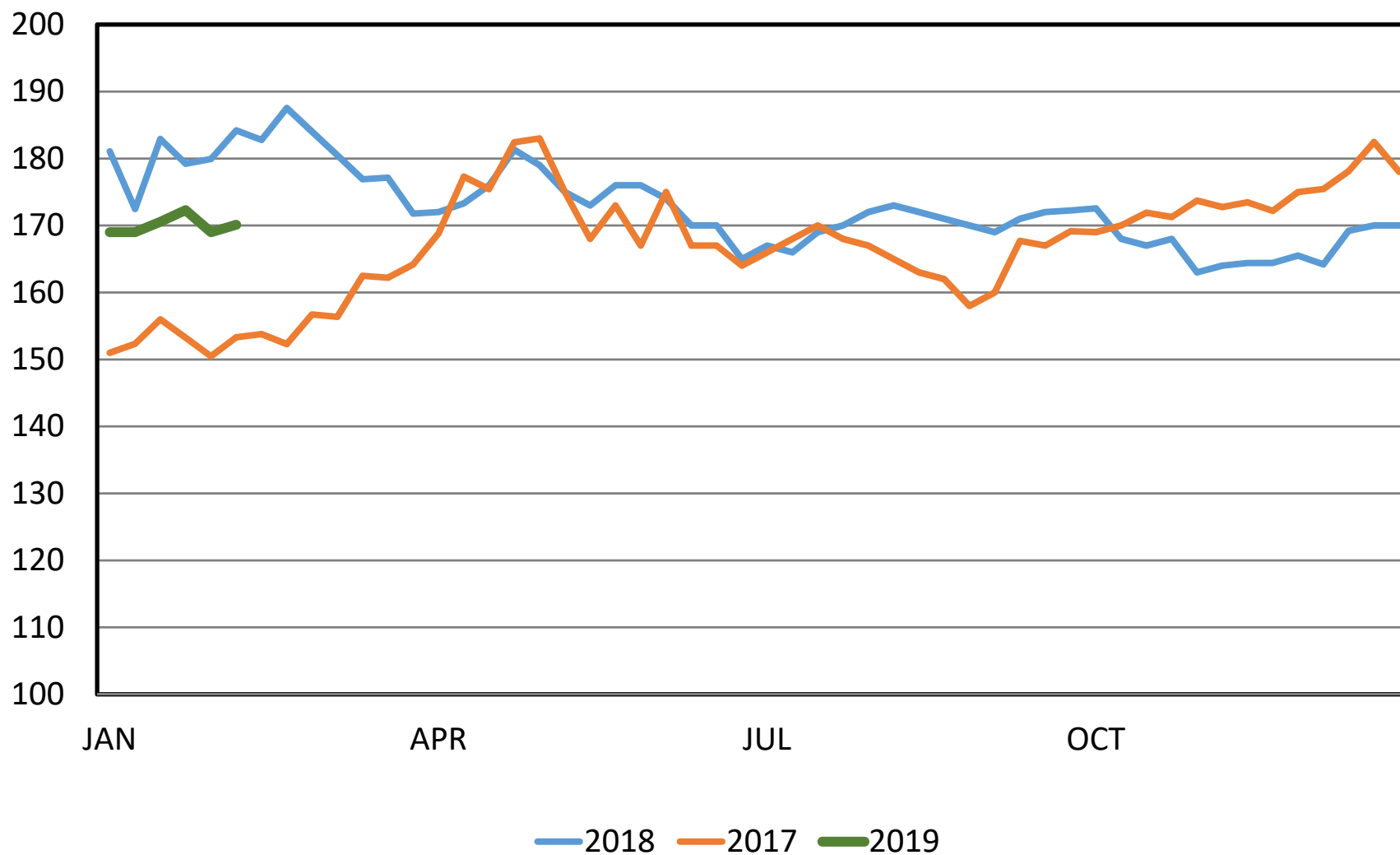


Mar Fdr Cat vs Mar Corn



MED. FRAME #1 STEER CALF PRICES

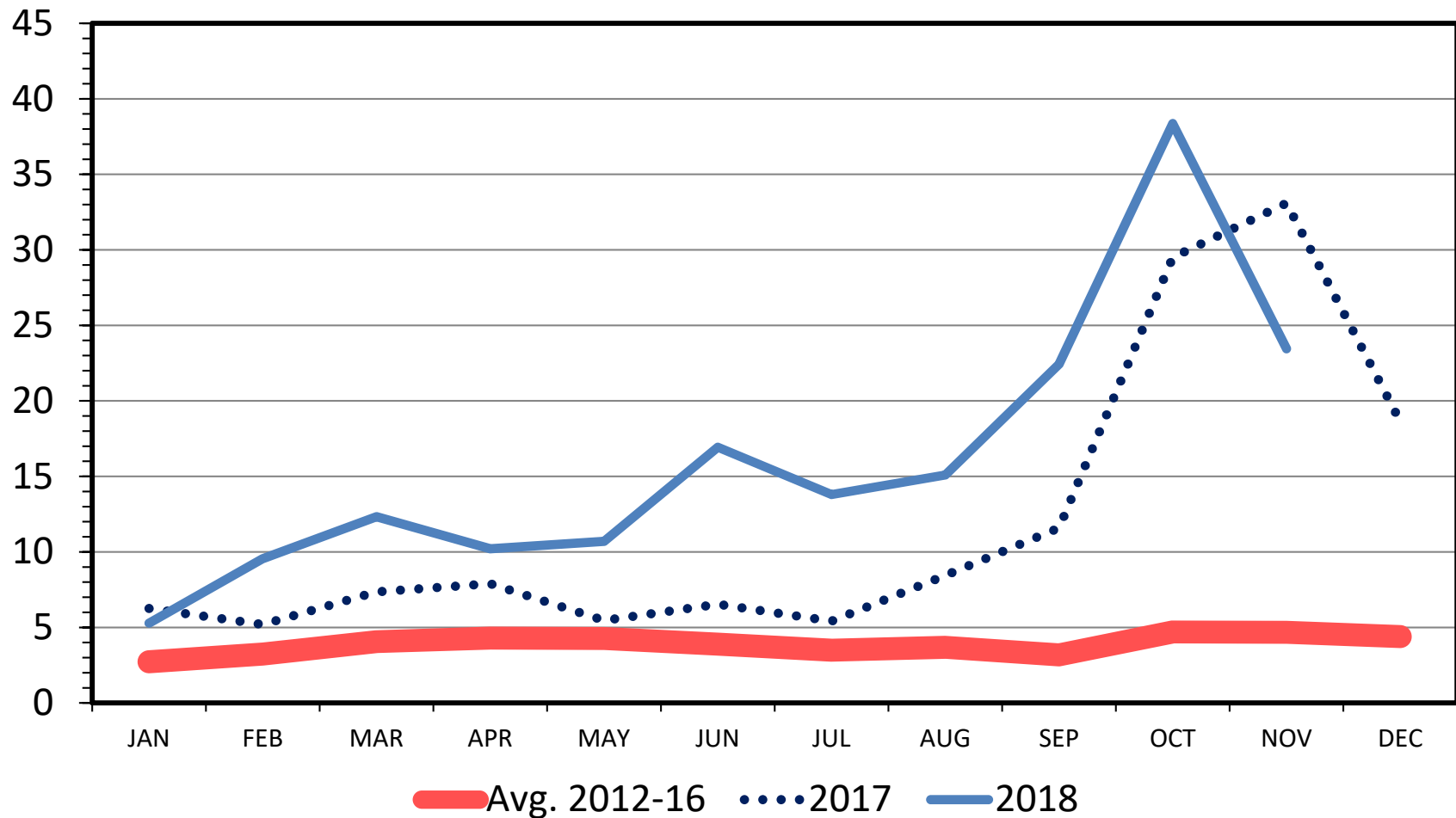
550-600 Pounds, N.D., Weekly



US CATTLE EXPORTS TO CANADA

Monthly

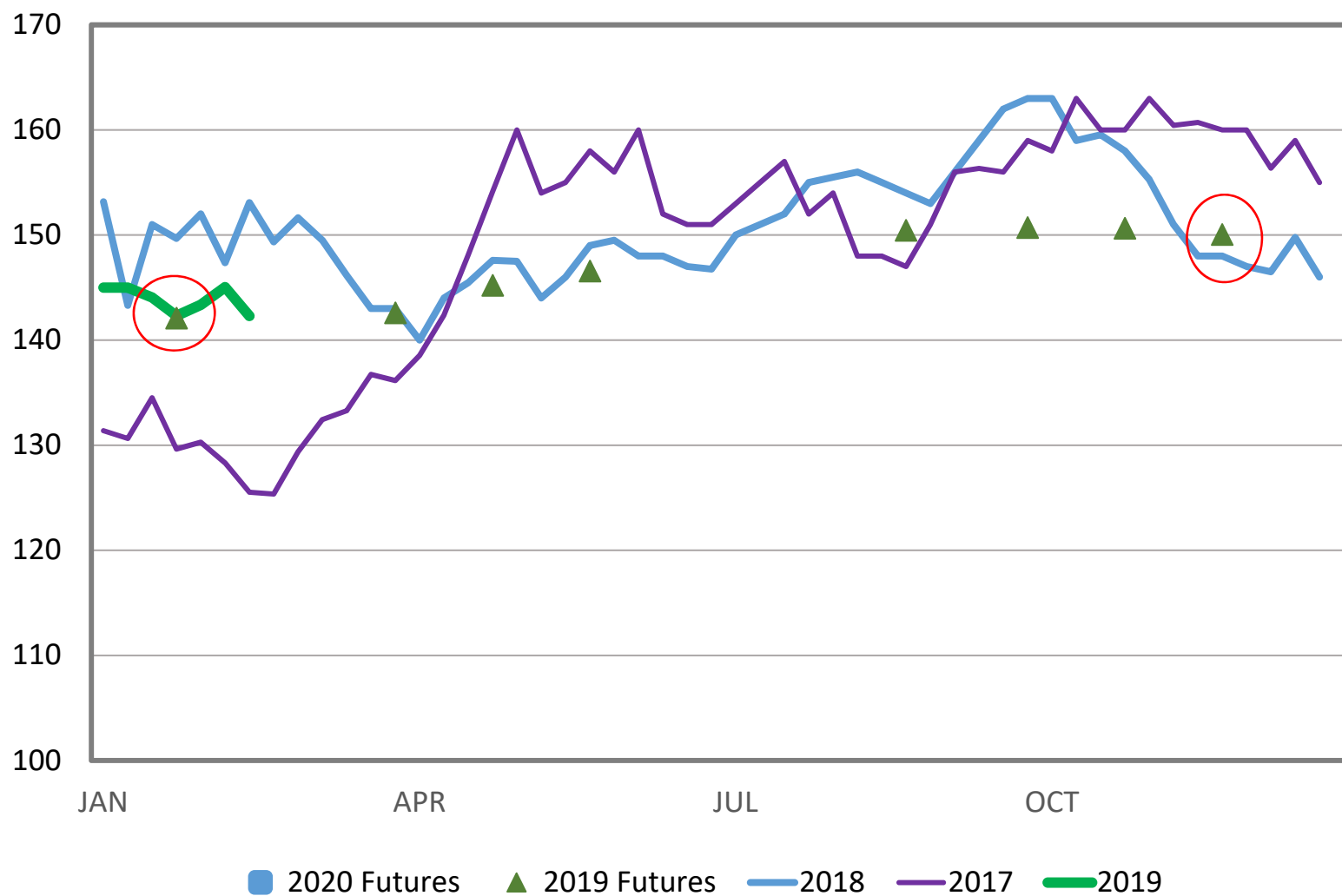
Thou. Head



Data Source: USDA-ERS & USDA-FAS - Livestock Marketing Information Center

MED. & LRG. #1 FEEDER STEER PRICES

750-800 Pounds, N.D., Weekly



SF_LS796

Sioux Falls, SD Fri Feb 19, 2019 USDA-ND Dept of Ag Market News

North Dakota Weekly Auction Summary - For the week ending Feb 16, 2019

Receipts: 15,797 Last Week 6,734 Last Year 10,511

Results of: Kist, Napoleon, Stockmen's, and West Fargo.

Feeder Steers Medium and Large 1					
Head	Wt Range	Avg Wt	Price Range	Avg Price	
29	402-440	426	182.50-201.00	193.32	
73	452-488	476	150.00-197.00	188.45	
174	501-542	521	170.00-189.50	180.52	
640	552-599	578	160.50-177.00	170.06	
8	552	552	179.50	179.50	Fancy
618	600-649	622	153.00-173.00	163.68	
914	651-697	673	145.75-168.50	156.27	
18	654	654	158.00	158.00	Thin Fleshed
1504	700-749	726	134.00-156.00	150.16	
120	718-725	722	152.00-154.25	152.80	Fancy
32	708	708	155.00	155.00	Thin Fleshed
1269	750-799	773	133.50-148.75	142.29	
8	796	796	132.00	132.00	Fleshy
886	801-849	825	130.50-141.50	136.91	
71	815	815	144.10	144.10	Load
1025	851-899	869	129.50-139.75	135.50	
367	900-934	914	133.25-135.60	134.90	
224	960-983	969	127.50-134.75	133.31	

Premiums likely (but not consistent) for:

- Verified vaccination program
- Natural (no antibiotics or implants)
- Source/age verified (China)
- Weaned
- Bovine Viral Diarrhea persistently infected (BVD-PI) tested negative
- Beef Quality Assurance (BQA) – packers requiring
- Replacement quality heifers

* *The more information you provide the better*

* *Check with your market before selling*

SF_LS796

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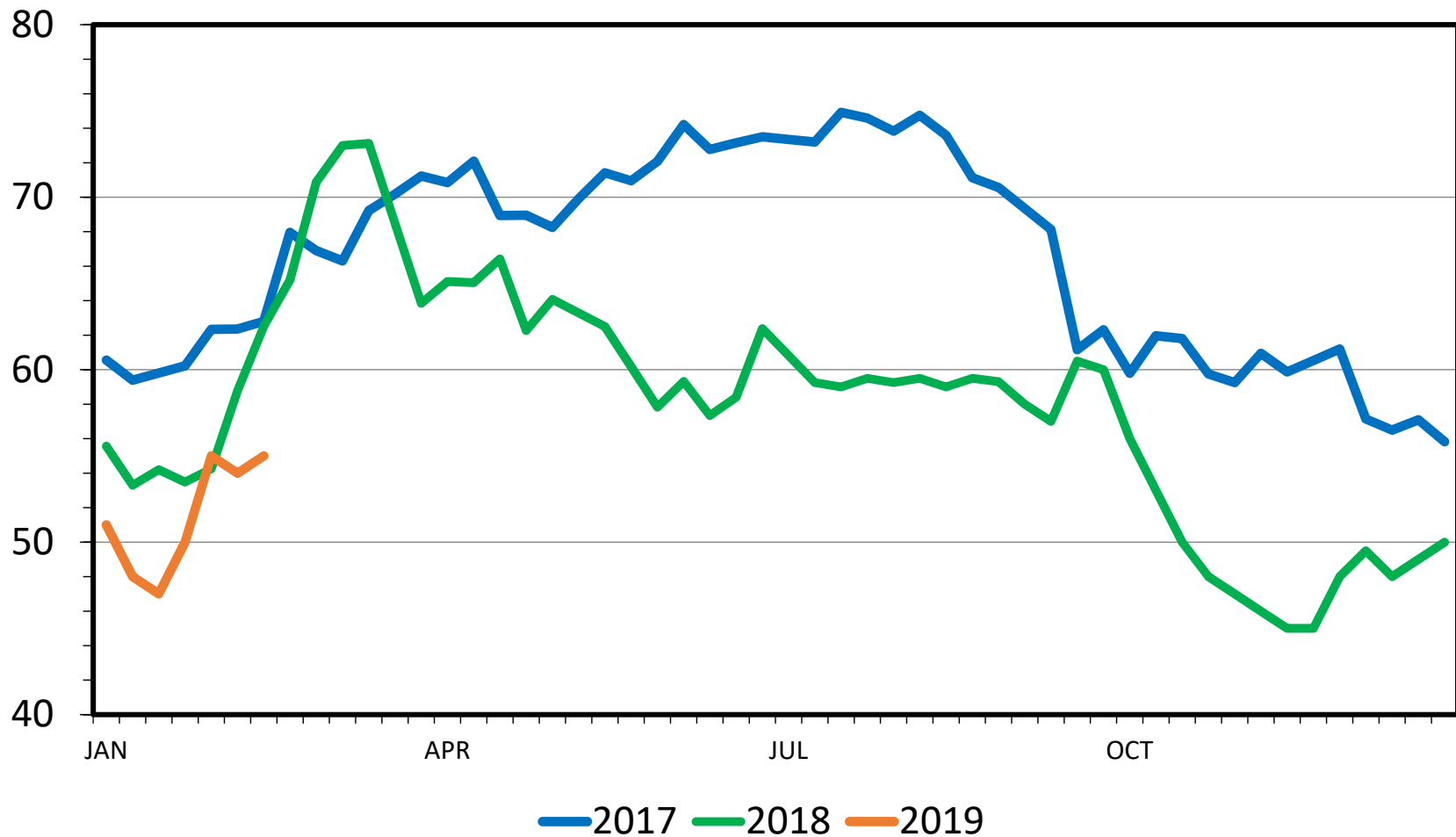
Feeder Heifers Medium and Large 1					
Head	Wt Range	Avg Wt	Price Range	Avg Price	
41	383-395	387	158.00-172.00	169.45	
27	407-447	427	161.50-189.00	172.31	
144	450-496	470	146.00-167.25	158.69	
394	502-543	523	144.50-160.75	155.46	
466	551-598	577	140.75-155.50	150.42	
3	555	555	147.00	147.00	Thin Fleshed
835	603-649	626	130.00-153.00	142.41	
875	650-699	677	128.50-144.50	135.38	
1011	703-749	724	124.50-136.50	131.39	
52	730-732	731	135.50-140.00	136.63	Replacement
510	752-796	773	124.75-134.00	129.39	
41	768	768	161.00	161.00	Replacement
348	803-838	820	120.50-132.50	129.62	
18	839	839	130.50	130.50	Replacement
68	854-889	863	120.50-127.75	126.24	
93	855-868	858	125.75-129.00	128.19	Replacement

BEEF CULL COW PRICES

85-90% Lean, Weekly

MT/SD Ave

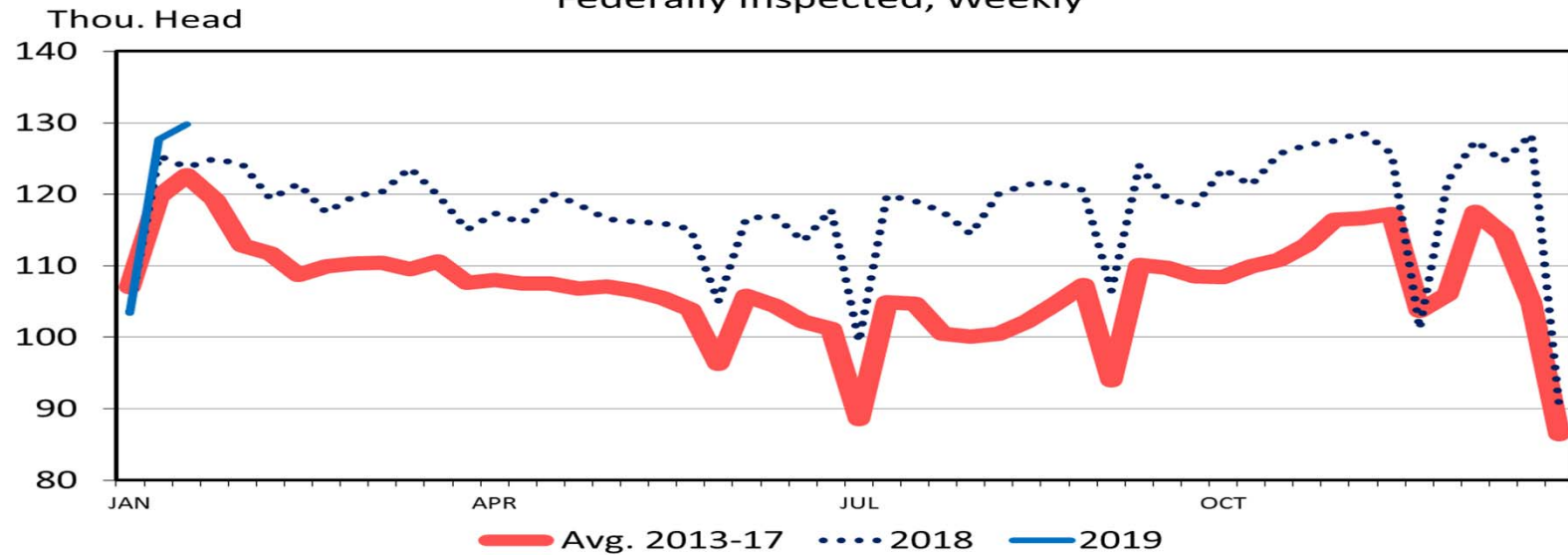
\$ Per Cwt.



USDA-AMS, Compiled & Analysis by
LMIC,NDSU

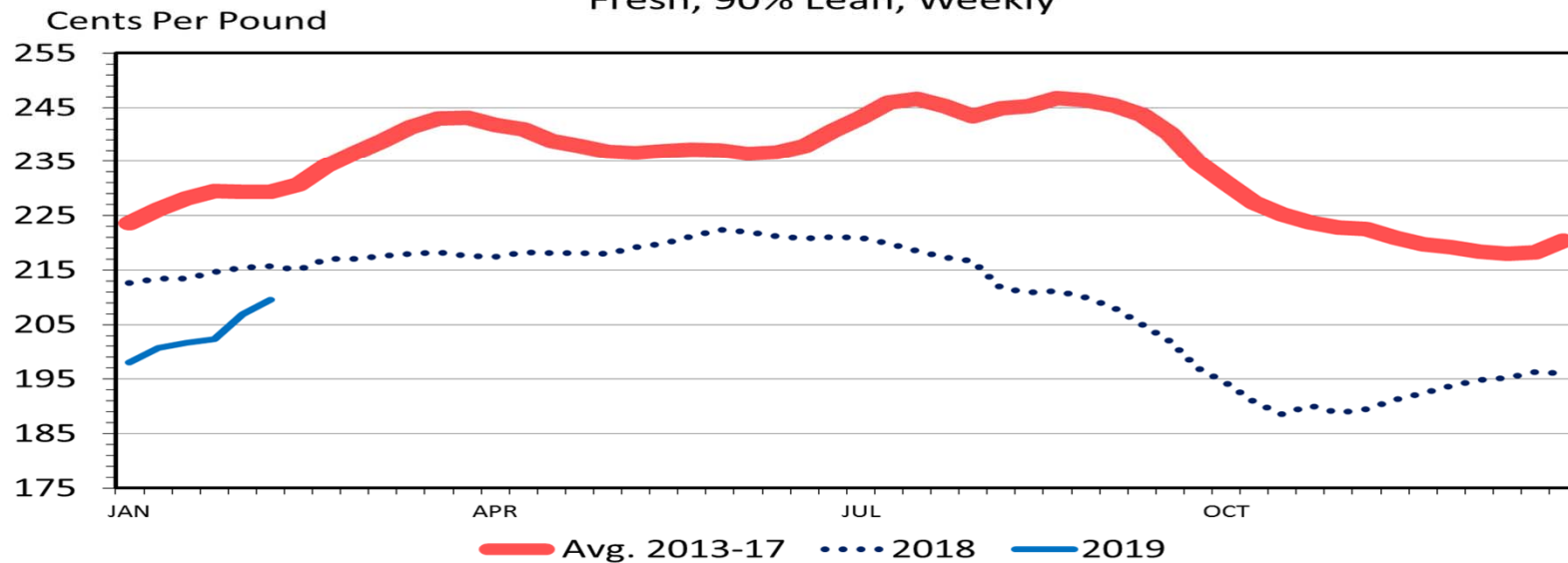
TOTAL COW SLAUGHTER

Federally Inspected, Weekly



WHOLESALE BONELESS BEEF PRICES

Fresh, 90% Lean, Weekly



Data Source: USDA-AMS - Livestock Marketing Information Center

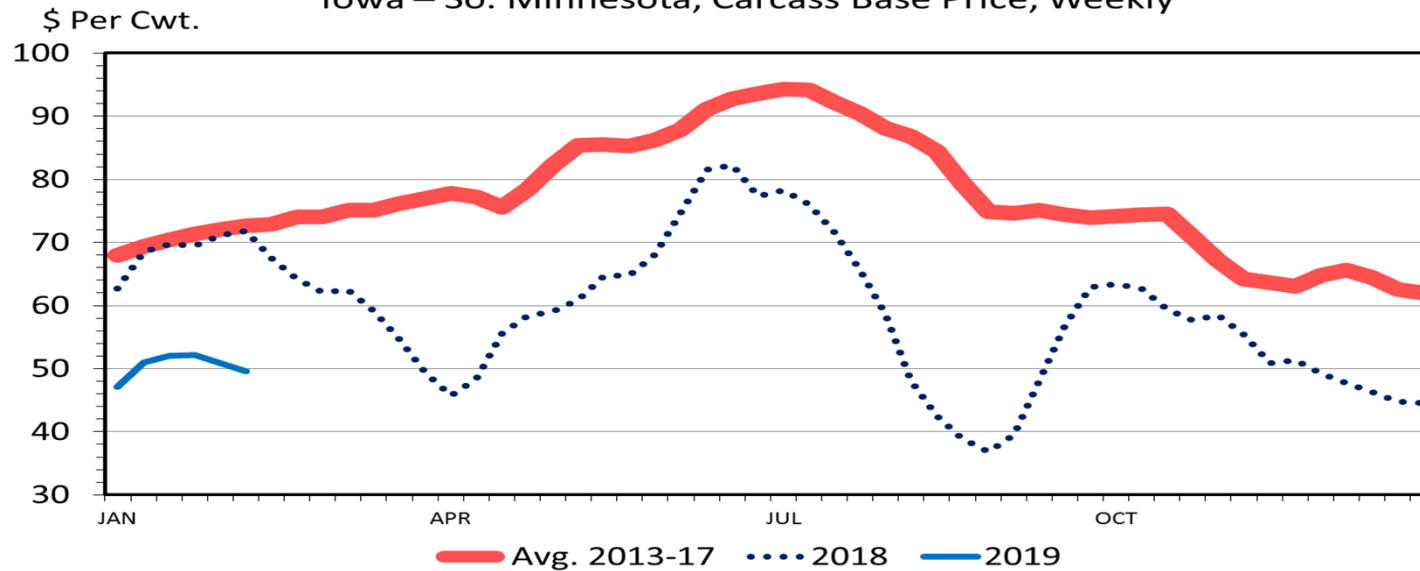
2019: Corn Prices, Demand and Trade Issues?
Volatility and **Risk** still there, especially on
seasonal basis. Flexible marketing plans
should include risk management tools



Supply Affects Prices

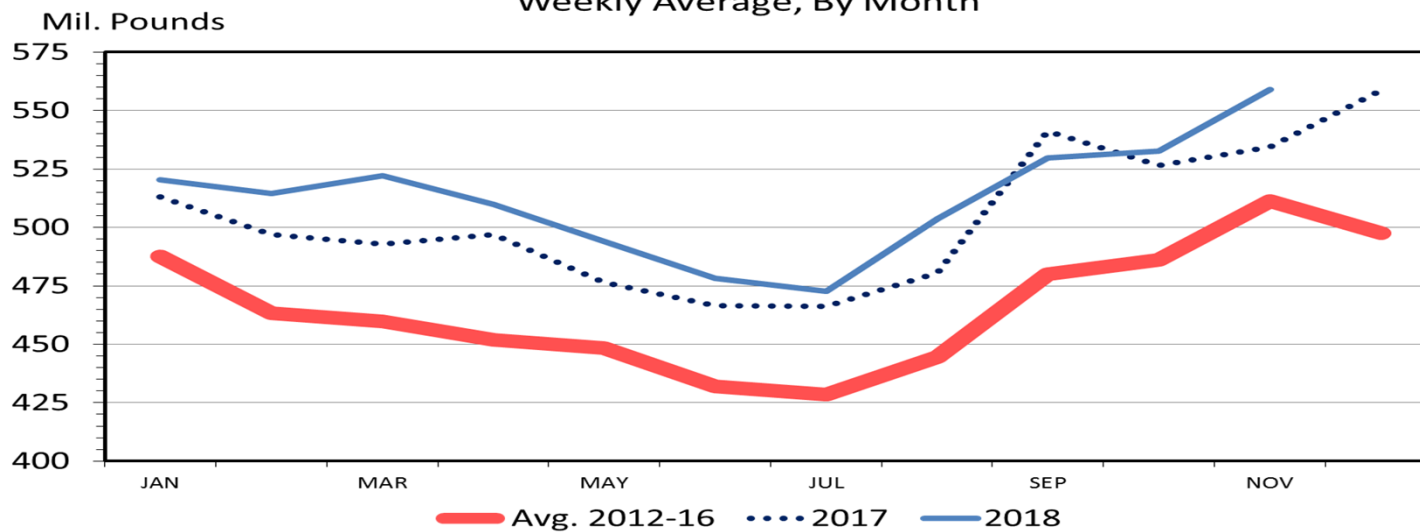
BARROW AND GILT PRICES

Iowa – So. Minnesota, Carcass Base Price, Weekly



COMMERCIAL PORK PRODUCTION

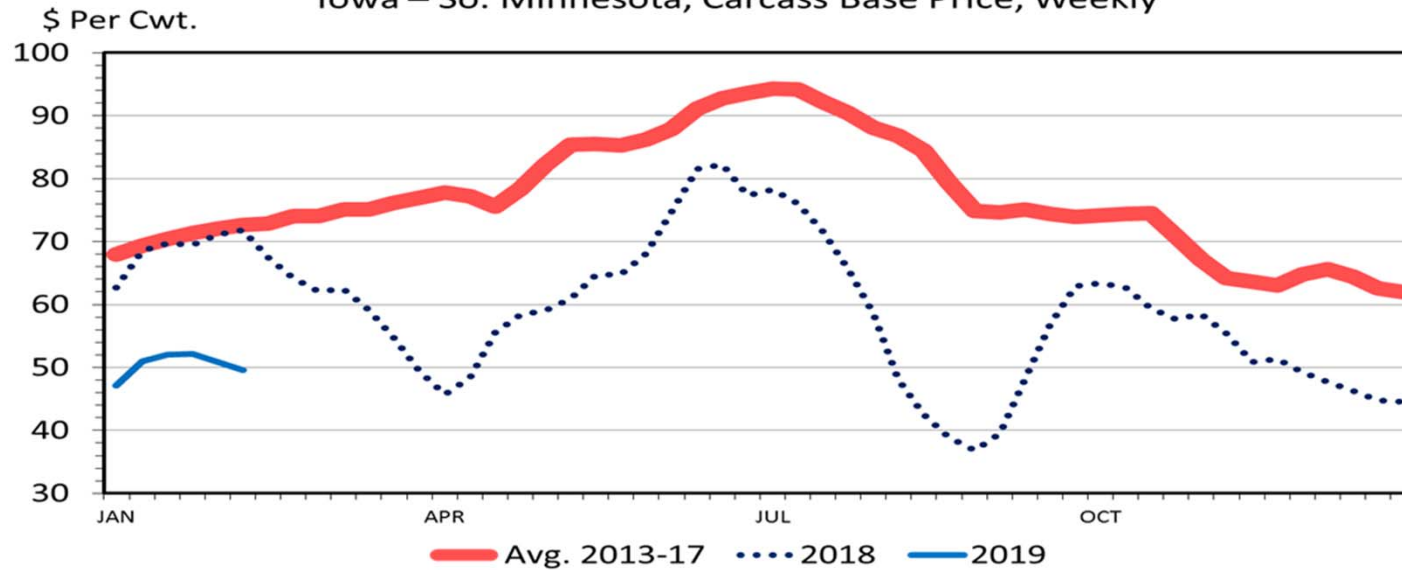
Weekly Average, By Month



Data Source: USDA-AMS, Compiled & Analysis by LMIC, Livestock Marketing Information Center

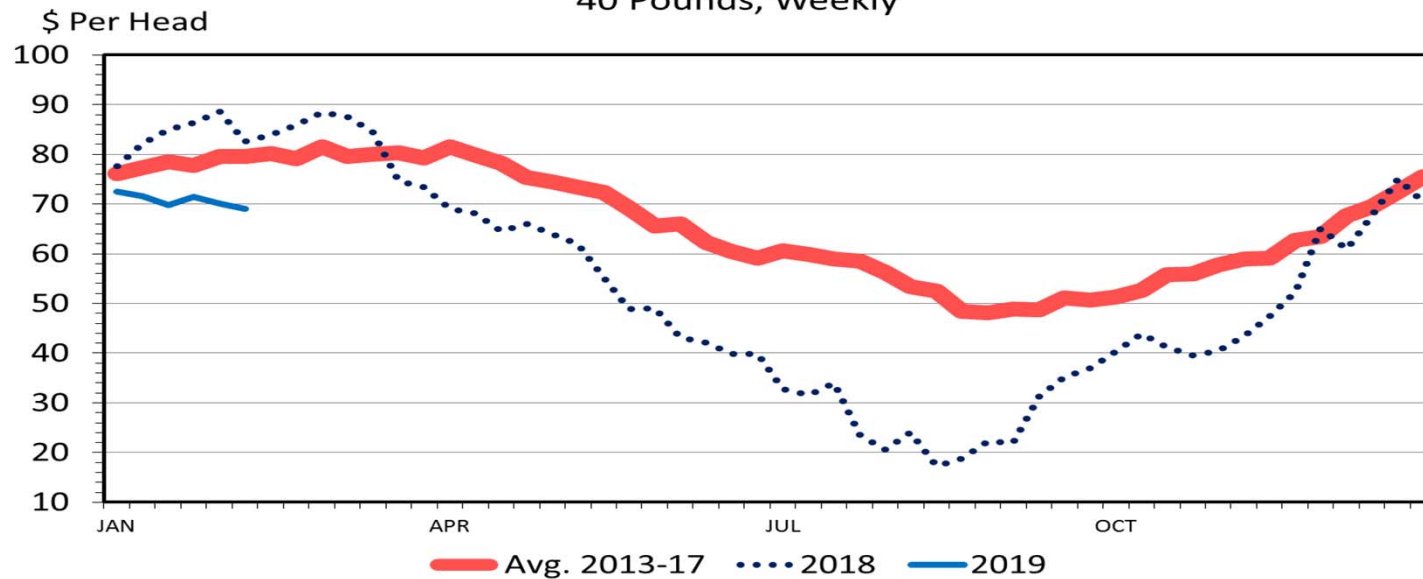
BARROW AND GILT PRICES

Iowa – So. Minnesota, Carcass Base Price, Weekly



FEEDER PIG PRICES

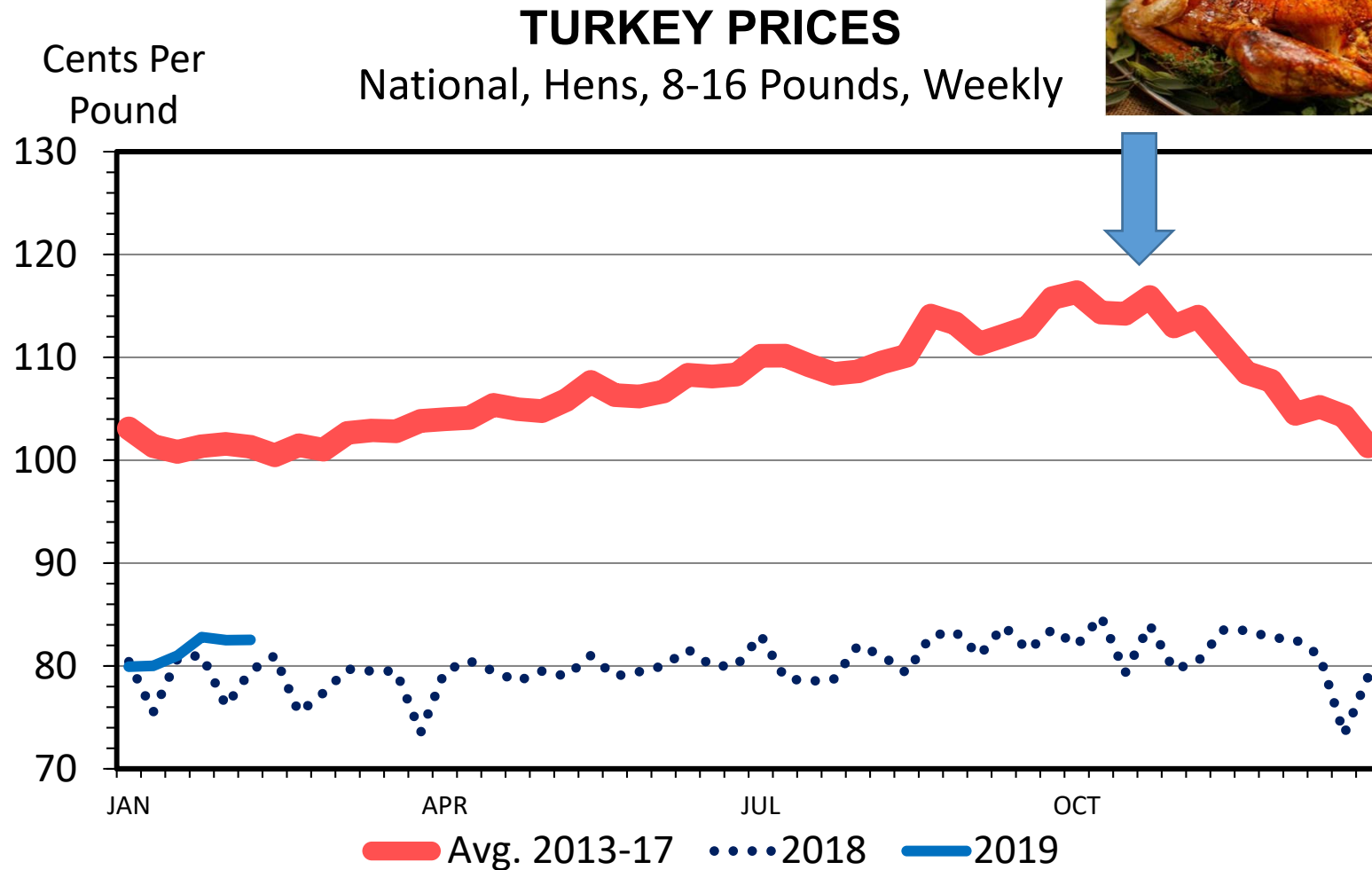
40 Pounds, Weekly



Data Source: USDA-AMS, Compiled & Analysis by LMIC, Livestock Marketing Information Center

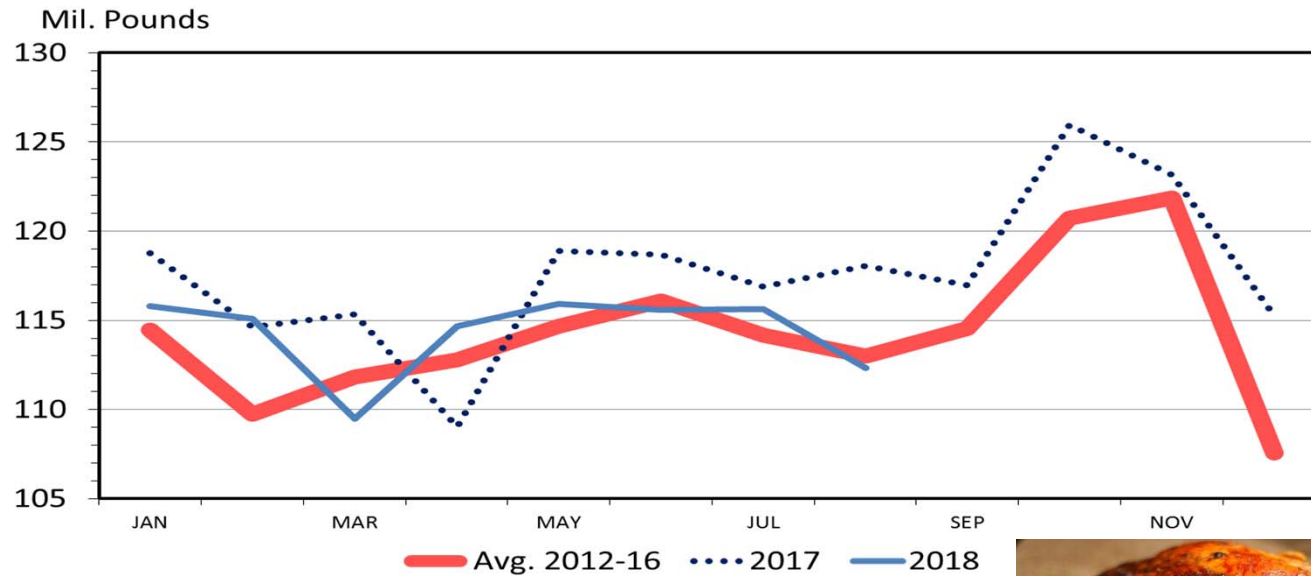
Demand Affects Prices

Consumer Tastes and Preferences

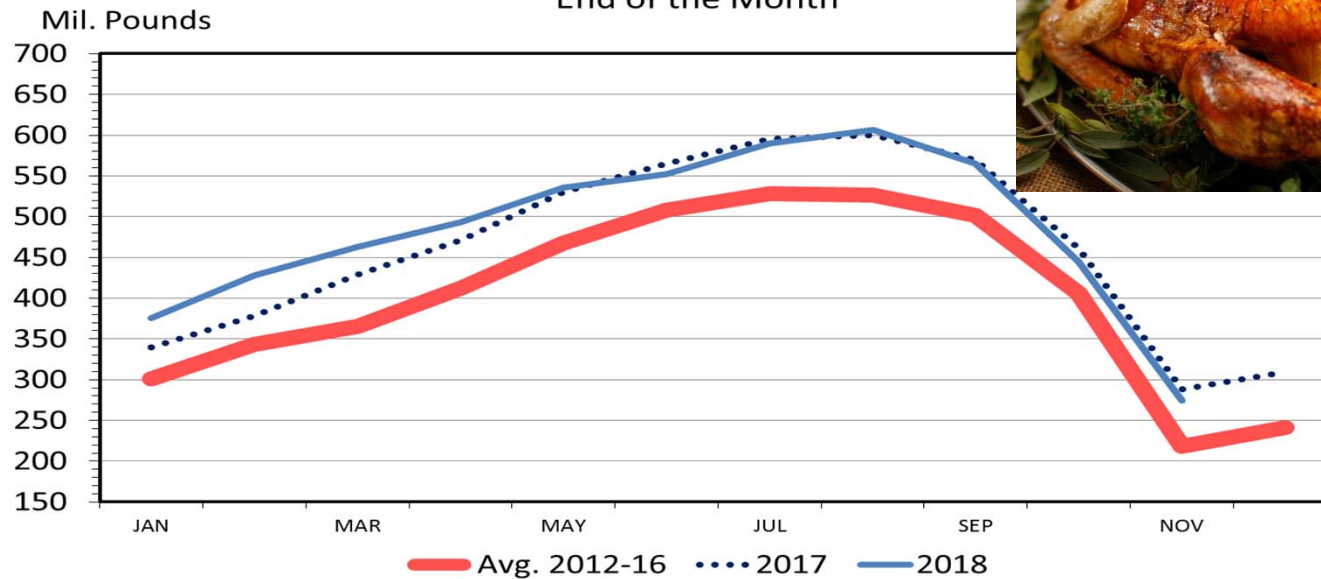


Data Source: USDA-AMS, Compiled & Analysis by LMIC, Livestock Marketing Information Center

WEEKLY AVERAGE TURKEY PRODUCTION



TURKEY IN COLD STORAGE End of the Month

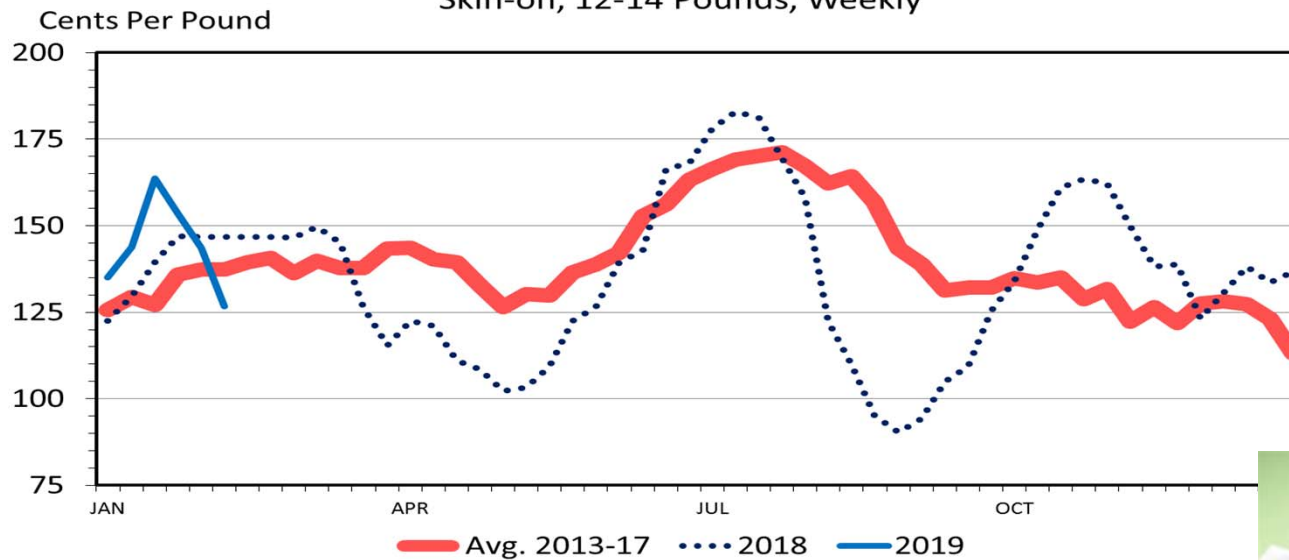


Data Source: USDA-AMS, Compiled & Analysis by LMIC, Livestock Marketing Information Center



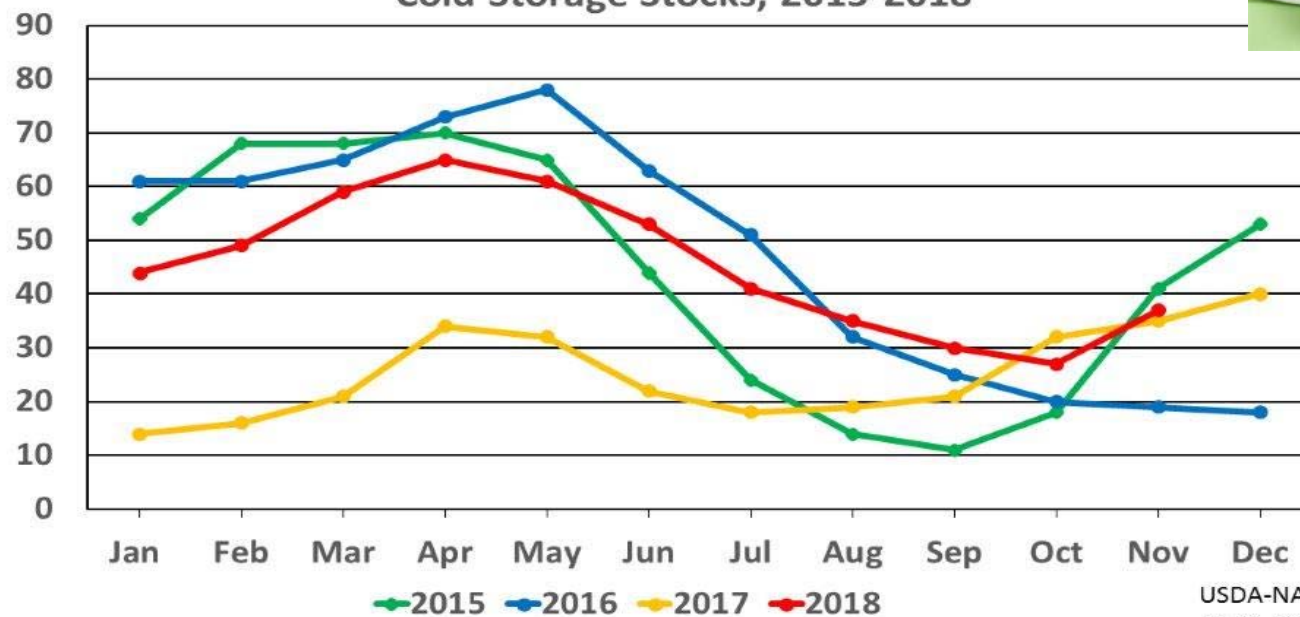
WHOLESALE PORK BELLY PRICES

Skin-on, 12-14 Pounds, Weekly



Million Pounds

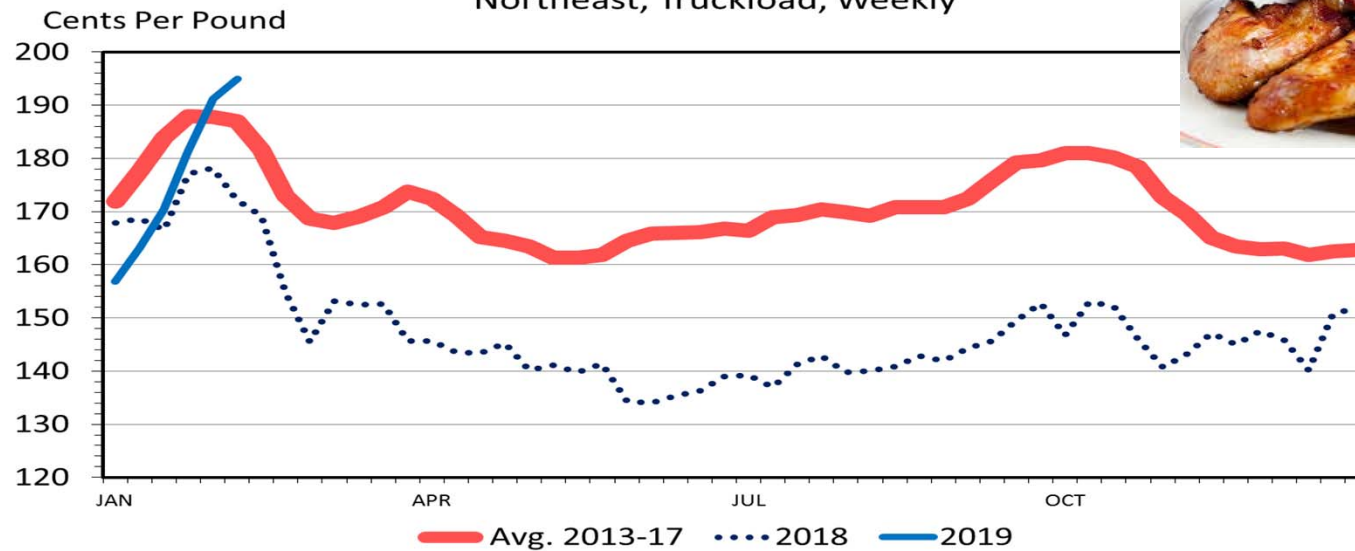
Frozen Pork Bellies - United States Cold Storage Stocks, 2015-2018



USDA-NASS
12-21-2018

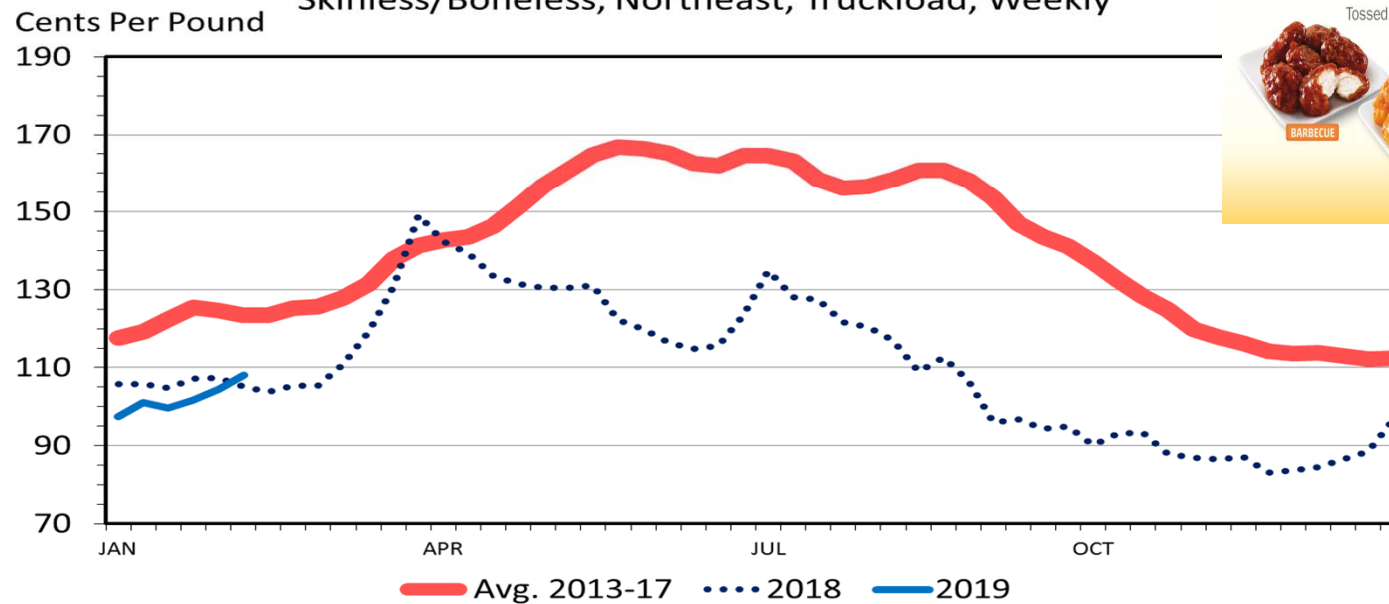
WHOLESALE CHICKEN WING PRICES

Northeast, Truckload, Weekly



WHOLESALE CHICKEN BREAST PRICES

Skinless/Boneless, Northeast, Truckload, Weekly



Data Source: USDA-AMS, Compiled & Analysis by LMIC, Livestock Marketing Information Center