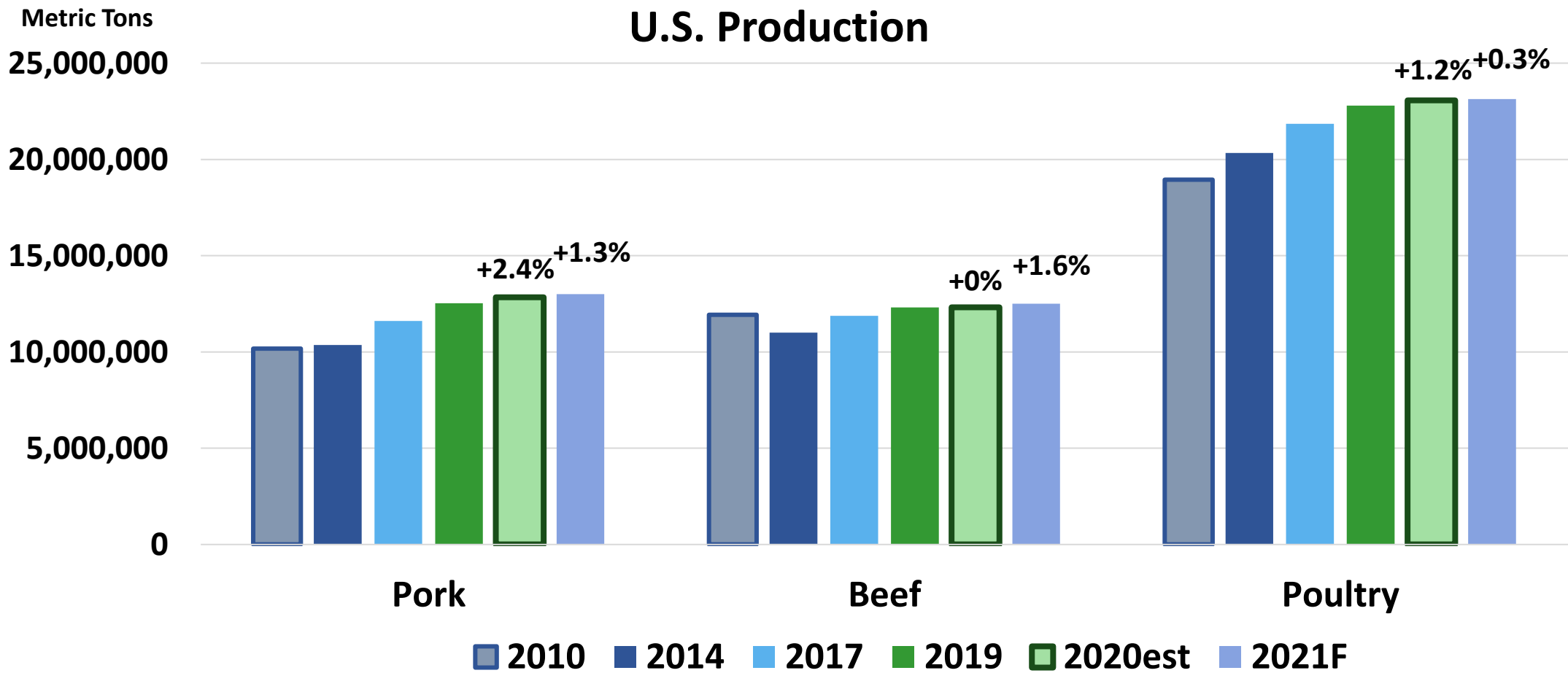




# Total Protein Slides



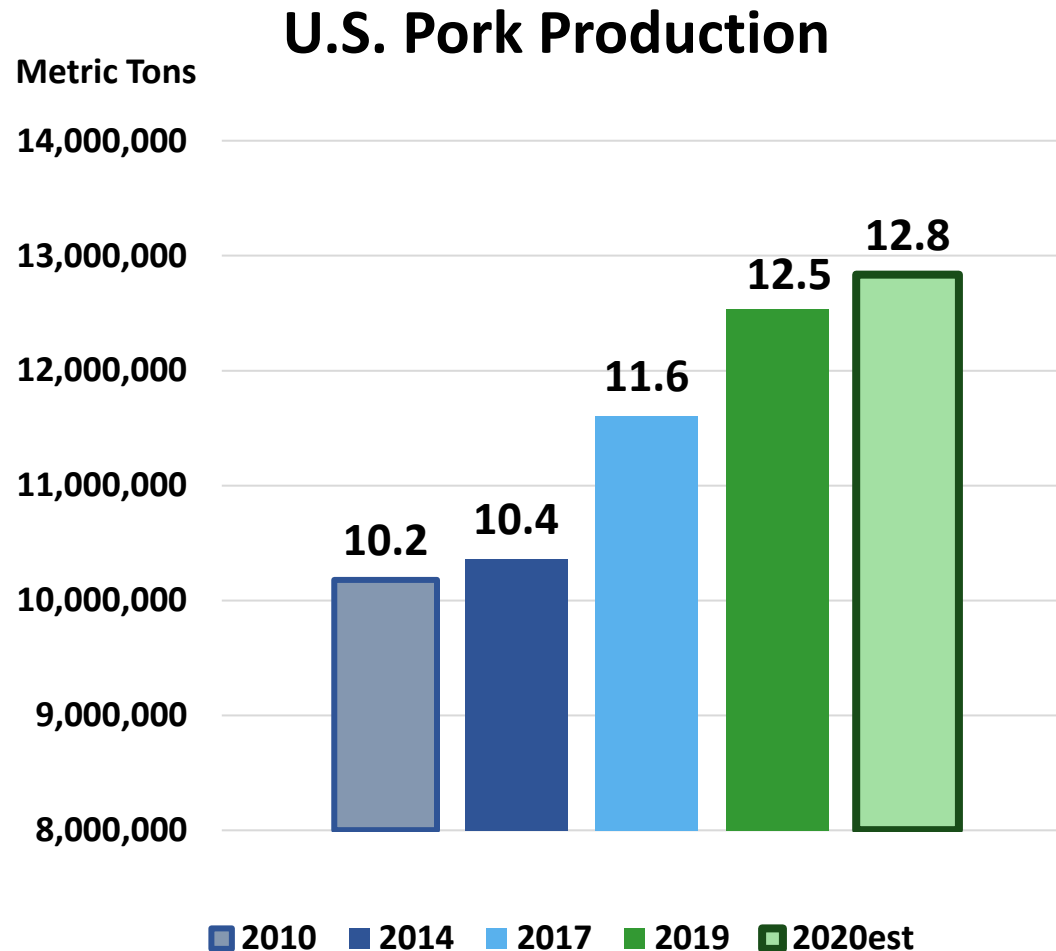
# USDA forecasting record production for pork, beef, and poultry in 2021



Source: USDA/NASS & USDA/WASDE, carcass weight, does not include variety meats



# Significant growth in U.S. pork production over last 5 years

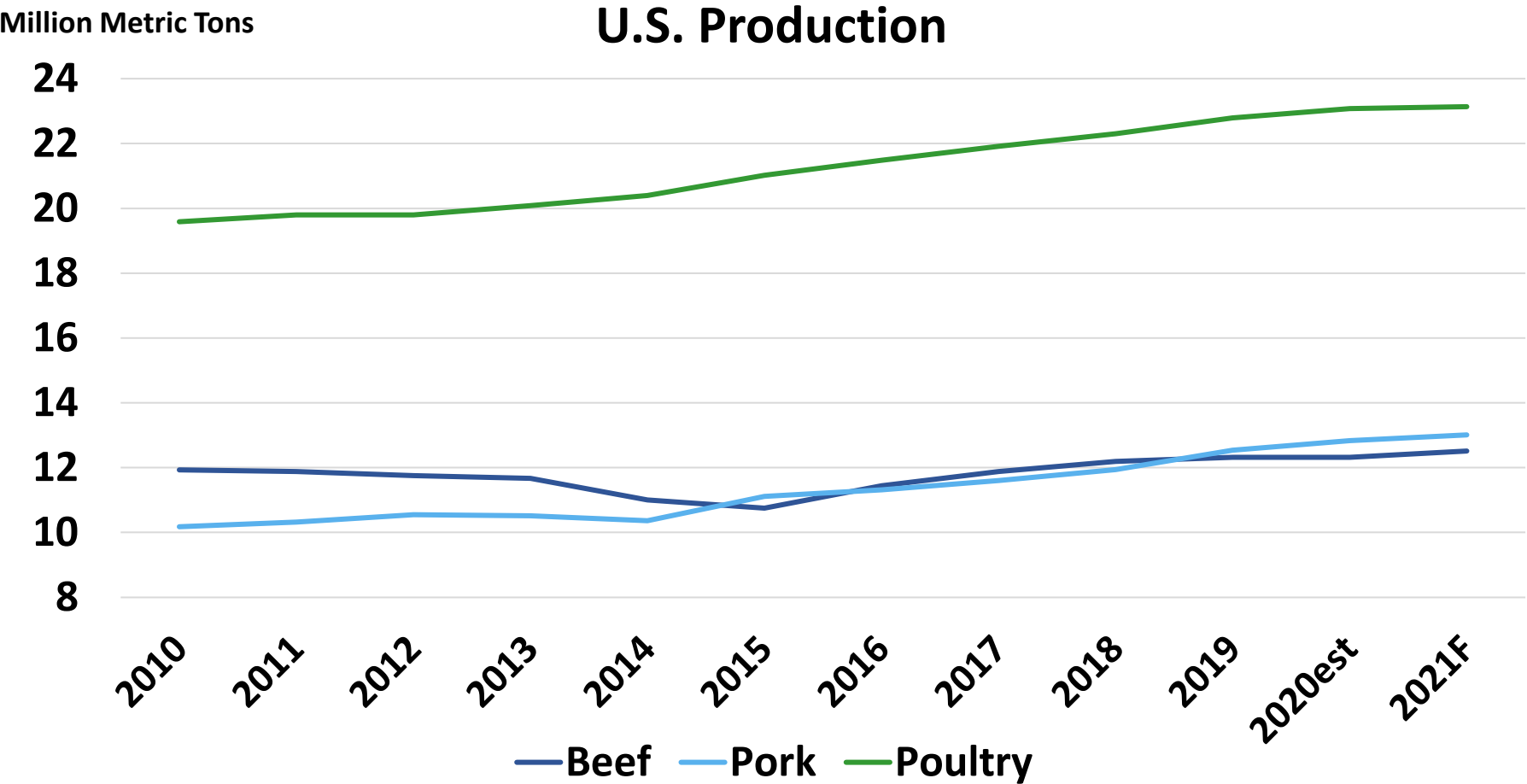


## U.S. 2020 Pork Production:

- Up 24% or +2.48 mil mt (+5.46 billion pounds) from 2014
- Up 11% or +1.23 mil mt (+2.72 billion pounds) from 2017

For scale - from 2017 to 2020, the increase in U.S. pork production was larger than annual pork production for the UK and Taiwan and more than double Chile's annual pork production

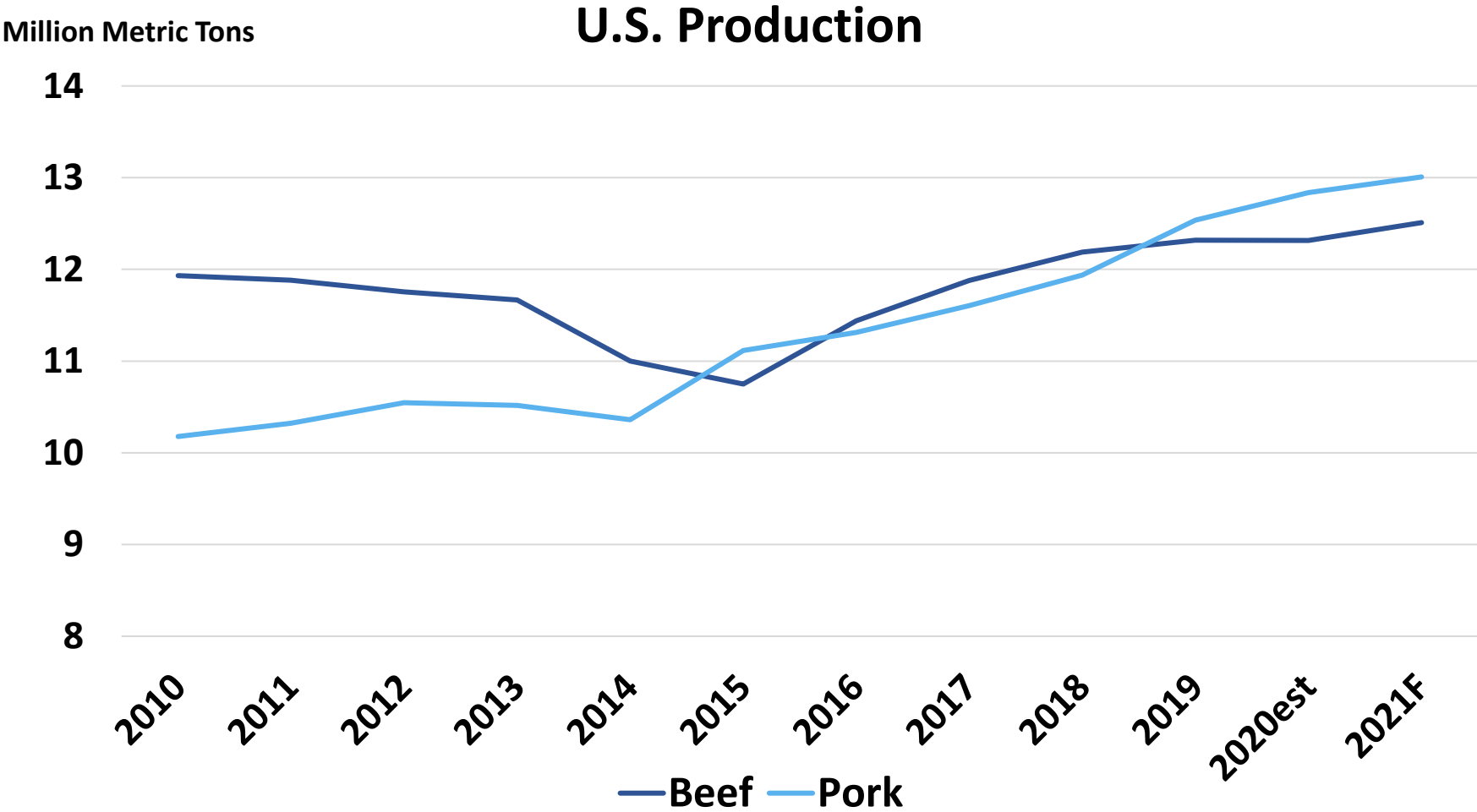
# USDA forecasting record production for pork, beef, and poultry again in 2021



Source: USDA/NASS & USDA/WASDE, carcass weight, does not include variety meats



# USDA forecasting record production for pork and beef in 2021

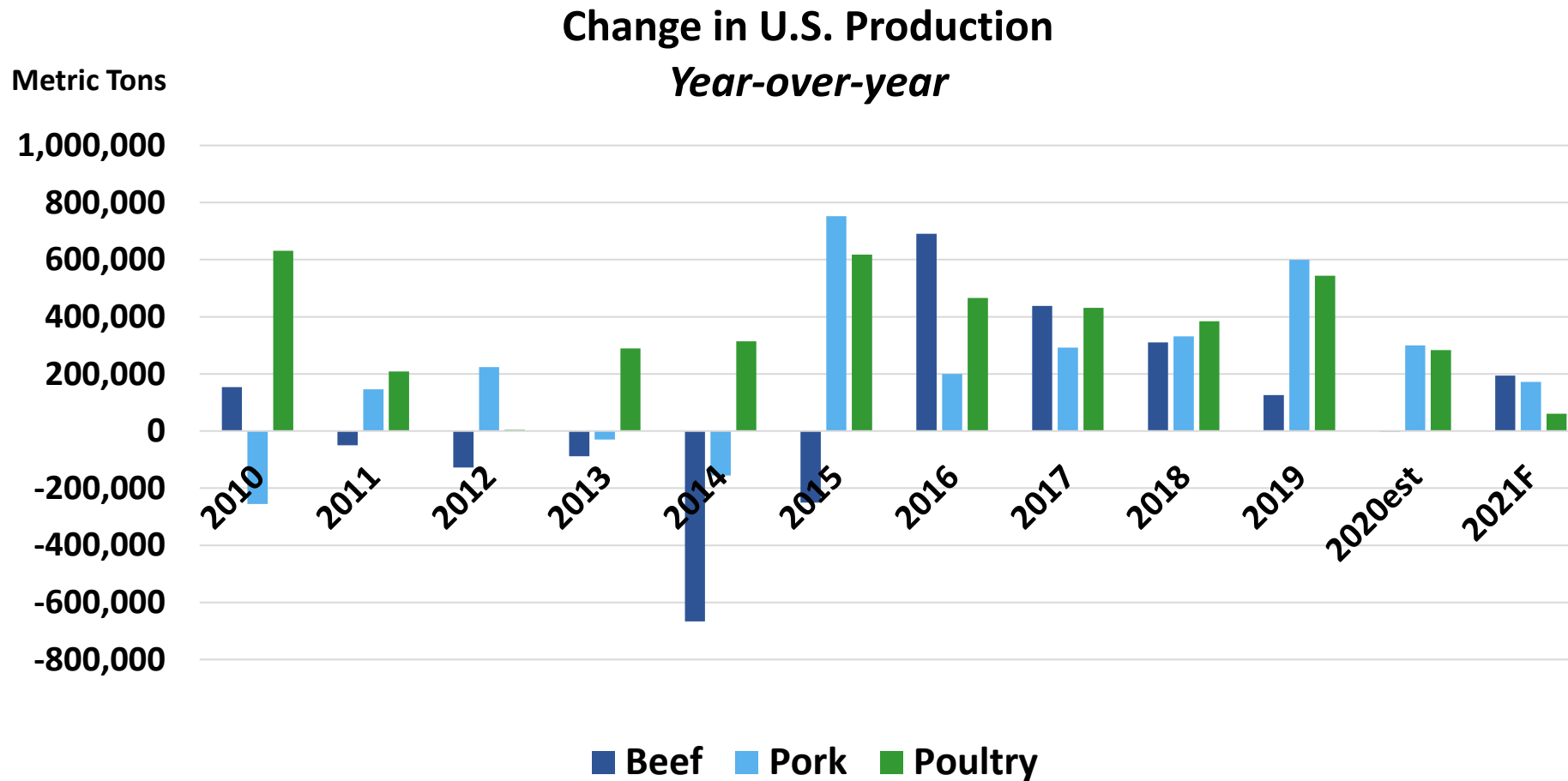


Source: USDA/NASS & USDA WASDE, carcass weight, does not include variety meats





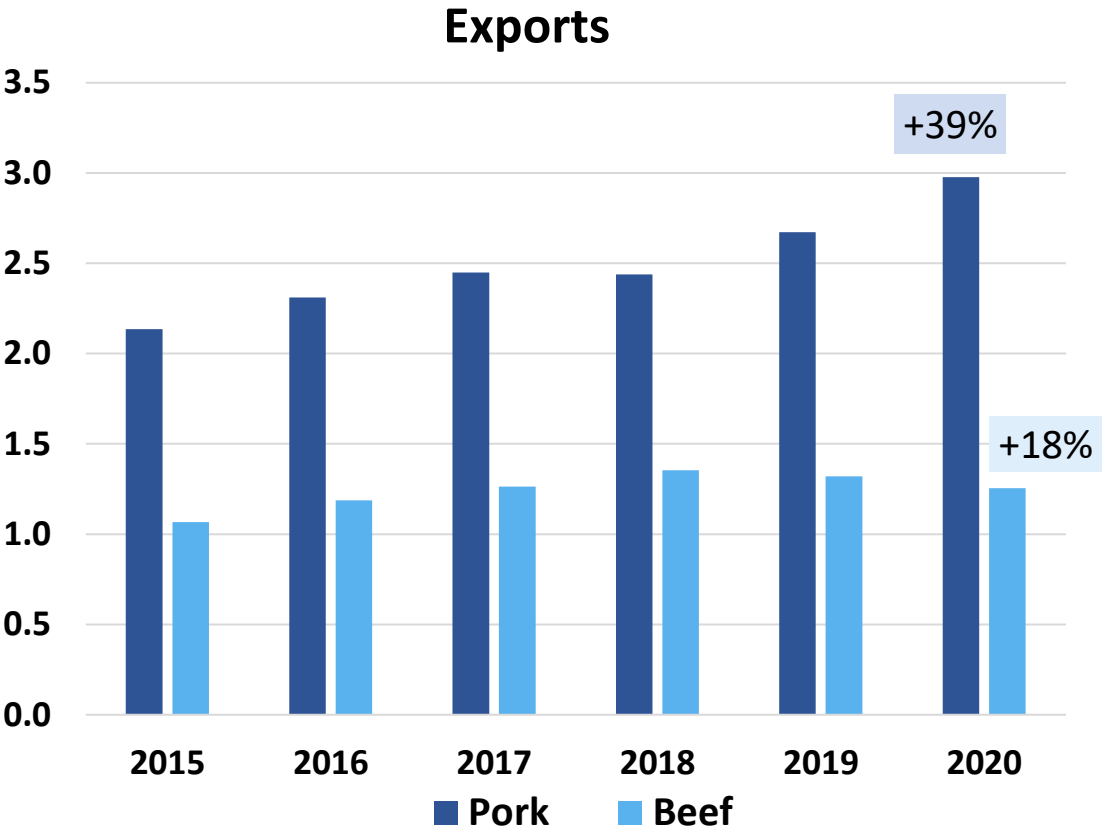
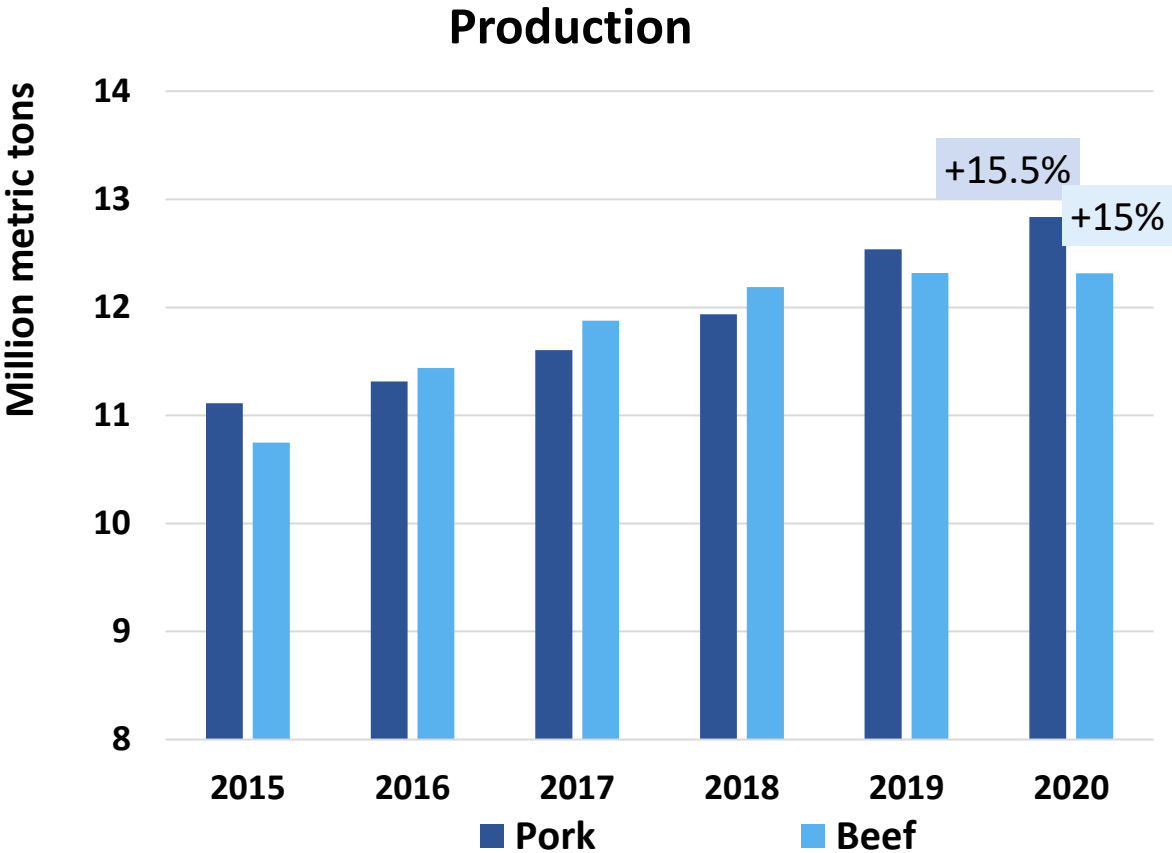
USDA expects continued production growth for pork and poultry in 2021 but at a slower pace than recent years, while beef production is expected to increase after holding steady in 2020



Source: USDA/NASS & USDA/WASDE, carcass weight, does not include variety meats



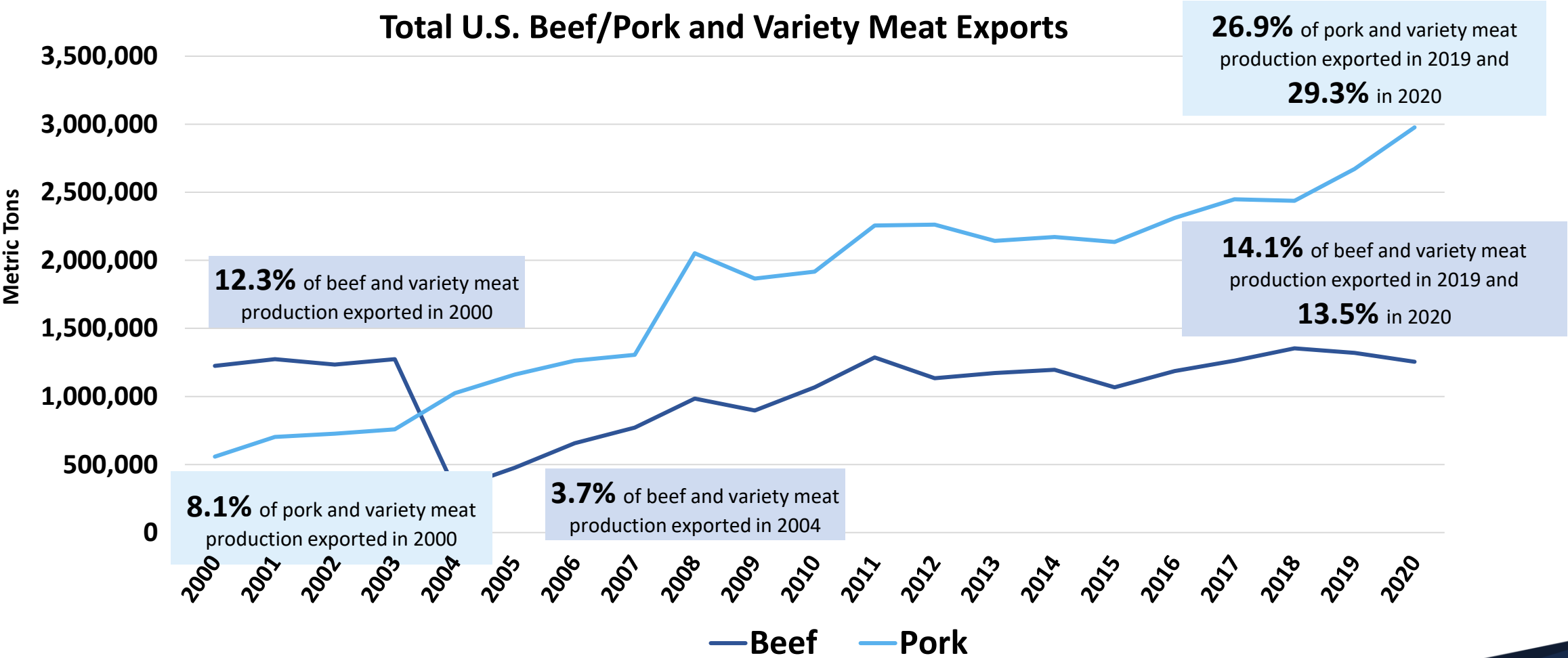
Record large exports underpinning beef and pork production growth in U.S.  
With double-digit growth for both U.S. production & exports from 2015 – 2020



\*Production in carcass weight; exports in product weight and include variety meats  
\*Percent change noted is 2020 compared to 2015



# Exports accounting for a larger share of production even as production is record large





# USDA Forecasts Summary

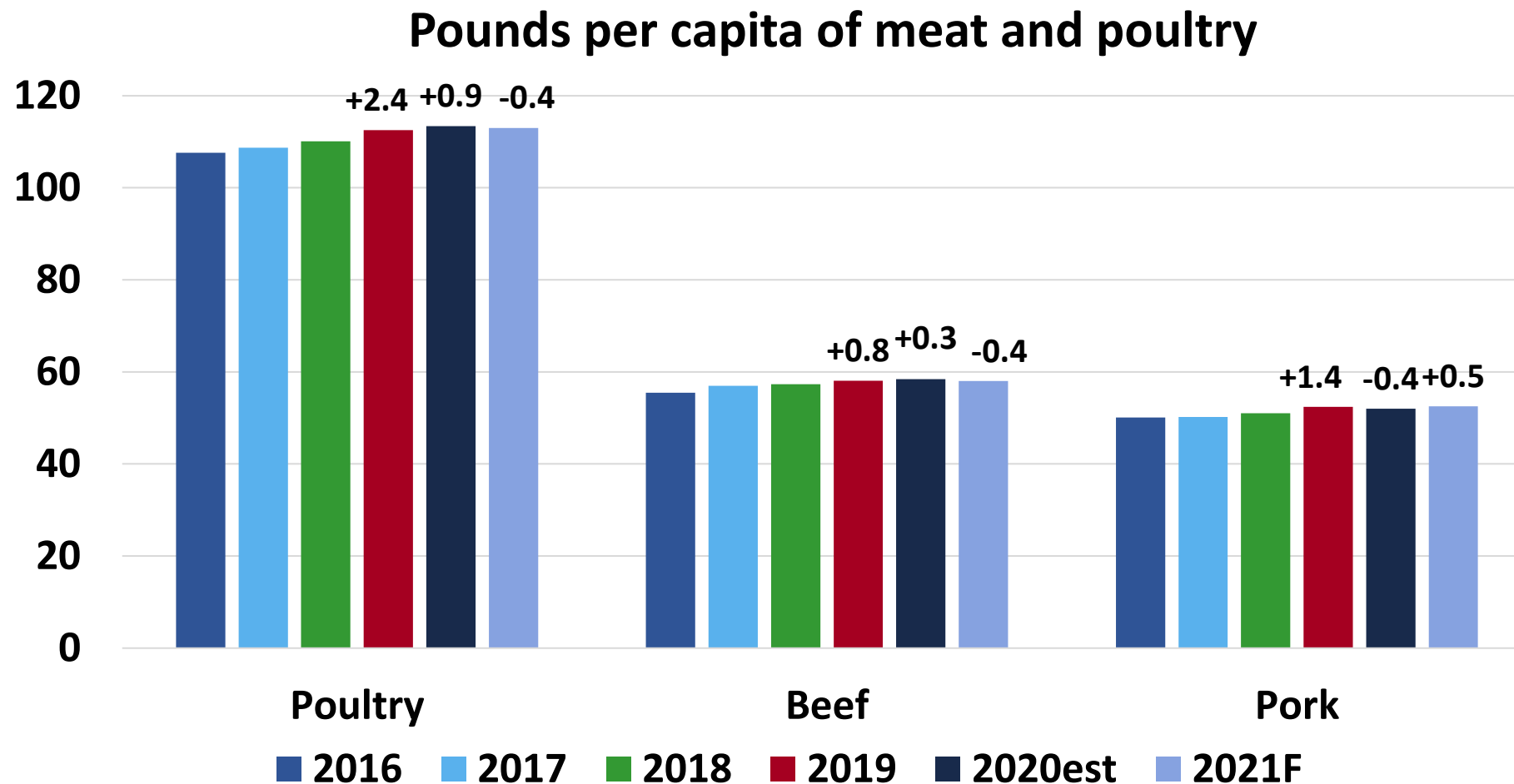
BEEF	2018	2019	2020est	2021F
Production	+2.6%	+1.0%	+0%	+1.6%
Exports	+10.3%	-4.4%	-2.3%	+6.4%
Imports	+0.1%	+2.0%	+9.3%	-12.2%
Per Cap Cons.	+0.4%	+1.4%	+0.5%	-0.7%

PORK	2018	2019	2020est	2021F
Production	+2.9%	+5.0%	+2.4%	+1.3%
Exports	+4.2%	+7.6%	+15.2%	-1.5%
Imports	-6.6%	-9.3%	-4.3%	+4.5%
Per Cap Cons.	+1.4%	+2.8%	-0.8%	+1.0%

Source: USDA March WASDE, does not include variety meats



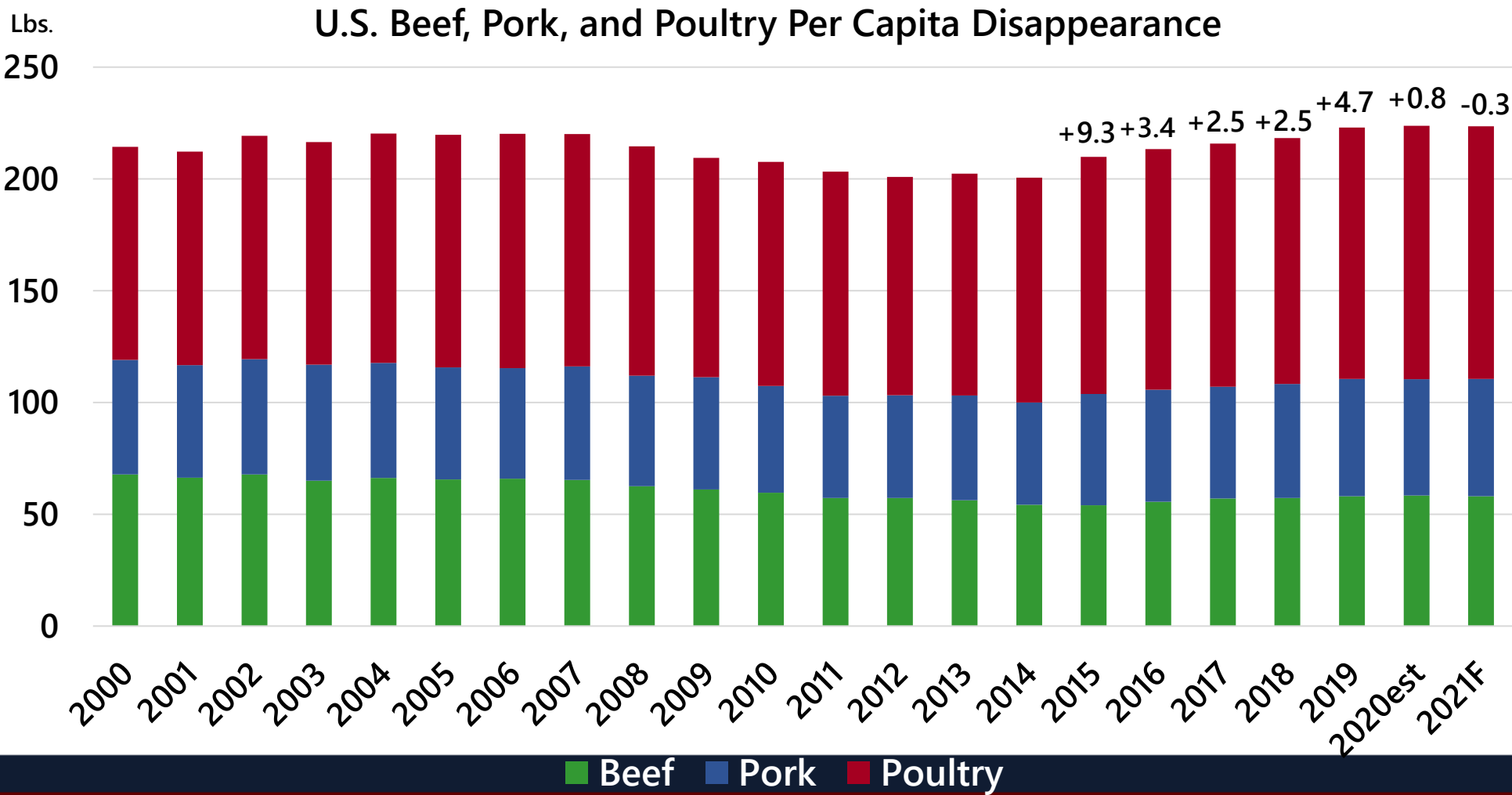
# U.S. Per Capita Disappearance



Source: USDA March WASDE, variety meats not included



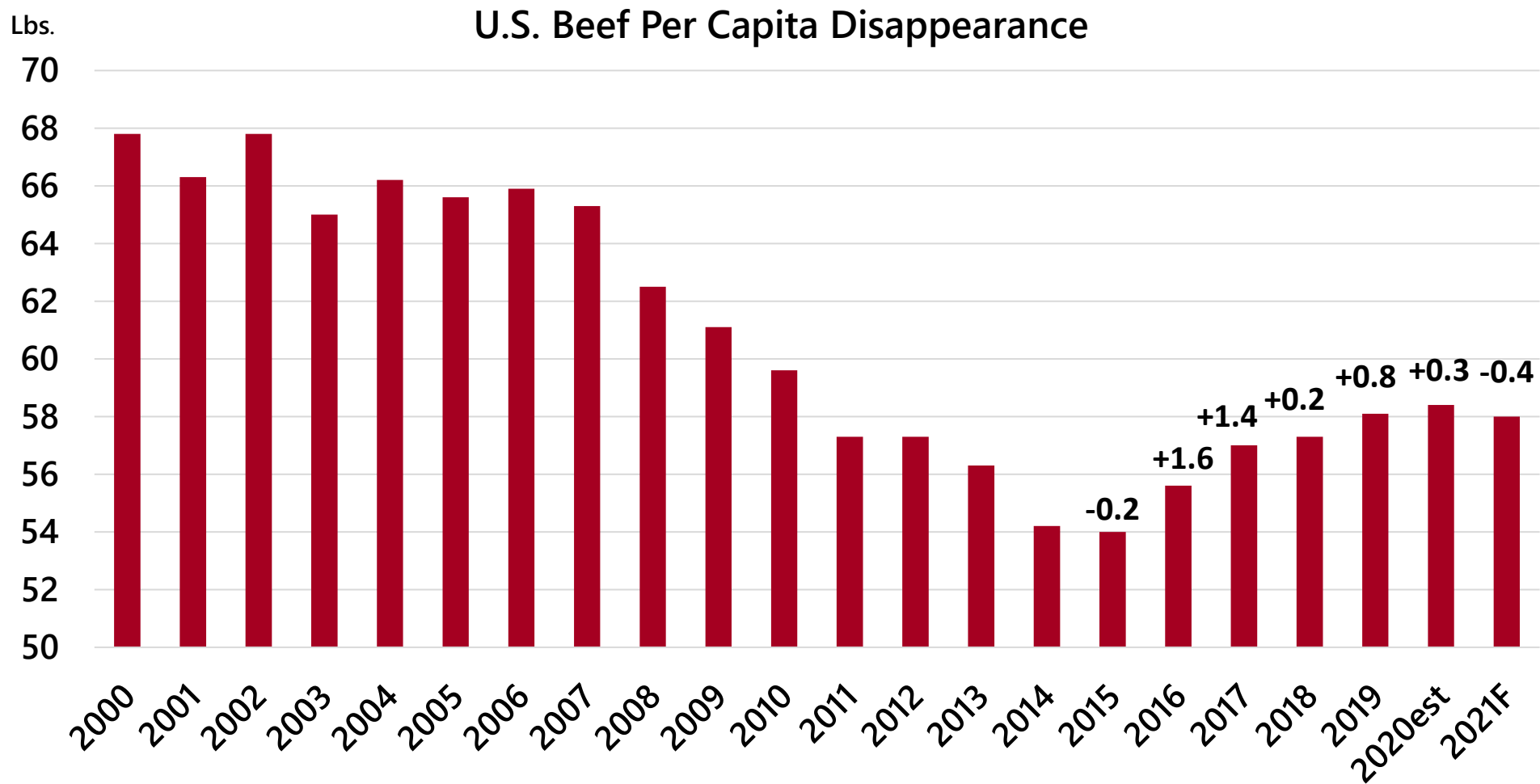
Combined per capita consumption for the main proteins is expected to decrease slightly in 2021 for the first time since 2014 on lower per capita beef and poultry consumption



Source: USDA March WASDE, variety meats not included



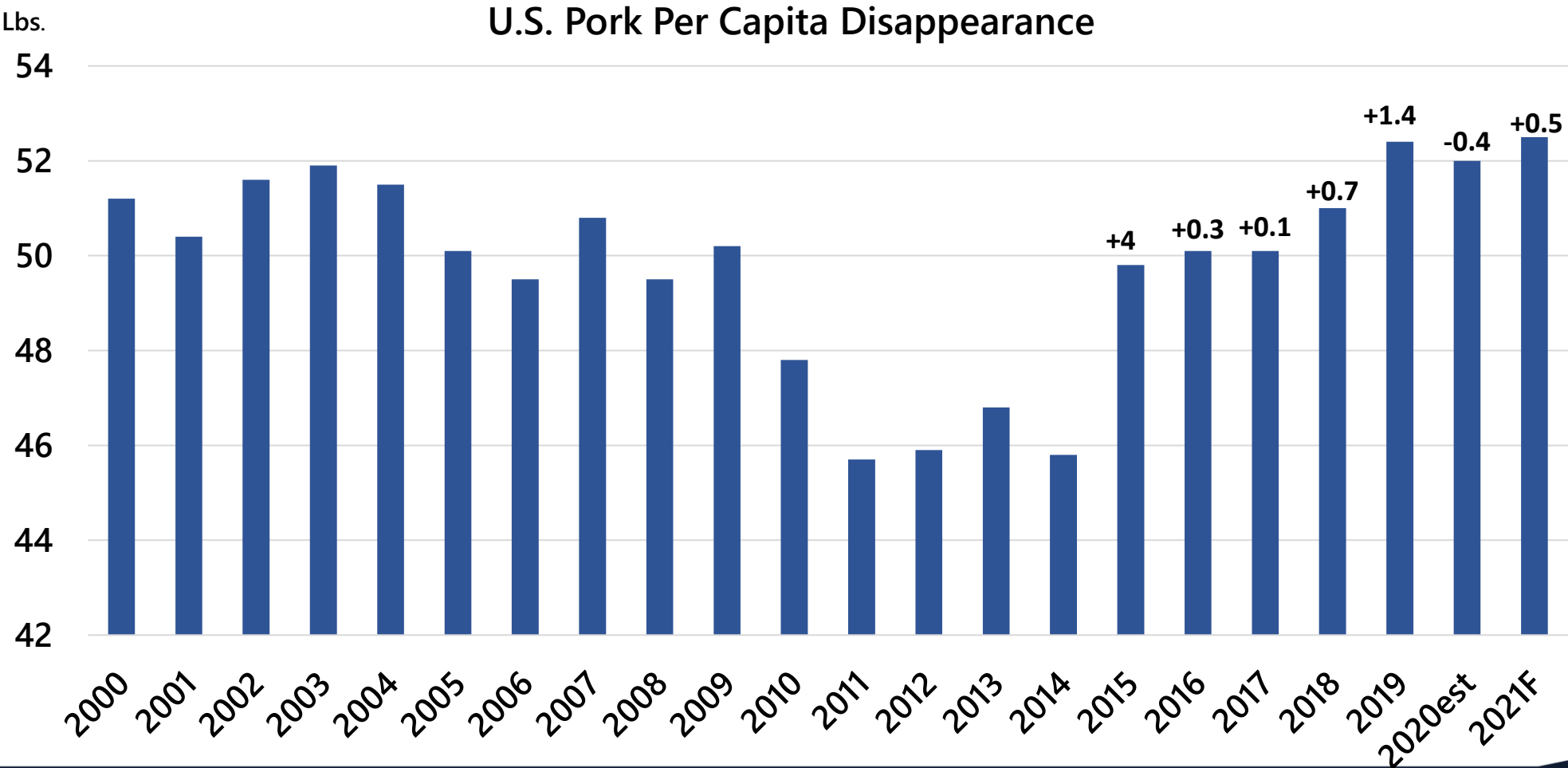
U.S. beef per capita disappearance is expected to tighten in 2021 for the first time since 2015 on larger exports and smaller imports



Source: USDA March WASDE, variety meats not included



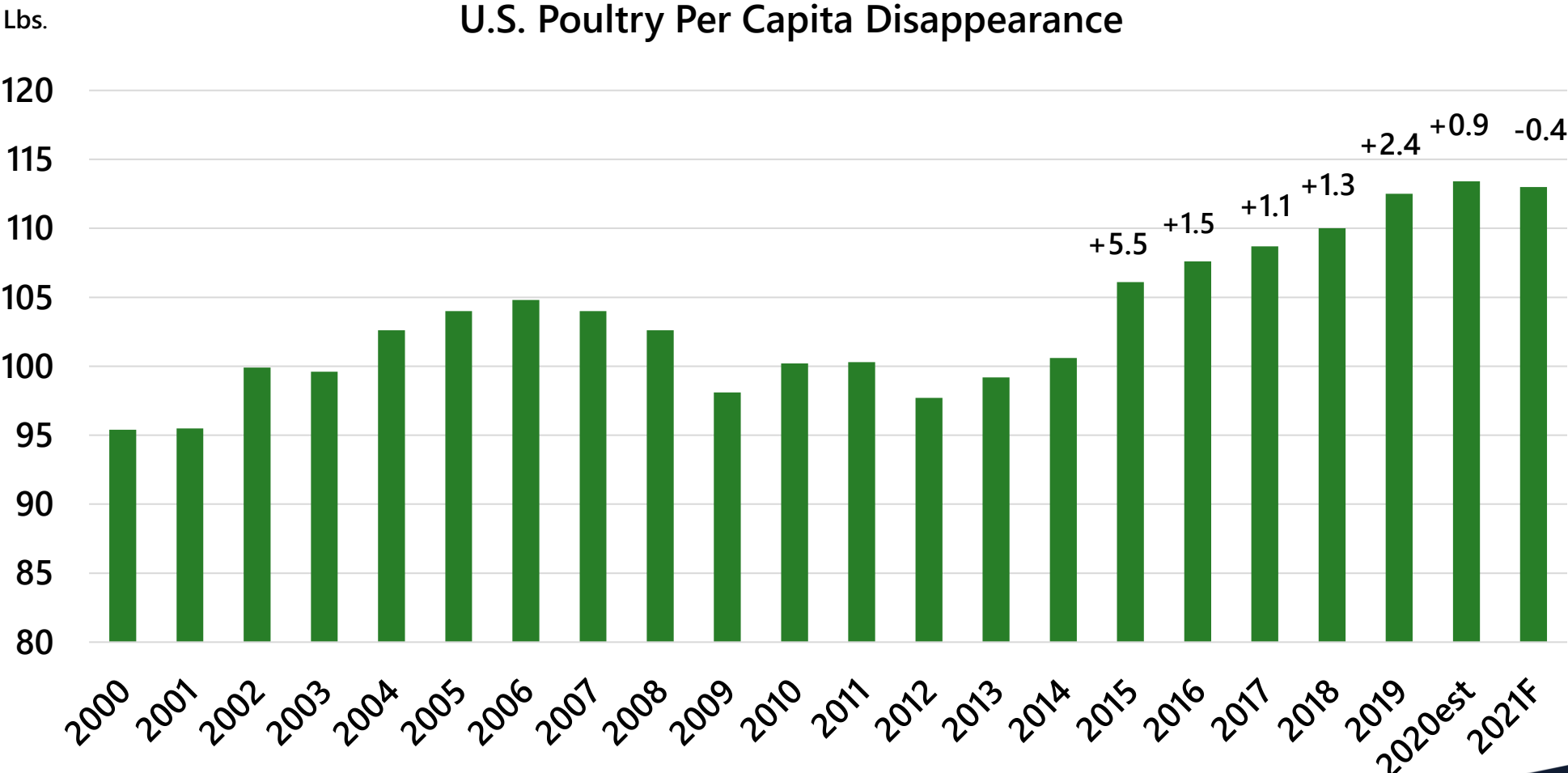
# Continued record U.S. pork exports essential to keep U.S. pork capita pork disappearance below recent highs



Source: USDA March WASDE, variety meats not included



Per capita poultry consumption is expected to decrease in 2021 for the first time since 2012



Source: USDA March WASDE, variety meats not included







# Pork Slides

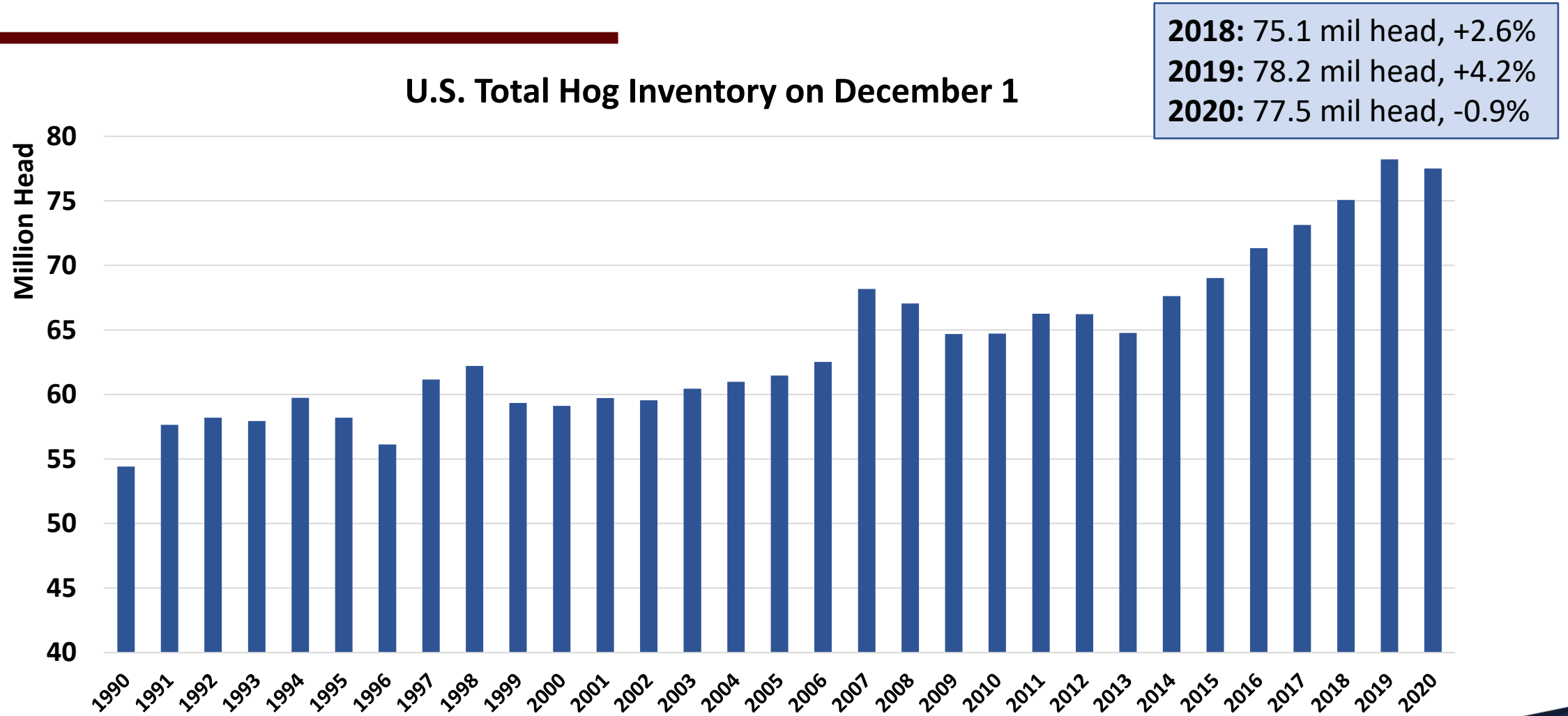
# December hog inventory down 0.9% from 2019 record

The U.S. inventory of all hogs and pigs on December 1, 2020 was **77.5 million head, down 1%** from December 2019 and from September 2020. Both the **total hog inventory** and the **market hog inventory were down slightly from the 2019 record for the December quarter.**

Hogs and Pigs Dec Inventory	2020 (million head)	Change from Dec 2019 (%)	Change from last quarter (%)
Total Inventory	77.5	-0.9%	-1%
Breeding Inventory	6.28	-3%	-1%
Market Hog Inventory	71.2	-0.7%	-1%

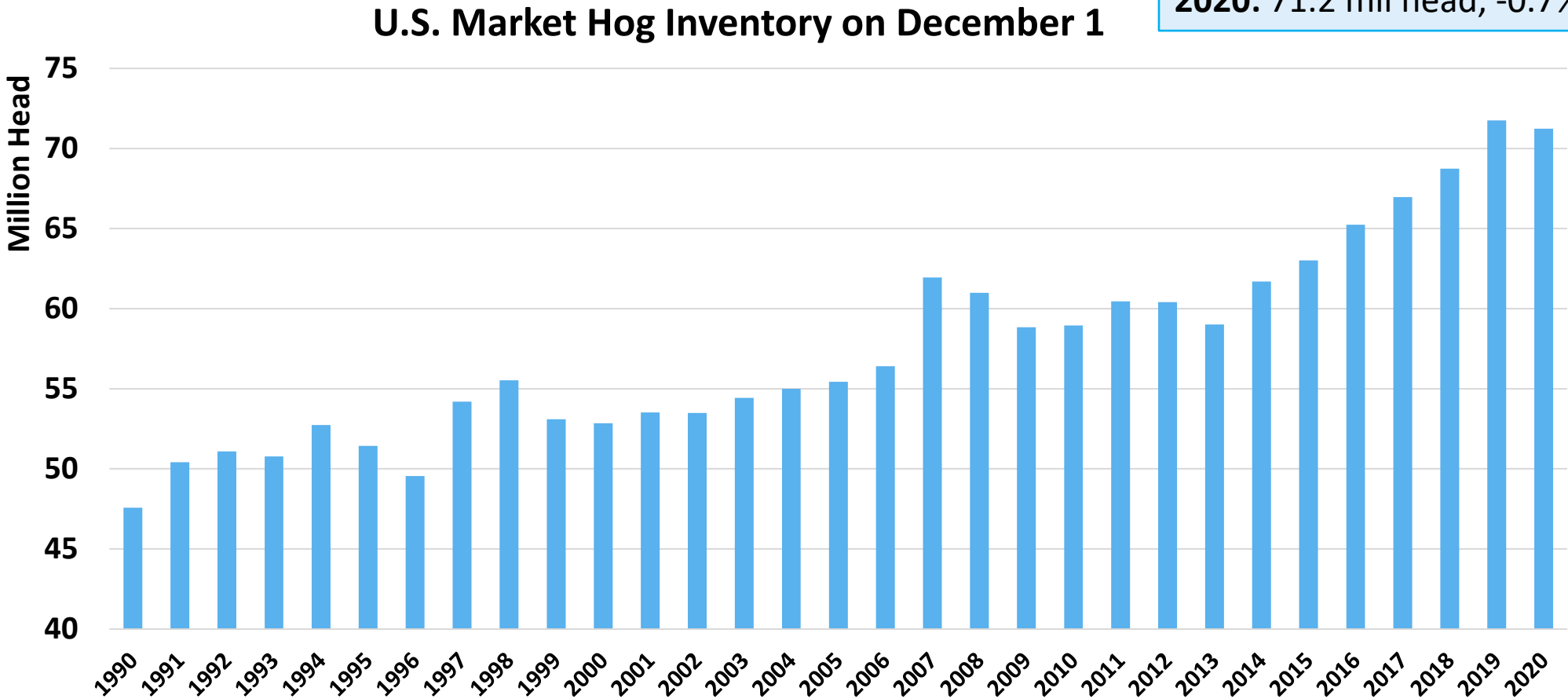
Sep – Nov Pig Crop and Sows Farrowed	2020 (million head)	2019 (million head)	Change (%)
Pig Crop	35.0	35.5	-1%
Sows Farrowed	3.16	3.20	-1%
Pigs Saved Per Litter	11.05	11.09	<-1%

# December hog inventory down slightly from 2019 record

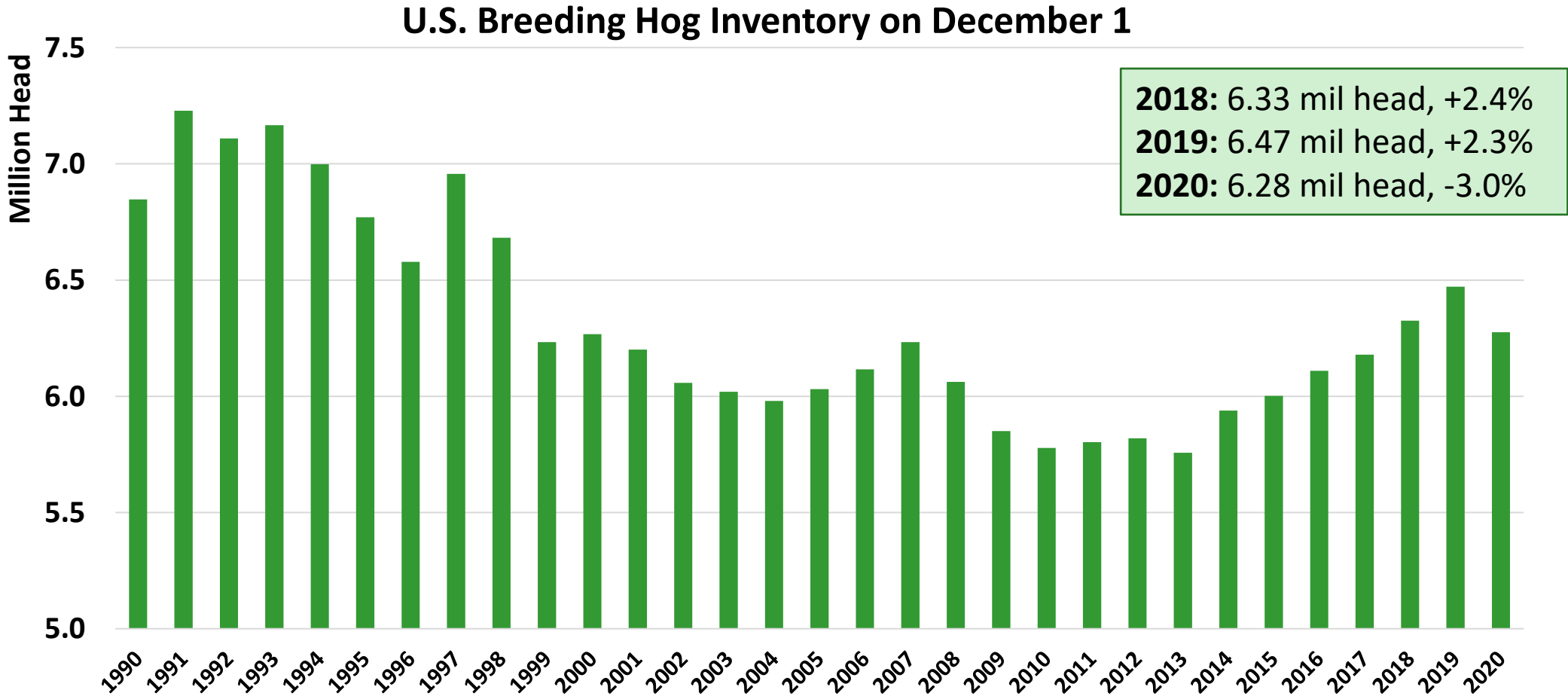


# December market hog inventory down slightly from 2019 record

**2018:** 68.7 mil head, +2.7%  
**2019:** 71.8 mil head, +4.4%  
**2020:** 71.2 mil head, -0.7%

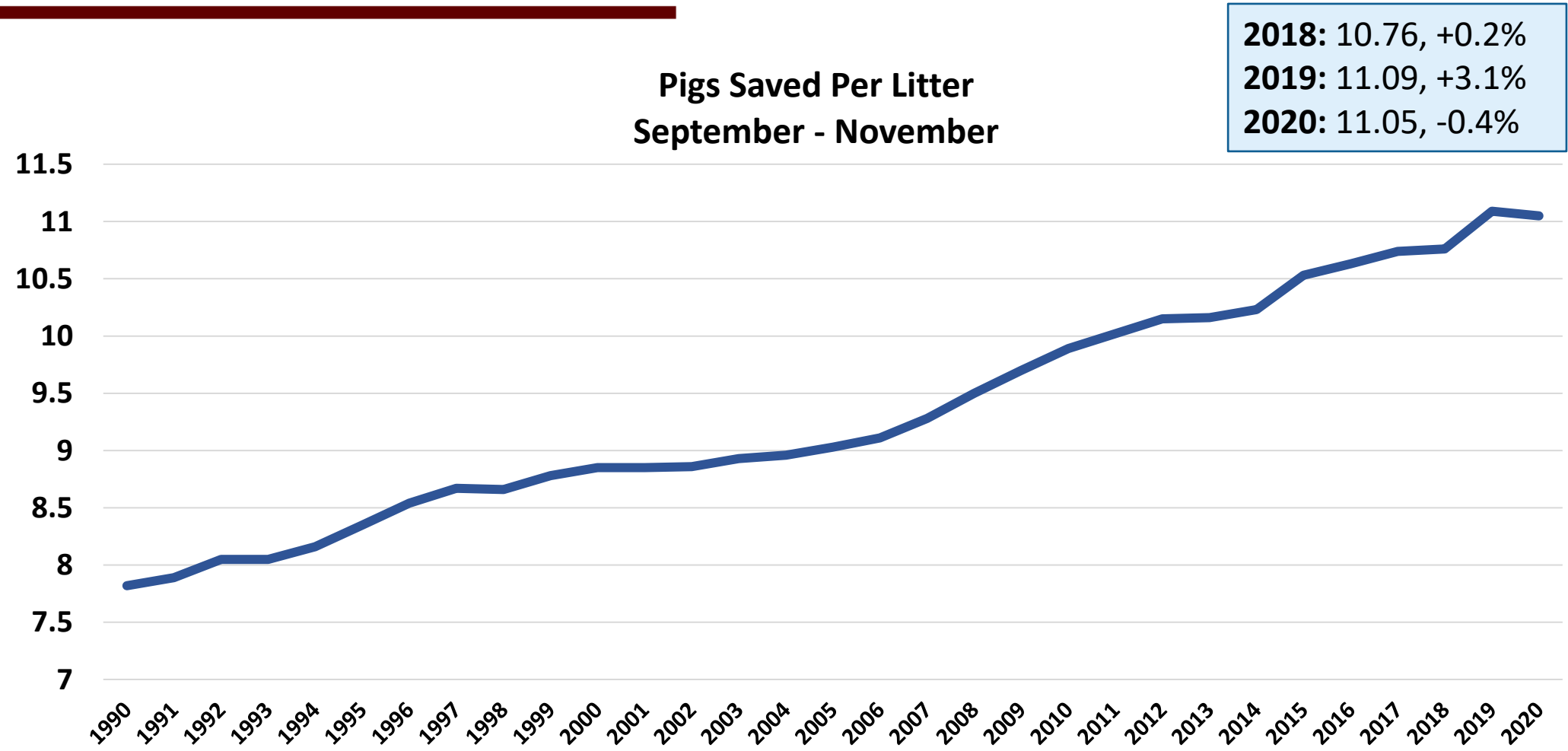


After increasing since 2014, the December breeding inventory decreased 3.0% year-over-year, but apart from the last two years, remained at the highest level since the 1990s



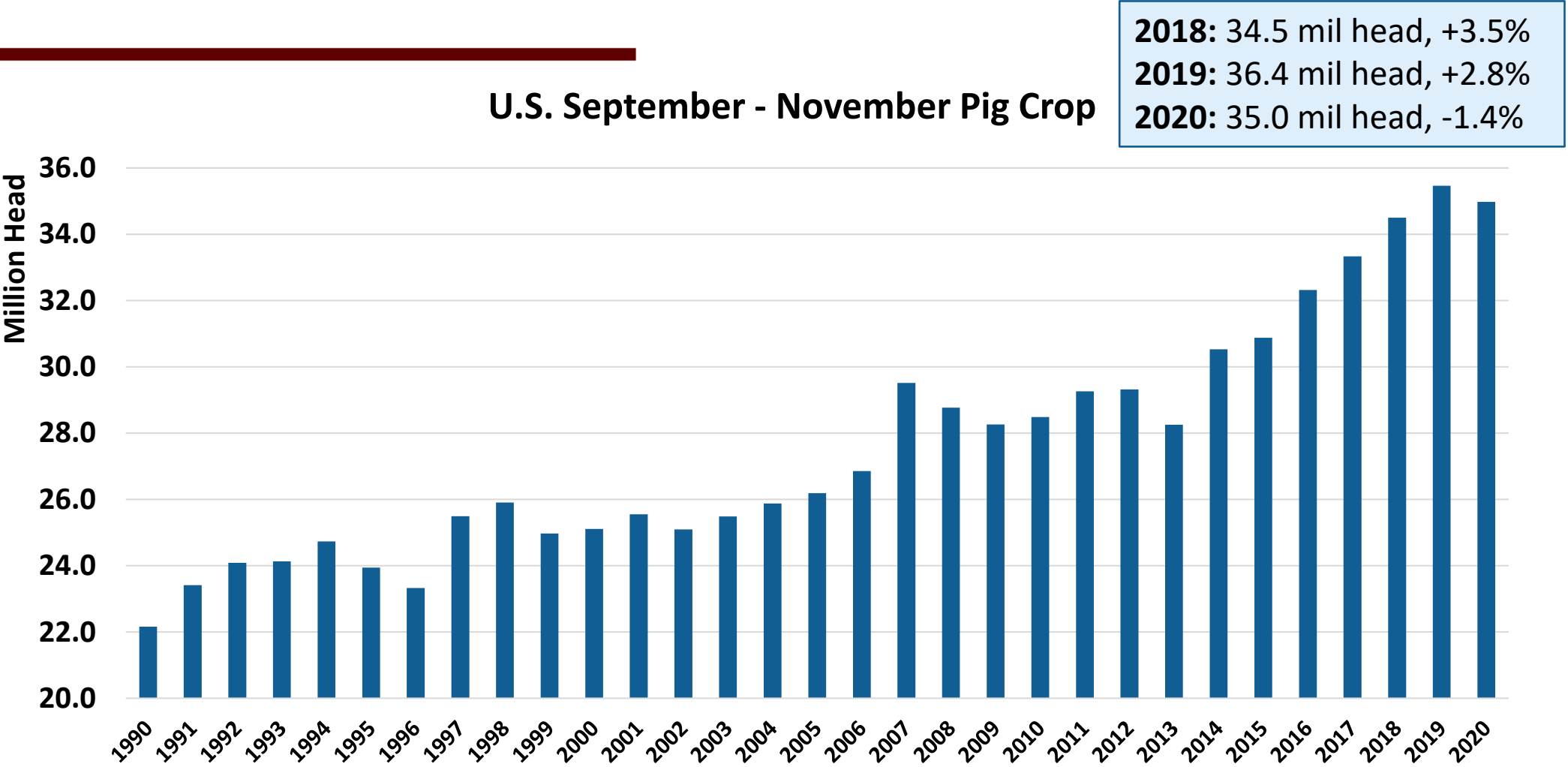
# Higher Number of Pigs Saved Per Litter = Increasing Productivity;

productivity to return to growth trend following the covid-19 impact on the supply chain in 2020

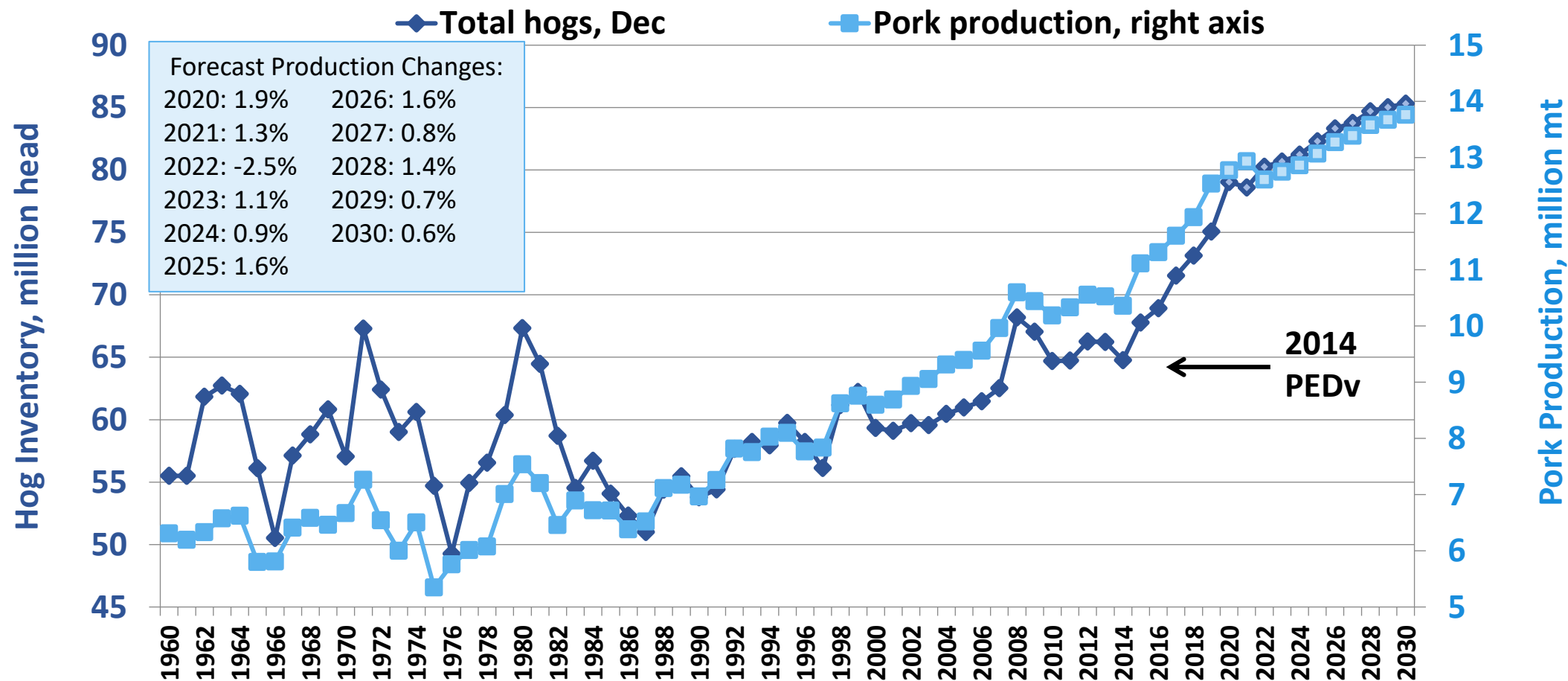




# The 2020 September – November pig crop was the second highest on record



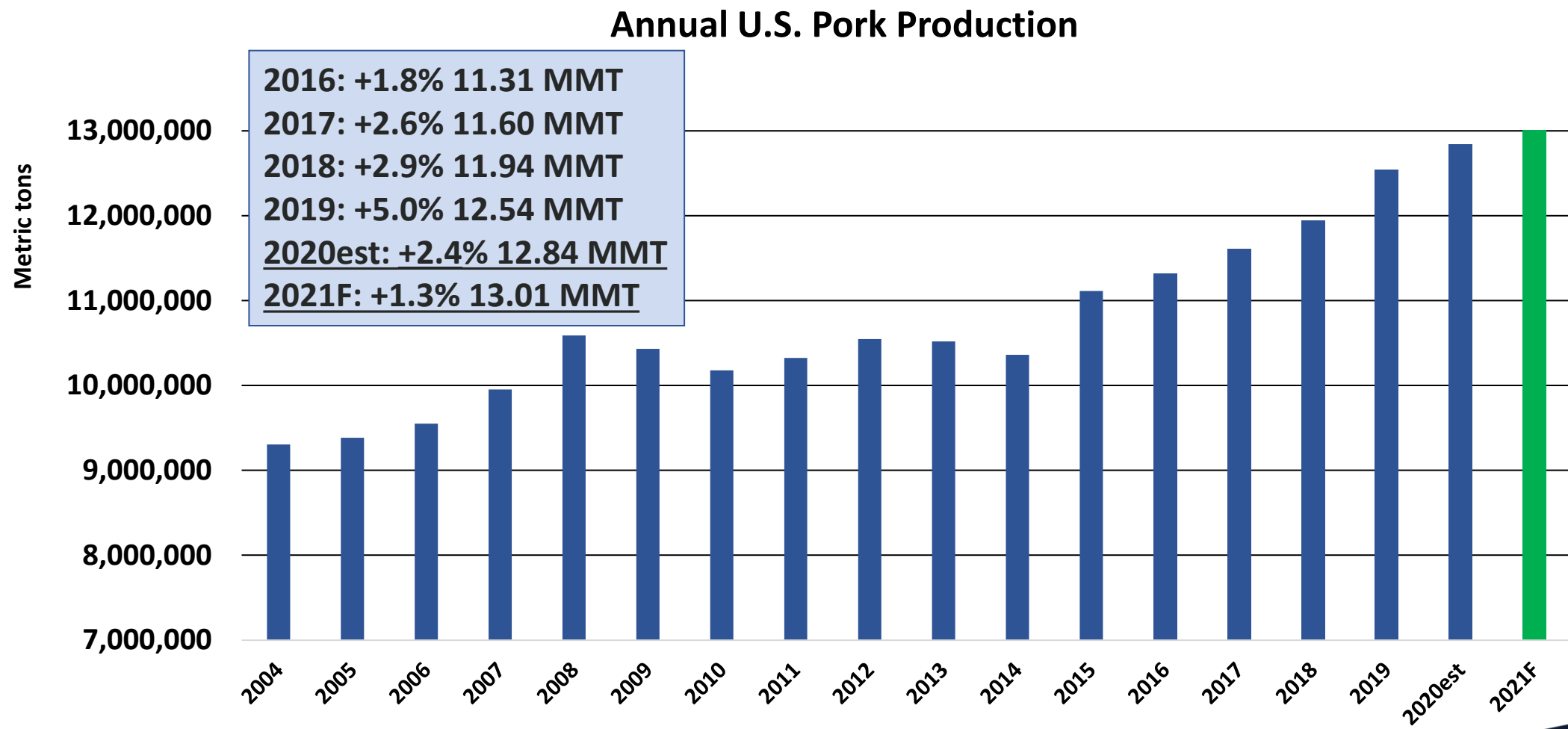
# U.S. Hog Inventory & Pork Production



Source: USDA/FAS, and USDA Baseline Projections Nov 2020

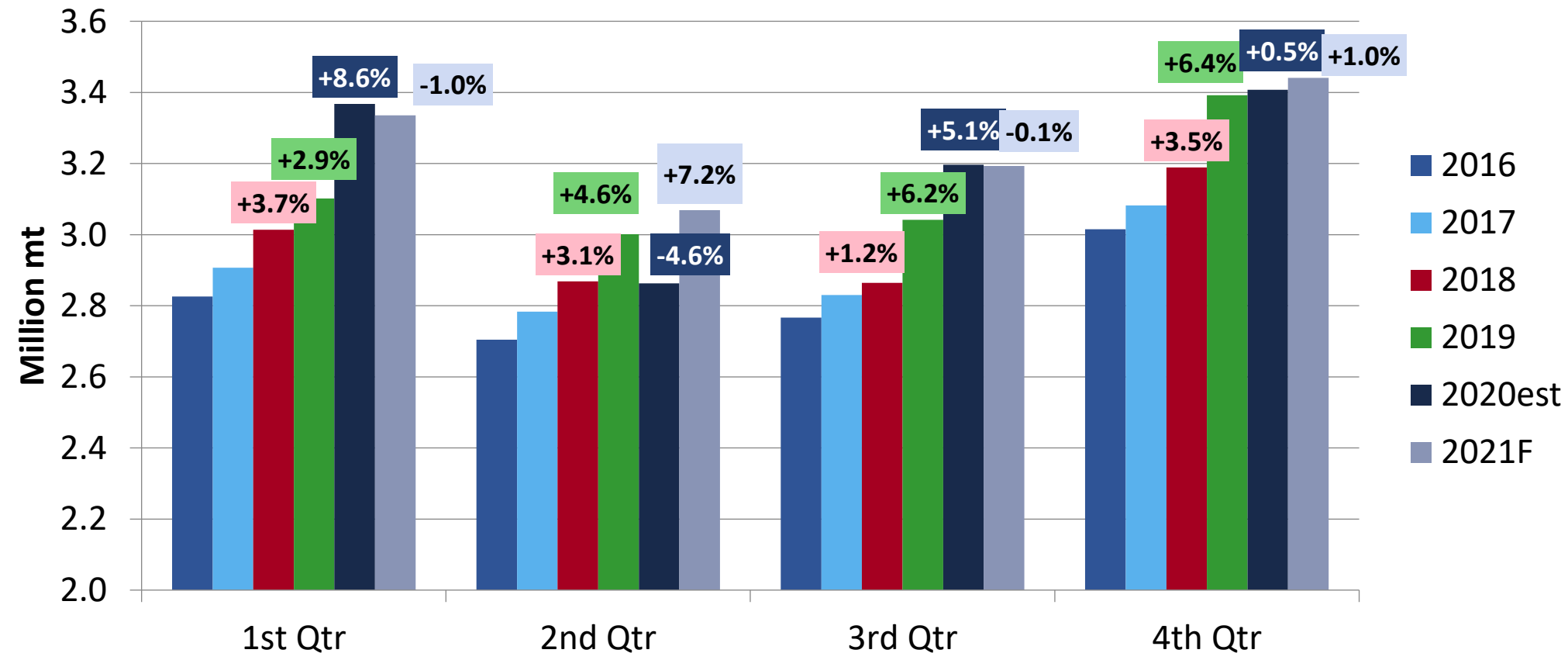


# USDA expects U.S. pork production to be up 1.3% to a new record in 2021



# Quarterly U.S. Pork Production Forecast

2016: +1.8% 11.31 MMT  
2017: +2.6% 11.60 MMT  
2018: +2.9% 11.94 MMT  
2019: +5.0% 12.54 MMT  
2020est: +2.4% 12.84 MMT  
2021F: +1.3% 13.01 MMT

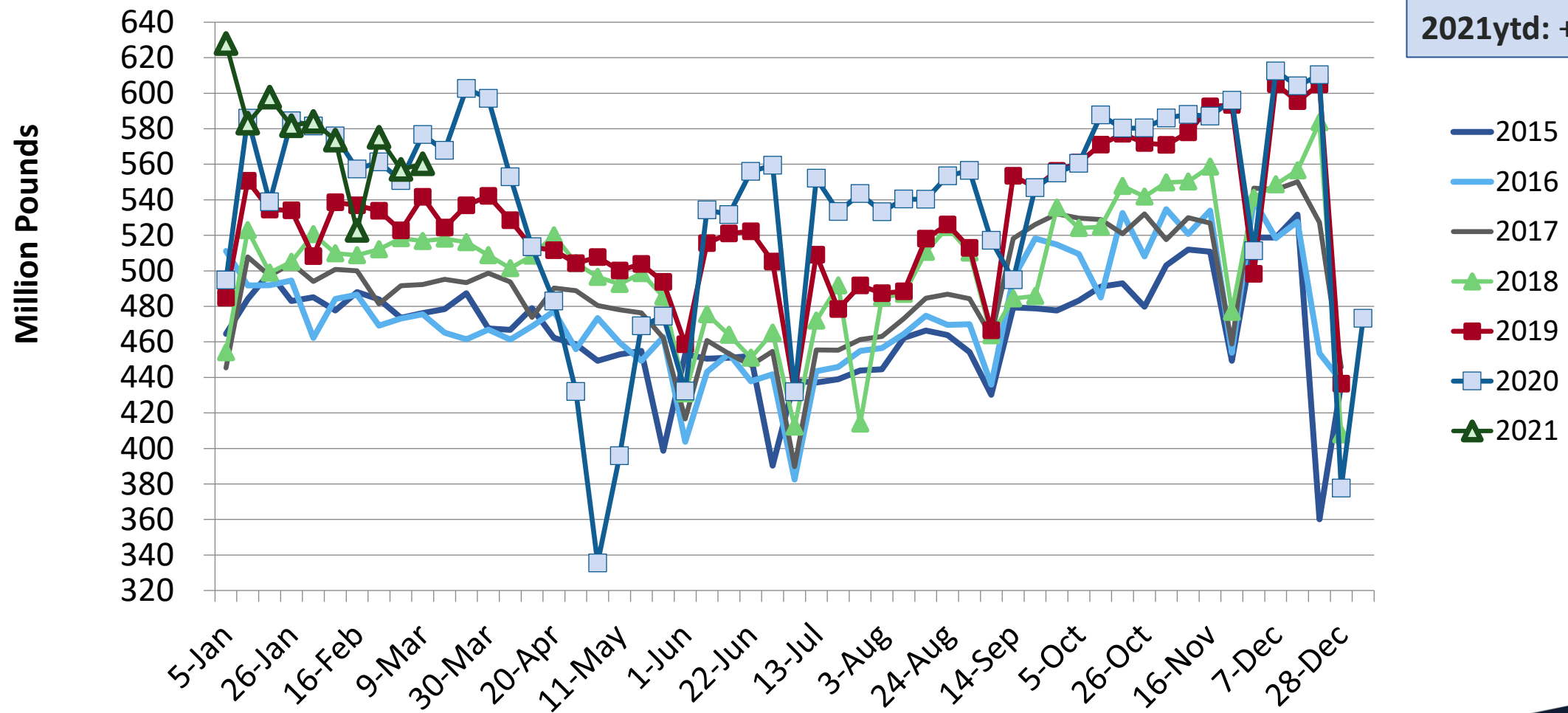


Source: USDA/WASDE March 2021, carcass weight equivalent, commercial production



Through mid-March, year-to-date (starting with the first full week of the year) pork production was up 1.5% from last year

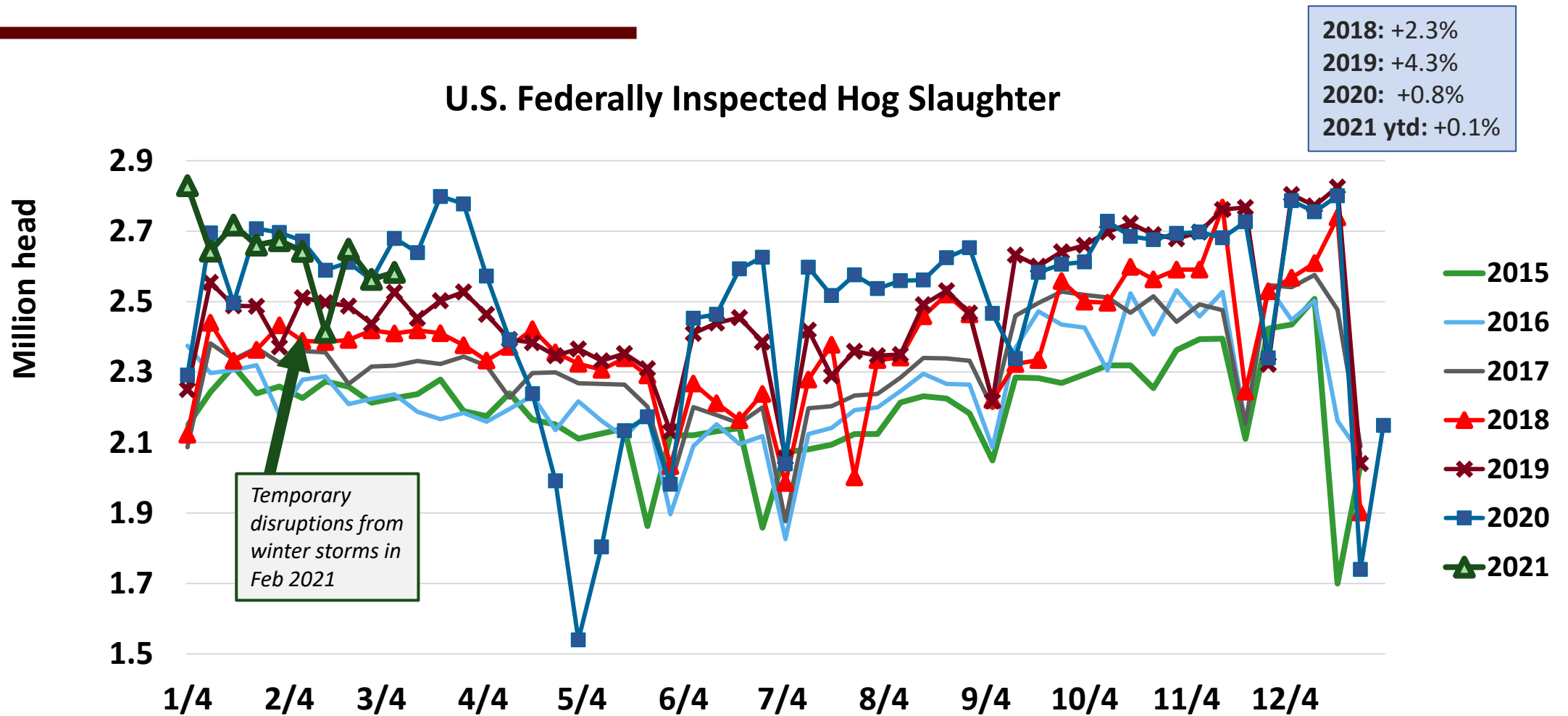
2018: +2.9%  
2019: +5.0%  
2020: +2.4%  
2021ytd: +1.5%



Source: USDA/NASS and USDA/AMS, last two data points are preliminary estimates

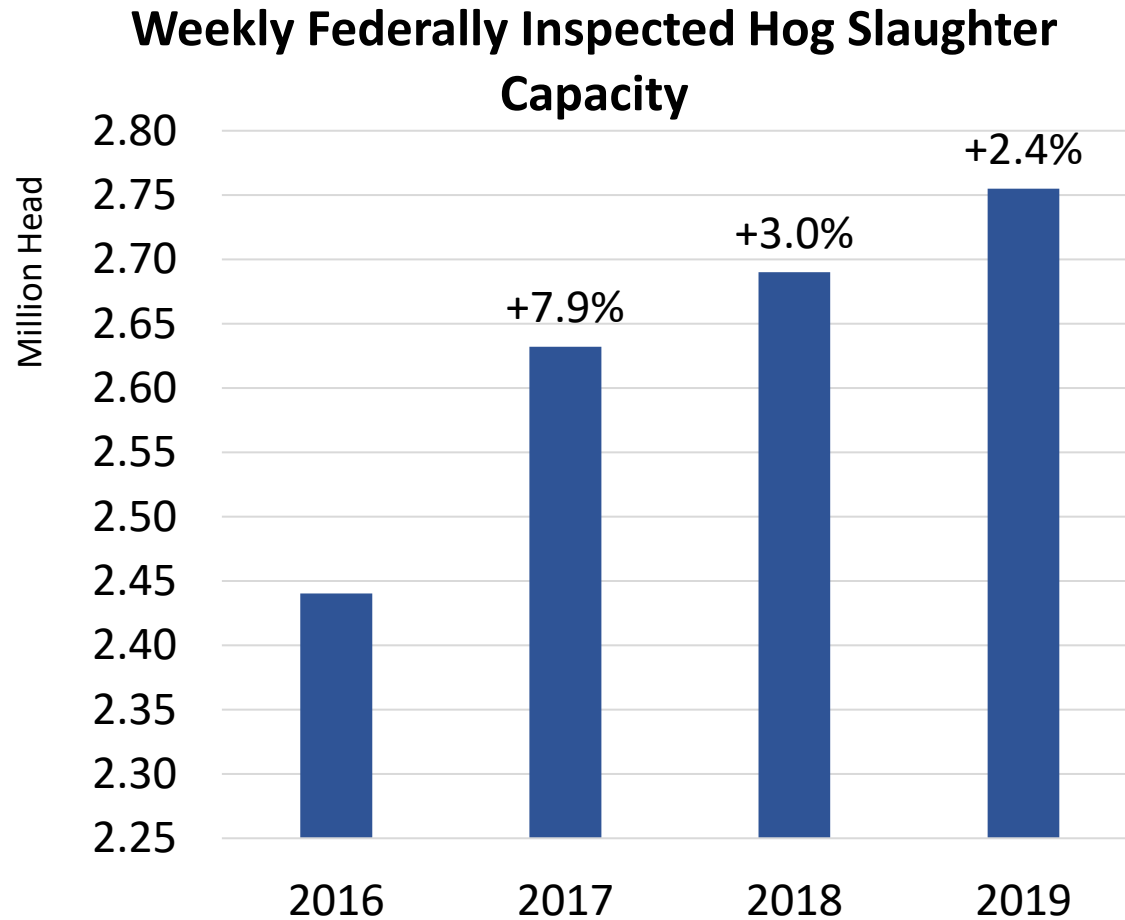


# U.S. Hog Slaughter





# U.S. slaughter capacity has increased significantly from 2016 to 2019

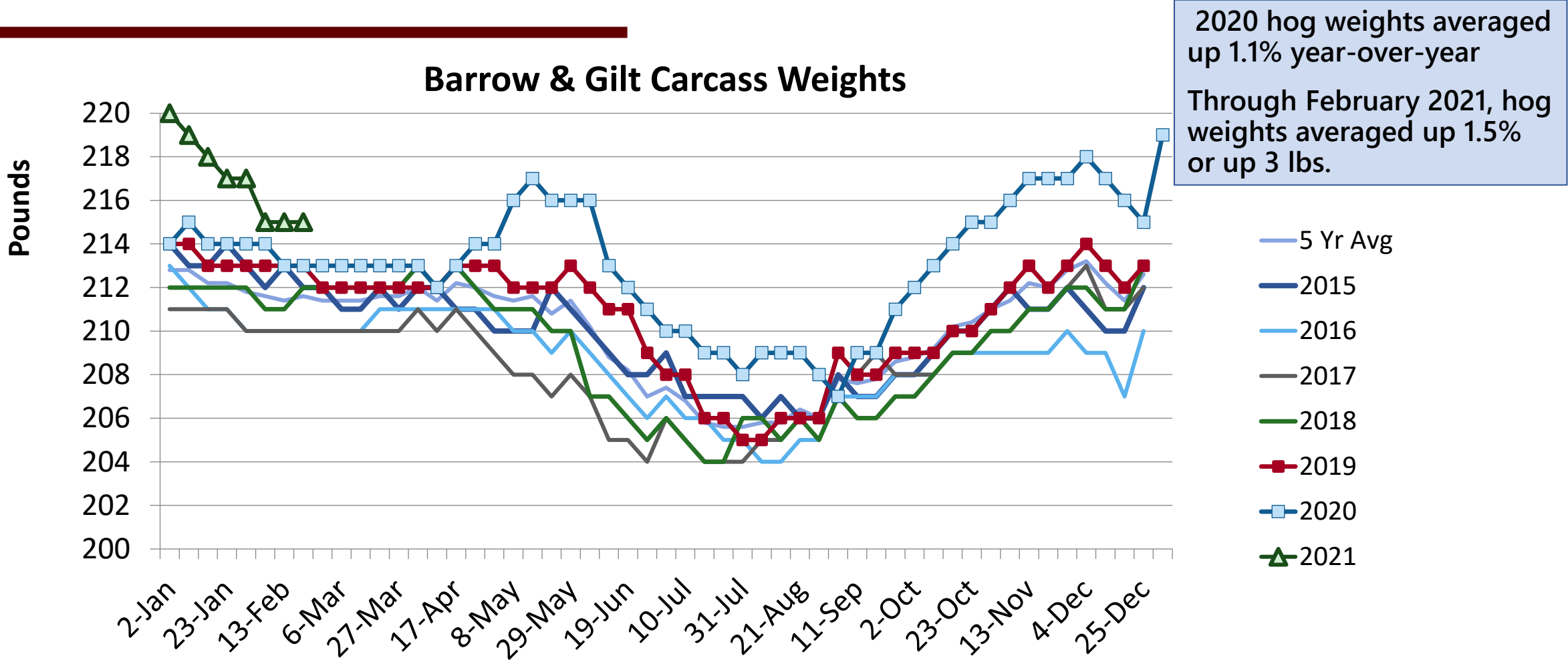


4 new pork plants  
operating since 2016

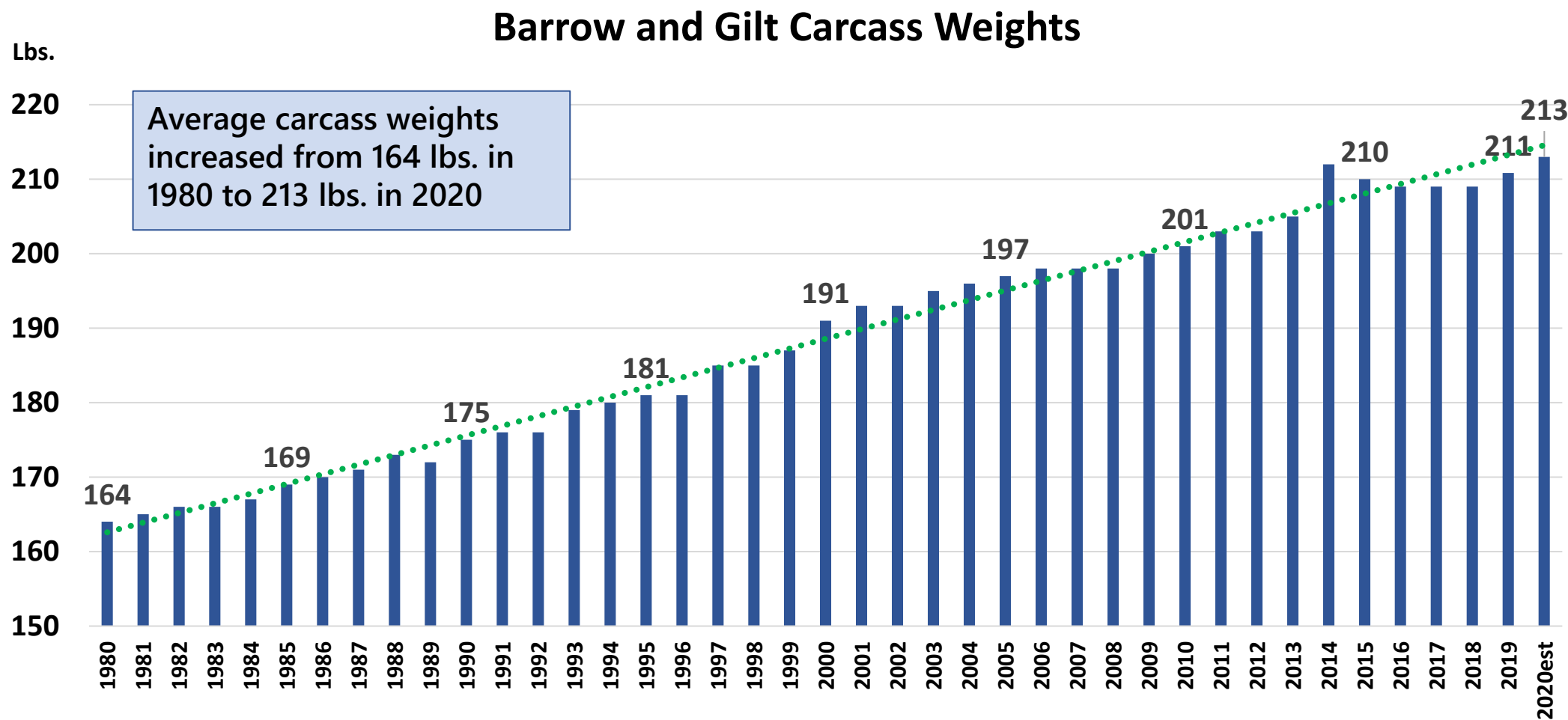
Annual Capacity & Increase:  
2017: 137 mil head, +10 mil  
2018: 140 mil head, +3 mil  
2019: 143 mil head, +3.4 mil

Actual Slaughter:  
+12.8 mil head from  
117 mil head in 2016 to  
130 mil head in 2020  
(+10.9%)

While weights remain elevated, they trended lower in January before holding at 215 lbs. for the last three weeks of February

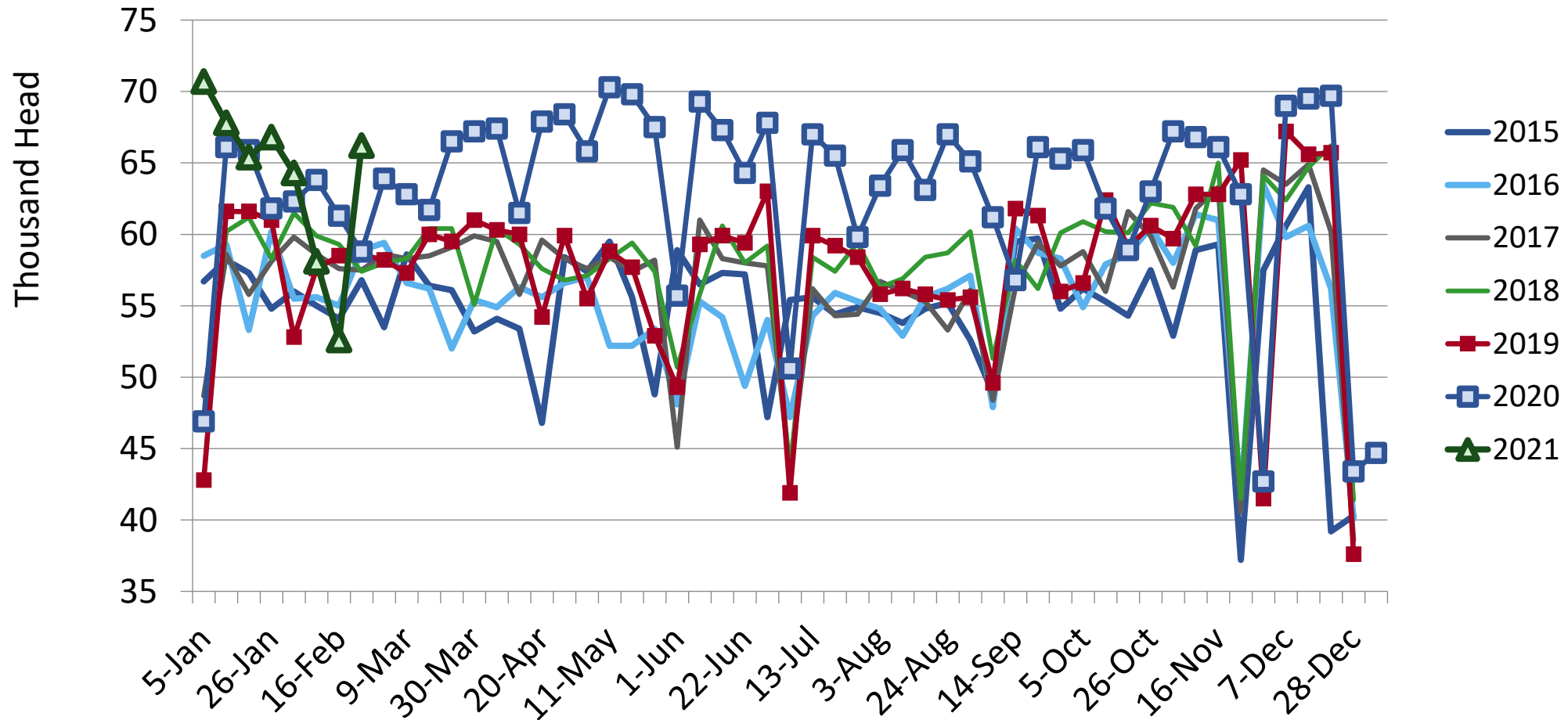


# Historical Increase in Carcass Weights



# U.S. Sow Slaughter

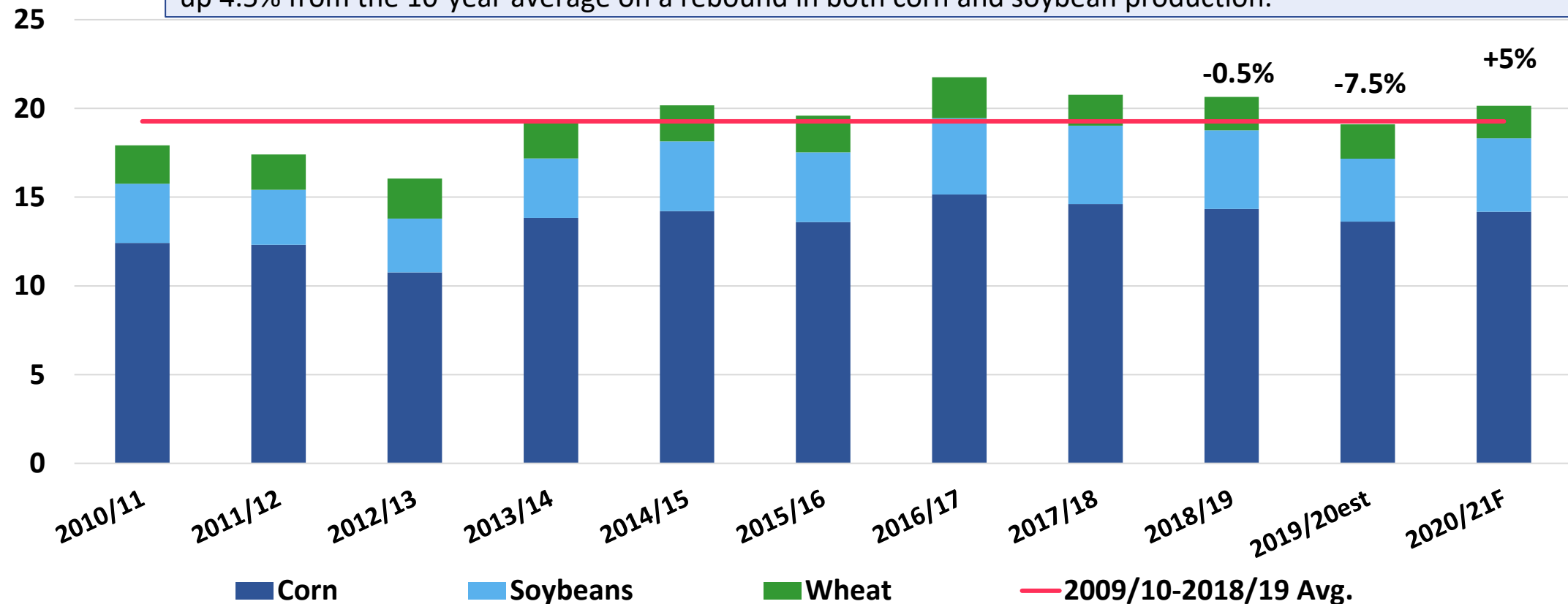
**2018: +2.1%**  
**2019: +0.6%**  
**2020: +10.1%**  
**2021 ytd: +1.6%**



# Lower feedgrain/oilseed production in 2019/20, followed by a rebound in 2020/21

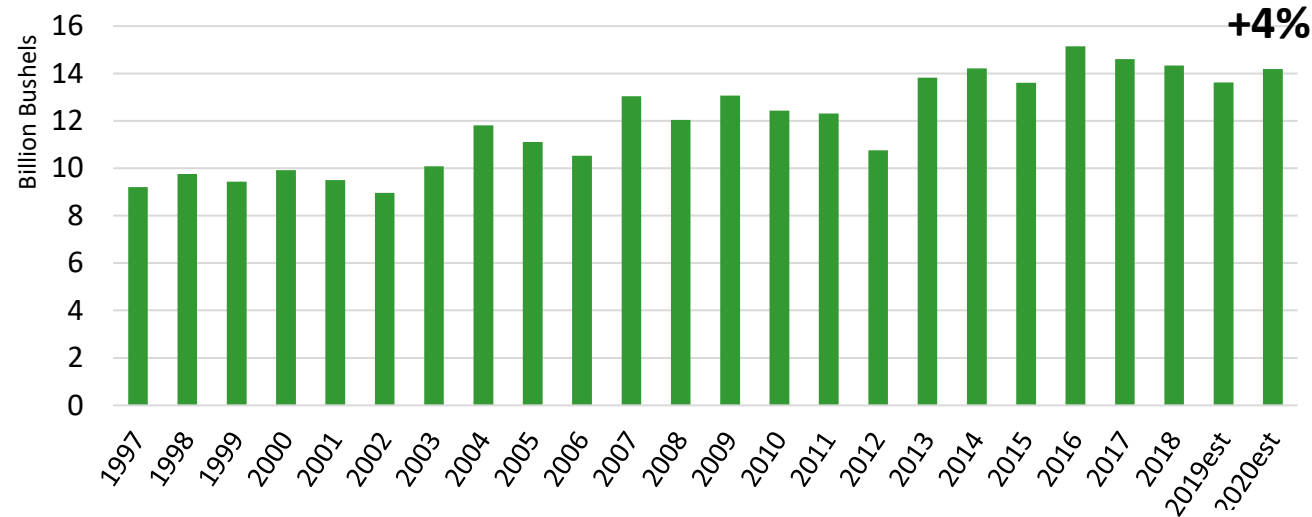
Billion Bushels

U.S. corn, soybean, and wheat production averaged 19.27 billion bushels over the last 10 years. 2019/20 combined production was 19.10 billion bushels, down 7.5% year-over-year on lower corn and soybean production and down 0.9% from the 10-year average. 2020/21 production is estimated at 20.14 billion bushels, up 5% from the previous year and up 4.5% from the 10-year average on a rebound in both corn and soybean production.



# Rebound in U.S. corn and soybean production in 2020/21

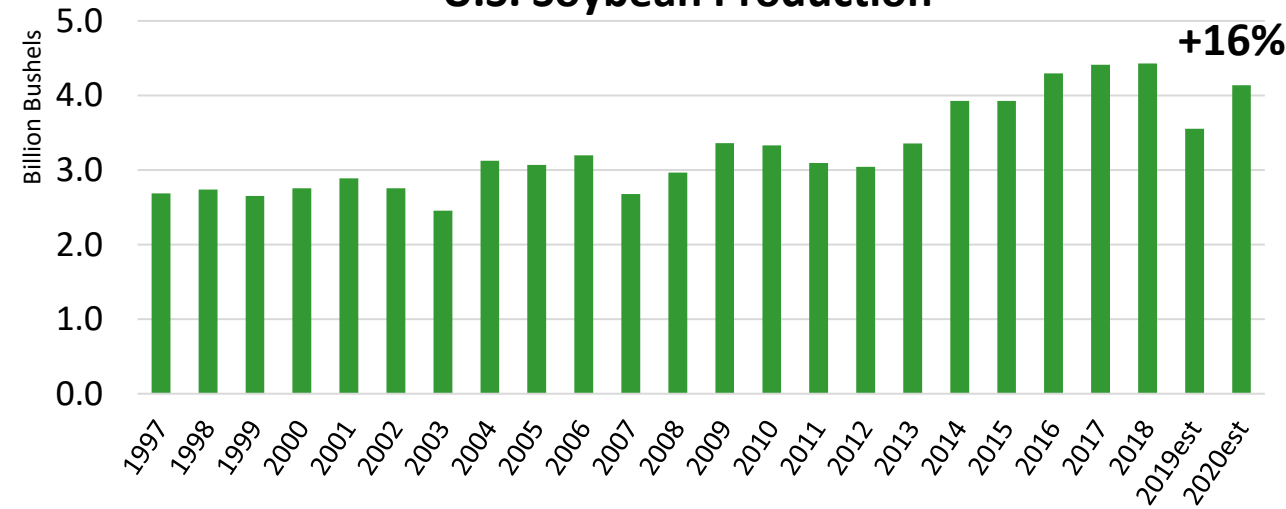
U.S. Corn Production



2020/21 U.S. corn production is estimated at the fifth highest level on record

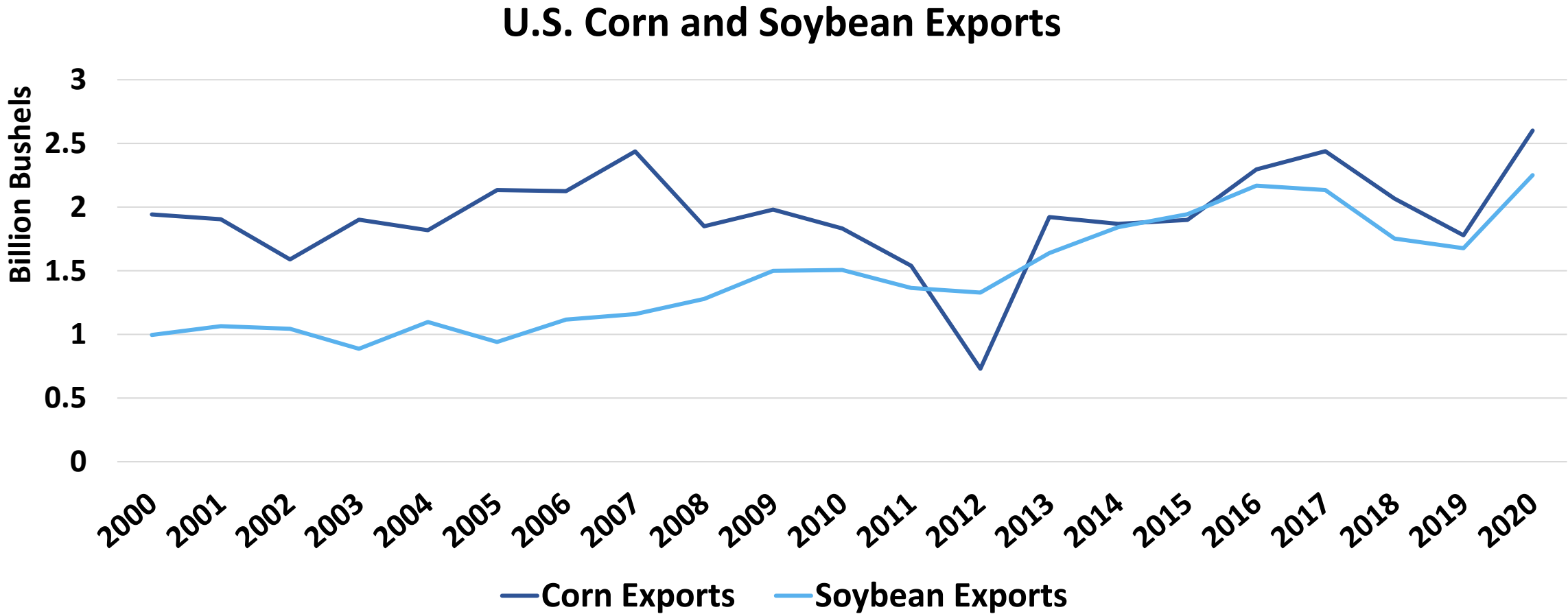
2020/21 soybean production rebounded and is estimated to be the 4<sup>th</sup> highest on record (after 2016/17 - 2018/19) following a 20% decrease in production in 2019/20 when weather issues, trade concerns, and record high stocks resulted in less acres of soybeans being planted

U.S. Soybean Production





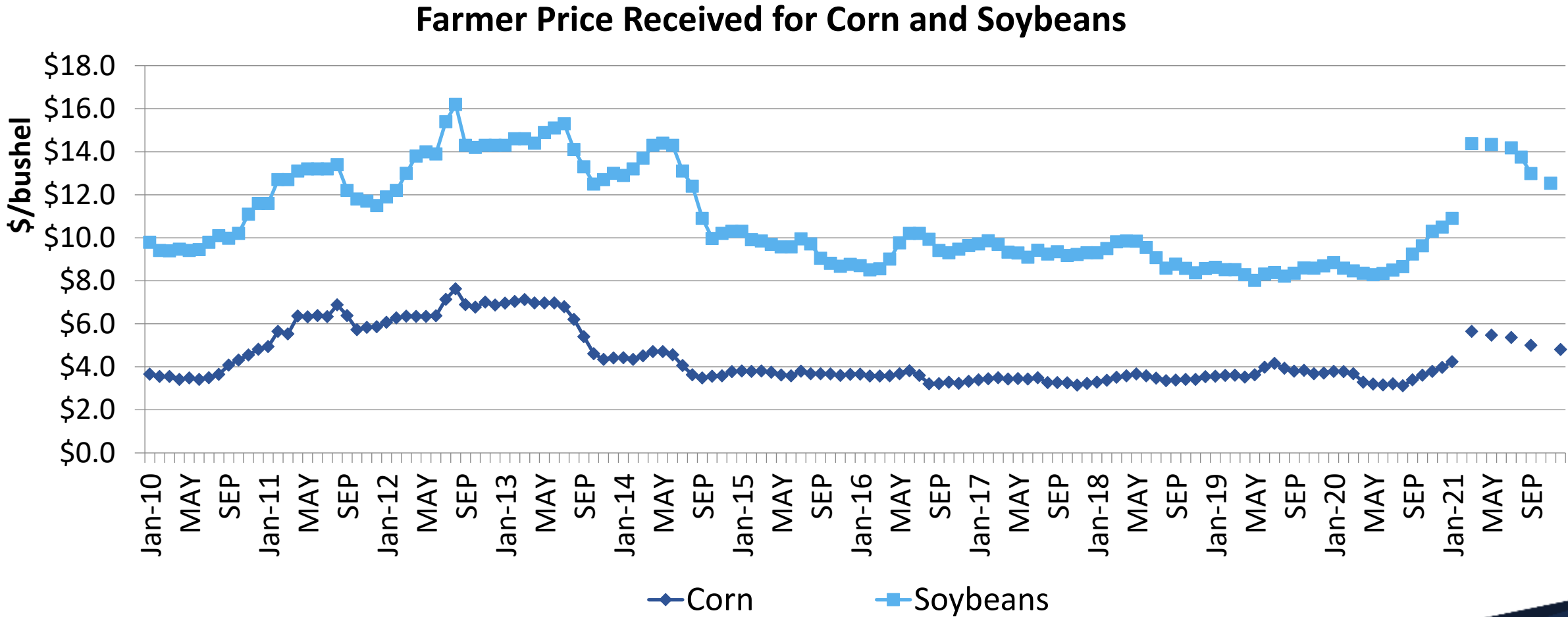
# U.S. corn and soybean exports have rebounded and will reach record levels in 2020/21



Source: USDA/ERS, USDA WASDE, marketing year



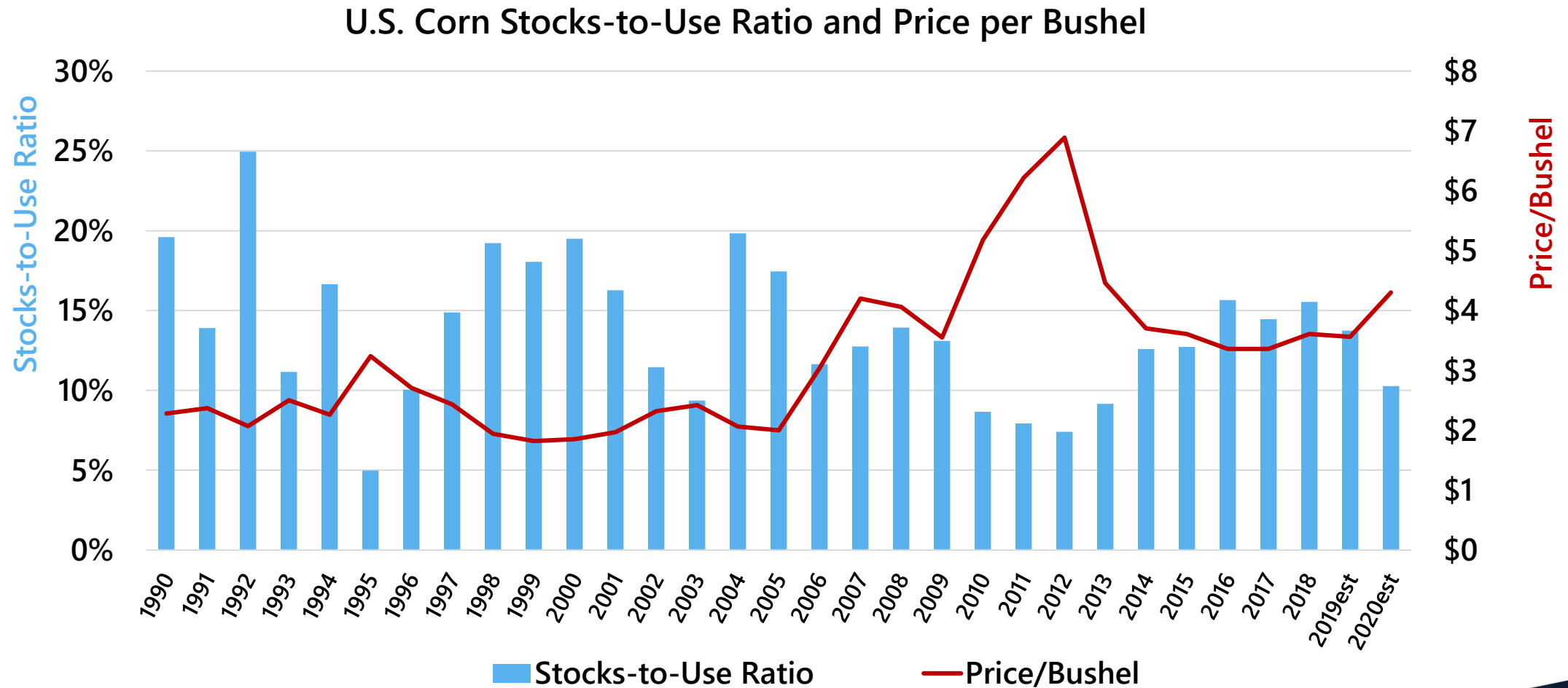
Futures are indicating that 2021 corn and soybean prices are expected to rebound to the highest level since 2013/14 on record large exports



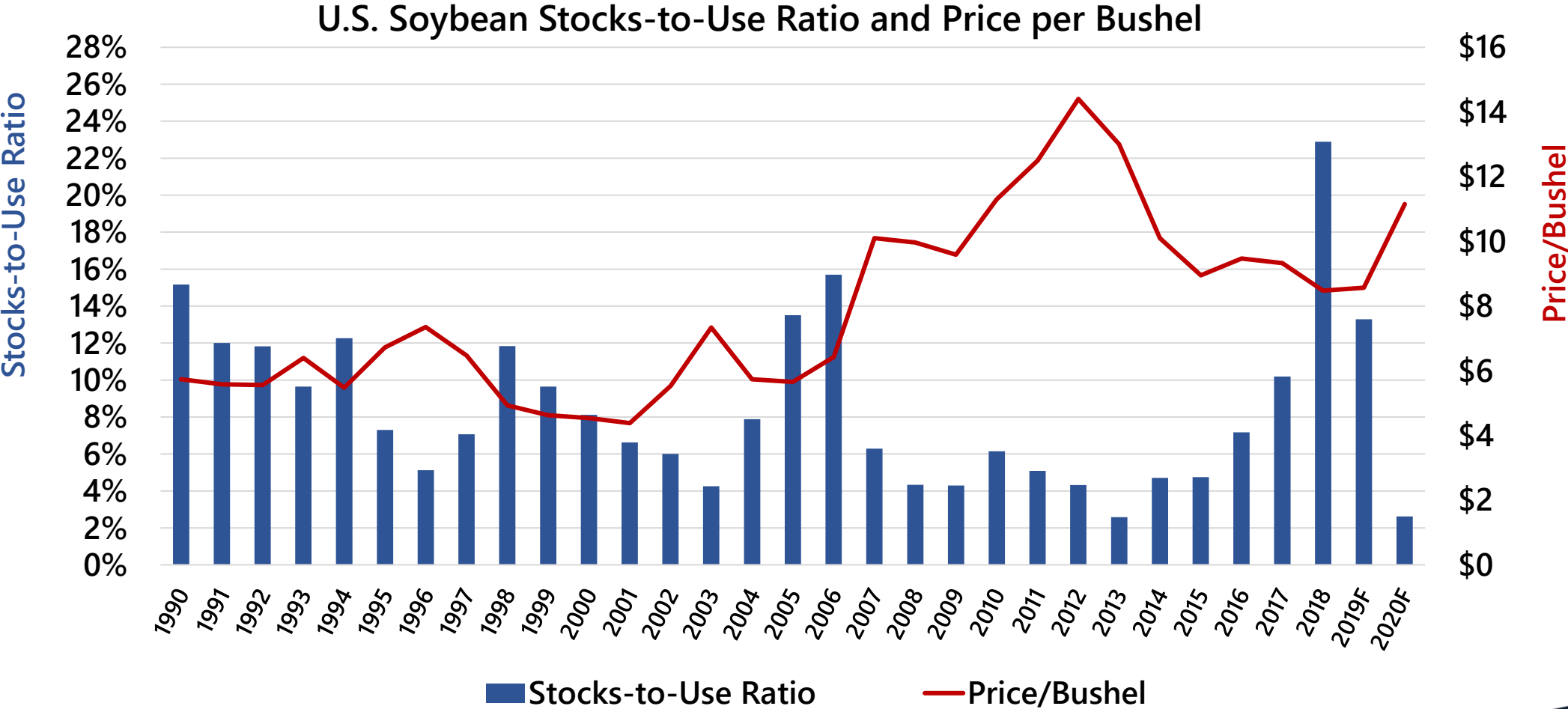
Source: USDA/NASS and CME closing futures on March 8, 2021



Higher stocks-to-use ratios moderated corn prices in recent years, but the 2020/21 corn price is expected to be the highest since 2013/14 as the stocks-to-use ratio drops to 10.3%, the lowest since 2013/14

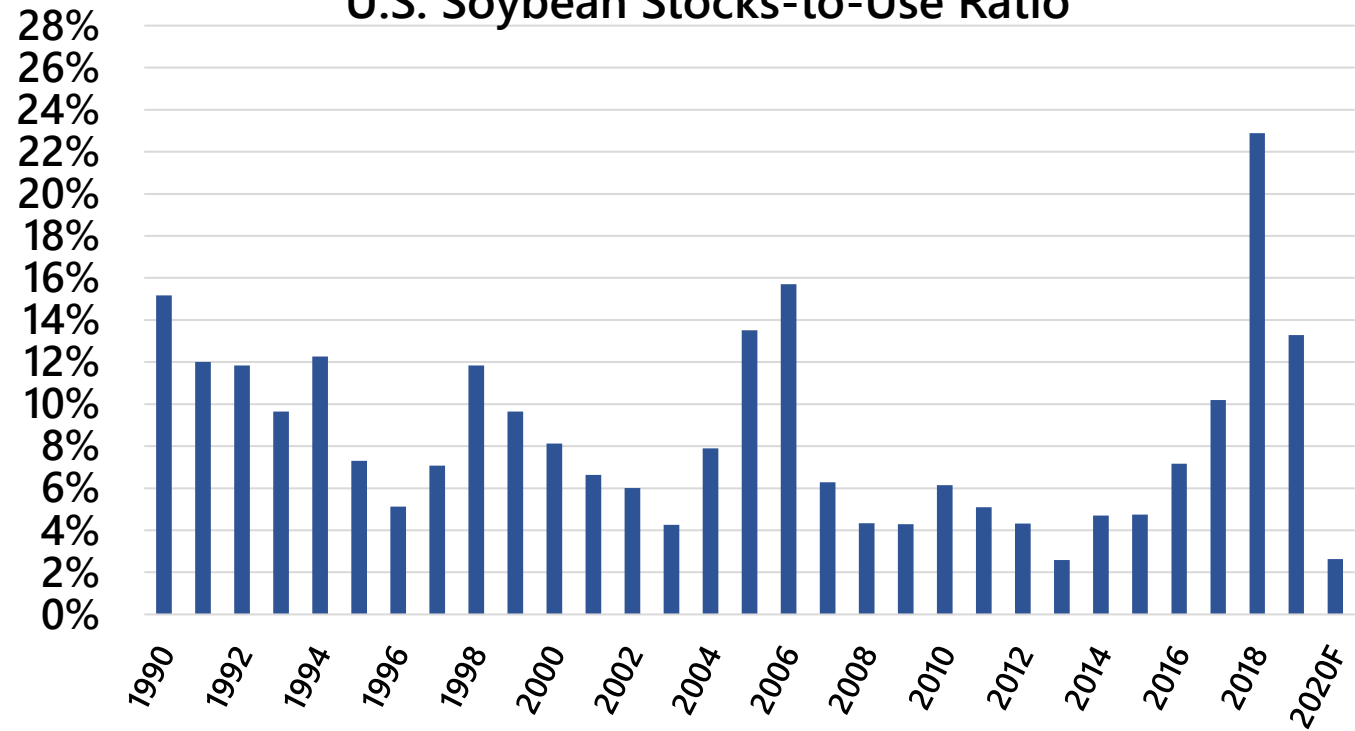


Soybean stocks have come down from the record high in 2018/19, and the 2020/21 stocks-to-use ratio is expected to be the lowest since 2013/14 with average annual prices also expected to be at the highest level since 2013/14

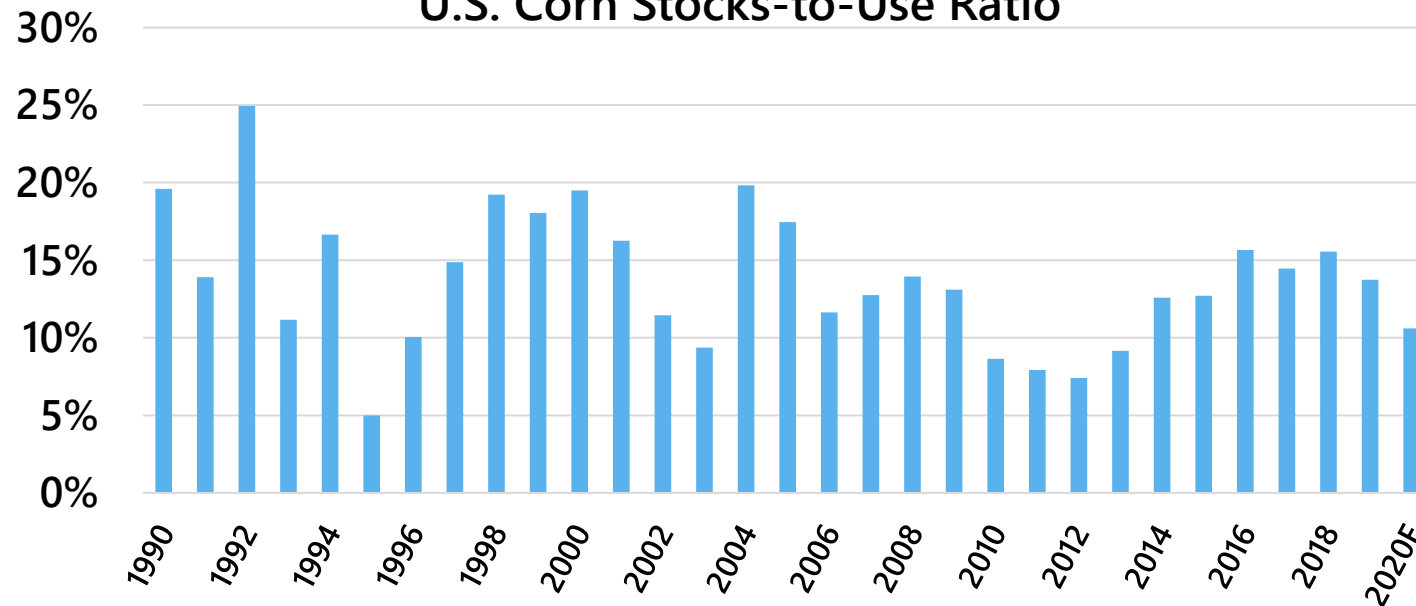


Soybean and corn stocks-to-use ratios to be the lowest since 2013/14

U.S. Soybean Stocks-to-Use Ratio



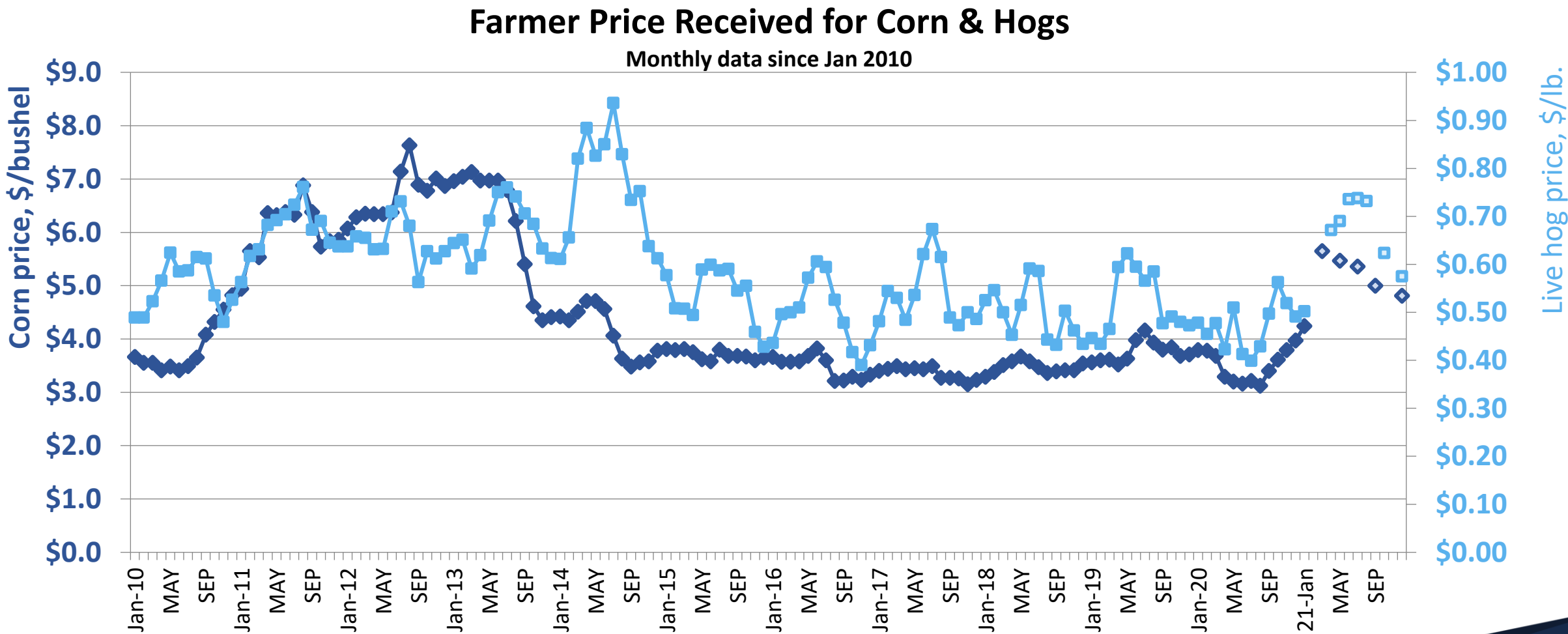
U.S. Corn Stocks-to-Use Ratio



Source: USDA/ERS, March WASDE,  
Marketing Year from Sep - Aug



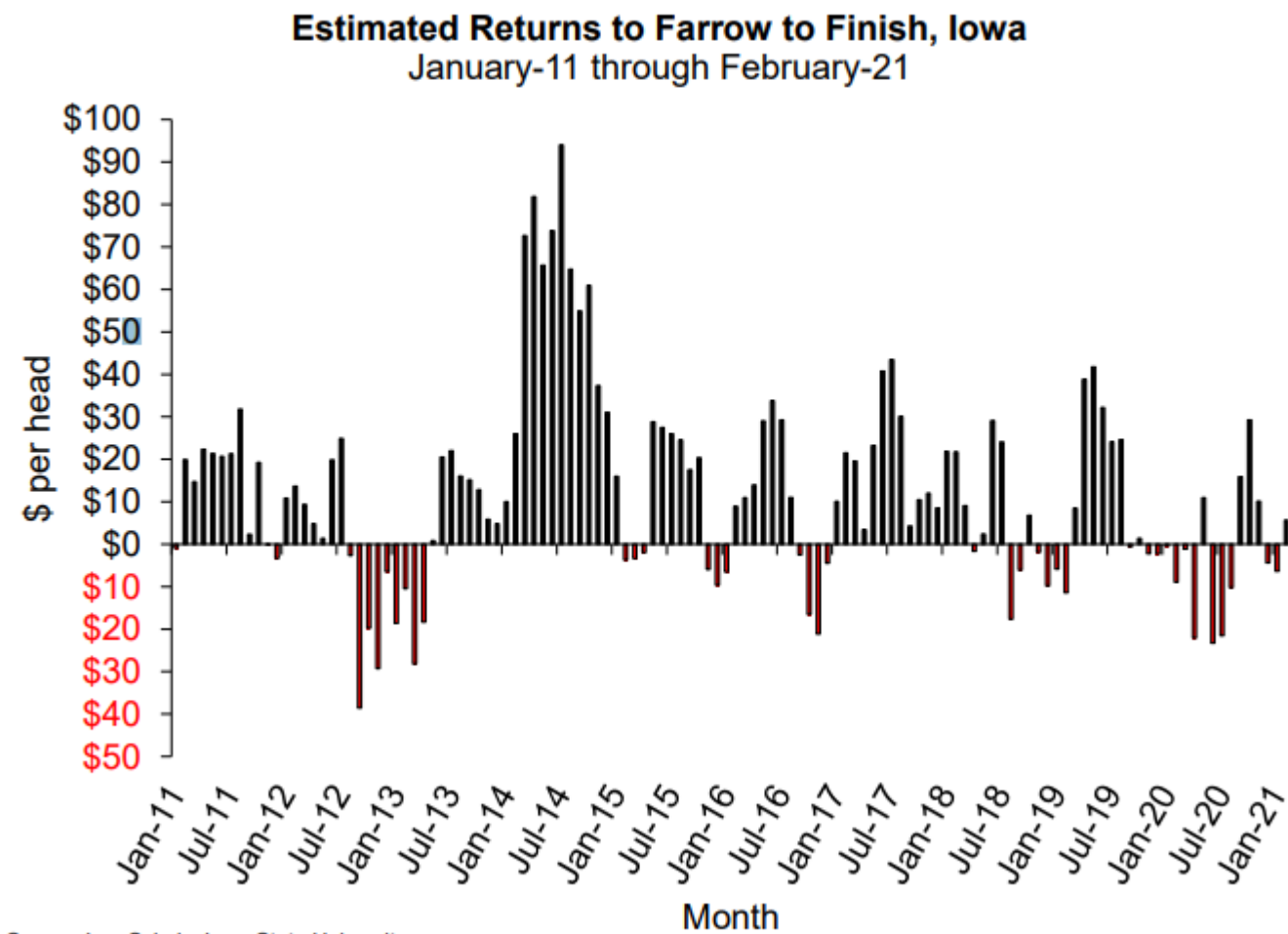
Current corn and hog futures are indicating higher feed and hog prices in 2021



Source: USDA/NASS and CME closing futures prices on March 8, 2021



# Iowa State University's estimated market hog profit shows monthly returns were positive in February



Source: Lee Schulz, Iowa State University

Hog futures have been trending higher since January and are trading at contract highs in March on impressive demand - both domestic and international

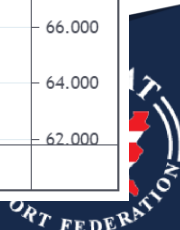
April contract

CME:HEJ2021, D 90.550 ▼ -0.850 (-0.93%) O:90.875 H:90.900 L:89.625 C:90.550



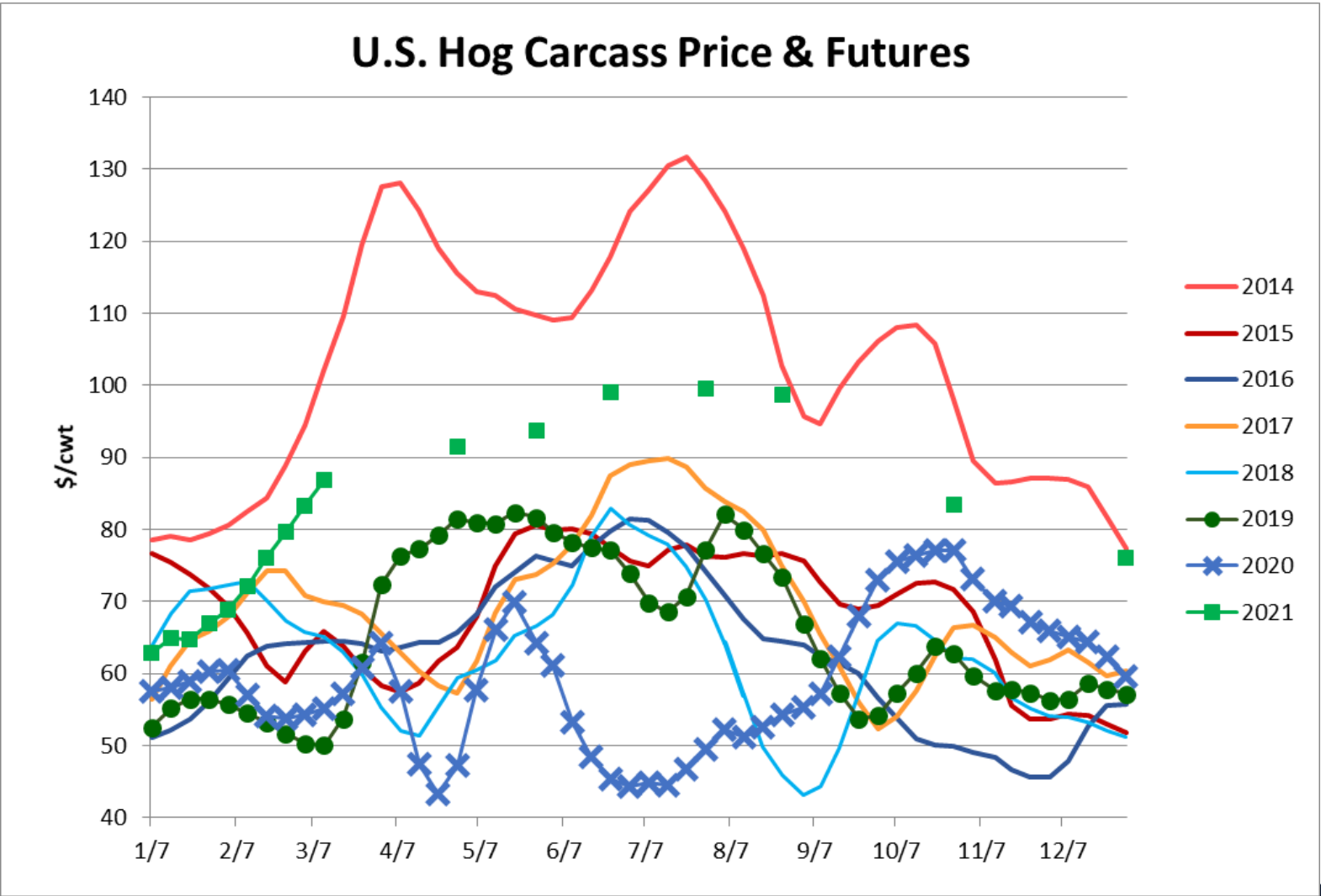
May contract

CME:HEK2021, D 93.025 ▼ -0.625 (-0.67%) O:93.100 H:93.225 L:92.075 C:93.025

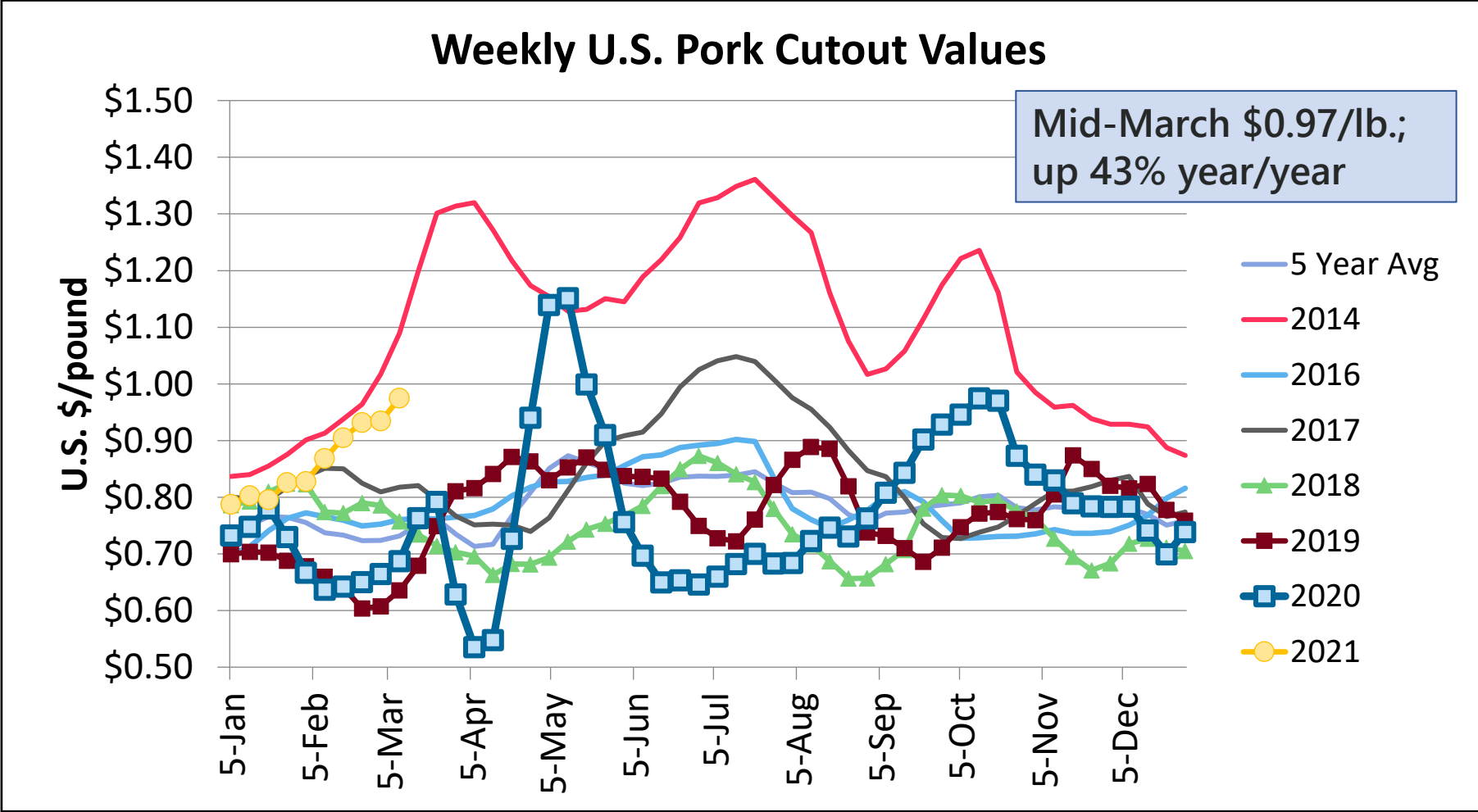




Hog futures are anticipating higher prices in 2021 on continued strong domestic retail and continued large exports to China



The pork cutout moved counter-seasonally higher from late January through mid-March, even with larger production, due to strong demand



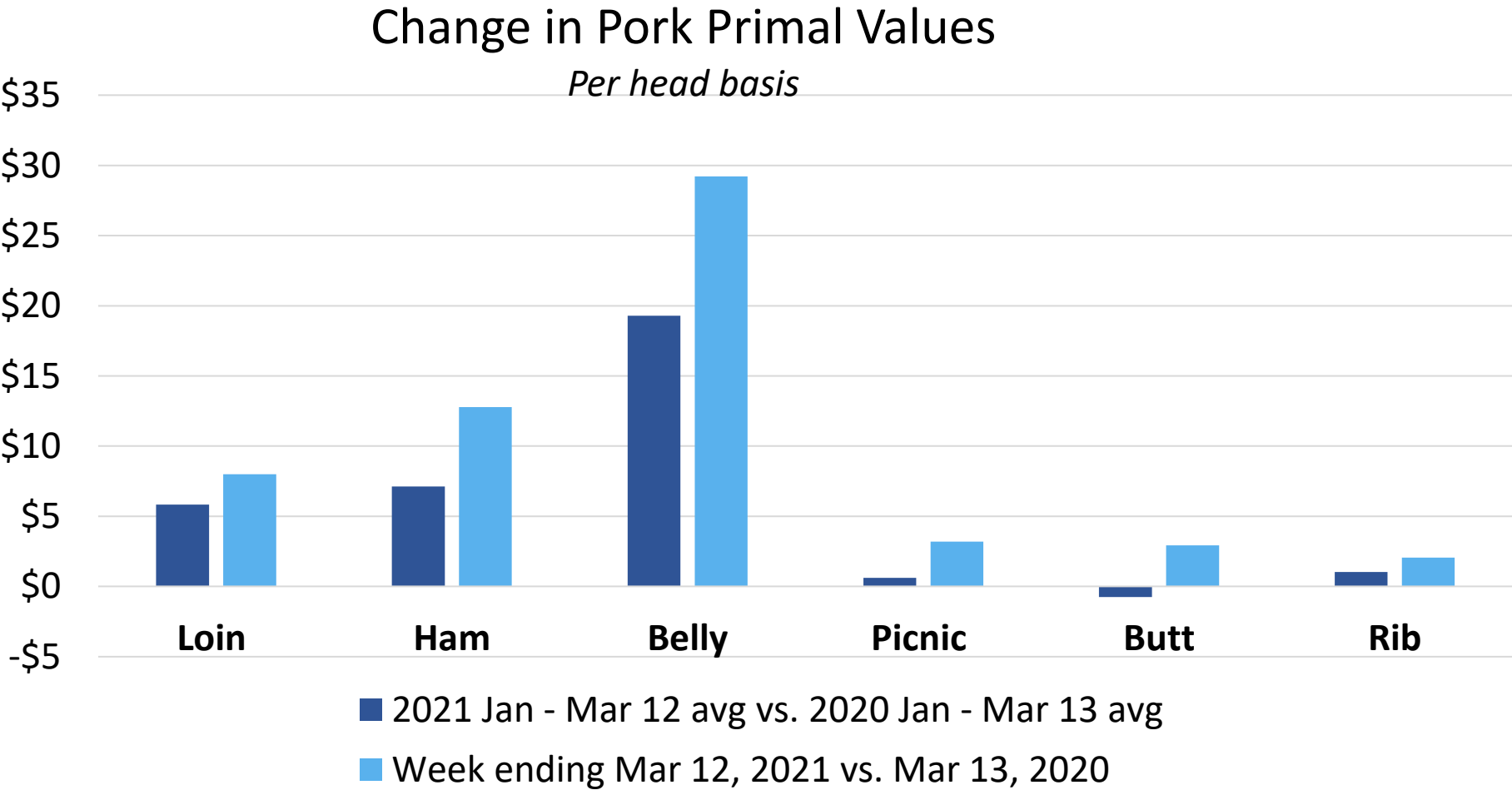
In mid-March, all primal values were higher compared to last year, and year-to-date, all primals except the butt primal averaged higher year-over-year

Fob plant wholesale prices in U.S. dollars per pound:

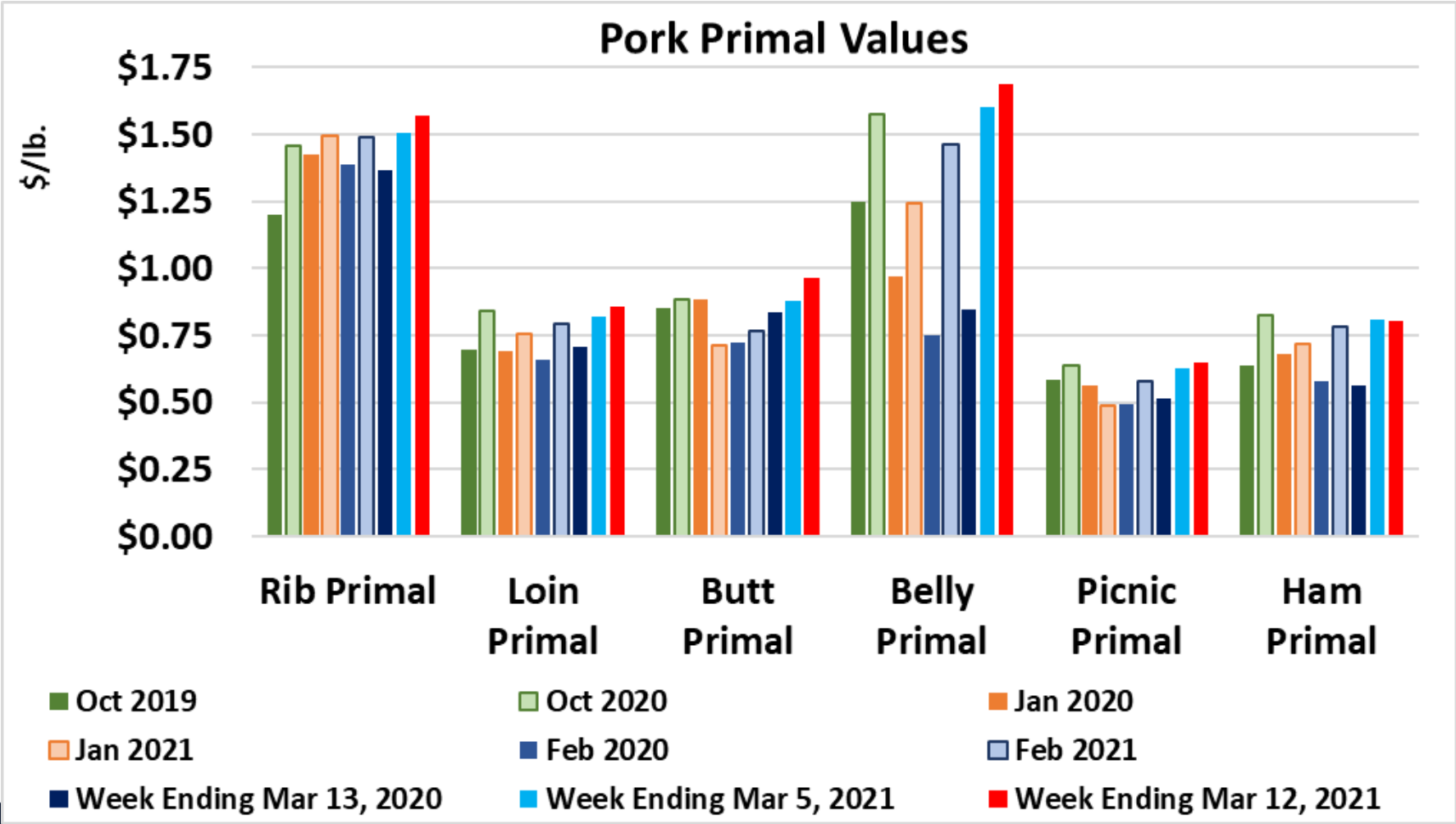
Week end:	Cutout	Loin	Butt	Picnic	Rib	Ham	Belly
2020 Ytd Avg	0.70	0.68	0.81	0.53	1.40	0.63	0.86
2021 Ytd Avg	0.87	0.79	0.78	0.55	1.50	0.76	1.41
Year-over-year Change	24%	16%	-4%	5%	7%	21%	65%
3/13/2020	0.69	0.71	0.83	0.52	1.37	0.56	0.85
3/12/2021	0.97	0.86	0.97	0.65	1.57	0.80	1.69
Year-over-year Change	42%	21%	16%	26%	15%	43%	100%



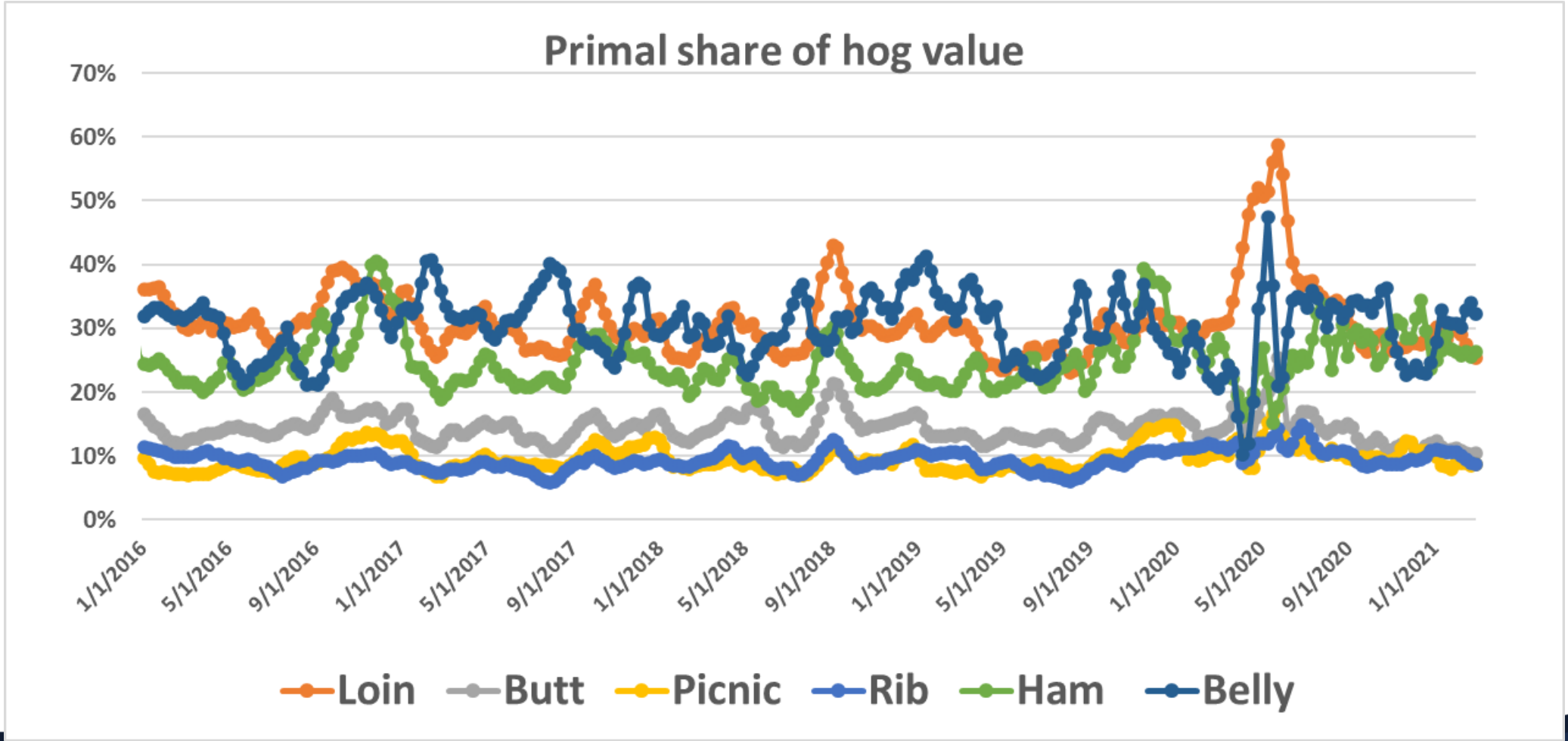
On a per head basis, the belly was the main driver of the higher value compared to last year followed by the ham and loin primals in mid-March



All pork primals except the ham primal trended higher through the first half of March



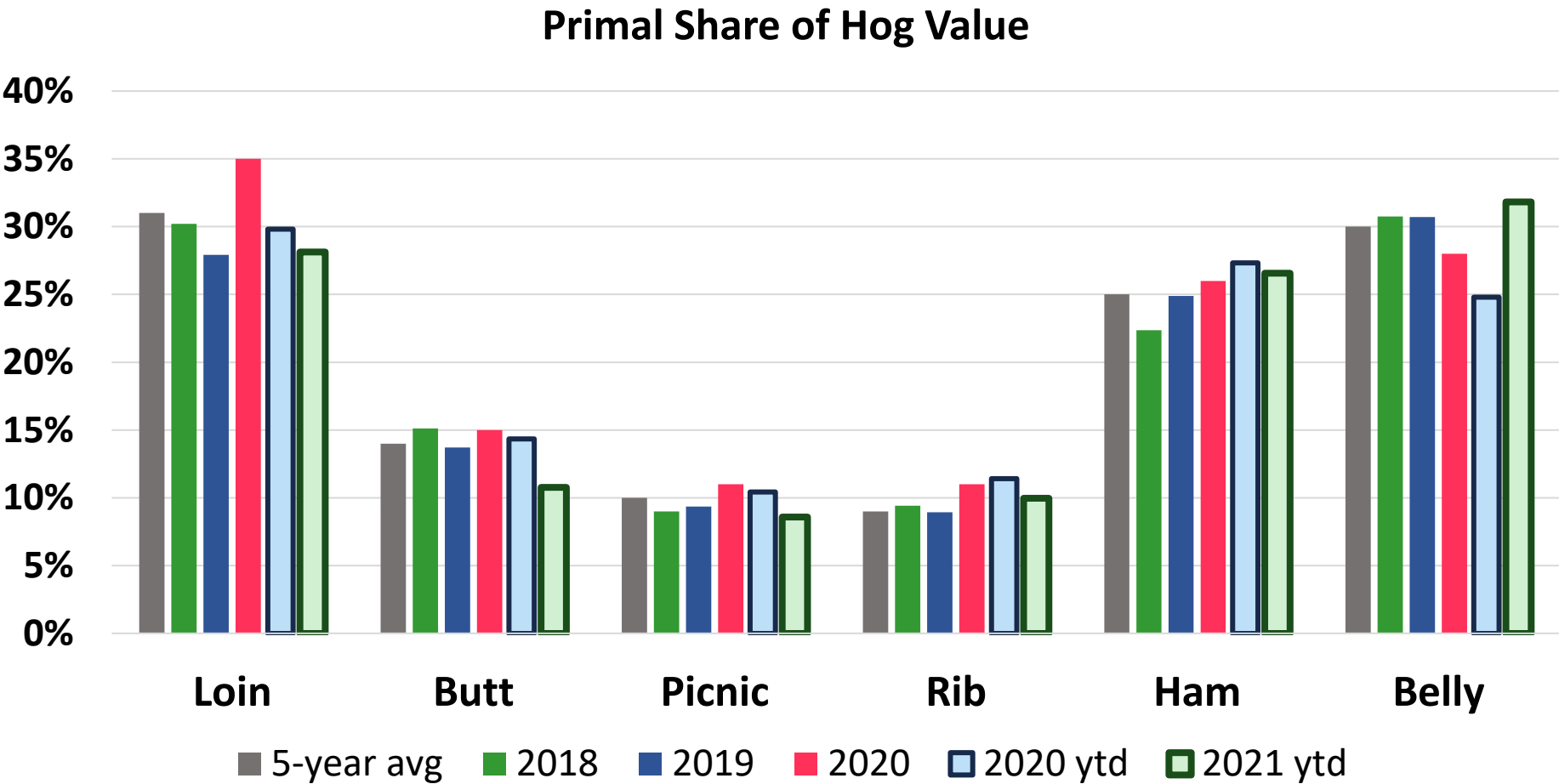
# Bellies, loins, and hams contribute the largest shares to the hog value



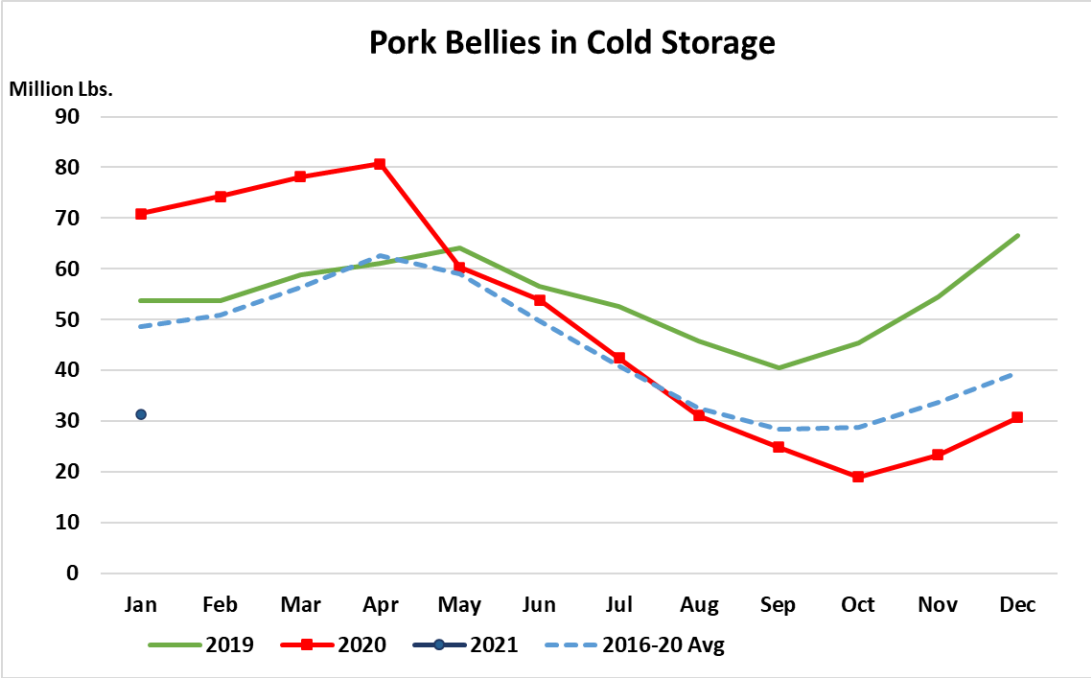
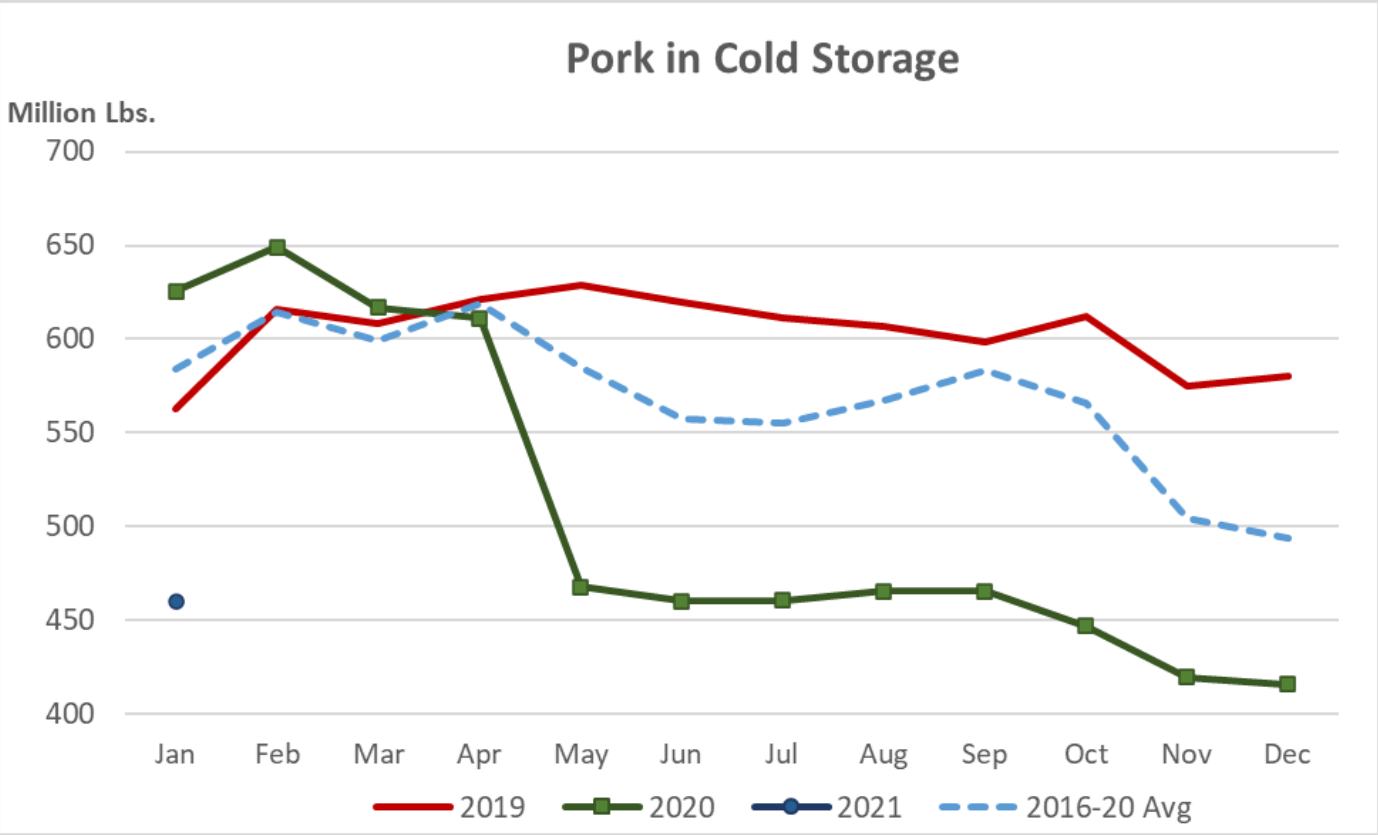
Source: USDA/AMS, USDA/NASS & USMEF



In 2020, there was a notable increase in value coming from the loin primal due to strong retail demand and larger exports, with more moderate increases for the picnic, rib, butt, and ham primals; through February 2021, the belly contributed a larger share to hog value



# Pork cold storage stocks were down 22%-25% from the previous 5-year average from May 2020 – January 2021



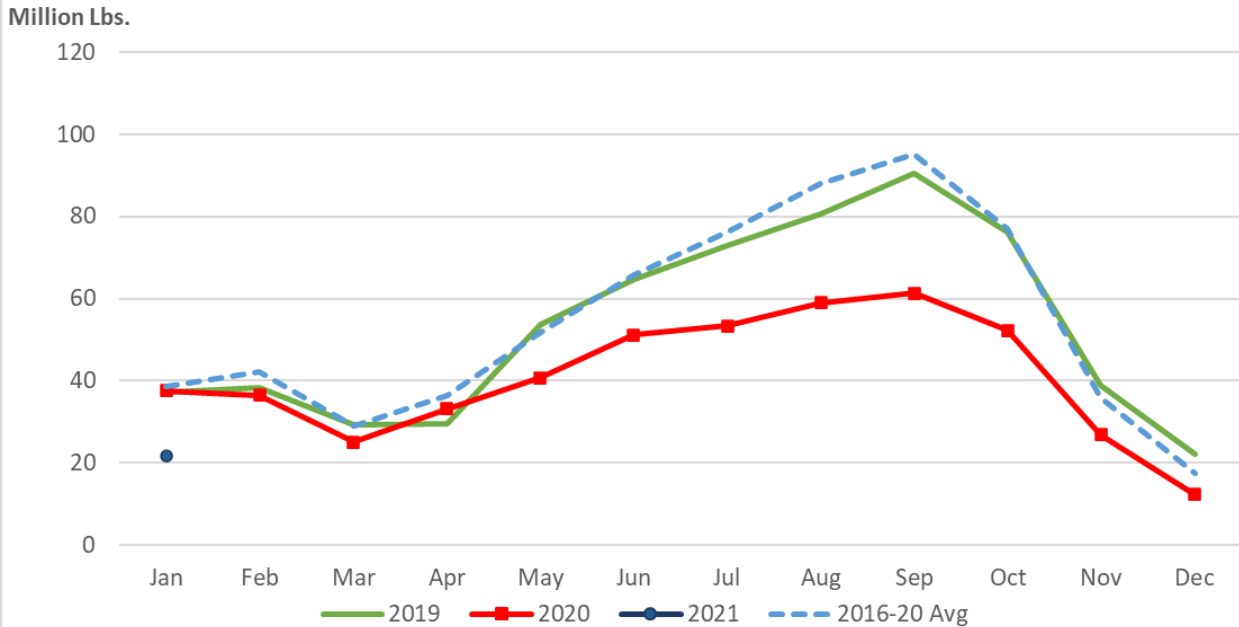
Bellies stocks decreased from May – September (partially seasonal) and decreased again in October as higher belly prices that month led to a drawdown of stocks. Stocks moved seasonally higher in November and December, but at the end of January, stocks were still down 36% from the previous 5-year average on strong demand for bacon at retail and quick service restaurants



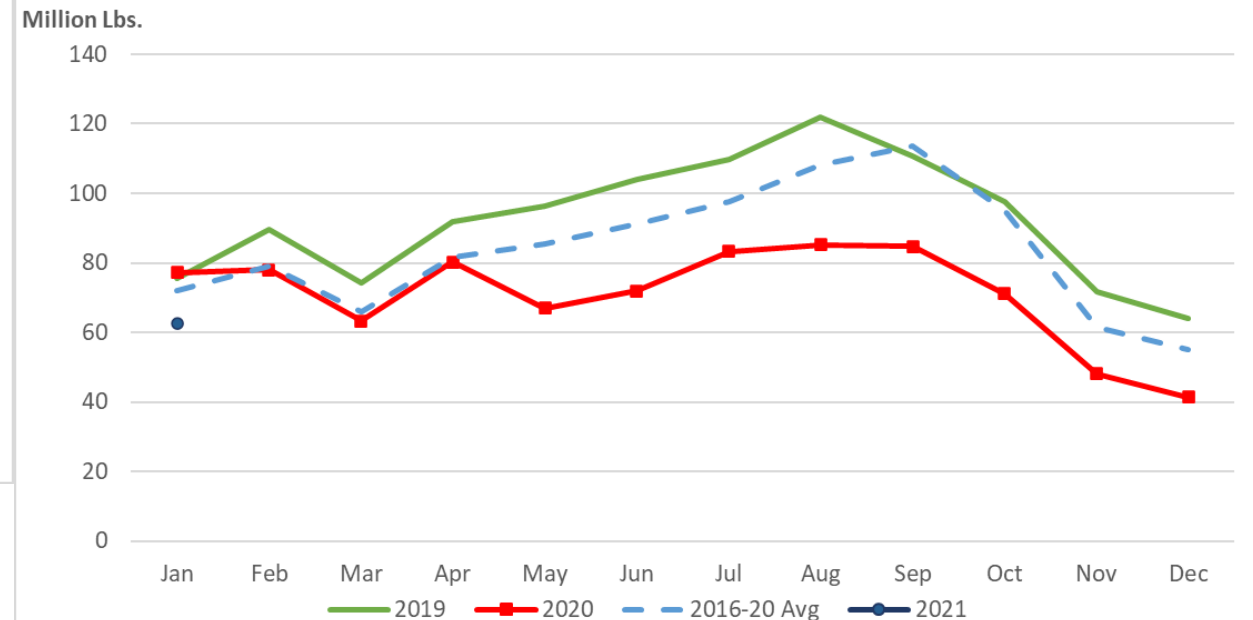


January stocks of bone-in hams were down 43% from the previous 5-year average and boneless hams were down 13%

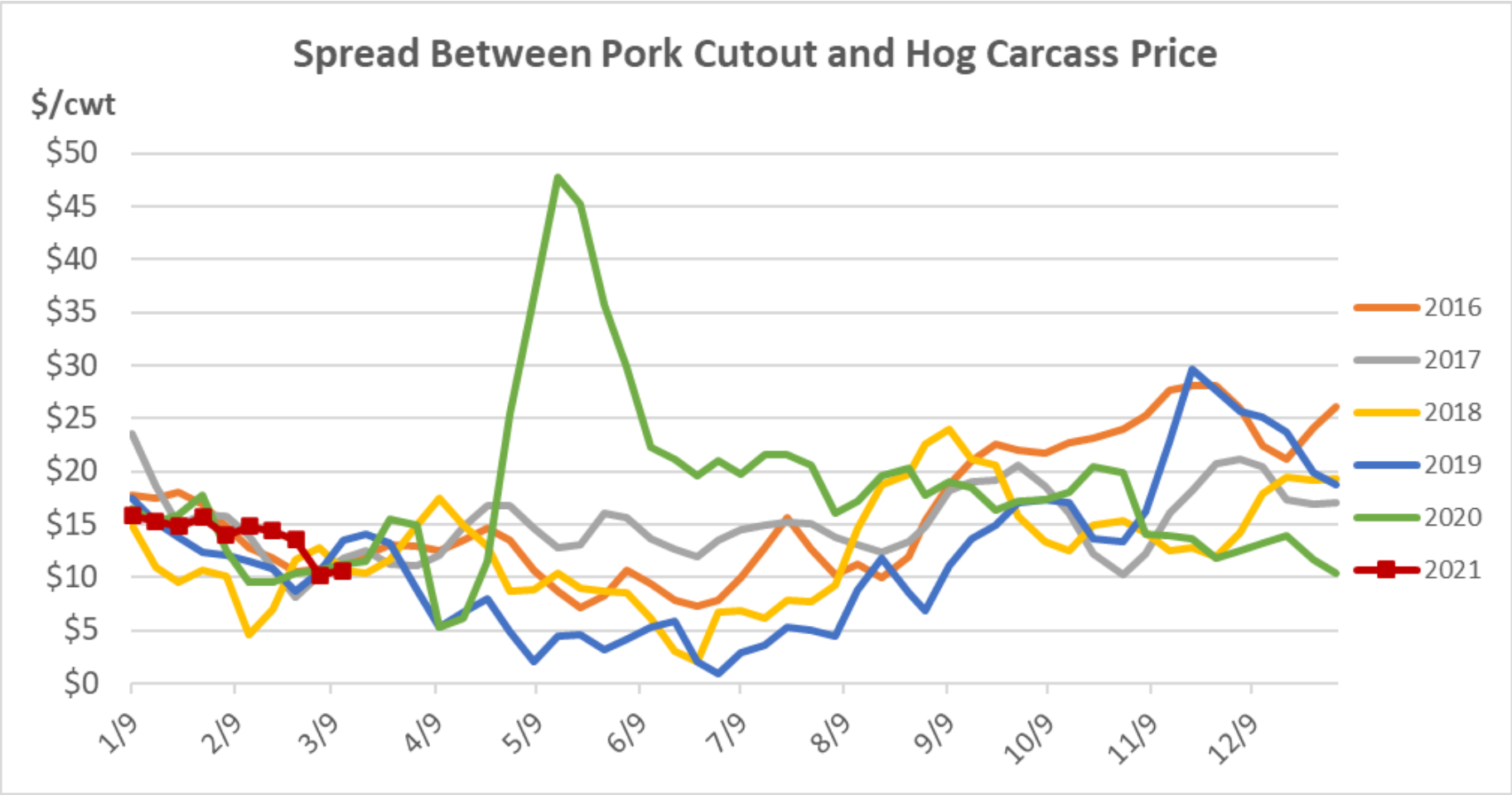
Bone-in Hams in Cold Storage



Boneless Hams in Cold Storage



The spread between hog prices and the cutout widened in April and the first half of May 2020 as plant capacity was constrained by covid-19 related slowdowns but the spread has been tracking similar to year-ago levels since January 2021



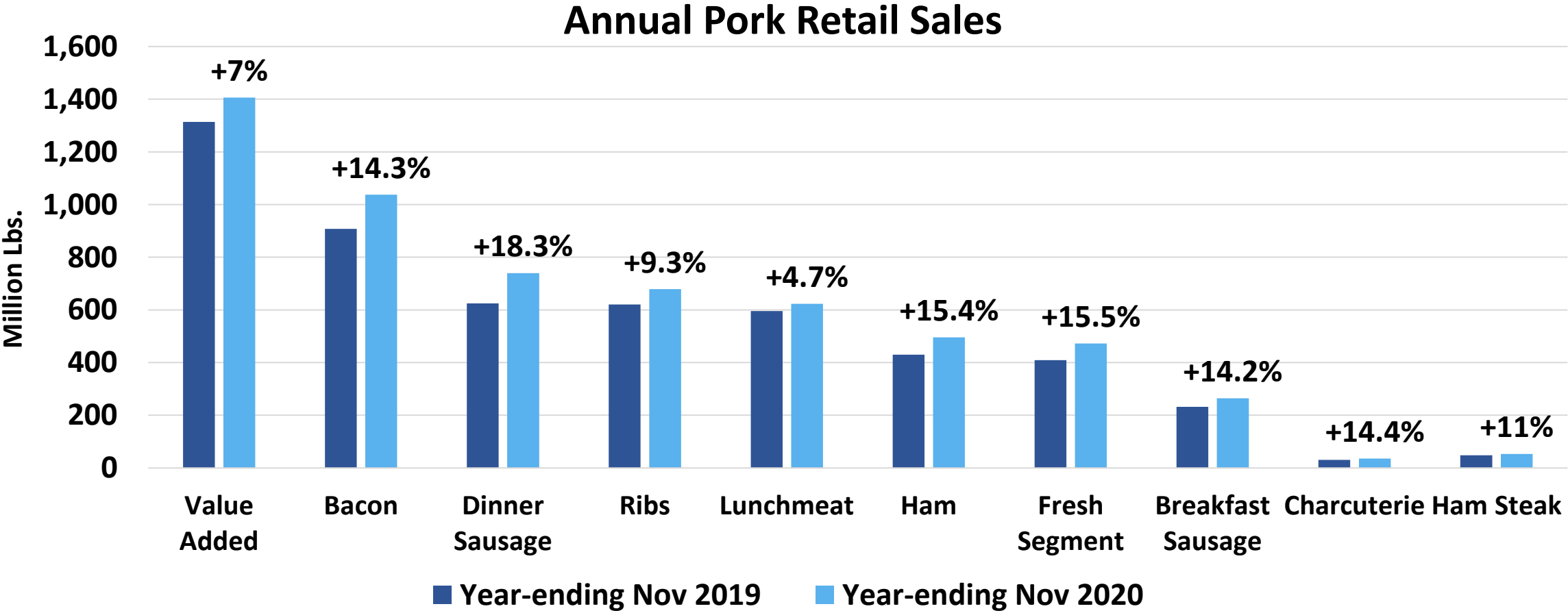


# Processed pork dominates U.S. pork sales at foodservice

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- Nearly 80% of pork sold at foodservice was processed and 21% was fresh in 2018
- Limited-service restaurants accounted for 58% of pork volume sold at foodservice in 2018, and full-service restaurants accounted for 23%
- Limited-service restaurants accounted for about 70% of the processed pork volume at foodservice, while full-service restaurants accounted for about 60% of fresh pork
- The top pork items sold at foodservice by volume in 2018:
  - Bacon – 32.3% of total volume
  - Breakfast sausage -11.9%
  - Ham – 9.8%
  - Ribs – 8.7%
  - Shoulders – 7.2%
- 74% of bacon volume sold at foodservice was sold through limited-service restaurants

# Total pork retail sales up 16% for the year-ending November 2020



Source: NPB; value added, ribs, and fresh segment are all fresh pork categories

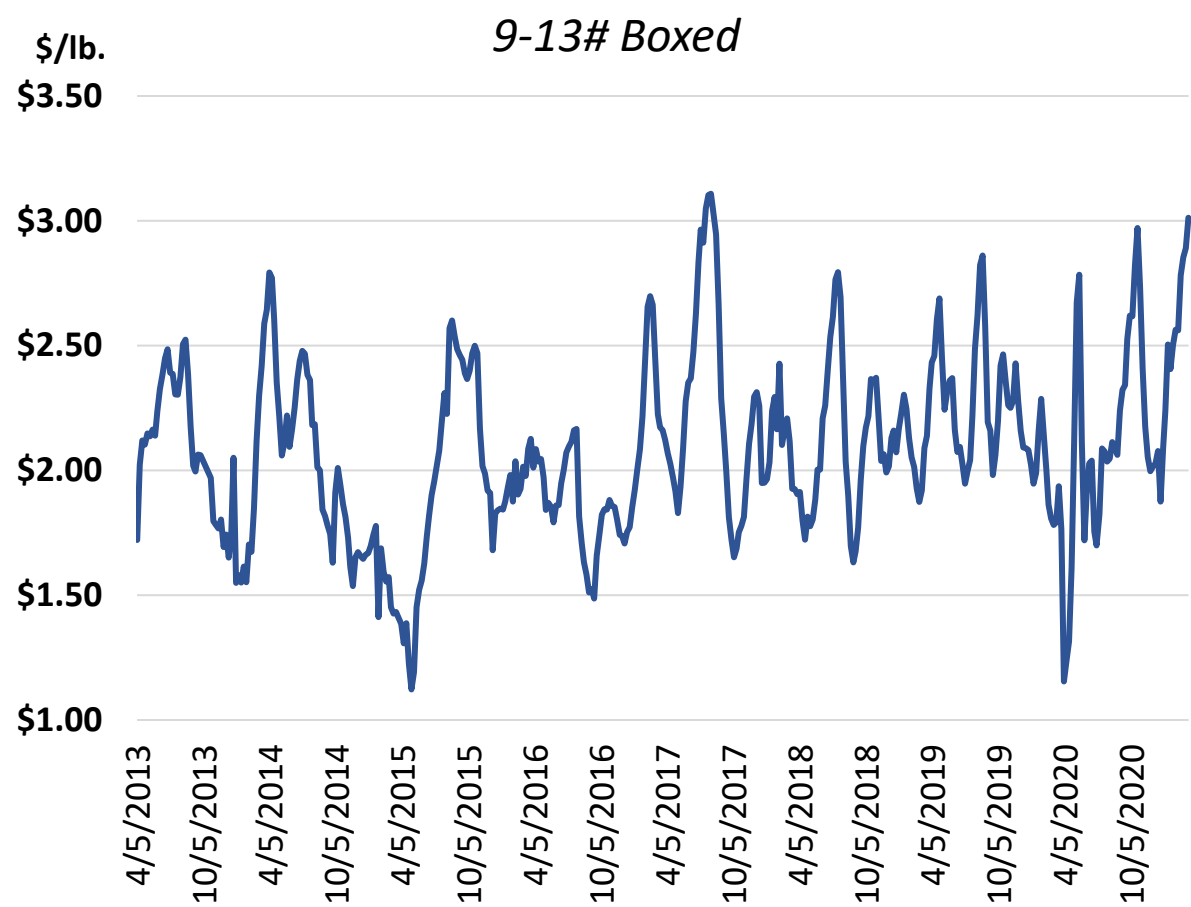


U.S. wholesale belly prices spiked in October and neared the 2017 highs, and December and January retail prices were at the highest level since June 2019 (there is about a six-week lag between changes in wholesale and retail prices); wholesale belly prices have been increasing again since January and reached the highest level since 2017 at over \$3.00/lb. in March



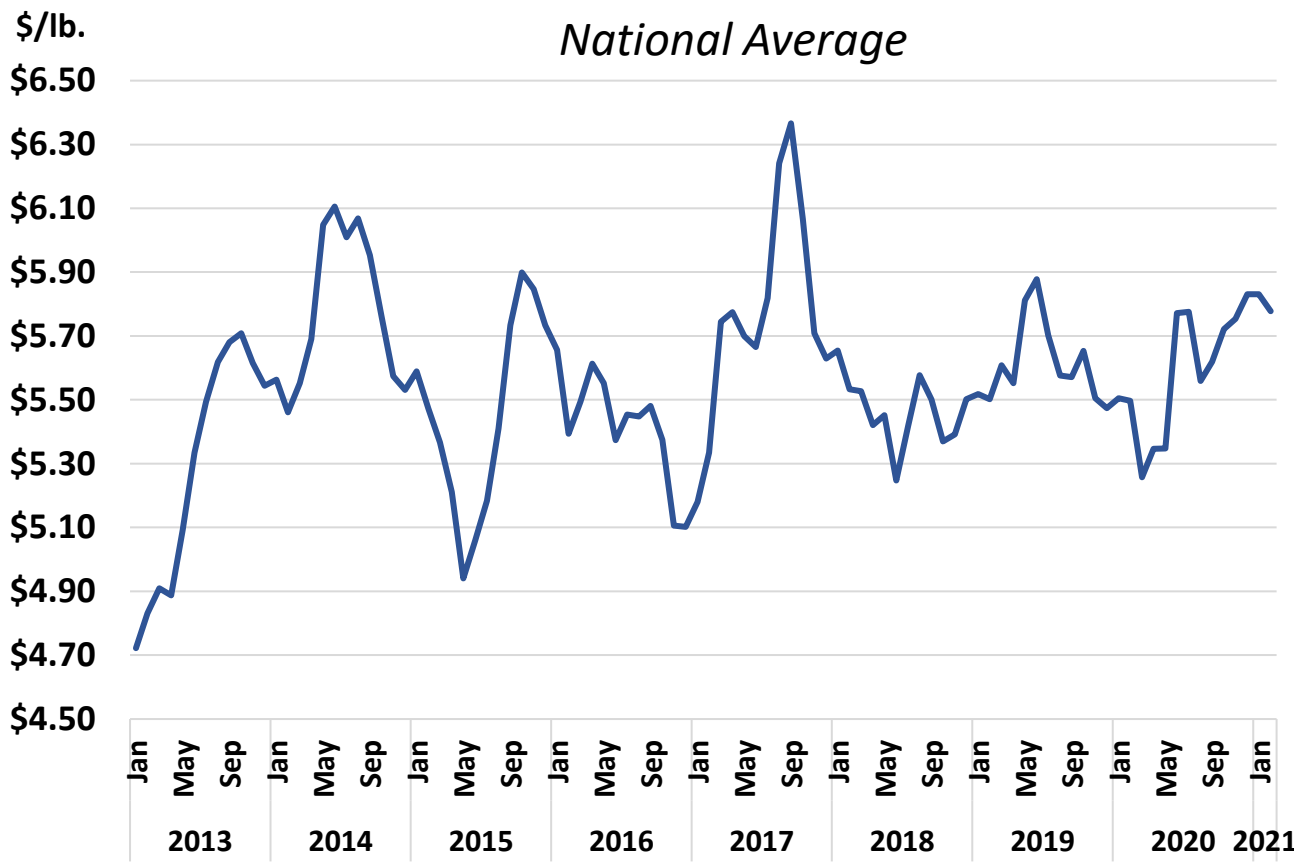
**Derind Belly Wholesale Prices**

*9-13# Boxed*



**Sliced Bacon Retail Price**

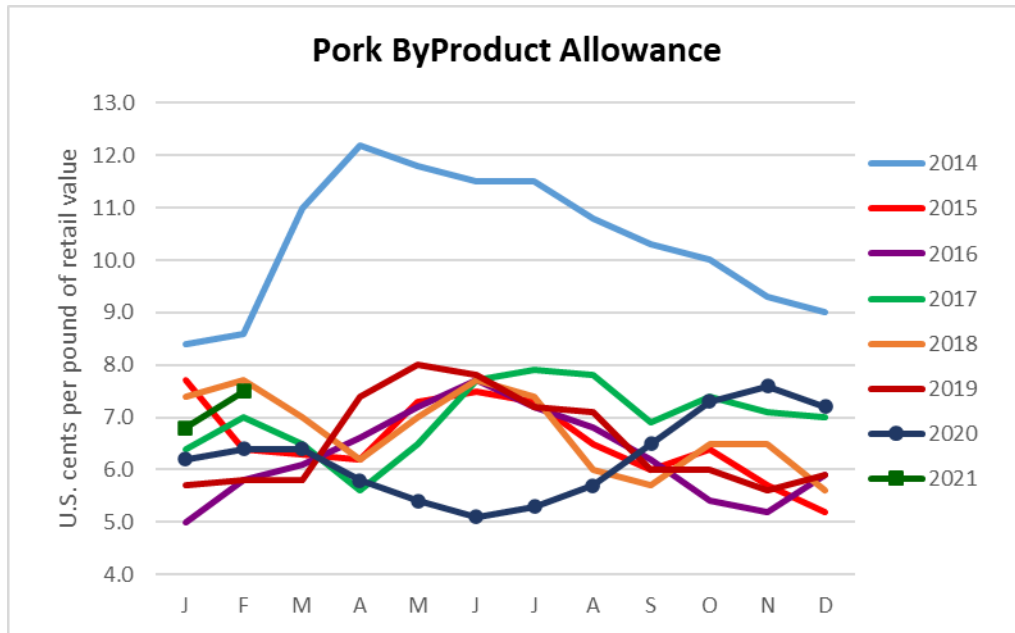
*National Average*



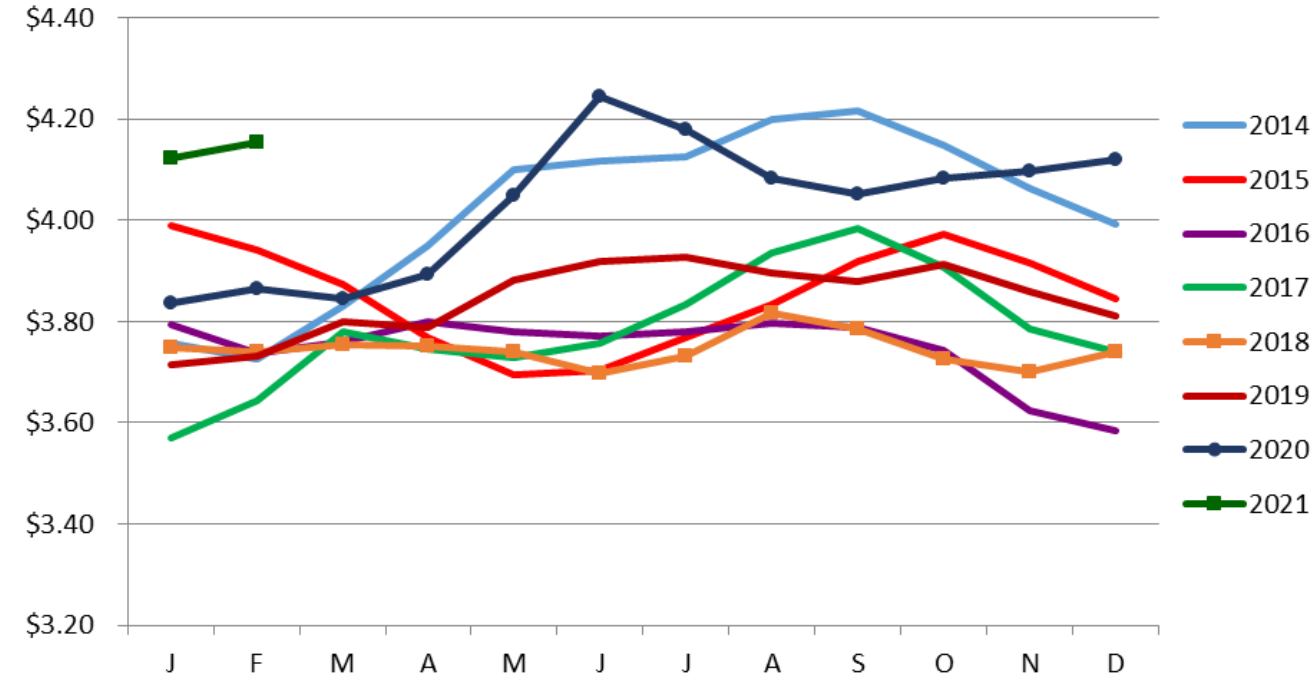
Source: BLS, USDA/AMS; wholesale prices through Mar 12, retail prices through February

# Pork Retail Value

In 2020, retail pork prices eased from the June record high from July through September, but then moved higher from October to December. 2020 annual pork retail prices averaged up 5% from 2019 at \$4.03/lb. In February 2021, pork retail prices were up 1% from the previous month at \$4.15/lb., up 7% year-over-year.



**U.S. Pork Retail Values, \$/lb.**



In 2020, the annual byproduct allowance averaged 4% lower than 2019 at 6.2 cents/lb. In February 2021, the pork byproduct allowance averaged 7.5 cents/lb., up 10% from the previous month and up 17% year-over-year.





# Beef Slides



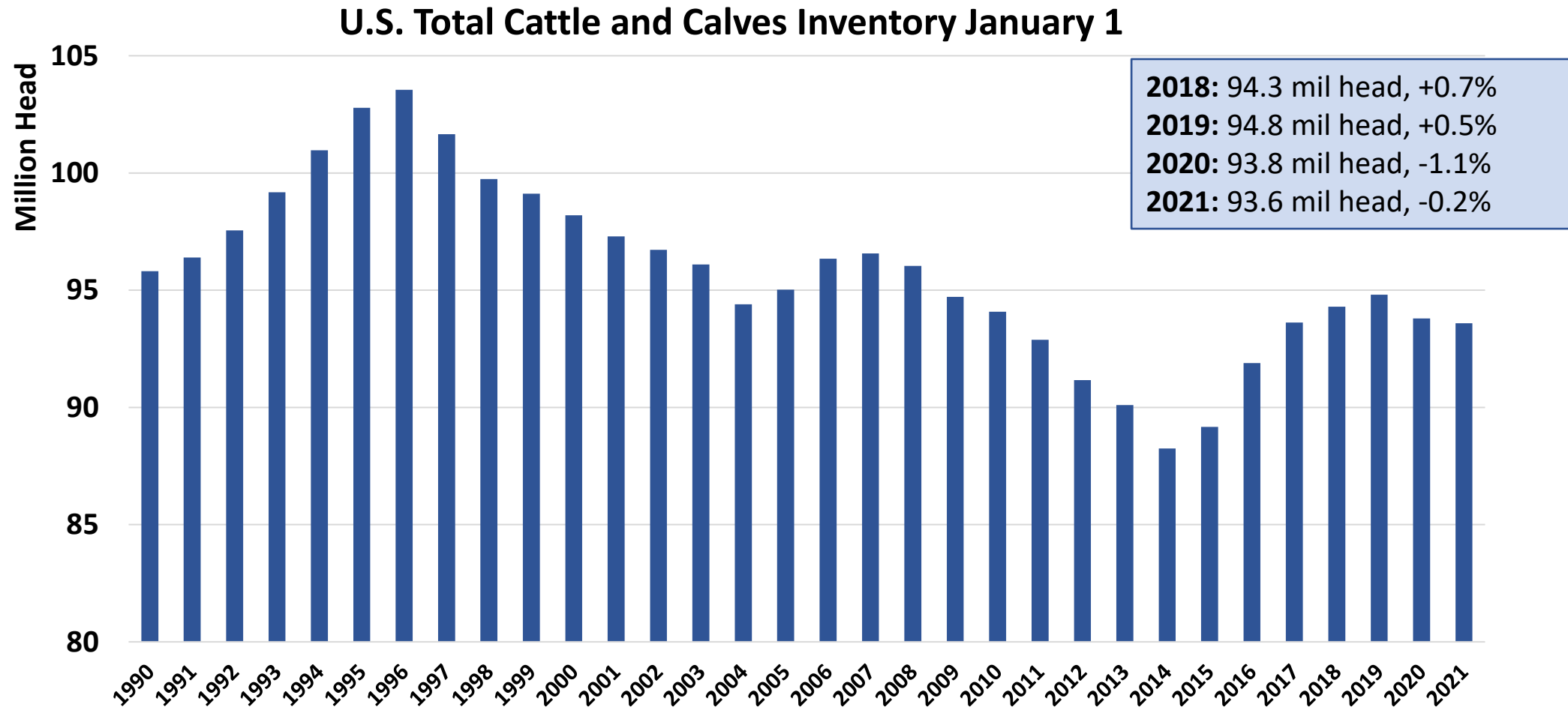
# January Cattle Inventory Report

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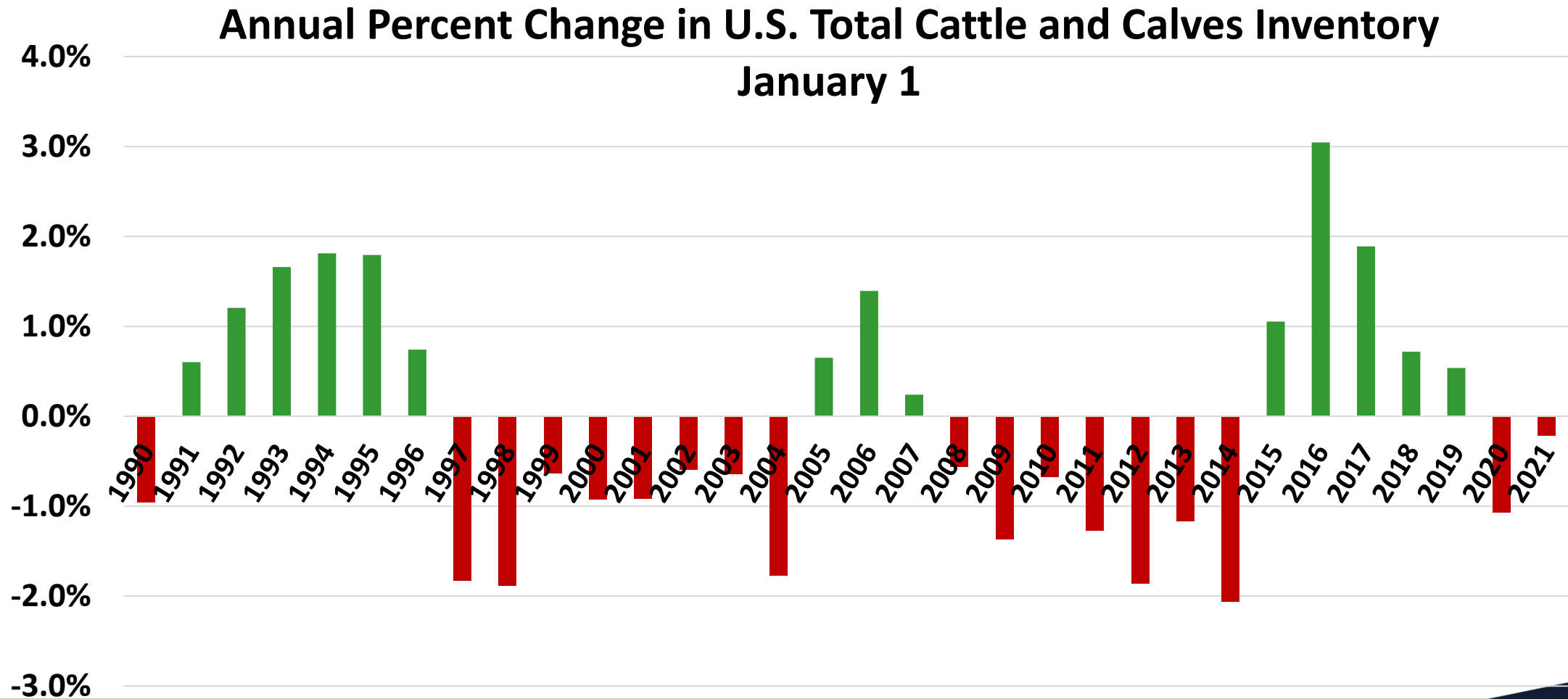
- All cattle and calves in the United States as of January 1, 2020 totaled **93.6 million head, down 0.2%** from Jan 1, 2020
- All cows and heifers that have calved, at 40.6 million head, were down slightly from the 40.7 million on Jan 1, 2020
  - **Beef cows, 31.2 million head, down 0.6%**
  - Milk cows, 9.44 million head, up 1%
- All heifers 500 pounds and over, 20 million head, down slightly
  - **Beef replacement heifers, 5.81 million, up 0.1%**
- **Cattle on feed in all feedlots, 14.7 million, up 0.3%**
- Calves under 500 pounds and other heifers and steers over 500 pounds outside feedlots (to be placed on feed in the future) **25.7 mil head, down 0.2%**
- 2020 calf crop **35.1 mil head, down 1.3%**



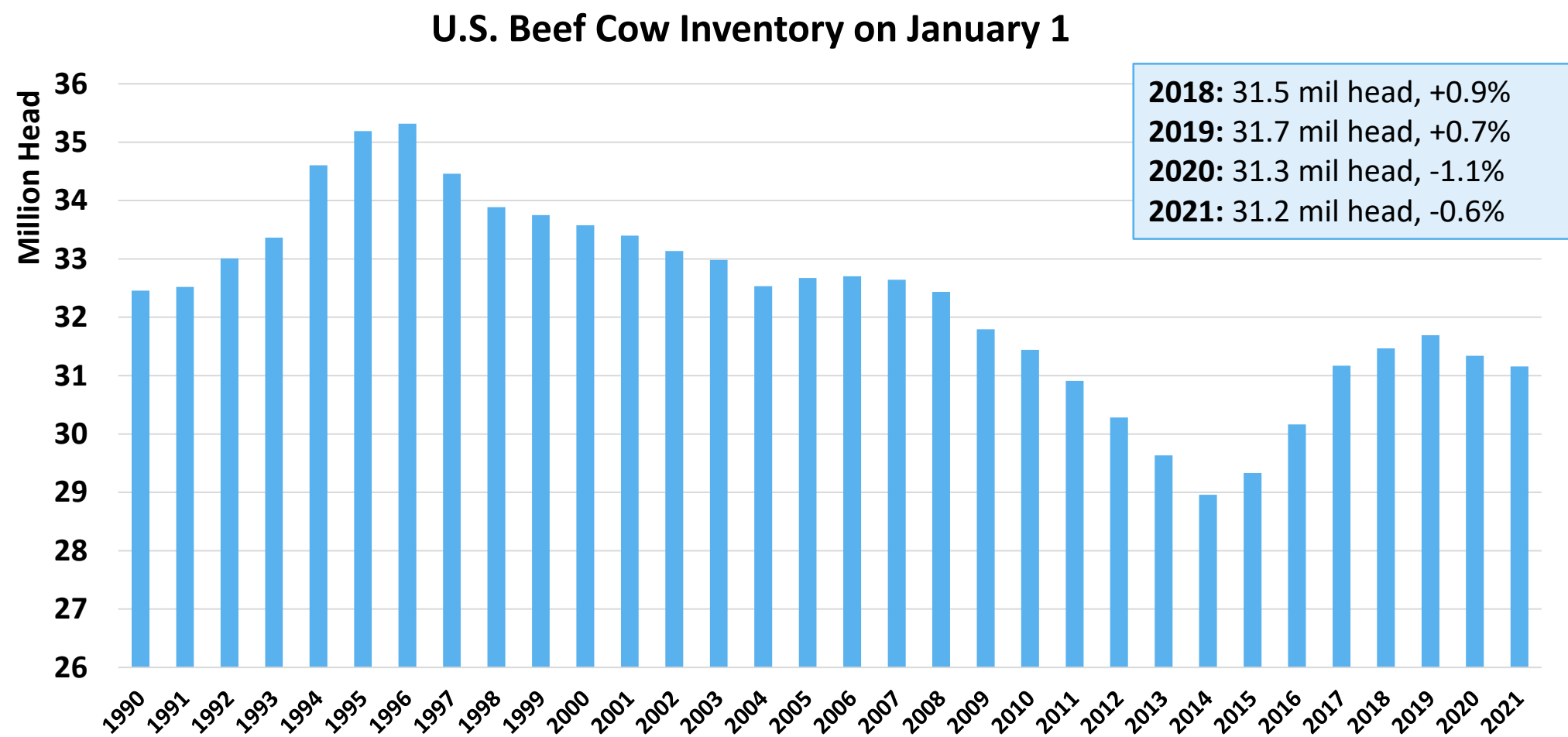
# U.S. cattle inventory contracts slightly for the second year in 2021



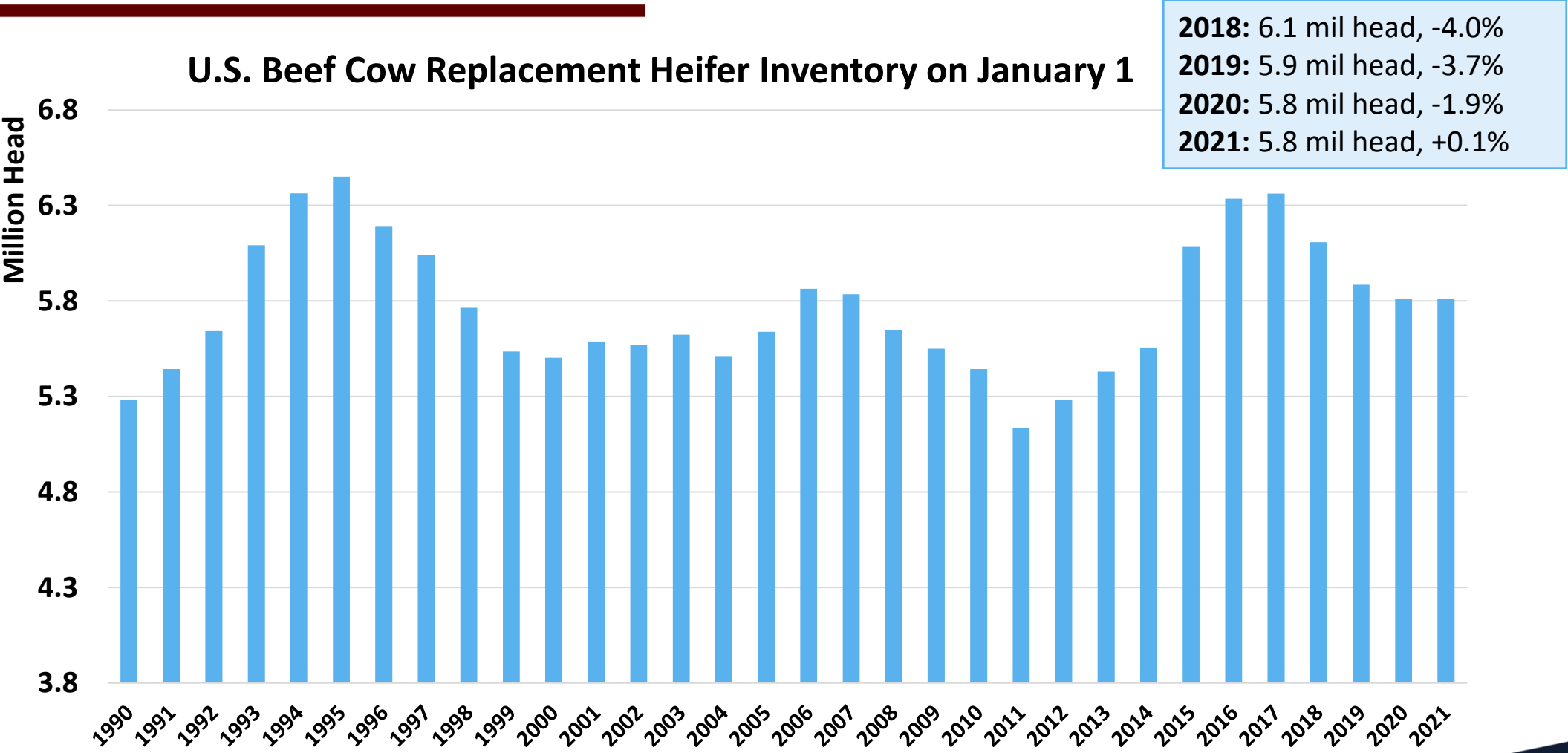
# U.S. cattle inventory contraction in 2020 and 2021 is very moderate



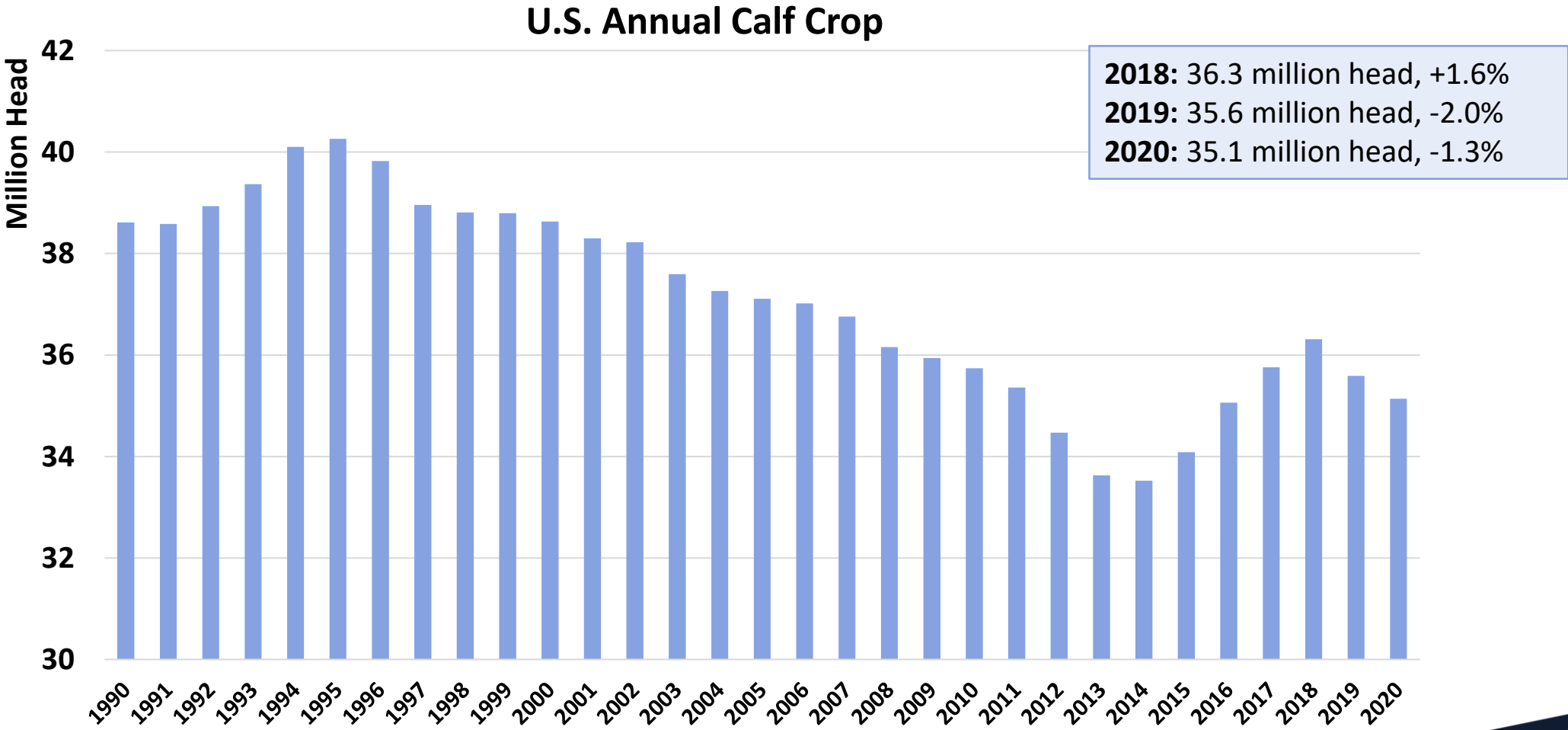
# Smaller beef cow inventories



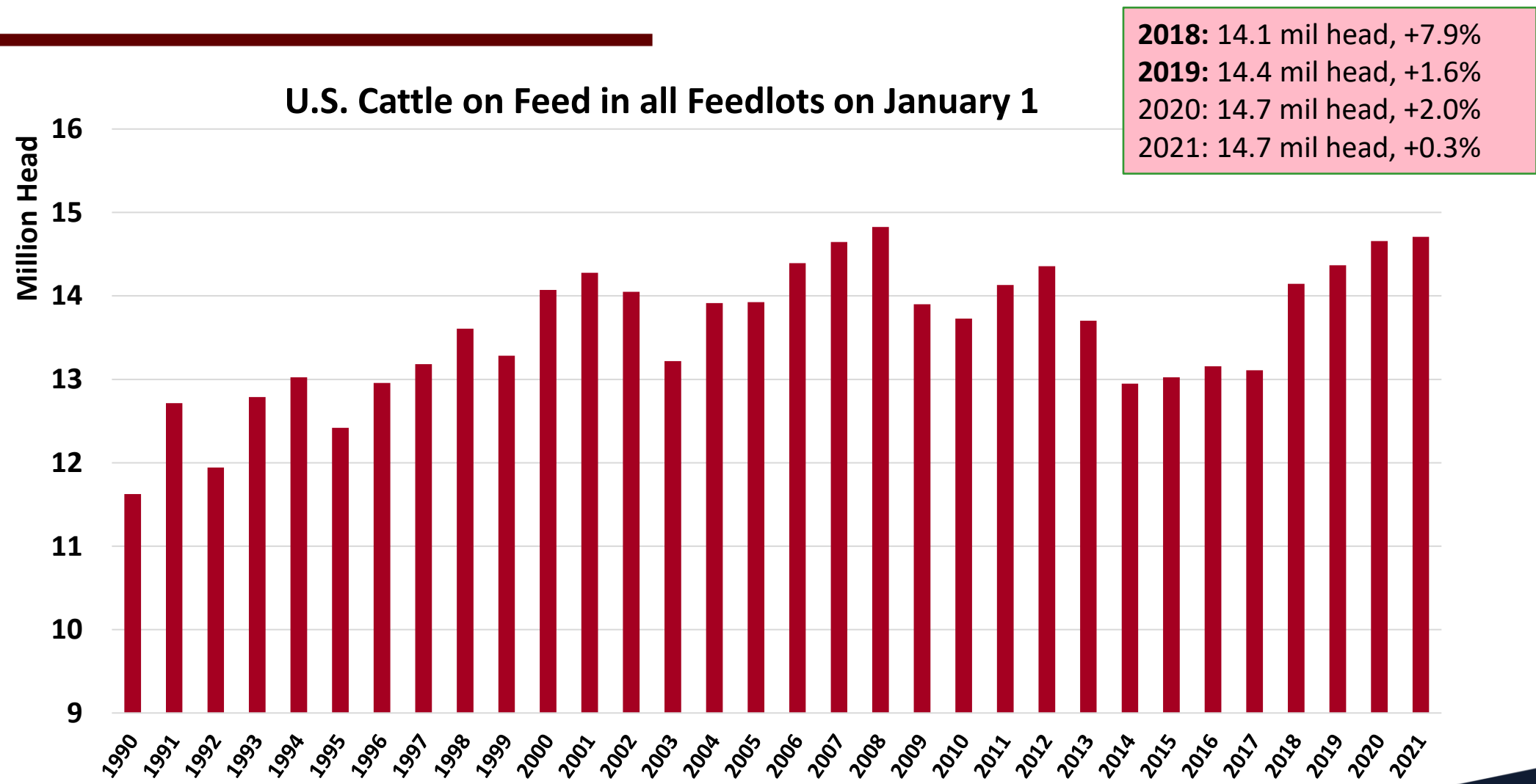
# Beef cow replacements stabilized in 2021



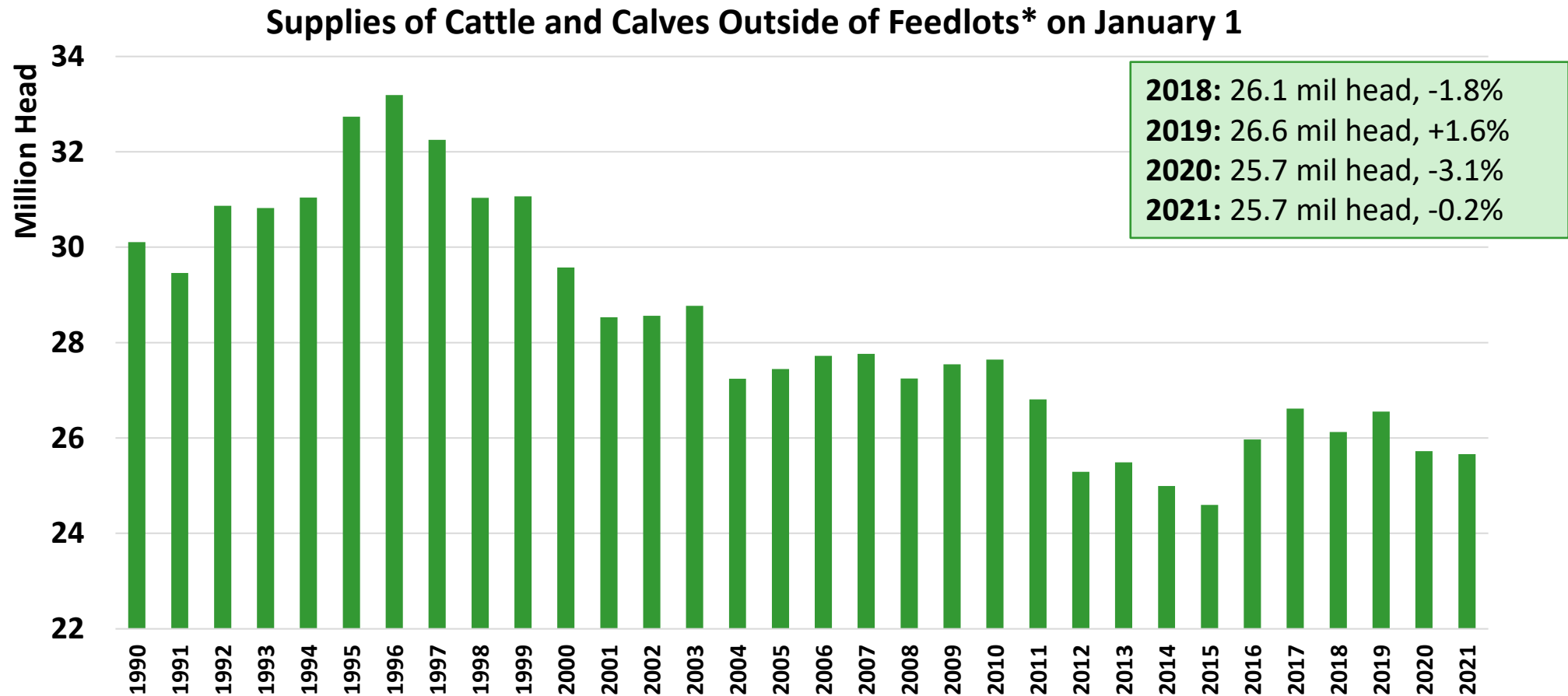
# 2020 calf crop down slightly



# Cattle on feed in all feedlots up slightly in January

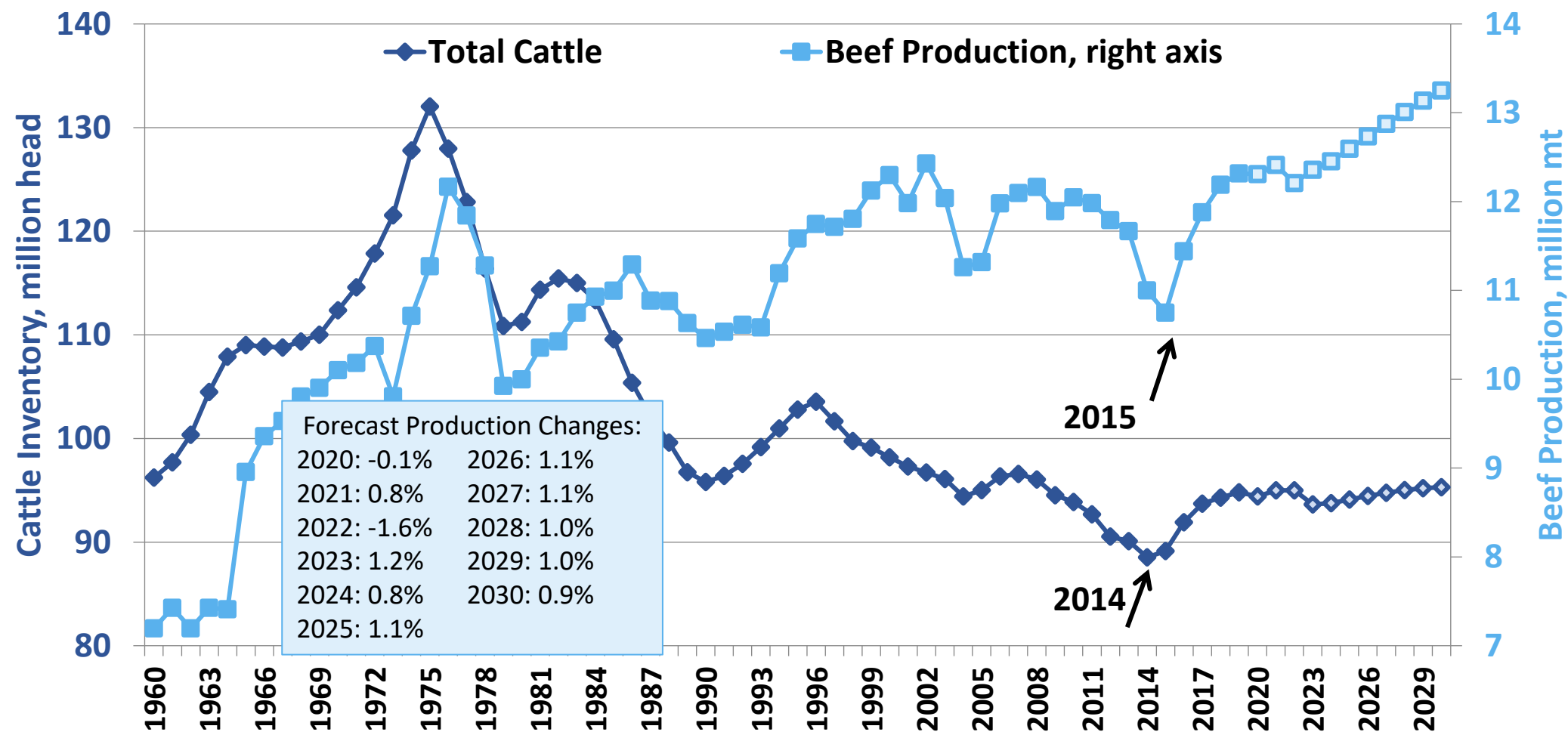


# Slightly smaller supplies to still enter feedlots



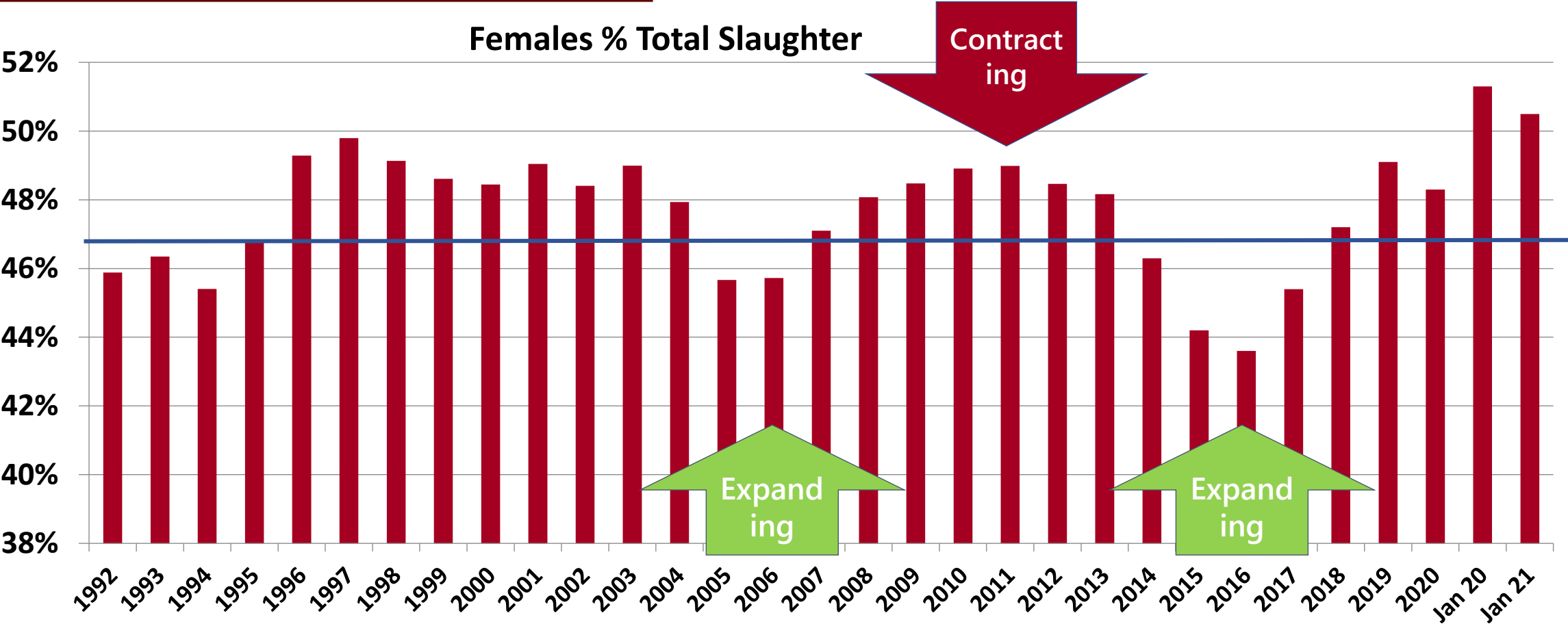
\*Combined total of calves under 500 lbs. and other heifers and steers over 500 lbs. (outside of feedlots)

# U.S. Cattle Inventory & Beef Production



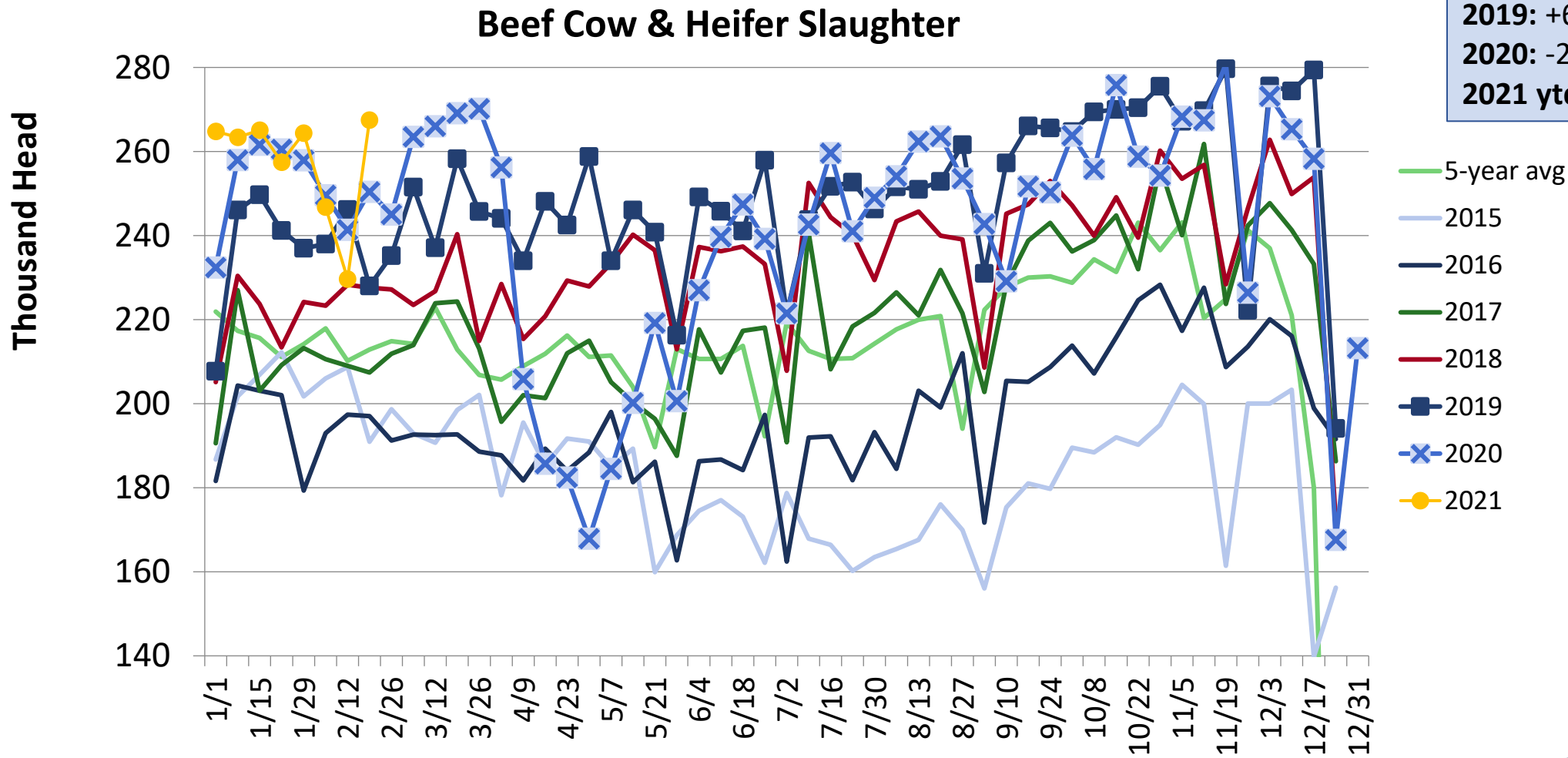


The larger percentage of females slaughtered in 2019 and 2020 indicates that expansion in the cattle herd has stopped, but the percentage of females in total slaughter in 2020 and January 2021 was lower than the previous year



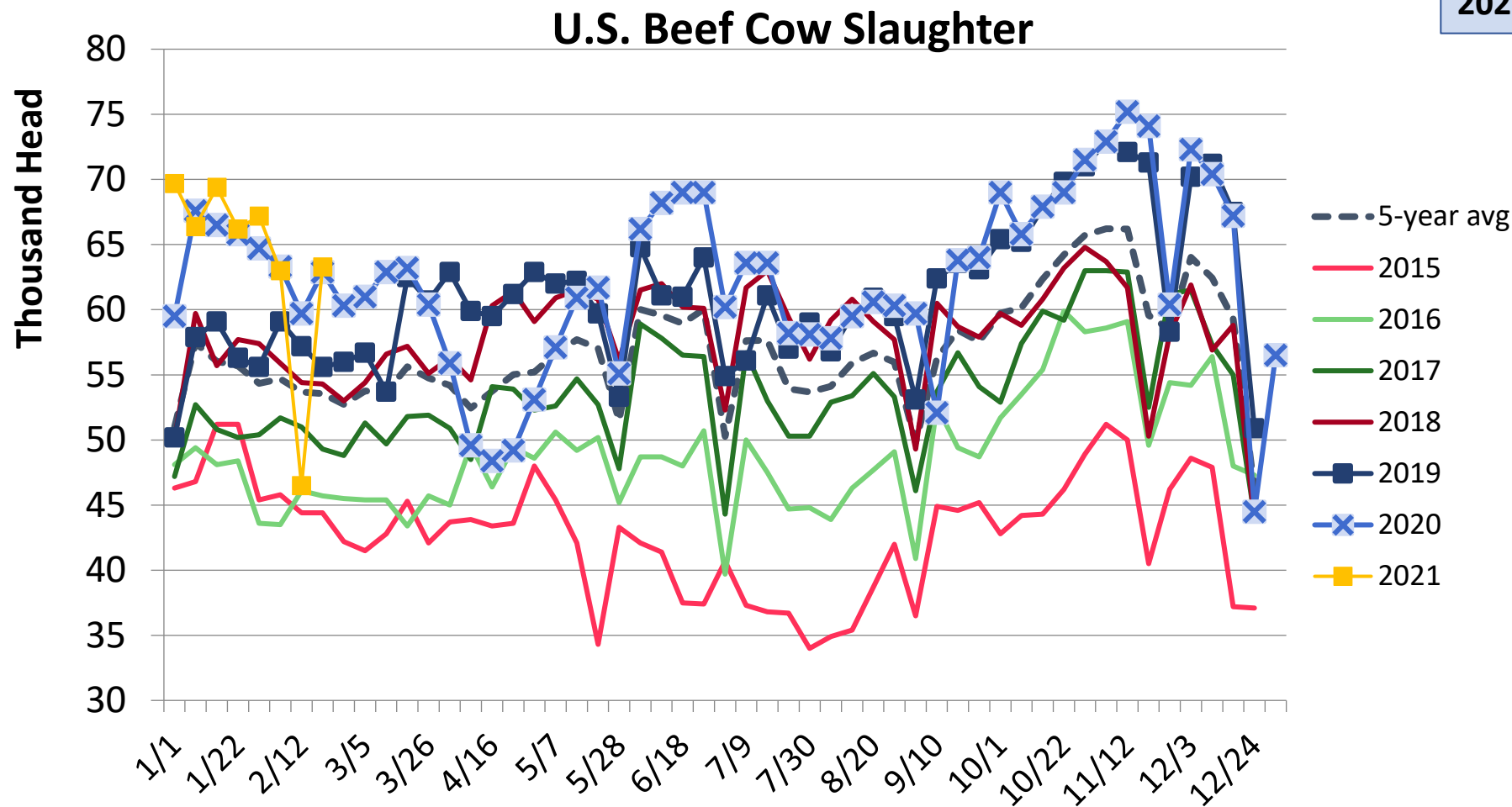
Larger cow slaughter but smaller heifer slaughter in 2020 as the herd stabilized;  
Heifer slaughter up 2.2% and beef cow slaughter up slightly year-to-date 2021

2018: +6.5%  
2019: +6.5%  
2020: -2.5%  
2021 ytd: +1.7%



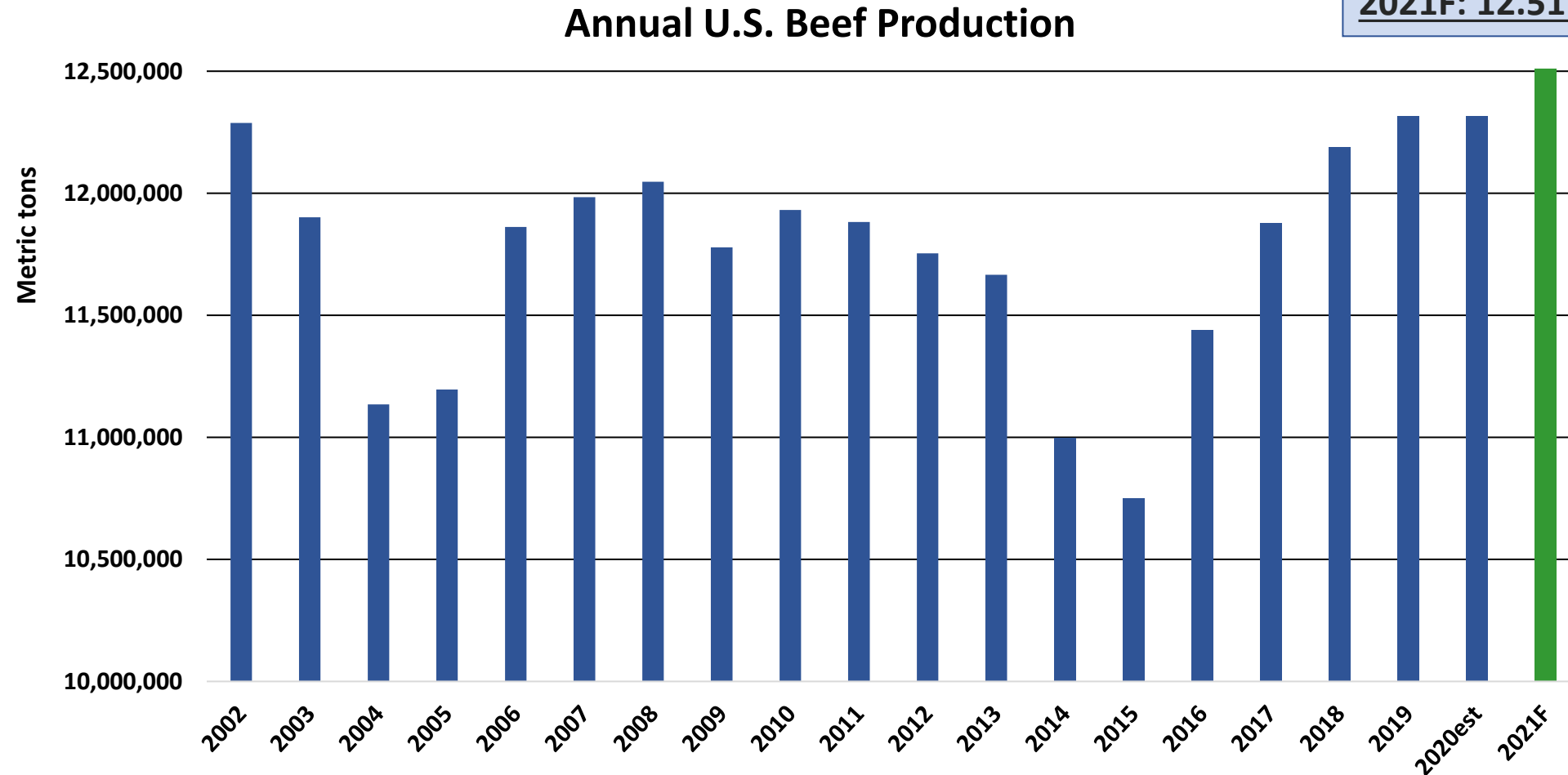
U.S. beef cow slaughter was up 2.1% in 2020 and is slightly higher year-over-year through February 2021

2018: +8%  
2019: +5.4%  
2020: +2.1%  
2021ytd: +0.2%

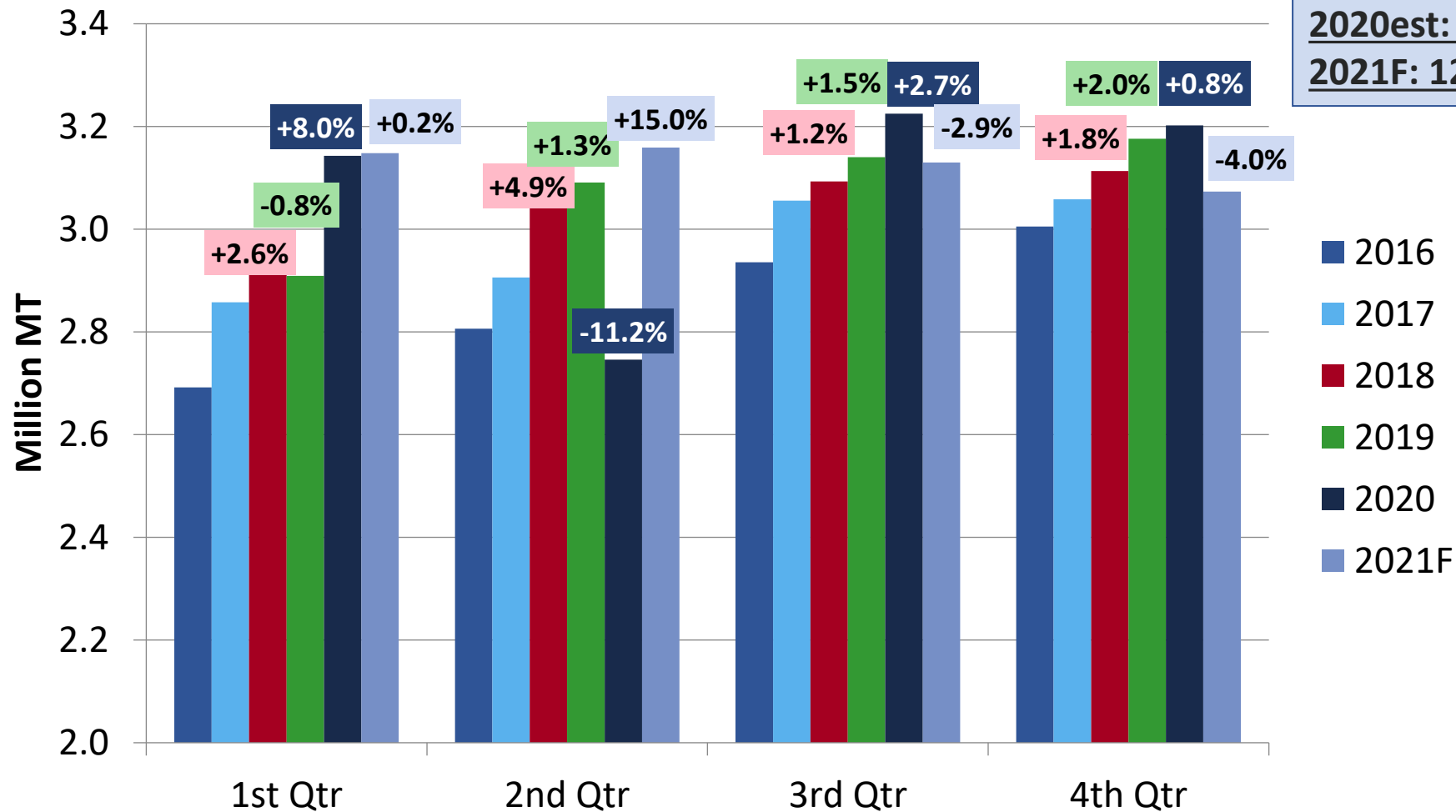


2016: 11.44 MMT, +6.4%  
2017: 11.88 MMT, +3.8%  
2018: 12.19 MMT, +2.6%  
2019: 12.32 MMT, +1.0%  
2020est: 12.32 MMT, +0%  
2021F: 12.51 MMT, +1.6%

# USDA expects 2021 beef production to reach a new record

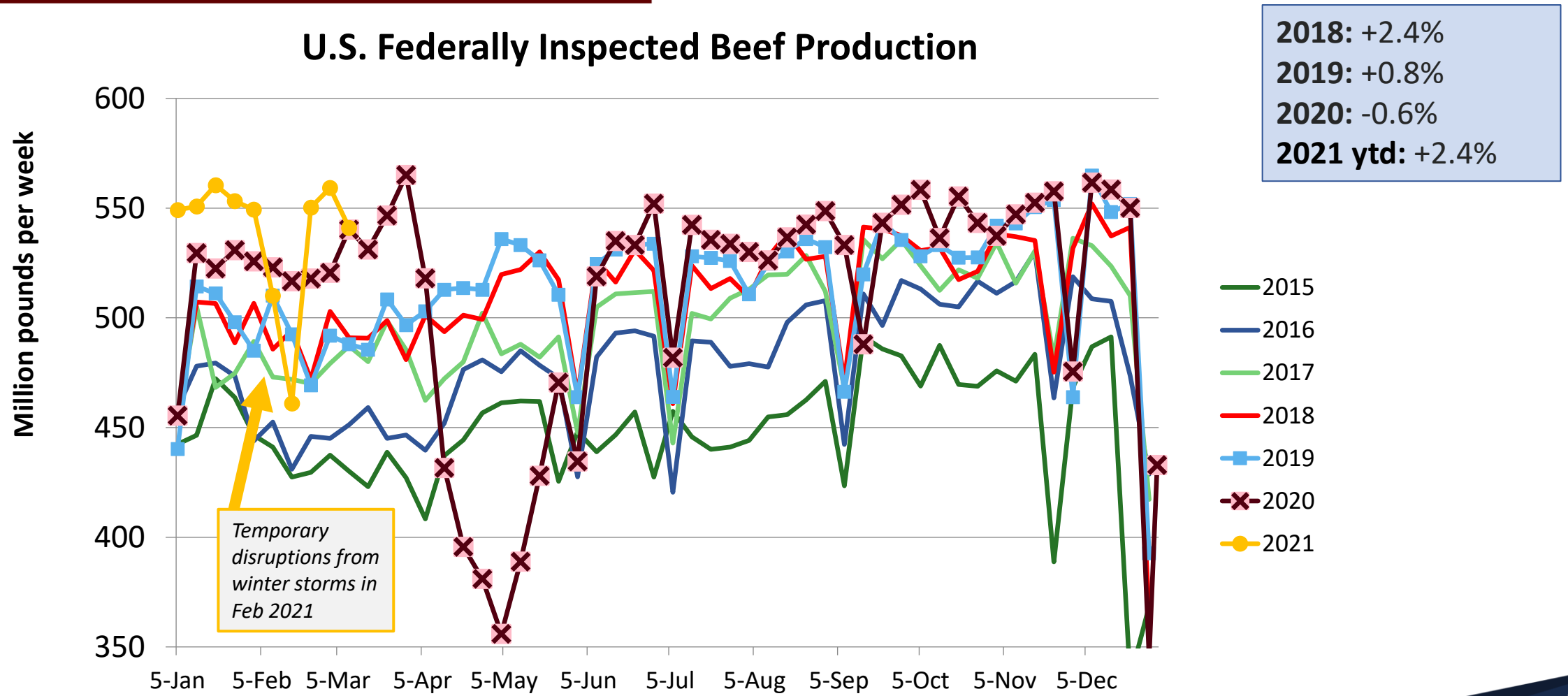


USDA expects relatively stable beef production for each quarter in 2021, but beef production will tighten during the second half of 2021 compared to the two previous years



2016: 11.44 MMT, +6.4%  
2017: 11.88 MMT, +3.8%  
2018: 12.19 MMT, +2.6%  
2019: 12.32 MMT, +1.0%  
2020est: 12.32 MMT, +0%  
2021F: 12.51 MMT, +1.6%

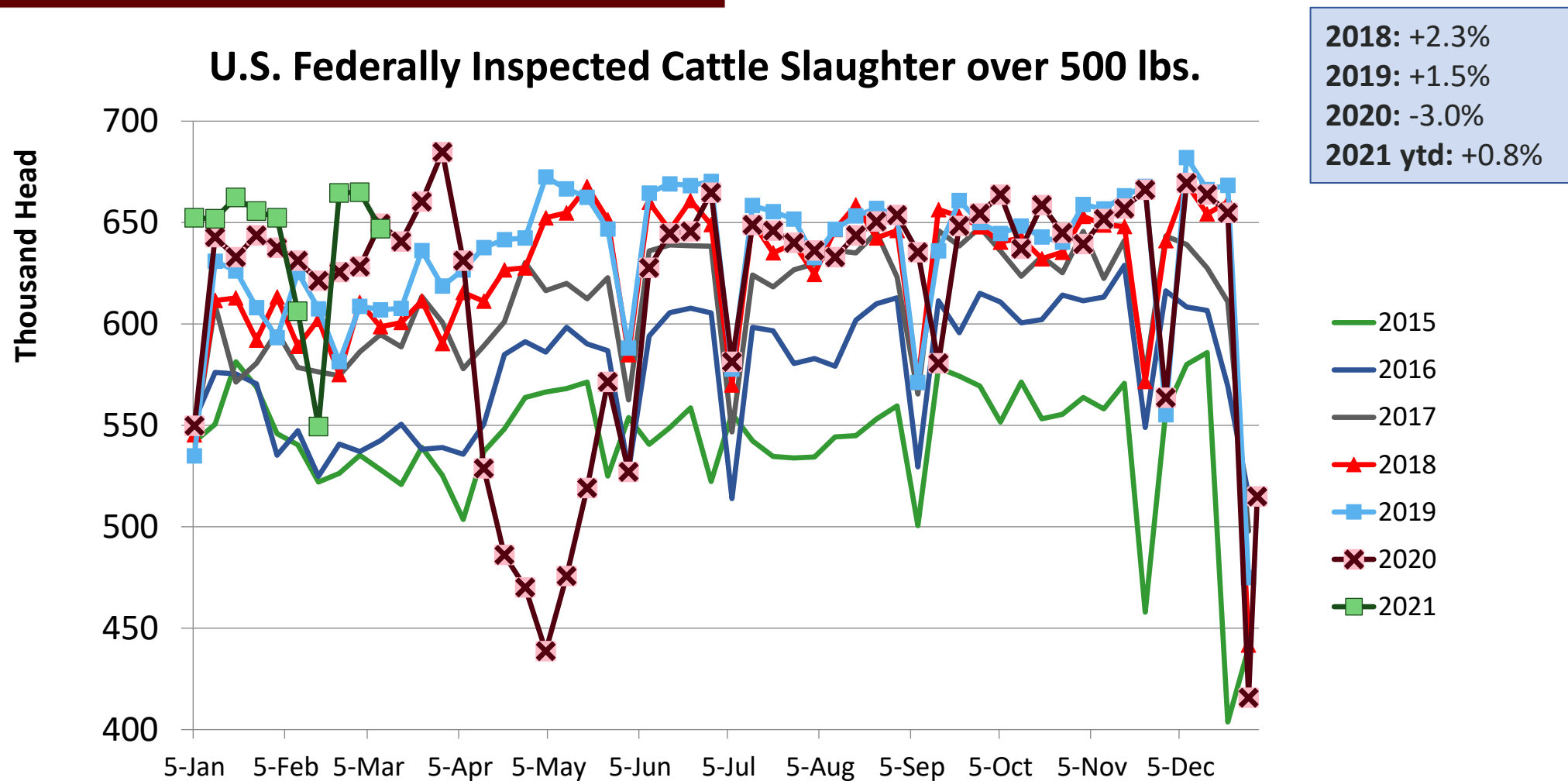
# Total U.S Beef Production – Through mid-March production is up 2.4% year-over-year (when starting the comparison with the first full week of slaughter in January)



Source: USDA/NASS and USDA/AMS, includes fed and non-fed U.S. beef production, last two data points are preliminary estimates



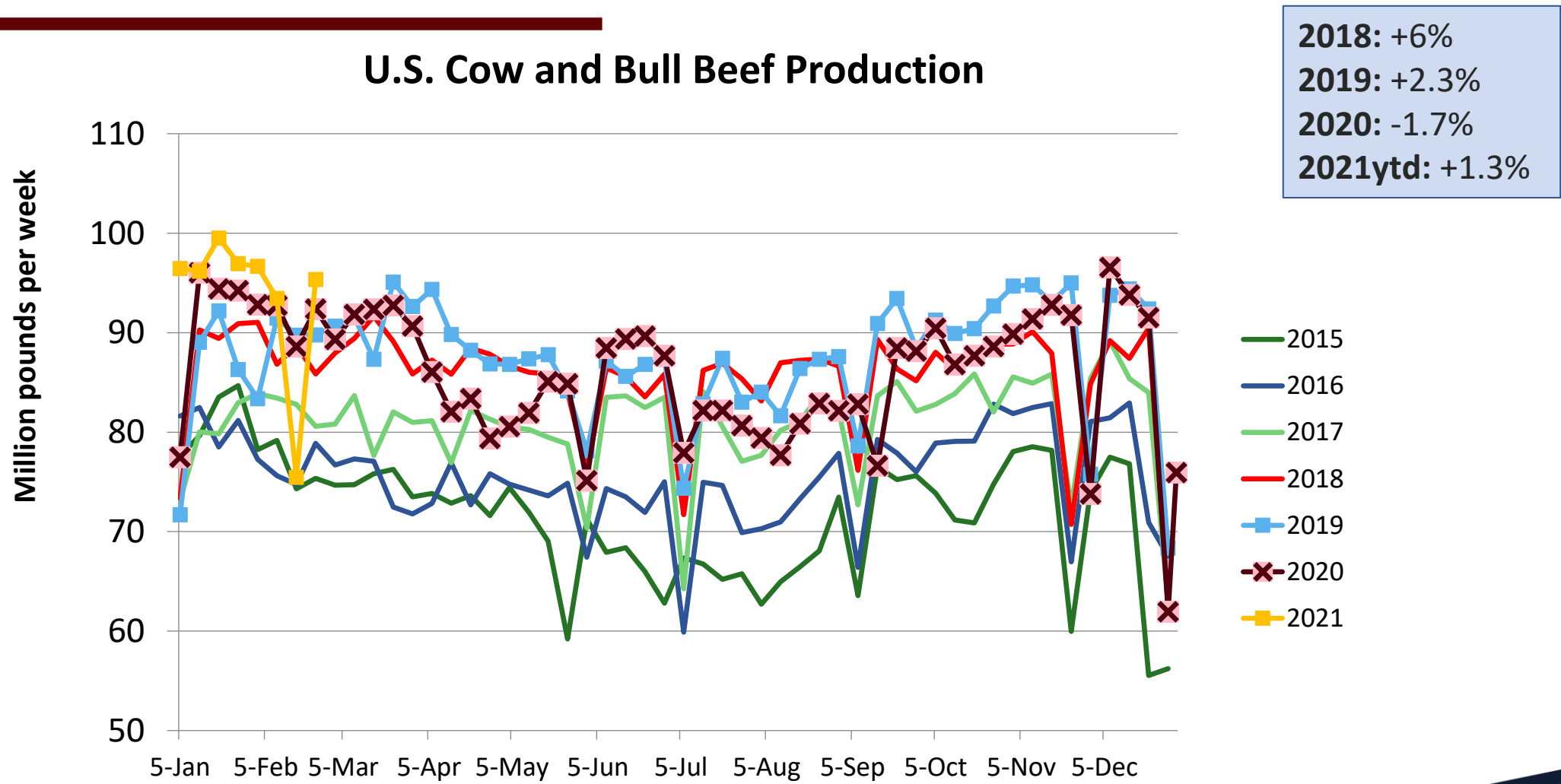
# U.S. Cattle Slaughter



Source: USDA/NASS and USDA/AMS, last two data points are preliminary estimates



U.S. non-fed beef production was lower in 2020 as higher beef cow slaughter was offset by lower dairy cow slaughter (-5%); but non-fed beef production is higher through February 2021 on higher dairy cow slaughter and heavier weights for beef and dairy cows

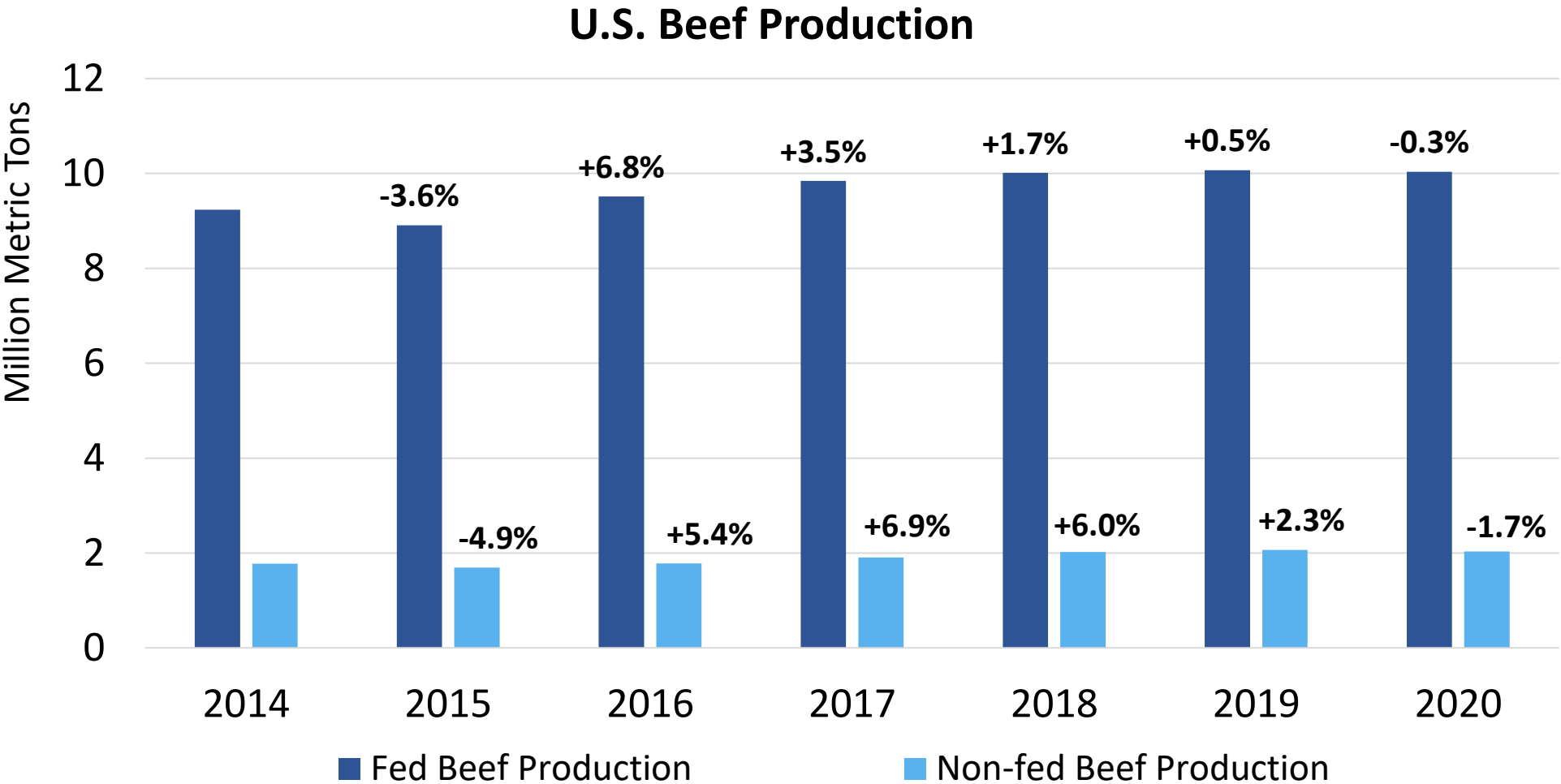


Source: USDA/NASS, includes beef production from beef cows, dairy cows, and bulls





# Fed beef production accounts for 83% of total U.S. beef production

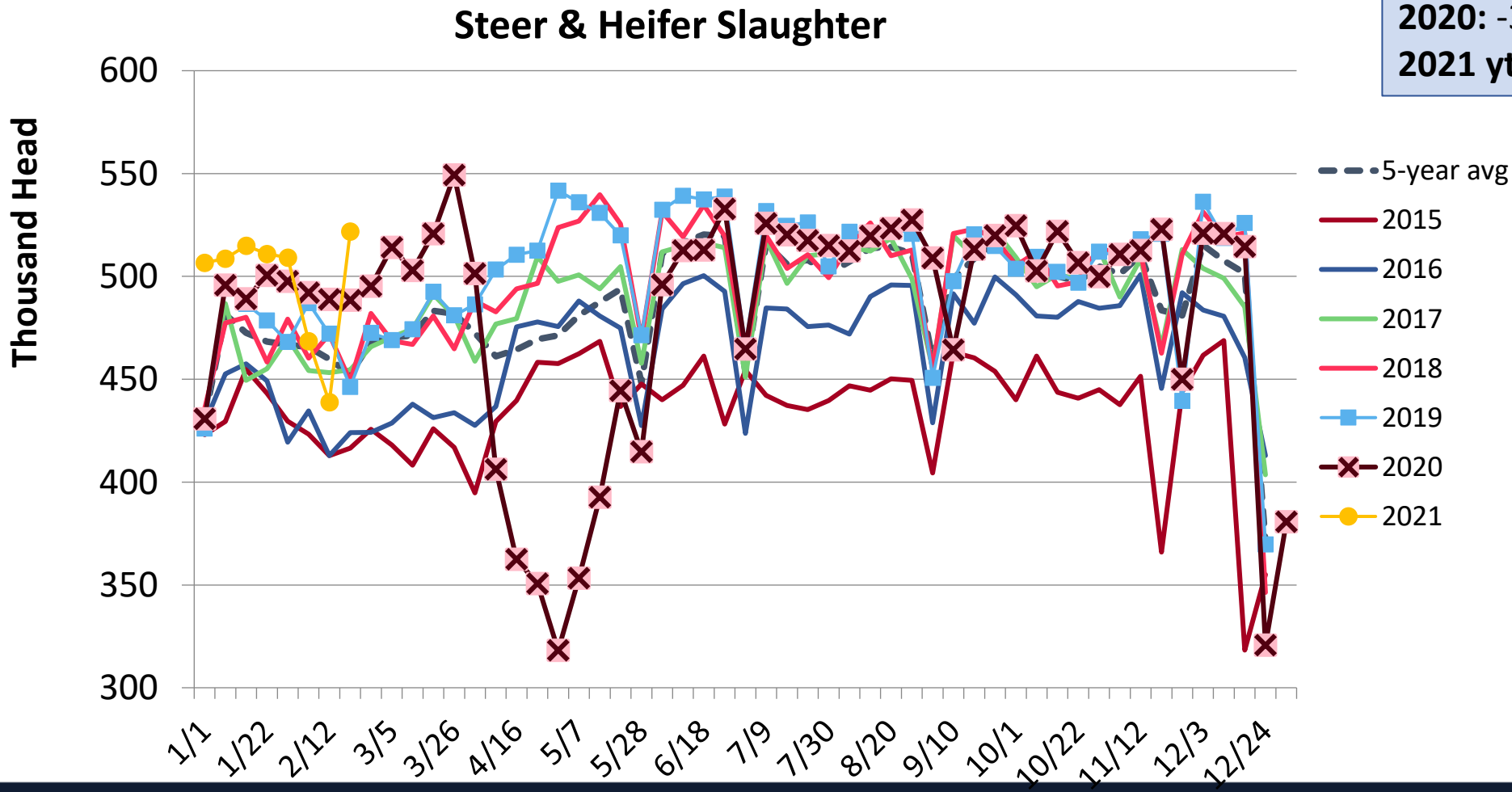


Source: USDA/NASS, year-over-year change in production noted

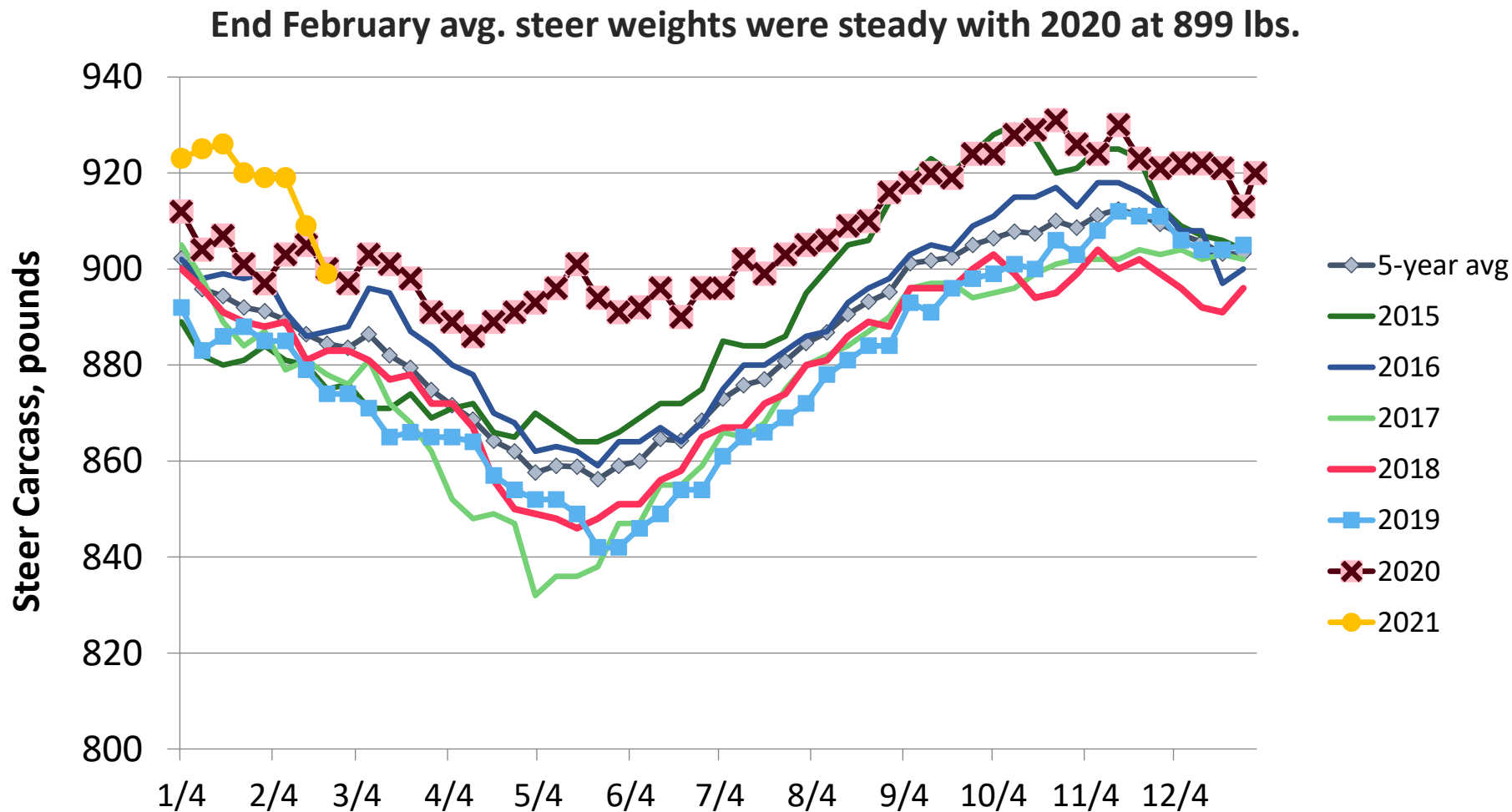


U.S. fed cattle slaughter was up 0.8% through February 2021 (when starting the comparison with the first full week of slaughter in January)

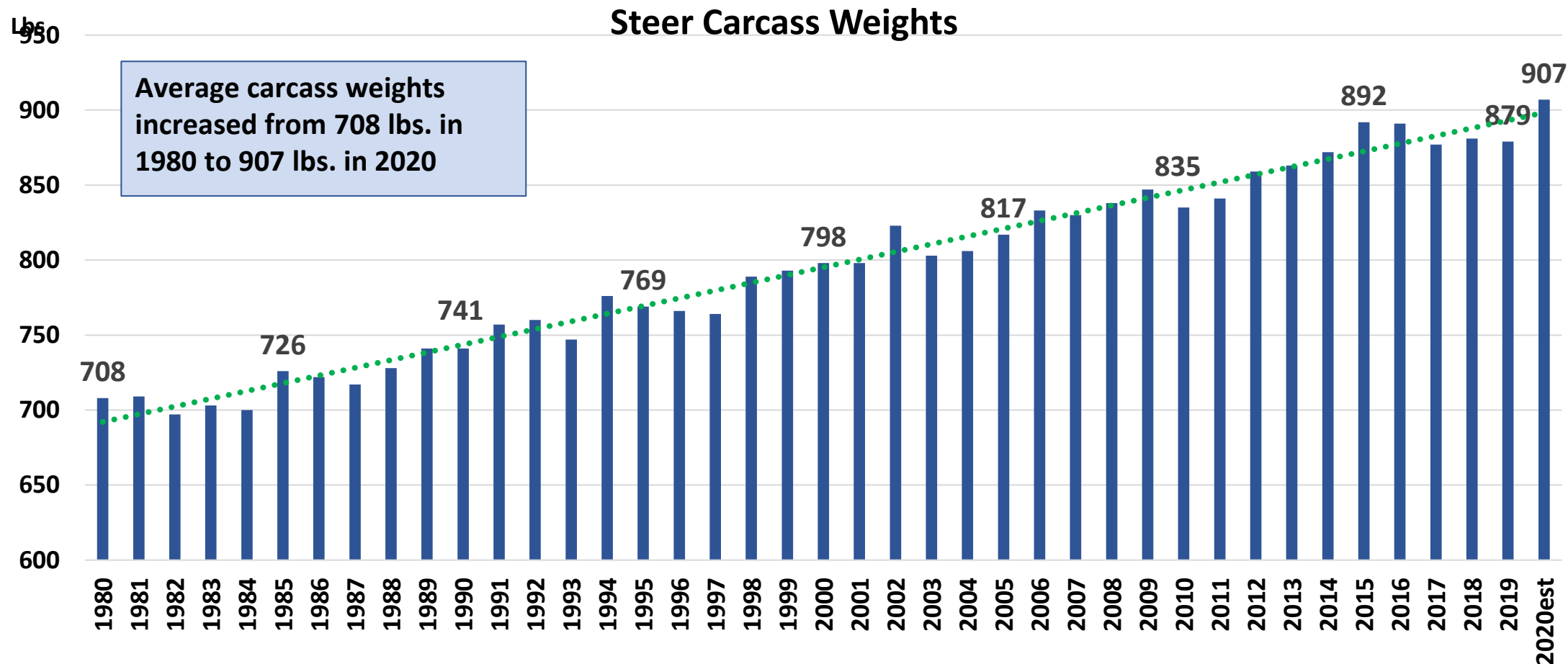
2018: +1.3%  
2019: +1.0%  
2020: -3.4%  
2021 ytd: +0.8%



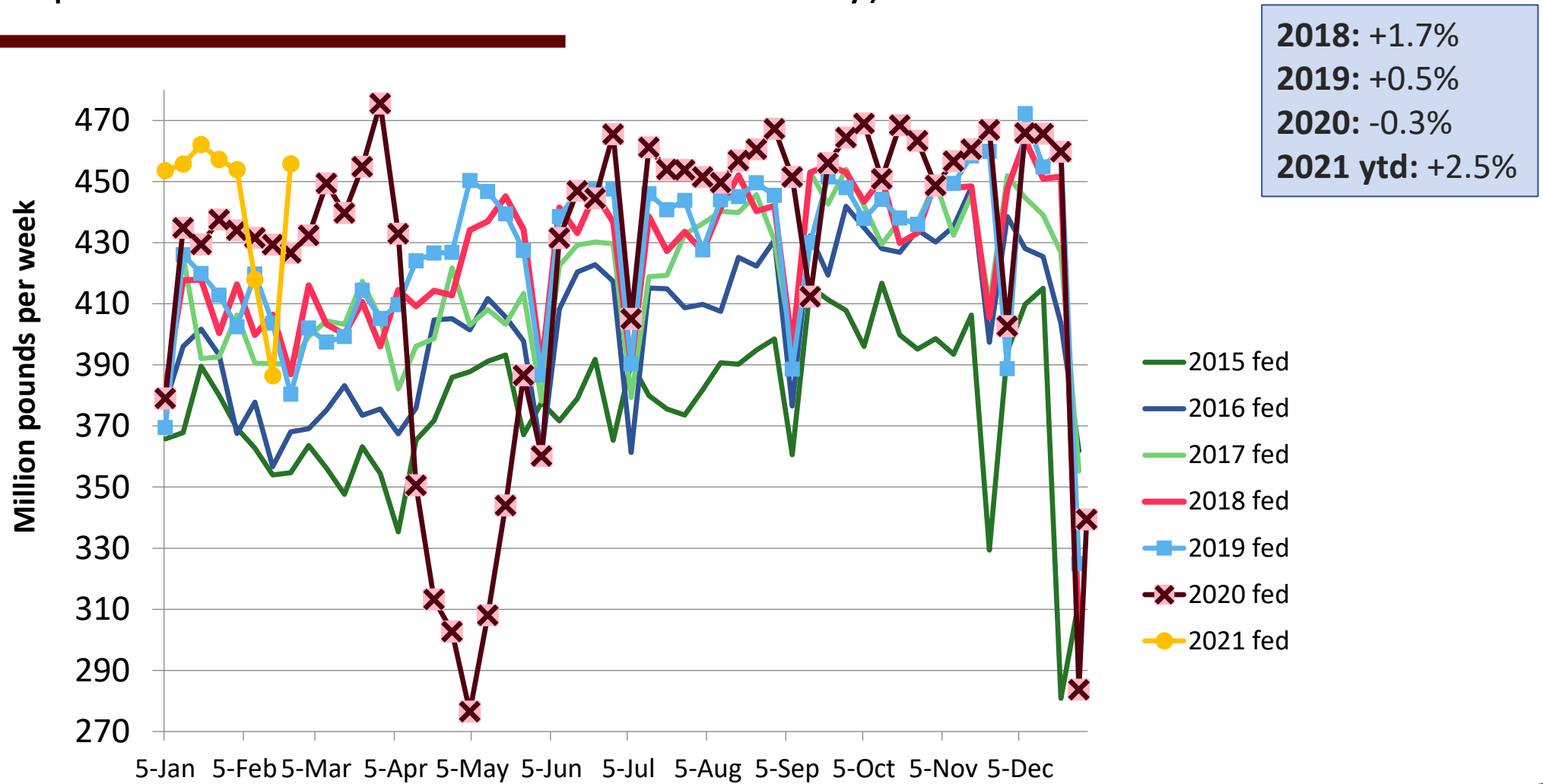
Weights trended seasonally higher through the fall before trending lower in November and December; weights remained at historically high levels in February (despite winter storms) but started to trend lower in March and higher feed prices could limit weight increases in 2021



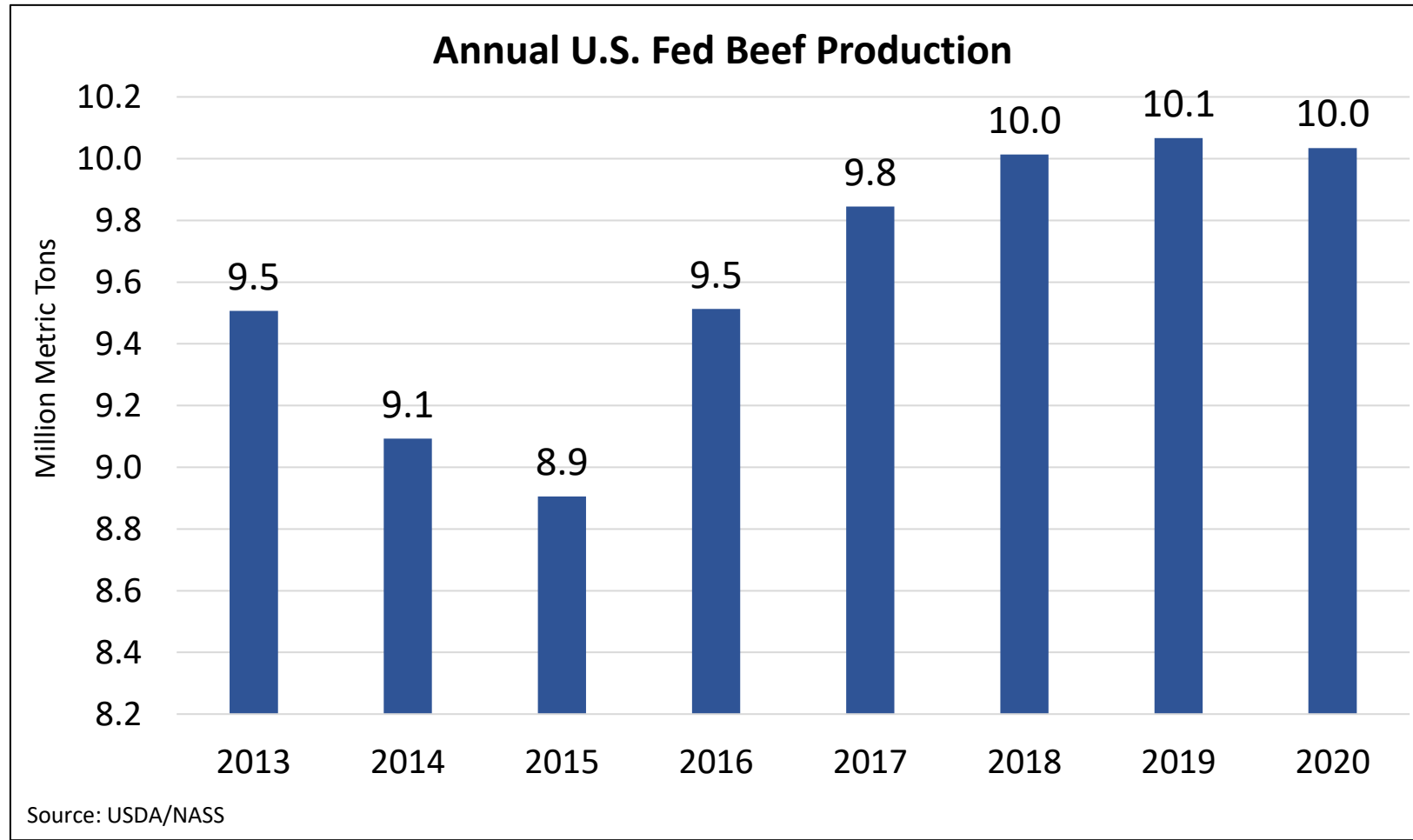
# Historical Increase in Carcass Weights



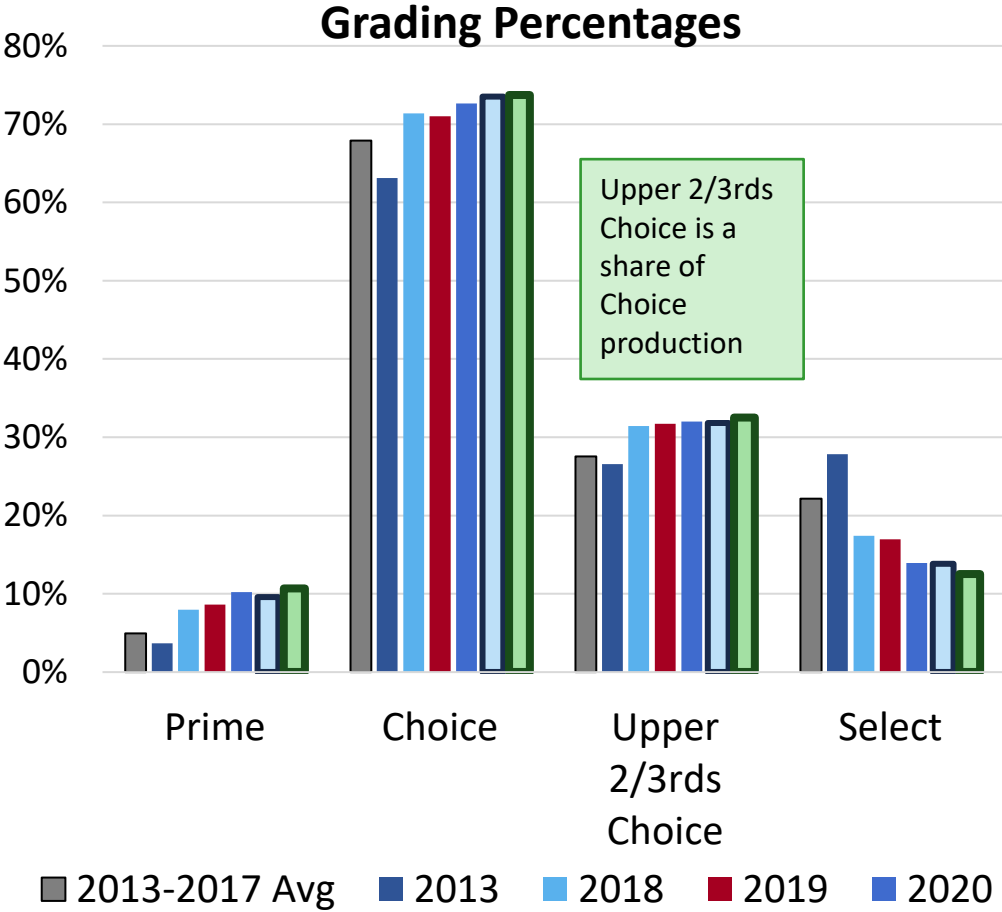
U.S. fed beef production was up 2.5% year-over-year through February 2021 (when starting the comparison with the first full week of January)



# The U.S. is the largest producer of grain-fed beef in the world



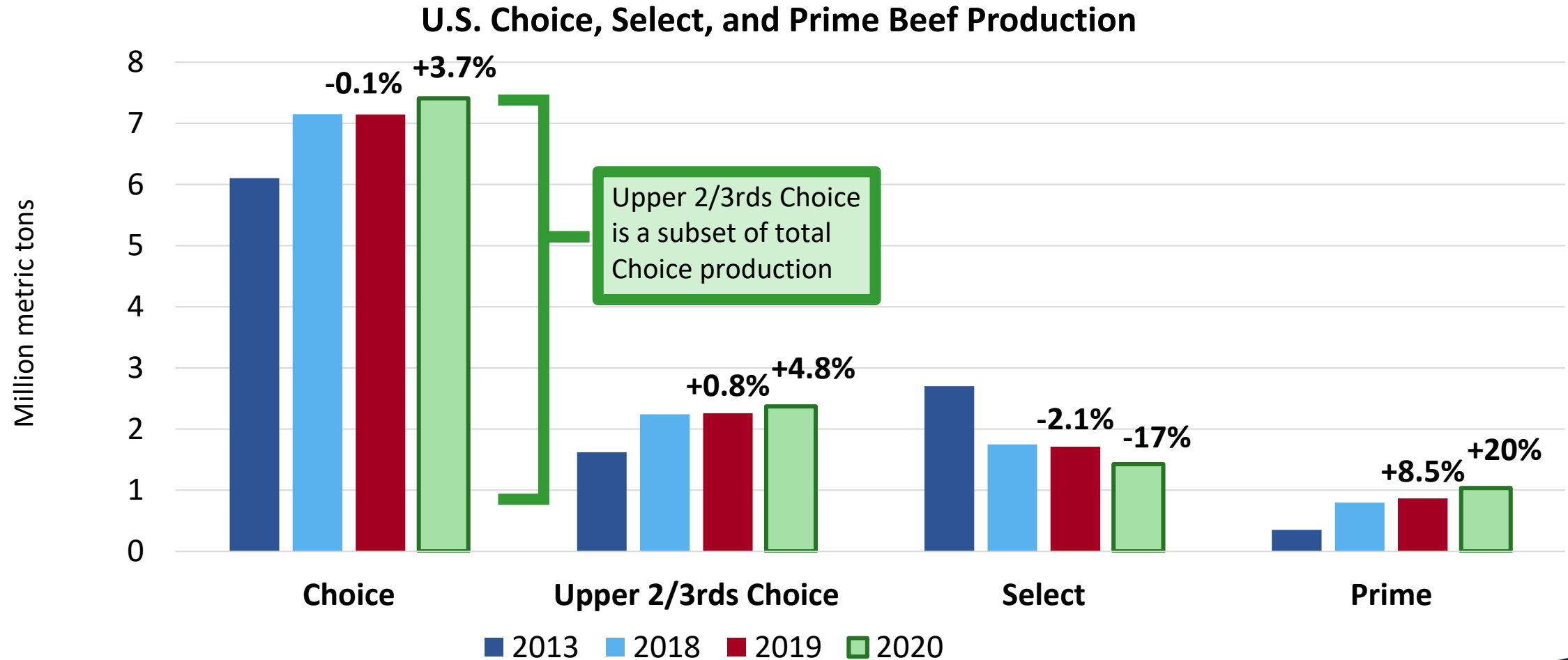
# Prime and Choice grading percentages continue to increase



Grade	2013-17 Avg	2013	2018	2019	2020	2020 ytd	2021 ytd
Prime	4.9%	3.7%	7.95%	8.6%	10.2%	9.6%	10.7%
Choice	67.9%	63.1%	71.4%	71.0%	72.7%	73.5%	73.7%
Upper 2/3rds Choice*	27.6%	26.6%	31.4%	31.7%	32.0%	31.8%	32.5%
Select	22.2%	27.8%	17.4%	16.95%	13.95%	13.8%	12.5%



# Choice and Prime production was record large in 2020

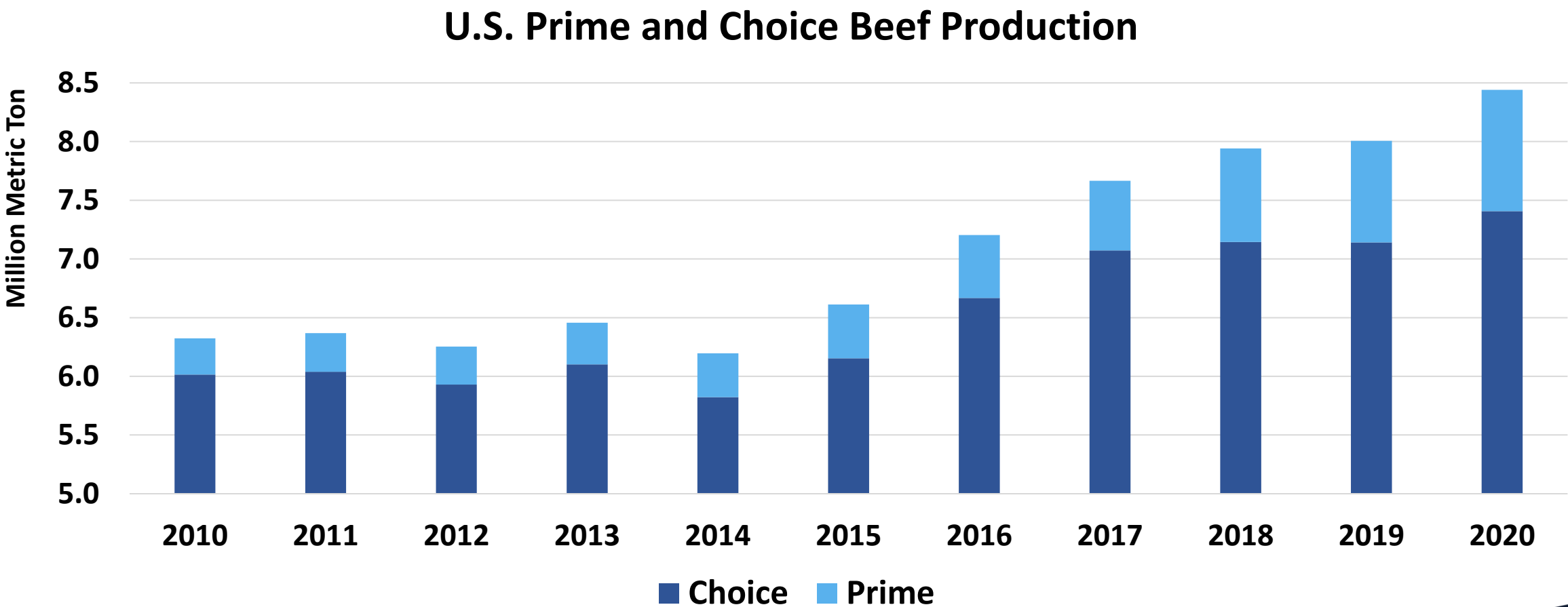


Source: USDA/AMS, USDA/NASS, USMEF estimates, year-over-year change listed, Upper 2/3rds Choice is a subset of total Choice production





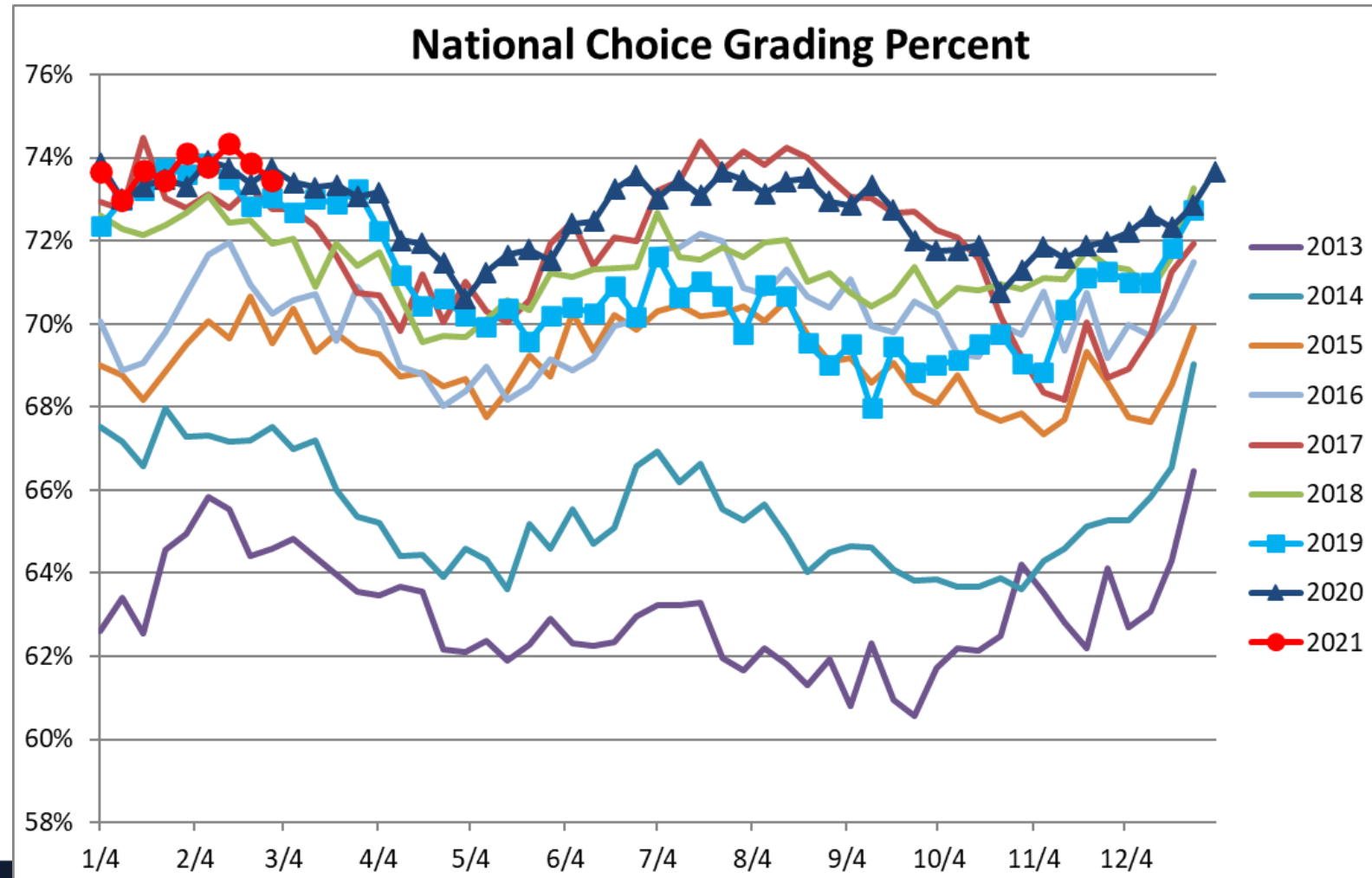
# U.S. production of Choice and Prime beef continuing to set new records in recent years



Source: Estimated based off USDA/AMS grading percentages and calculations for fed slaughter using USDA/NASS slaughter data

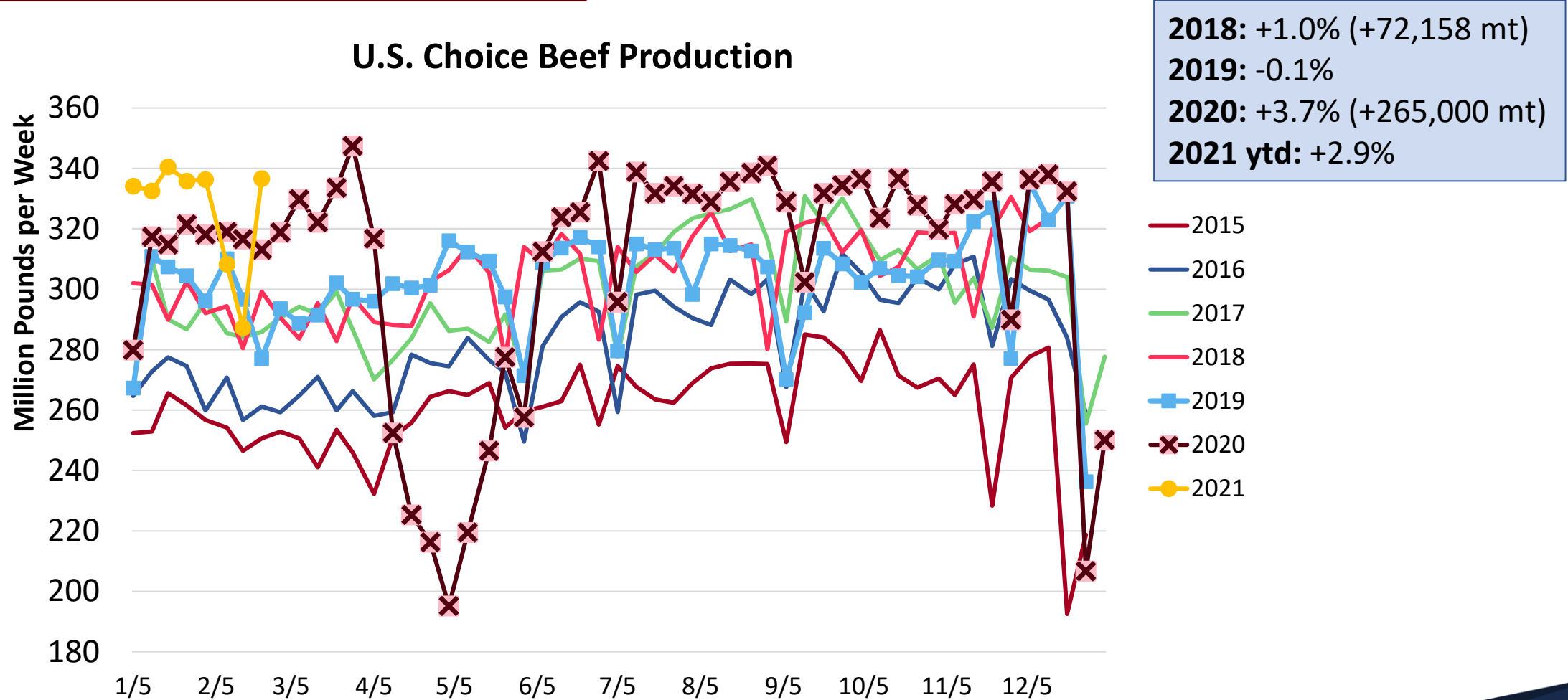


More than 70% of fed cattle have been grading Choice on average since 2016 and the 2020 Choice grading percentage was record high; the 2021 Choice grading percentage continues on a record pace



**2018: 71.4%**  
**2019: 71.0%**  
**2020: 72.7%**  
**2020 ytd: 73.5%**  
**2021 ytd: 73.7%**

2019 Choice beef production was down slightly compared to increases in recent years, but 2020 production was up nearly 4% year-over-year despite the covid-19 related disruptions, and through February 2021, Choice beef production continued to outpace year-ago levels



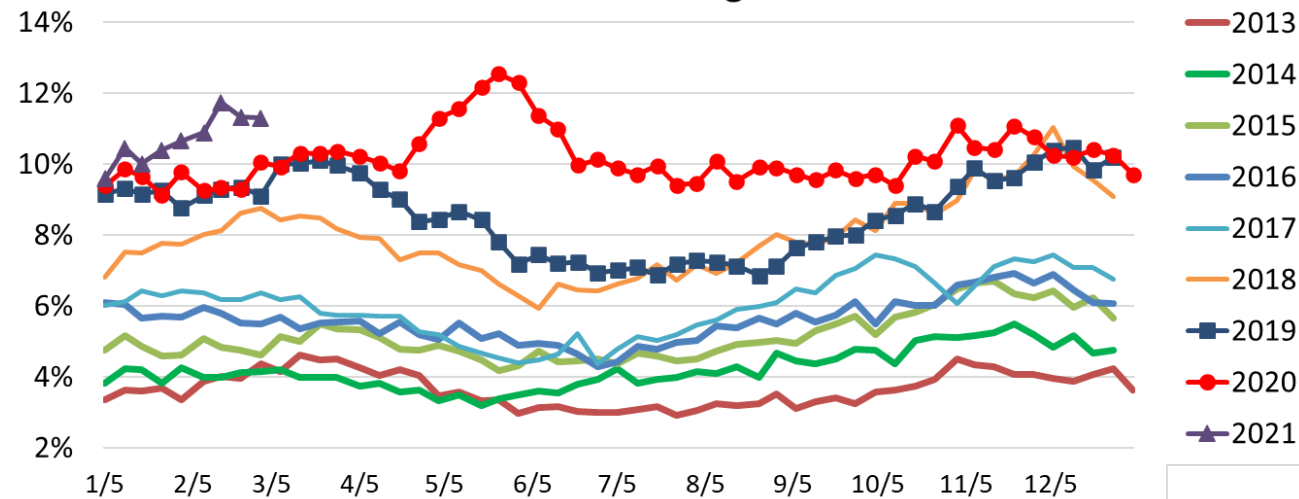
Source: Estimated based off USDA/AMS grading percentages and calculations for fed slaughter using USDA/NASS slaughter data

Source: USDA/NASS



# Prime grading percentages and Prime production continue to be record large in 2021

National Prime Grading Percent



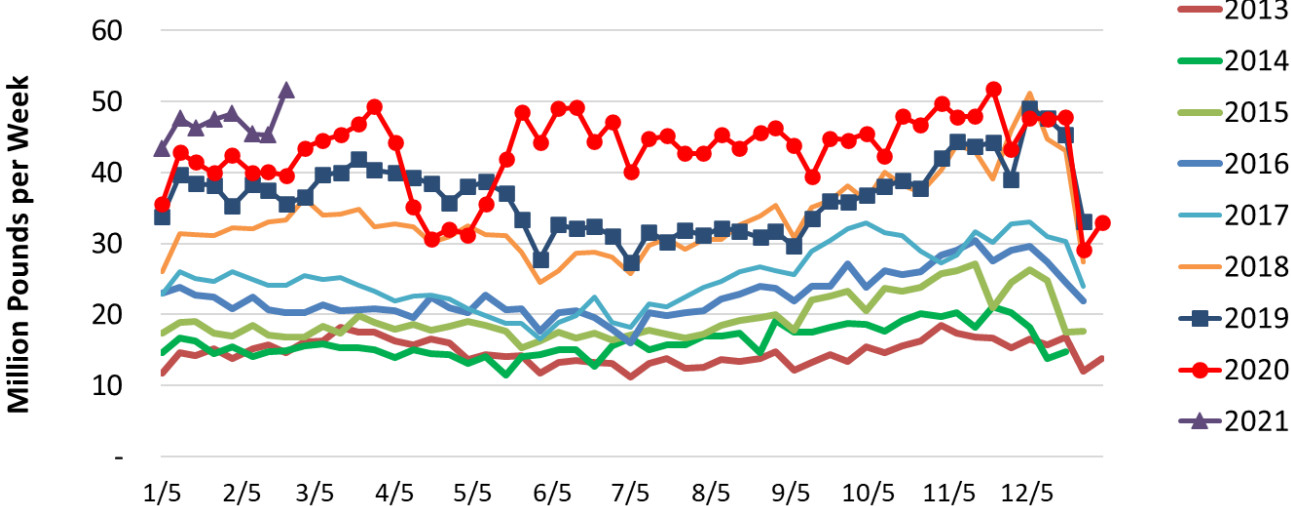
2018: 7.95%  
2019: 8.6%  
2020: 10.2%  
2020 ytd: 9.6%  
2021 ytd: 10.7%

Source: USDA/AMS

**Prime Production:**

2018: +35% (+204,800 mt)  
2019: +8.5% (+67,500 MT)  
2020: +20% (+170,400 MT)  
2021 ytd: +14%

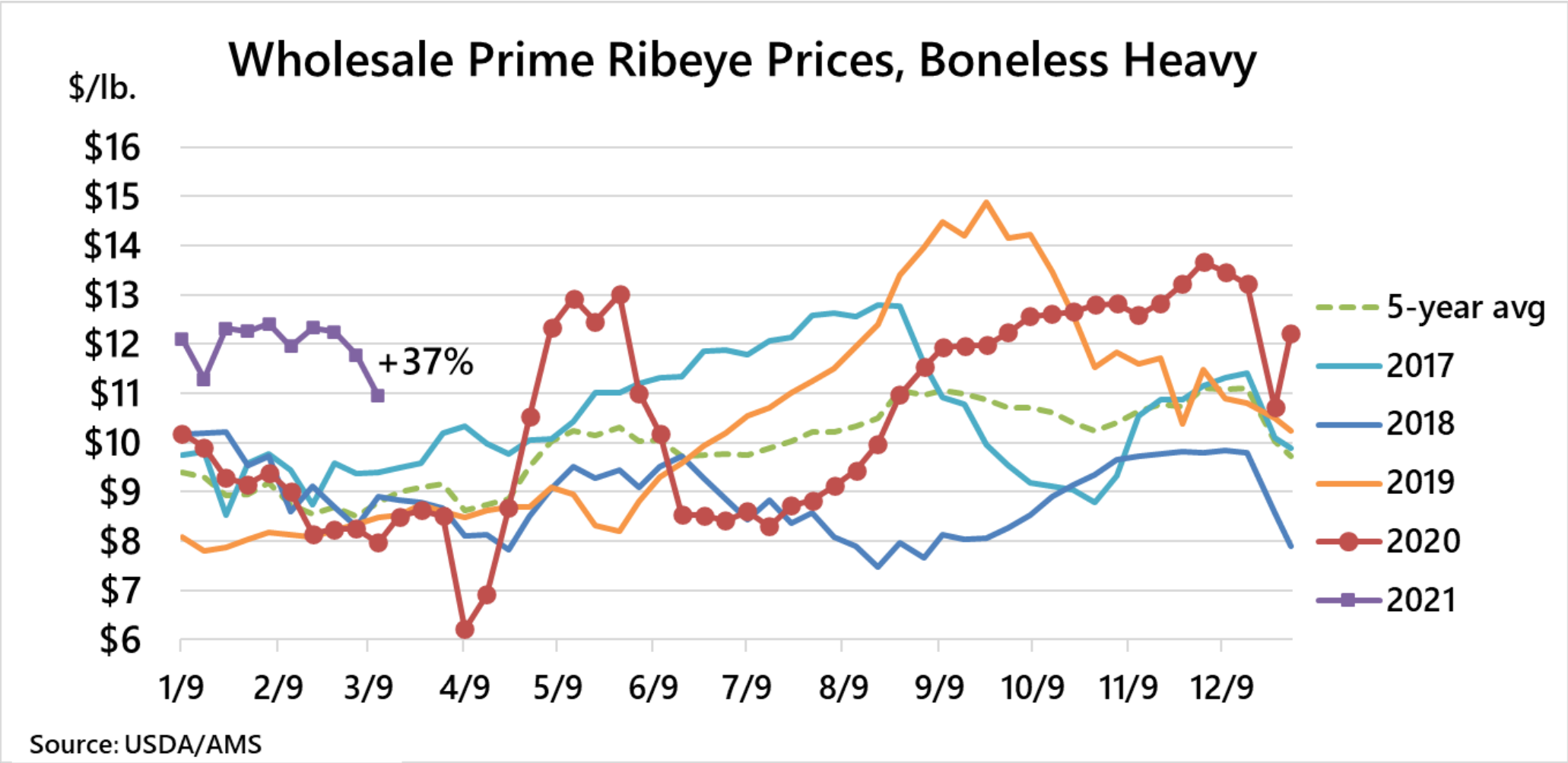
U.S. Prime Beef Production



Sources: USDA/AMS, USDA/NASS, USMEF estimates

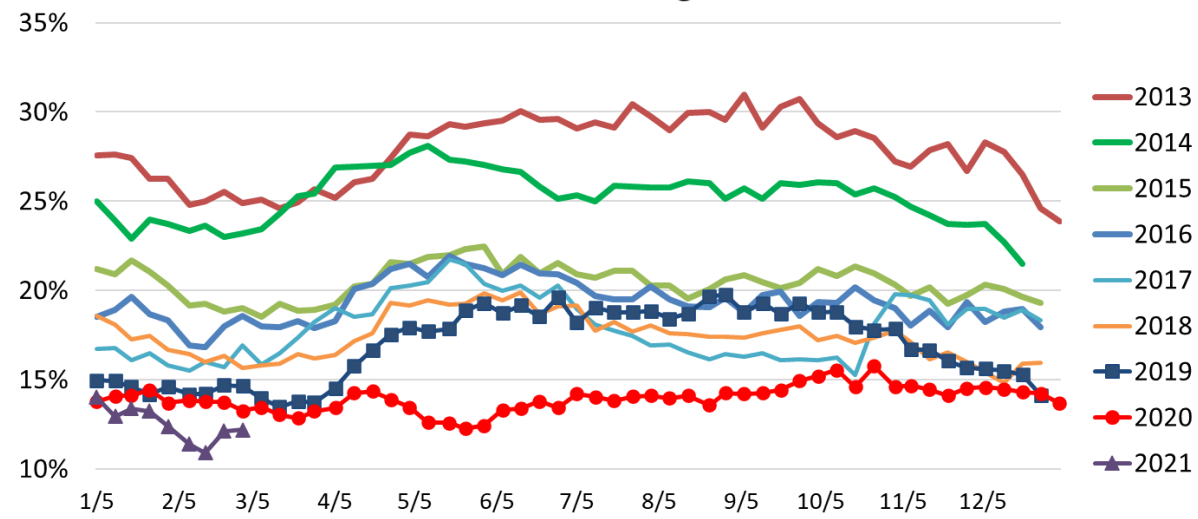


Increases in Prime production in recent years have led to increased Prime availability/popularity at both U.S. and international retail, and demand was strong in 2020 for at-home luxuries especially for smaller holiday gatherings. Wholesale Prime ribeye prices averaged \$10.95/lb. for the week ending March 12, up 37% from last year.



Select grade beef production has declined in recent year as improved genetics, feed and nutrition have contributed to more beef grading Choice and Prime

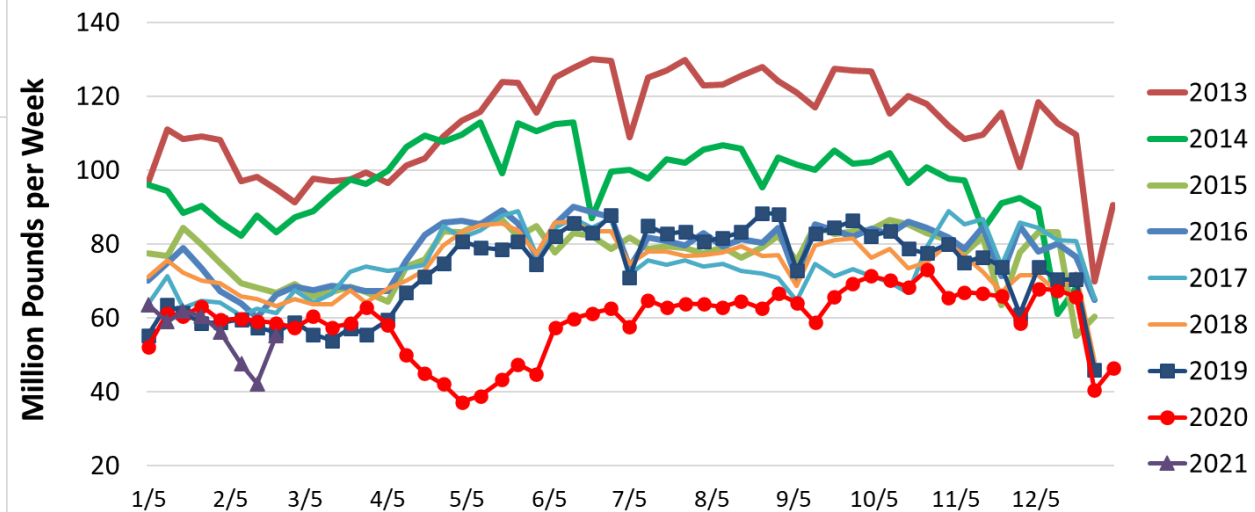
National Select Grading Percent



**2018: 17.4%**  
**2019: 16.95%**  
**2020: 13.95%**  
**2020 ytd: 13.8%**  
**2021 ytd: 12.5%**

**Select Production:**  
**2018: -1% (-13,700 mt)**  
**2019: -2% (-36,600 mt)**  
**2020: -17% (-288,000 mt)**  
**2021ytd: -7%**

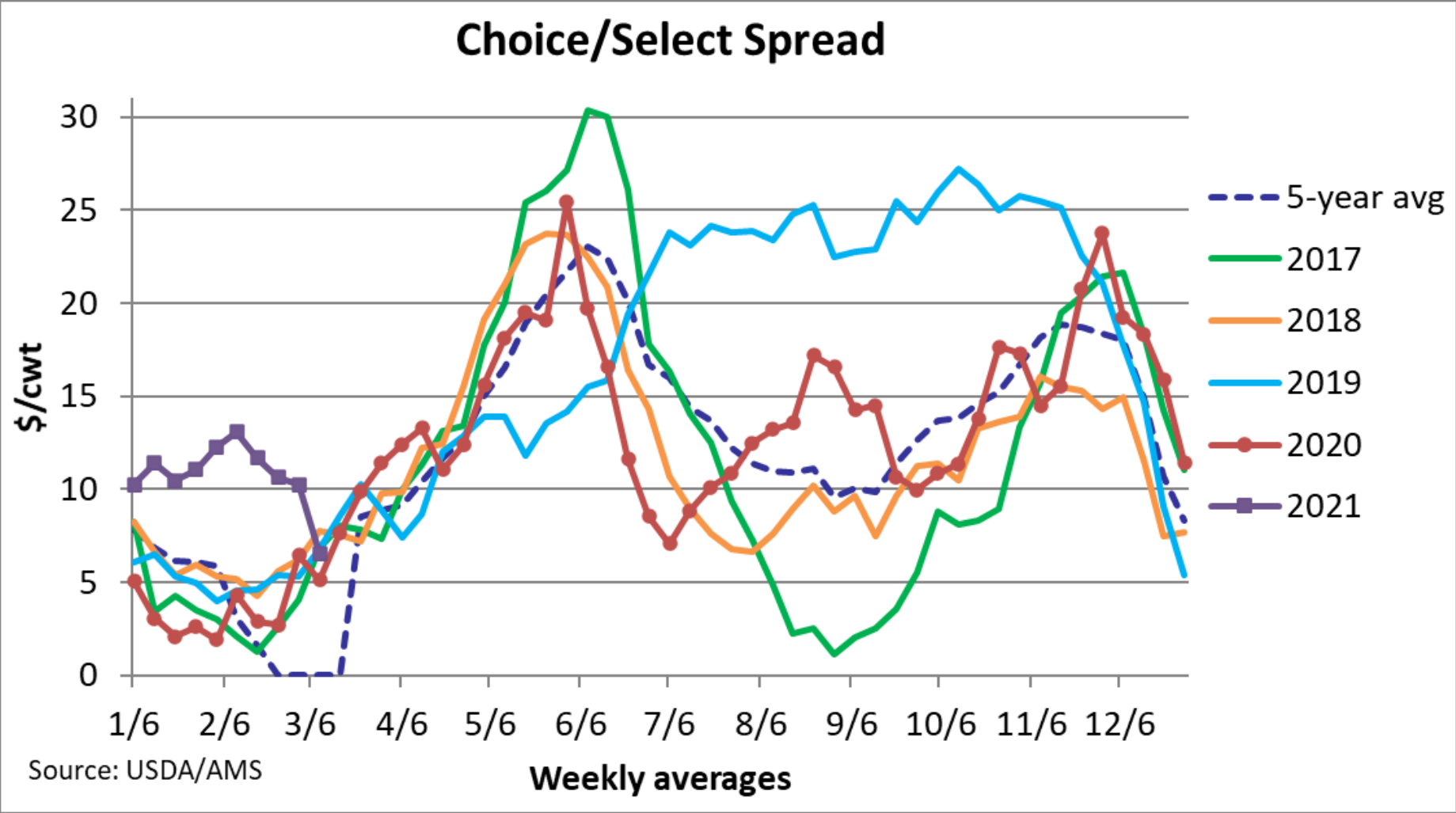
U.S. Select Beef Production



Sources: USDA/AMS, USDA/NASS, USMEF estimates

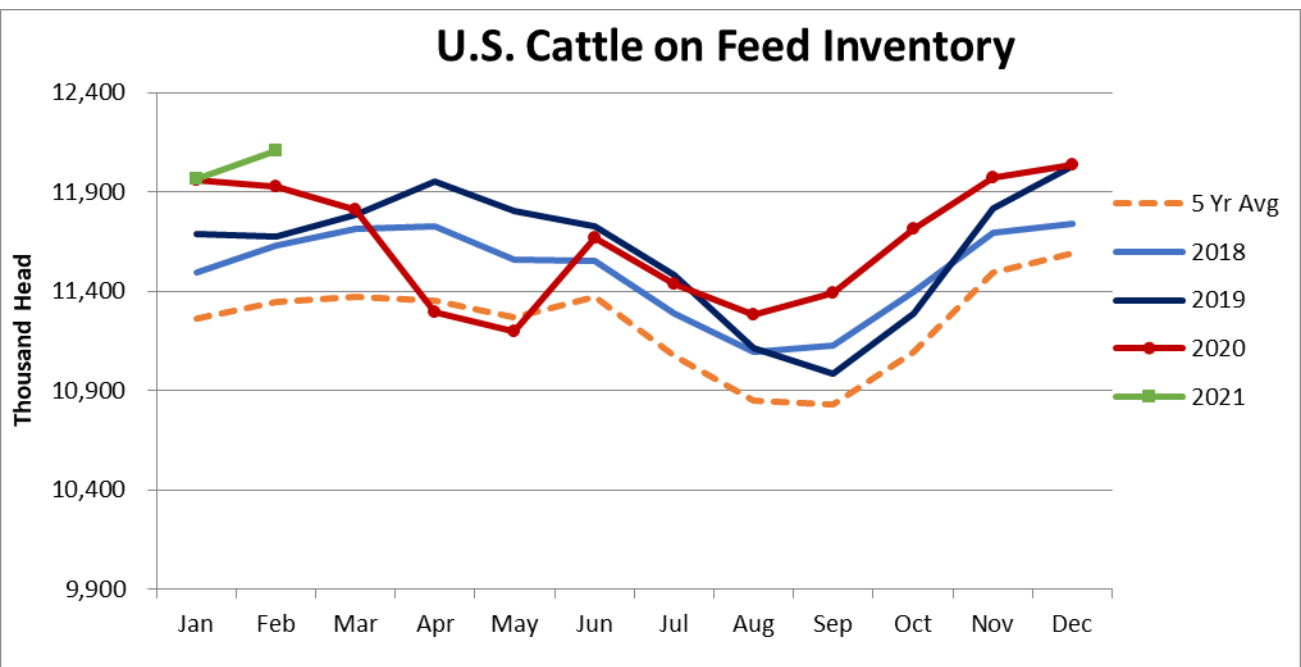


In early 2021, the strong Choice/Select spread compared to recent years indicated the strong demand for Choice steak cuts at retail and signaled demand for the continued larger production of high-quality beef; the Choice/Select spread decreased in mid-March, but the Choice/Select spread is expected to seasonally widen in April and May on grilling season demand



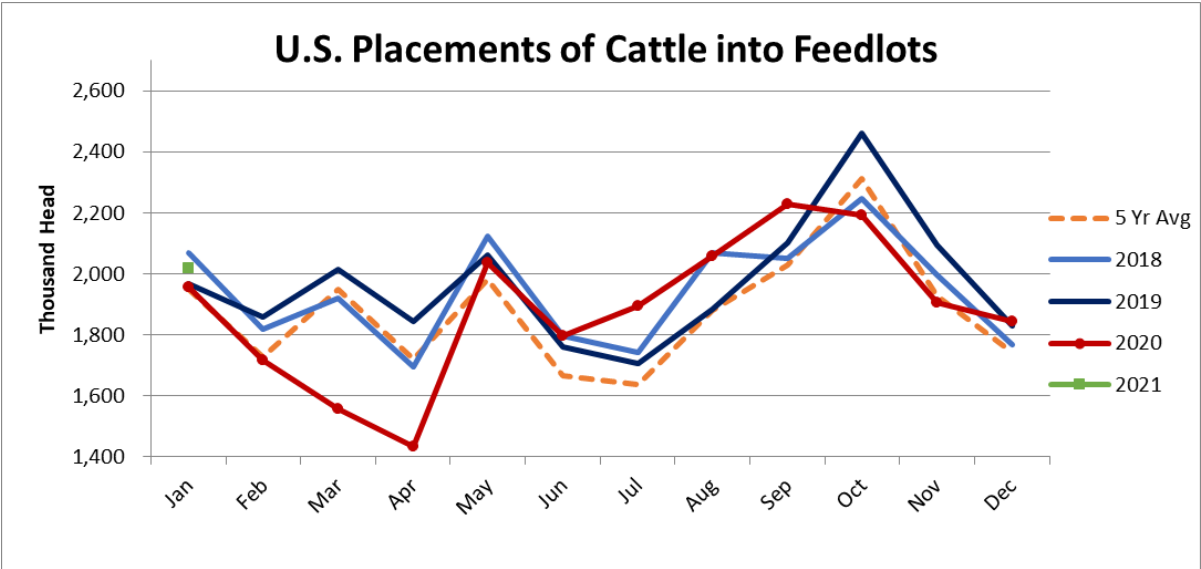


# The cattle on feed inventory was up 1.5% year-over-year in February



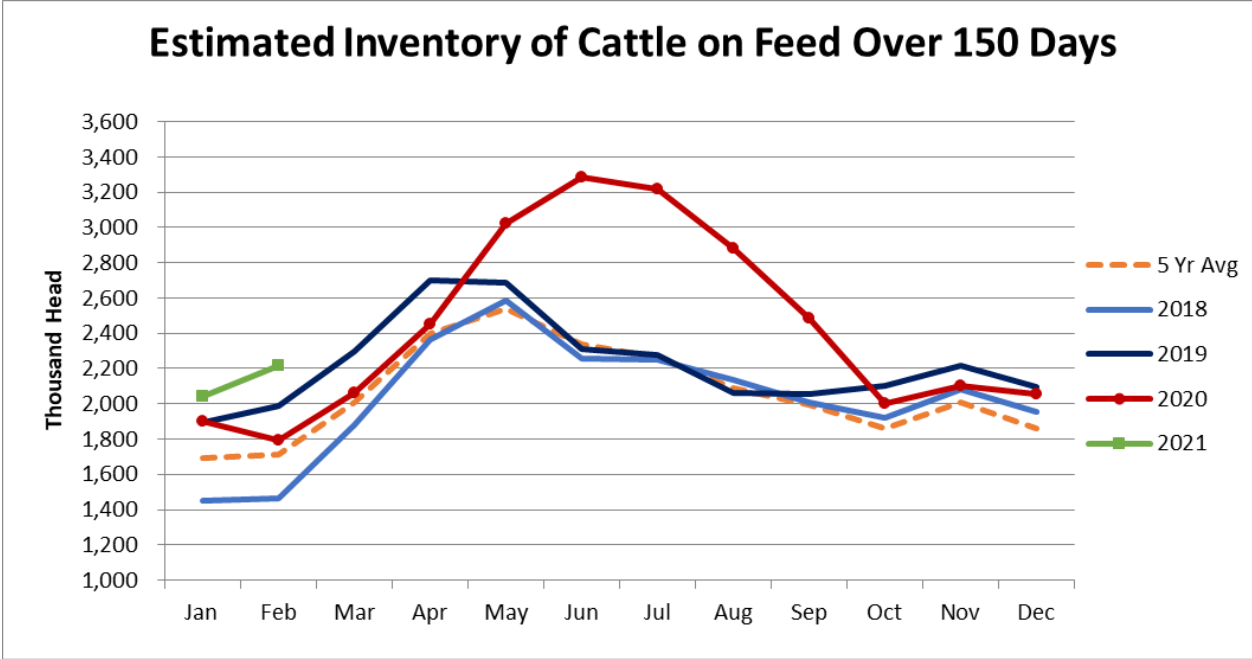
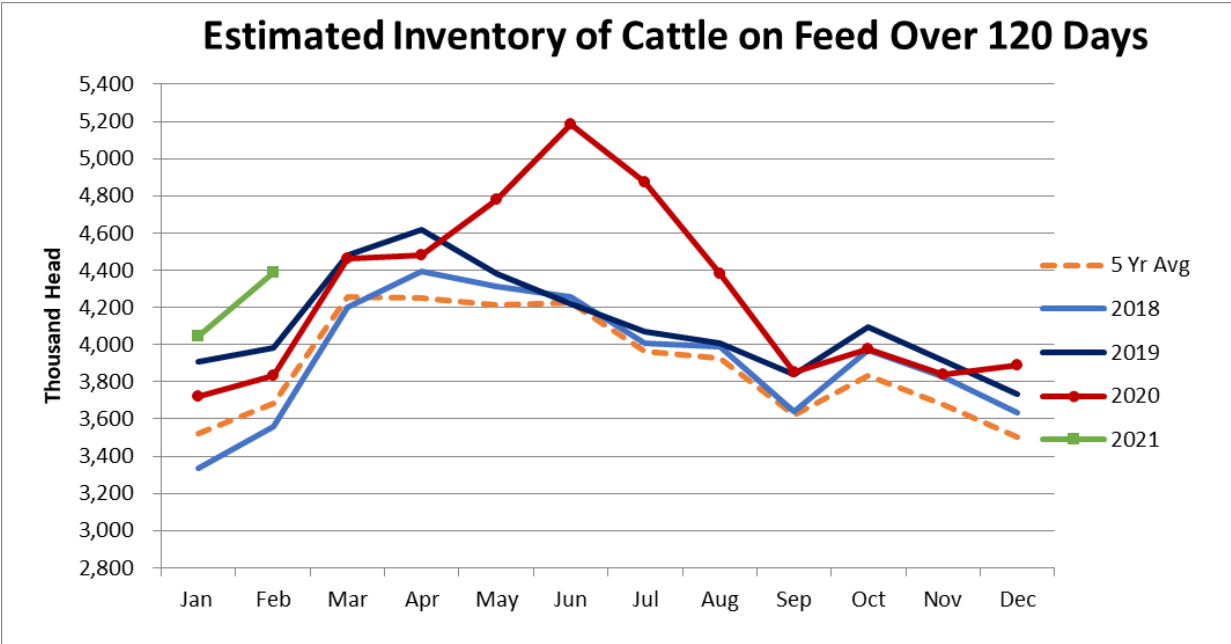
The February 2021 cattle on feed inventory was up 1.5% from 2020 and up 6.7% from the previous 5-year average

Placements for January were up 3% from 2020 and from the previous 5-year average





Supplies of slaughter-ready cattle were large in February, with the inventory of cattle on feed over 120 days up 14% from last year and the inventory of cattle on feed over 150 days up 24% from last year



The nearby live cattle futures contract reflects the larger supplies of slaughter ready cattle plus continued slow foodservice demand, but further out live cattle futures contracts traded at new highs in March 2021; Feeder cattle futures contract reflects higher feed costs, but deferred contracts also reflect the smaller calf crop and smaller supplies available to still enter feedlots this year

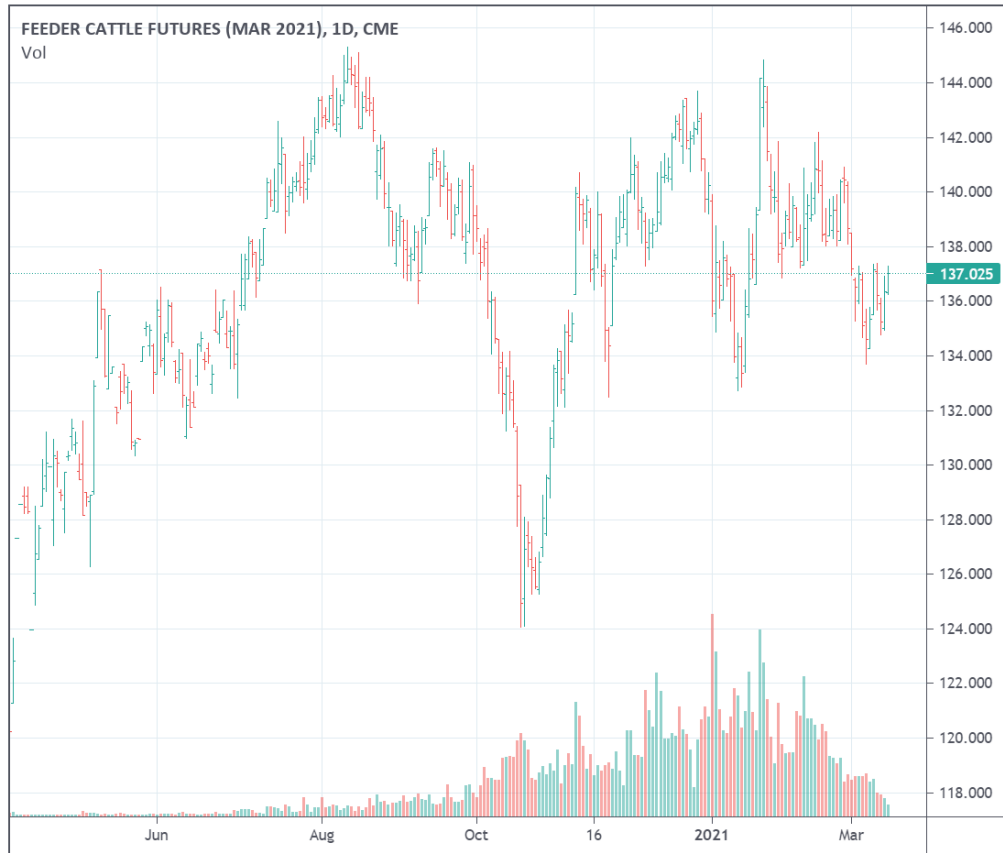
## April live cattle contract

CME:LEJ2021, D 119.125 ▲ +0.125 (+0.11%) O: 119.000 H: 119.675 L: 118.925 C: 119.125

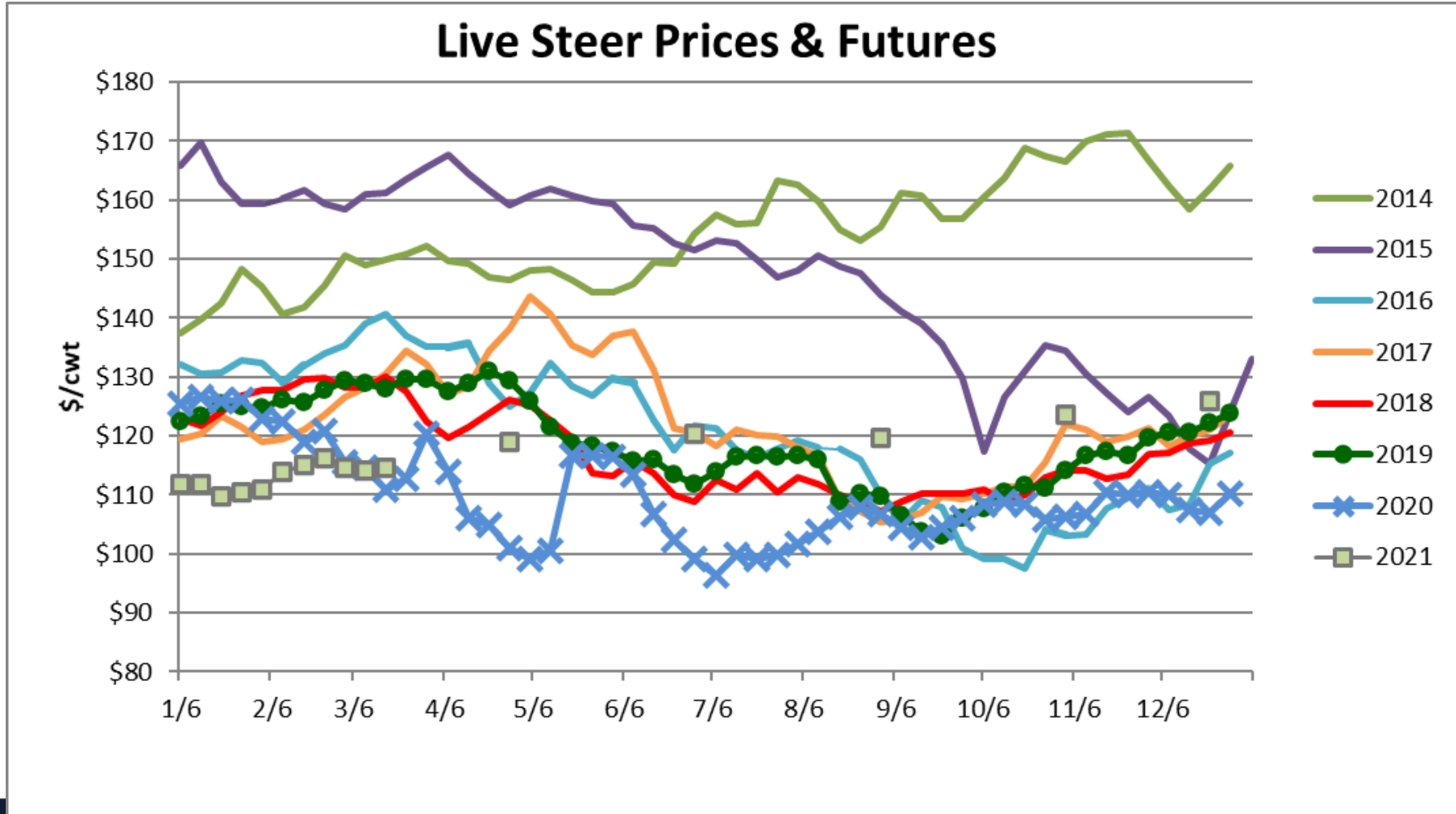


## March feeder cattle contract

CME:GFH2021, D 137.025 ▲ +0.675 (+0.5%) O: 136.300 H: 137.275 L: 136.225 C: 137.025



Cattle prices are expected to trend higher than last year and be the highest since 2015 for the second half of the year on strong grilling season demand and limited production growth

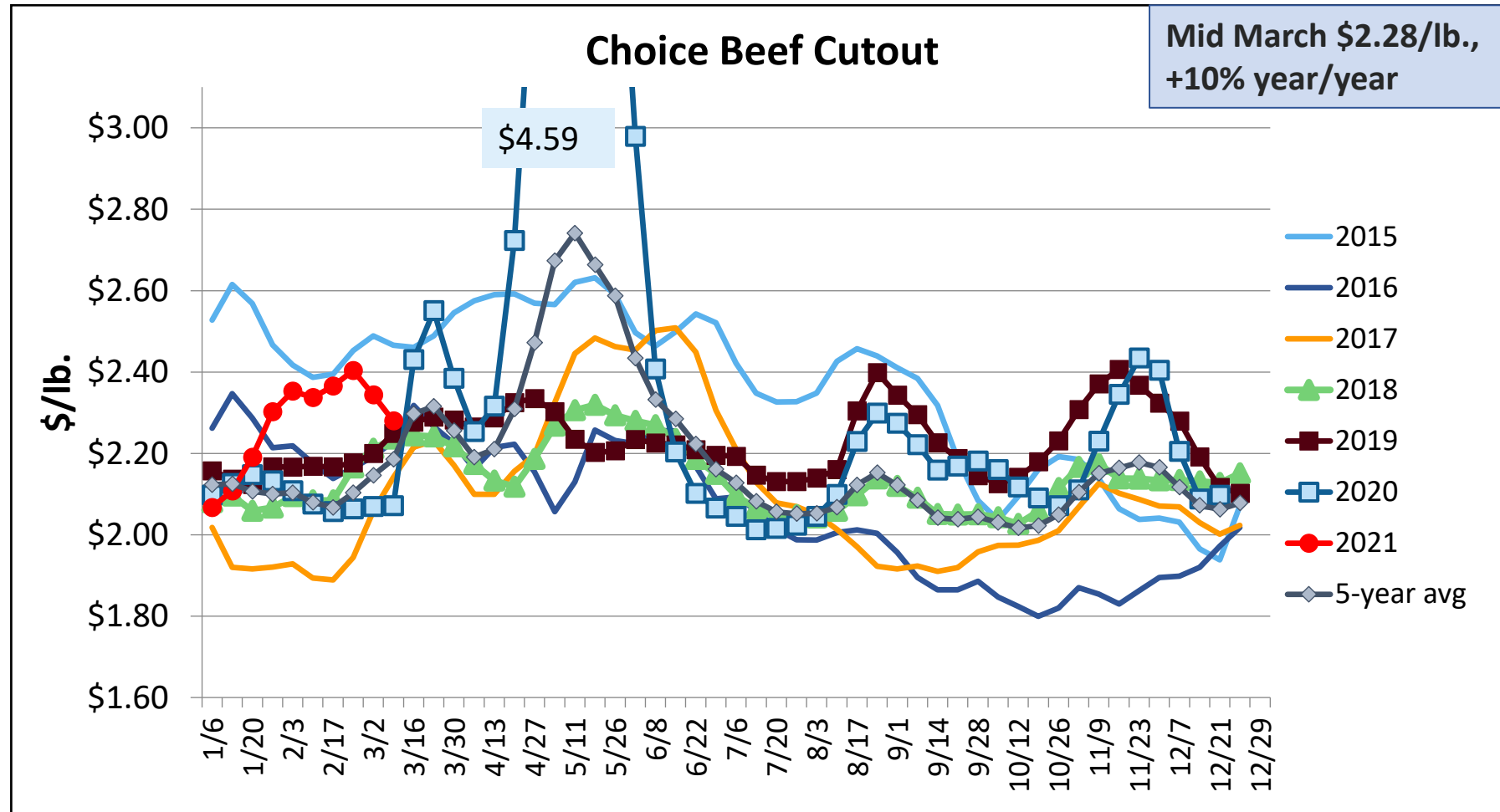


Cash prices up 3% from 2020 in mid March

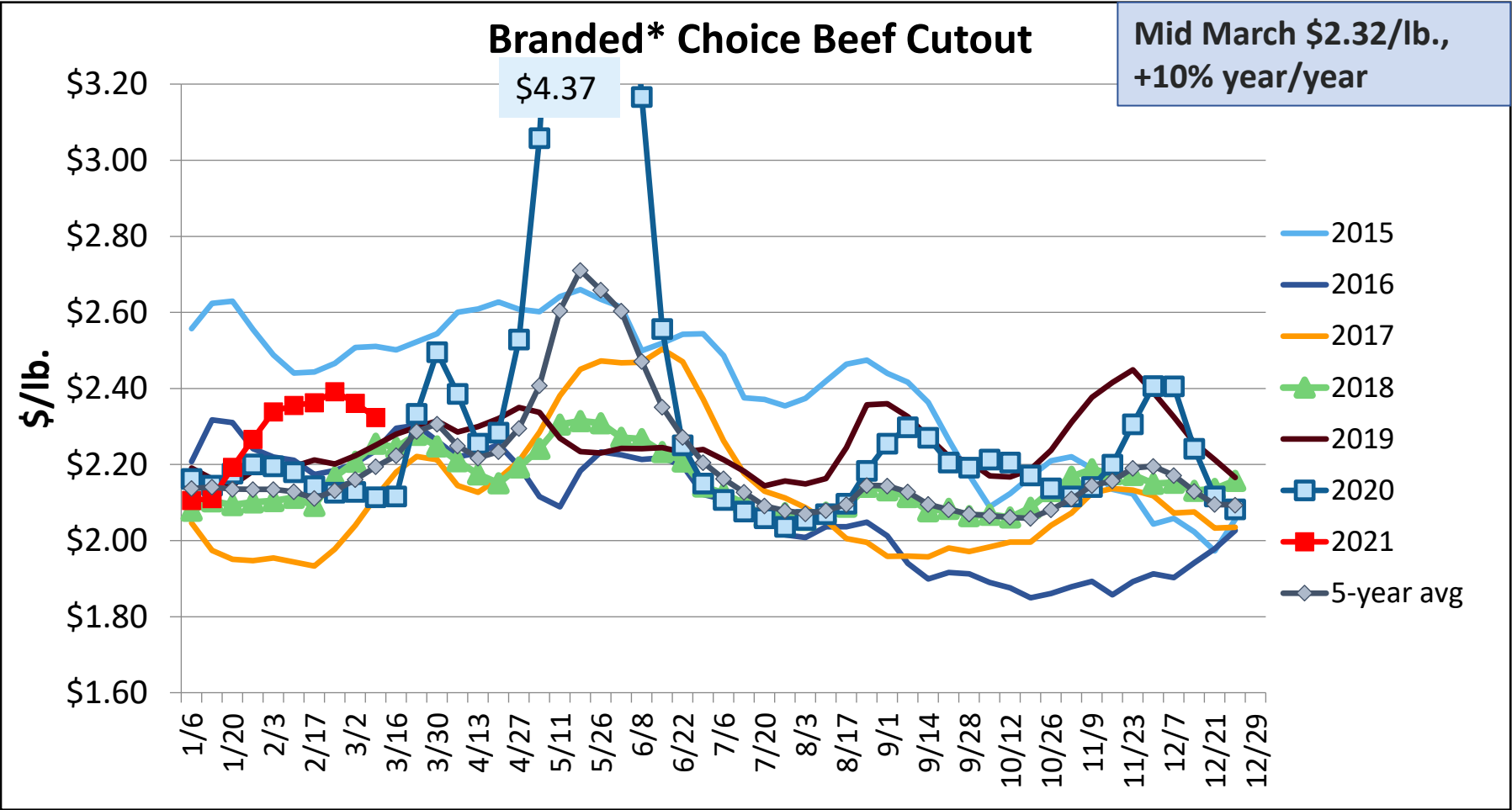
Source: USDA/AMS & CME closing futures prices on Mar 12, 2021



The Choice Beef Cutout moved counter-seasonally higher in January and February on strong demand before trending lower during the first half of March ahead of the grilling season



# Branded Choice Beef Cutout



Source: USDA/AMS, includes all branded Choice - upper 2/3<sup>rd</sup>s and lower 1/3<sup>rd</sup>



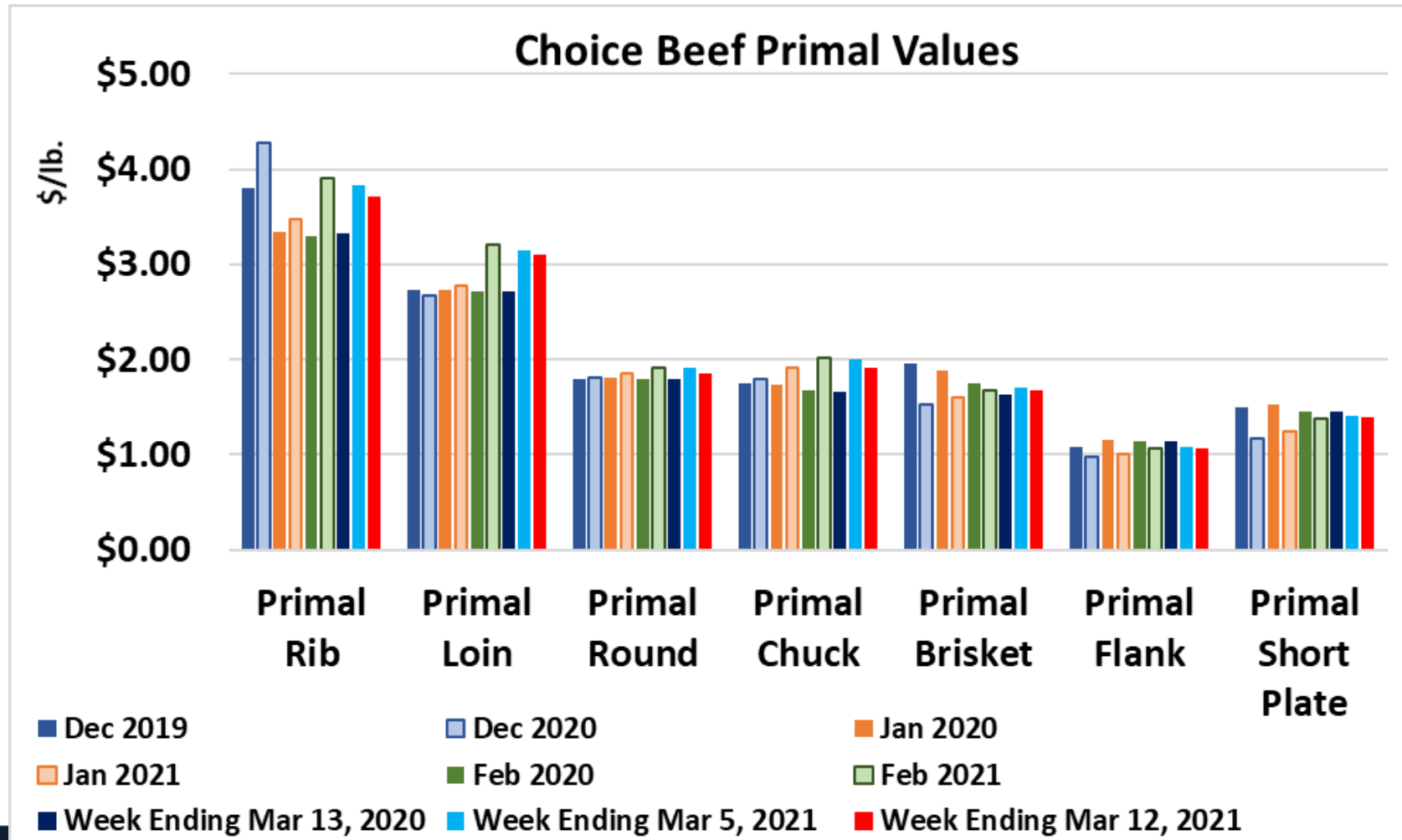
# Choice Cutout & Primal Values

Fob plant wholesale primal values in U.S. \$/pound

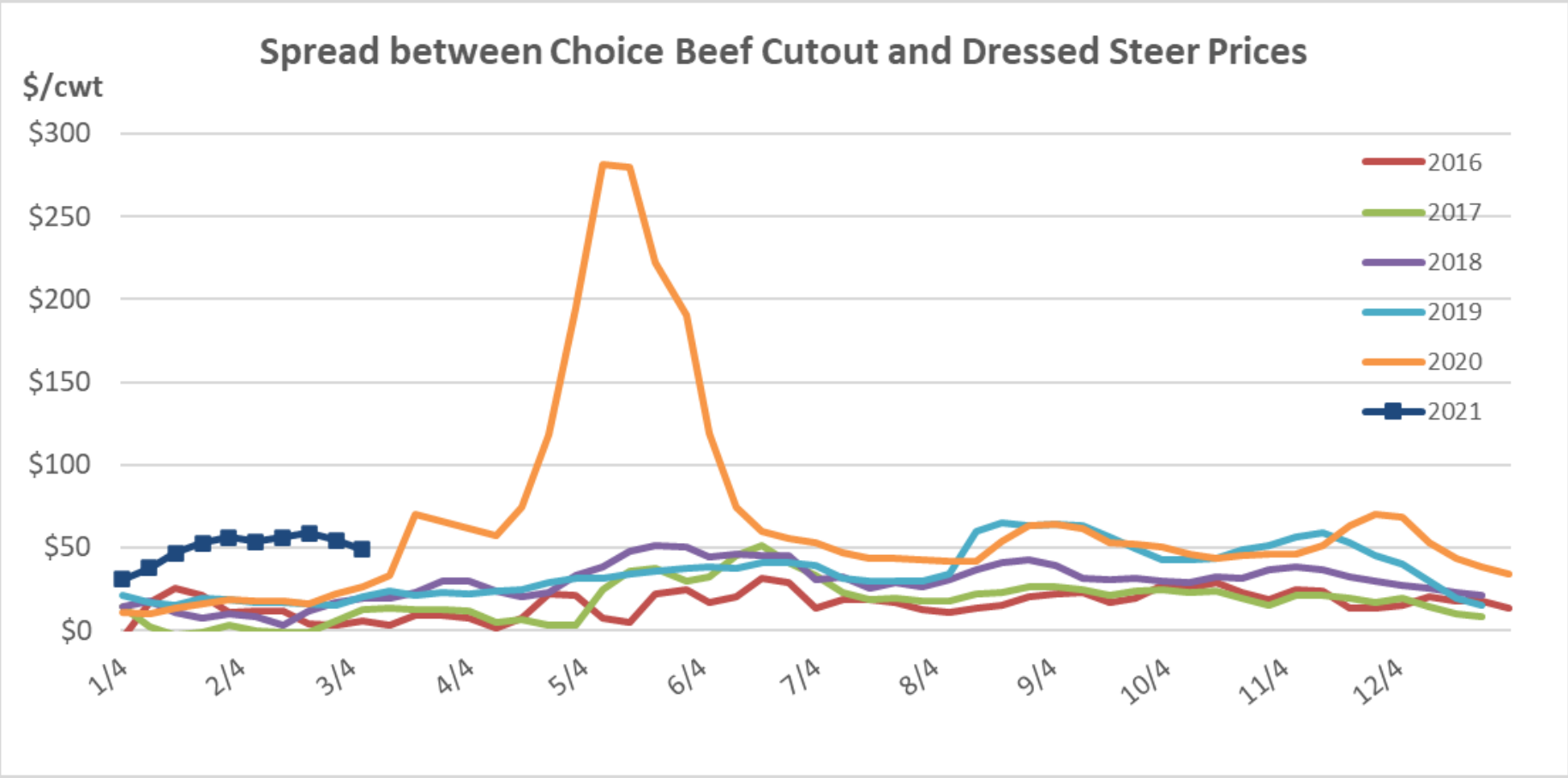
Week ending:	3/13/2020	3/12/2021	Year-over-Year Change	2020 Ytd Avg	2021 Ytd Avg	Year-over-Year Change
Choice Cutout	2.07	2.28	10%	2.09	2.28	+9%
Primal Rib	3.32	3.71	12%	3.32	3.70	+12%
Primal Chuck	1.66	1.92	15%	1.70	1.96	+16%
Primal Round	1.79	1.85	3%	1.80	1.88	+5%
Primal Loin	2.72	3.10	14%	2.73	3.01	+10%
Primal Brisket	1.64	1.68	2%	1.78	1.65	-7%
Primal Short Plate	1.45	1.39	-4%	1.48	1.32	-11%
Primal Flank	1.14	1.07	-6%	1.14	1.04	-9%
50/50 Beef trimmings	0.55	0.44	-21%	0.62	0.48	-23%



The rib, loin, round, chuck, and brisket primals are higher year-over-year, signaling continued strong retail demand, while the flank and short plate primals (which are more exposed to foodservice) are lower year-over-year



The spread between the Choice cutout and live steer prices widened to record levels in April and May as plant capacity was constrained by covid-19 related slowdowns but has since narrowed with the rebound in slaughter, although the spread remains higher than recent years in March 2021



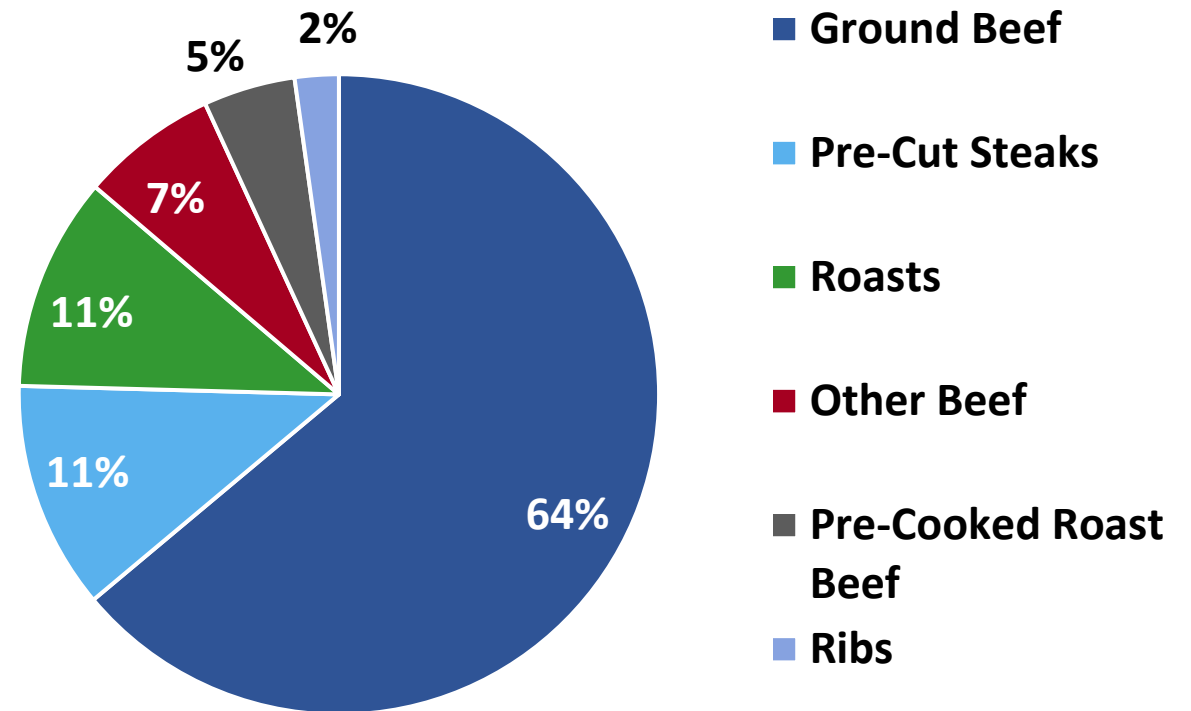




# U.S. Beef Utilization at Foodservice

- Domestically, about 60% of U.S. beef is used by foodservice vs. 40% for retail
- In 2019, limited-service restaurants accounted for 45% of beef volume sold at foodservice followed by full-service restaurants at 23%
- Ground beef accounts for the largest volume share of beef sold at foodservice at 64% in 2019
- Pre-cut steaks and roasts are the next largest categories

2019 Beef Volume at Foodservice



# Ground beef is also the top beef item at retail

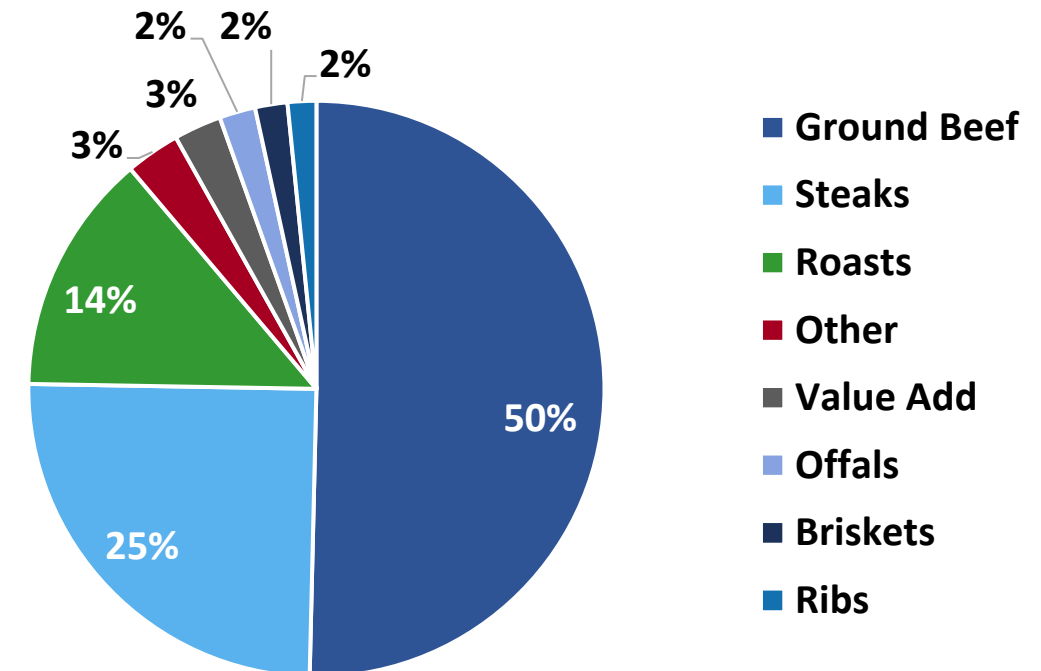


- Calendar year 2020 retail volume was up 11% year-over-year, driven by larger sales of steaks and ground beef
- 2020 retail sales of ribeye steaks were up 27% year-over-year, and the increase in ribeye steaks alone accounted for 10% of retail beef volume sales growth

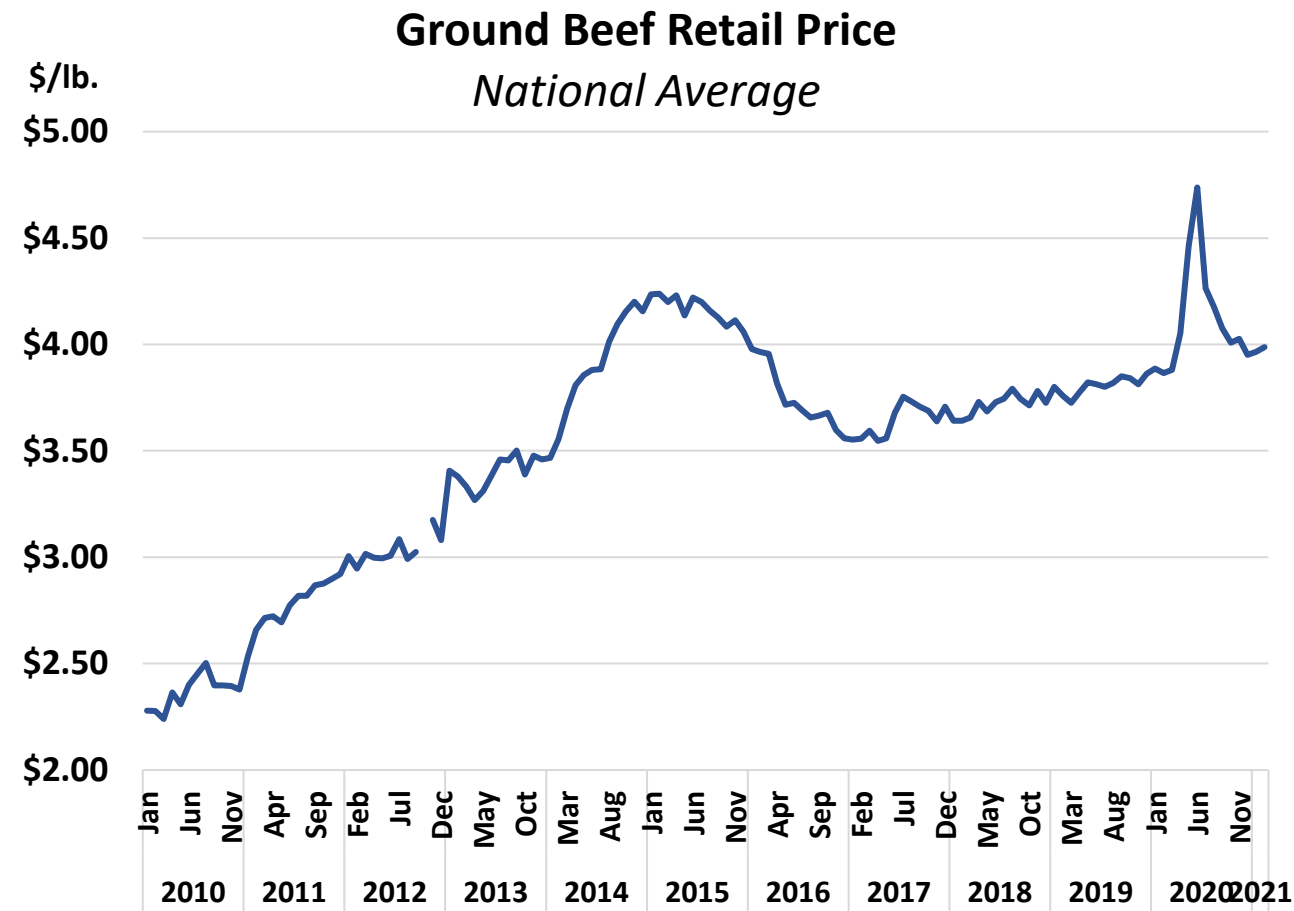
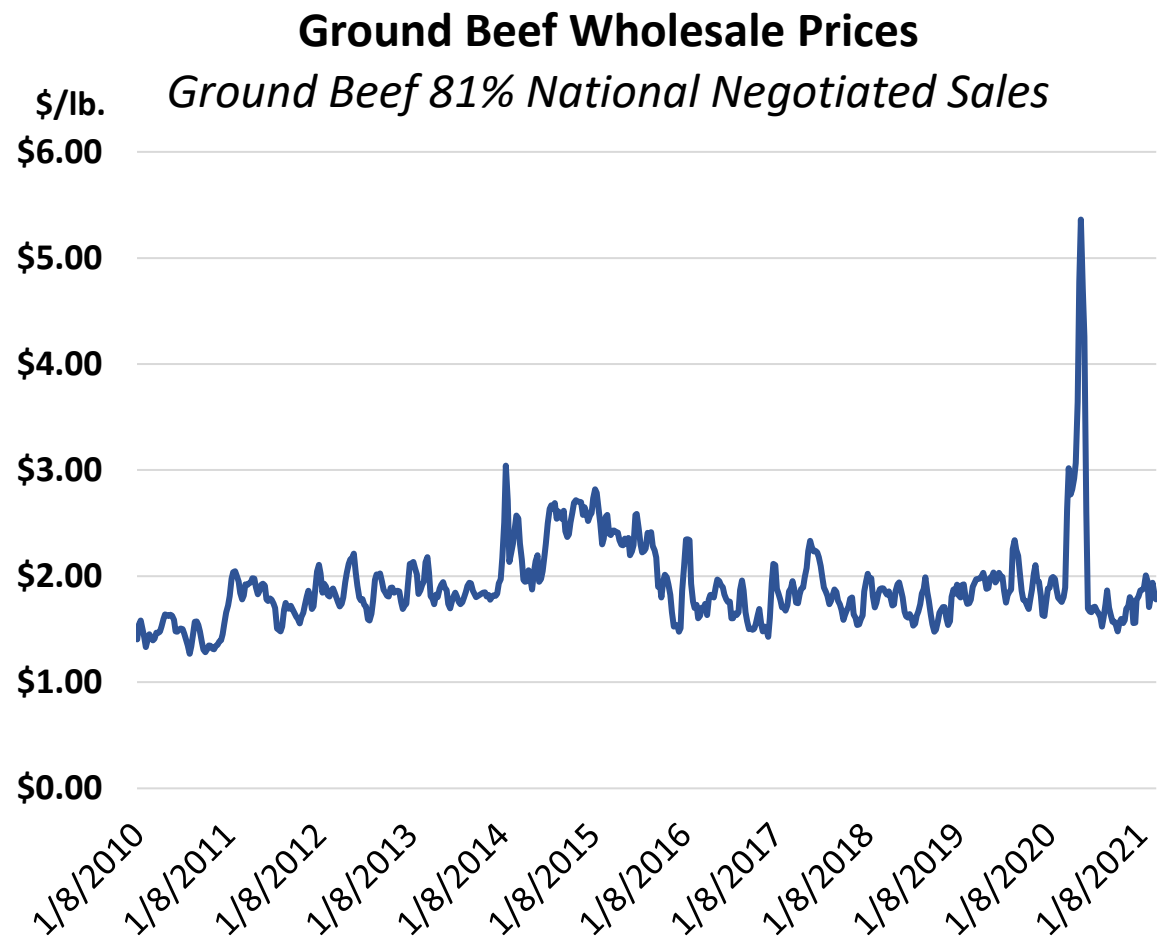
Top 2020 Beef Items Sold at Retail by Volume  
(excluding ground beef)

Chuck roasts/steak
Ribeye steaks
Strip Steaks
Cubed Steaks
Briskets
Top Round Roasts/Steaks
Sirloin Steaks
Top Sirloin Steaks
T-bone Steaks
Bottom Round Roasts/Steaks

2020 Beef Retail Sales

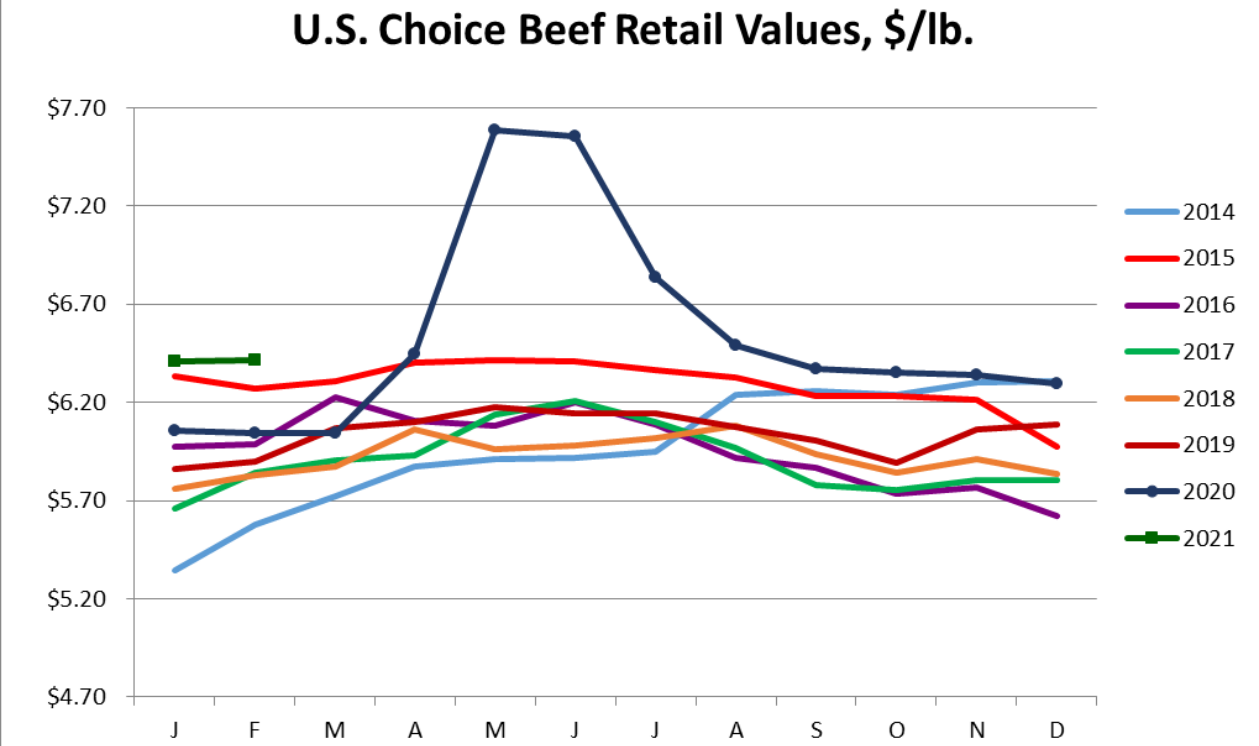


U.S. wholesale ground beef prices surged to new records in April/May but have since normalized, while ground beef retail prices were record high in June but then trended lower through January 2021 before edging higher in February

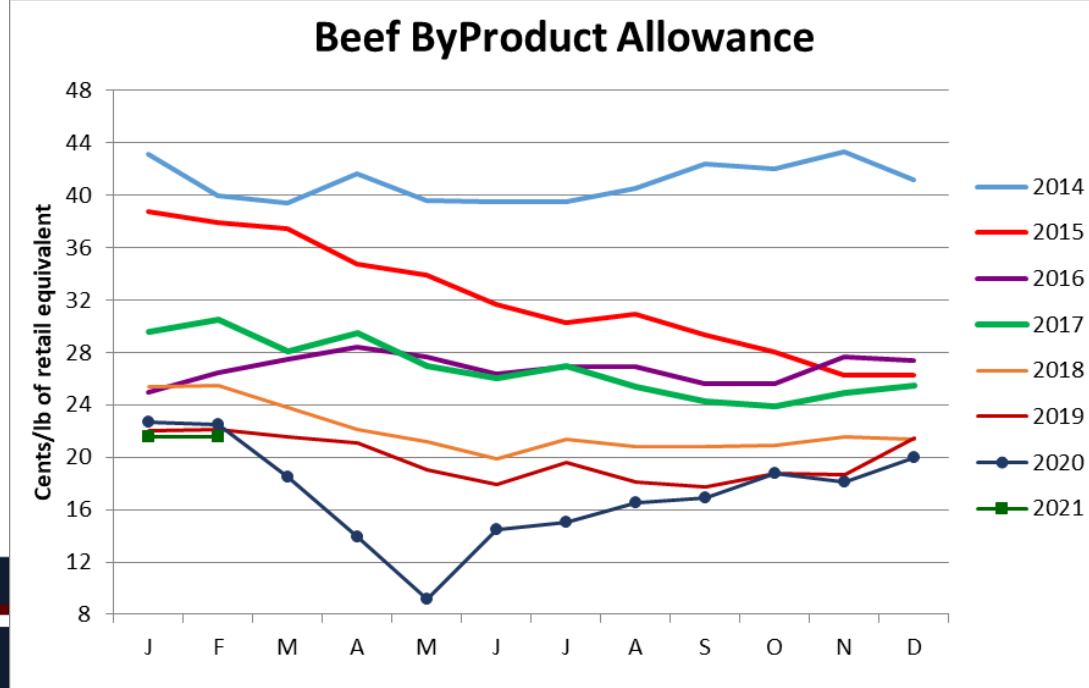


# Beef Retail Values

In late 2020, Choice beef retail prices continued to ease lower from the record highs in May/June when retail prices adjusted higher to accommodate the temporary increase in wholesale values. The 2020 Choice beef retail price average was up 8% from 2019 at \$6.54/lb. In February 2021, Choice beef retail prices were steady with the previous month at \$6.41/lb., up 6% year-over-year



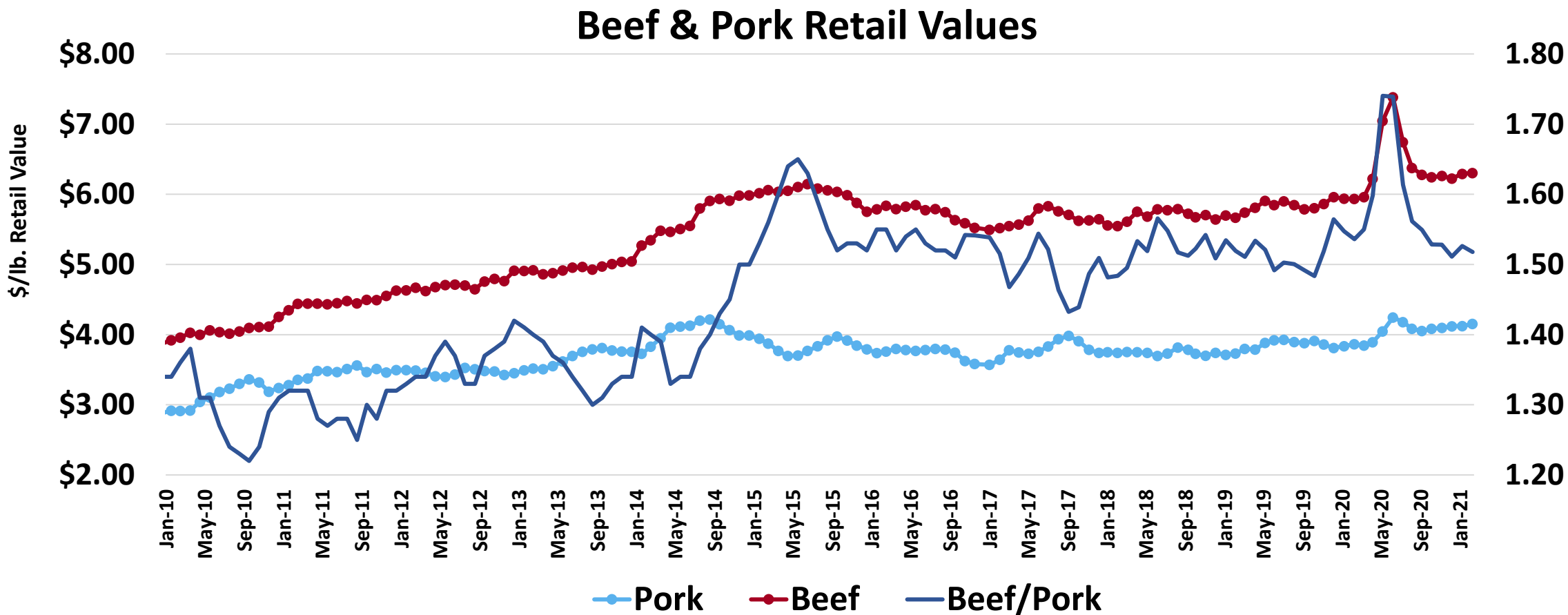
The 2020 average beef byproduct value (which includes hides) was down 13% from 2019 at 17 cents/lb. In February 2021, the beef byproduct allowance averaged 21.6 cents/lb., steady with the previous month but down 4% from last year (but the highest since last February).



Source: USDA/ERS & BLS



The beef-to-pork price premium eased from the record high in May/June 2020 but remained historically high in February 2021



Source: USDA/ERS, all fresh beef retail value

