2019 Sheep Industry Review

Prepared by the
American Sheep Industry Association
for the American Lamb Board

March 2020

Contents

Executive Summary

Sheep Inventory
Breeding sheep inventory totaled 3.81 million head on January 1, 2020, it decreased slightly from 3.82 million head on January 1, 2019. Ewes one year old and older totaled 2.98 million head, 1% below last year. The largest sheep state, Texas, dropped 2% in ewe numbers, to 445,000 head.

Feeder and Slaughter Lambs
Feeders at auctions in Texas, Colorado, and South Dakota averaged $177.33 per cwt. in 2019, down marginally annually. Slaughter lamb prices at auction averaged $151.31 per cwt. in 2019, 8% higher annually, and 3% higher than its 5-year average. Live, negotiated slaughter lamb prices averaged $149.66 per cwt. in 2019, up 4% annually.

The U.S. pelt market remained depressed in 2019. The unshorn Supreme pelt—highest quality—brought -$1.08 to $2.29 per piece in 2019, down an average 86% annually.

Wholesale and Retail Lamb
In 2019, the net carcass value (i.e., gross cutout after processing and packaging) averaged $342.07 per cwt., up 3% annually, and 3% higher than its 5-year average. The gross carcass value averaged $390.42 per cwt. in 2019, up 4%. The rib, leg and shoulder strengthened in 2019, but loins weakened.

The rack, 8-rib medium, averaged $879.21 per cwt. in 2019, up 3% annually, and up 10% from its 5-year average. The loins averaged $523.52 per cwt. in 2019, down 3% annually, and down 3% from its 5-year average. The shoulder averaged $304.52 per cwt., up 8% annually, and up 3% from its 5-year average. The leg, trotter-off, averaged $376.55 per cwt. in 2019, up 3% annually, up 4% from its 5-year average.

Ground lamb averaged $573.44 per cwt., up 1% annually, up 3% from its 5-year average.

In 2019, 26% of federally-inspected harvest was reported yield grade 4s and 5s, with excess back fat, down from 27% in 2018. This represents the third highest monthly annual percentage in 10 years.

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The live to cutout spread fell 15% in 2019 to $65.80 per head. The price spread accounts for live, wholesale, offal, and pelt values, resulting in a narrower/lower spread. Last year, 2019, was the first year of weakening after four years of consecutive gains. Live lamb values were up by 2% and while the meat complex was down by 3%, due to the loss of the pelt credit.

Retail feature activity was mostly lower in 2019 while feature-weighted prices were mixed. Apart from the loins, most fabricated cuts were higher in 2019.

Production and Trade

Lamb and sheep harvest was 2.32 million head in 2019, up 3% annually. Lamb harvest was up 1% in 2019 to 1.9 million head. Mutton harvest was up 8% to 114,900 head.

Commercial sheep and lamb production was 148.10 million lbs. in 2019, down 3% annually. Estimated lamb production totaled 91.47 million lbs., down 6% annually. As supplies tighten, dressed weights fell. Federally-inspected average dressed weight was 66.7 lbs. in 2019, down 5% annually.

Freezer inventory mostly climbed through 2019. The monthly average in 2019 was 34.3 million lbs., up 23% annually.

In 2019, lamb and mutton imports were steady with 2018 at 272.4 million lbs. Lamb imports jumped 6% in 2019 to 218.5 million lbs. Australian lamb imports were up 8% annually to 162.0 million lbs. New Zealand lamb imports were up 3% annually to 54.7 million lbs. Total mutton imports were 54.0 million lbs. in 2019, down 19%. Australian imports were down 13% to 50.7 mill. lbs. New Zealand imports were down 62% to 3.2 mill. lbs.

Lamb exports were down 6% to 737,000 lbs. Mutton exports were down 1% to 4.96 million lbs.

At 425.0 million lbs., total lamb and mutton availability held steady in 2019. It was the first slow-down in seven consecutive years.

Forecasts

Lamb industry forecasts are particularly challenging this year with the introduction of COVID-19. It can be expected that the lamb, pelt and wool sectors will see an initial demand surge, and then demand shock if incomes are depressed, but the severity and duration is unknown. A demand stock at food service – in particular – will likely be felt in the longer-term in the live feeder and slaughter lamb markets.

There will be a short-term and long-term impact from COVID-19. The short-term impact of COVID-19 is already in motion. During the week ended March 15, there was a 77% increase of at-home meat sales (Drovers, 3/23/20). At-home lamb sales increased by more than 50% (Drovers, 3/23/2). A surge of at-home sales occurred due to heightened uncertainty of meat availability. The uptick in demand far outpaced the food system's logistical capabilities (Oklahoma Cooperative Extension Service, 3/23/20). Availability of lamb at grocery stores is not an issue, market will stabilize as supply catches up. The lamb segment that will take a hit is sales at food service, as many restaurants close or limit service to take-out. The net effect of lamb sales in March and possibility April will be lower lamb sales.

In an increasingly interconnected lamb market, what happens in Australia, and China has an impact on domestic lamb industry. These dynamics only intensify with the presence of COVID-19. Lamb supplies are currently very tight in Australia, but heavier harvest weights will help offset lower harvest numbers. COVID-19 will likely depress China's lamb demand further, which may mean more Australian lamb will be destined to the U.S. market. It remains unknown whether U.S. lamb demand will see a similar weakening, which would then depress import prices of Australian lamb cuts. Lower-priced imports and influx of imports, coupled with lower demand in the U.S. for domestic product, will mean lower prices throughout the lamb complex from retail to feeders.

The long-term outlook is more unknown. There will be profound uncertainty surrounding consumer demand. There may be a loss of slaughter capacity as plants consider temporary shut downs due to COVID-19. A potential backlog of supplies would follow, and thus depress the live lamb markets. One positive note is that some households might have rediscovered or discovered lamb during this time of shelter in place. Another positive is that the food service sector will rebound over time. However, at retail and food service, the U.S. may see increased imports if Chinese demand is severely depressed.

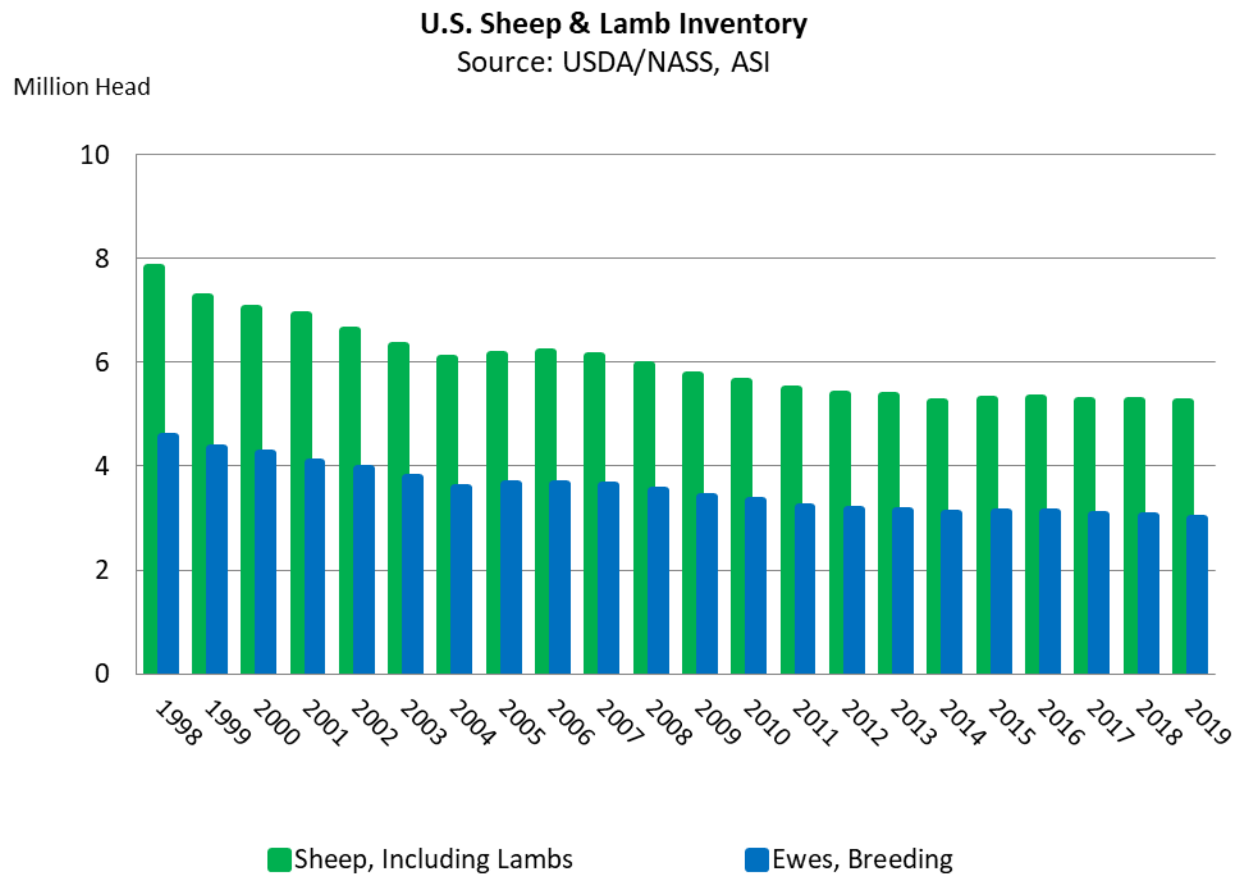
I. Inventory

All sheep and lambs inventory in the United States on January 1, 2020 totaled 5.20 million head, down 1% from 2019

-- Breeding sheep inventory at 3.81 million head on January 1, 2020, decreased slightly from 3.82 million head on January 1, 2019

-- Ewes one year old and older, at 2.98 million head, were 1 percent below last year

Sheep Industry Inventory



The largest sheep state, Texas, dropped 2% in ewe numbers, to 445,000 head

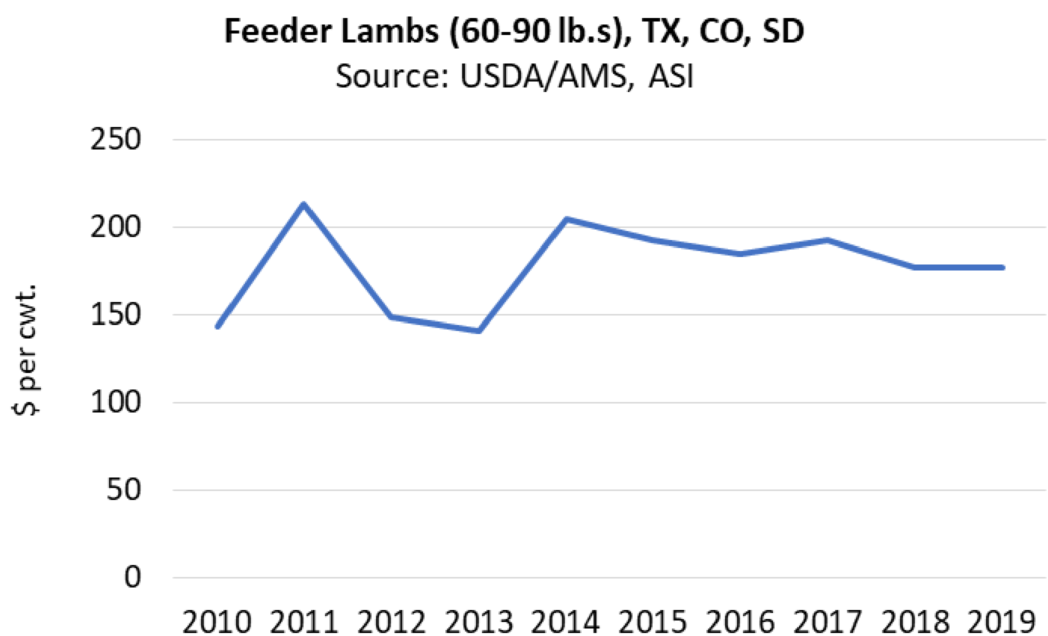
Top 10 Sheep States by Breeding Ewe Inventory			
		No. of Head	Percent growth 2019-20
1	TEXAS	445,000	-2.20%
2	CALIFORNIA	260,000	4.00%
3	WYOMING	215,000	0.00%
4	UTAH	195,000	-7.14%
5	COLORADO	156,000	4.00%
6	SOUTH DAKOTA	152,000	-3.18%
7	OREGON	89,000	-6.32%
8	IOWA	85,000	6.25%
9	OHIO	77,000	6.94%
Source: USDA/NASS, ASI			

North Dakota saw the highest growth rate, growing 14% to 41,000 head

Top 10 Sheep States by Breeding Ewe Inventory Growth			
		No. of Head	Percent growth 2019-20
1	NORTH DAKOTA	41,000	13.9%
2	OKLAHOMA	33,000	10.0%
3	KANSAS	40,000	8.1%
4	OHIO	77,000	6.9%
5	IOWA	85,000	6.3%
6	NEW YORK	54,000	5.9%
7	WEST VIRGINIA	22,000	4.8%
8	NEVADA	46,000	4.5%
9	WISCONSIN	50,000	4.2%
10	CALIFORNIA	260,000	4.0%
Source: USDA/NASS, ASI			

II. Feeder and Slaughter Lamb Market Trends

Auction Feeders Lower Annually

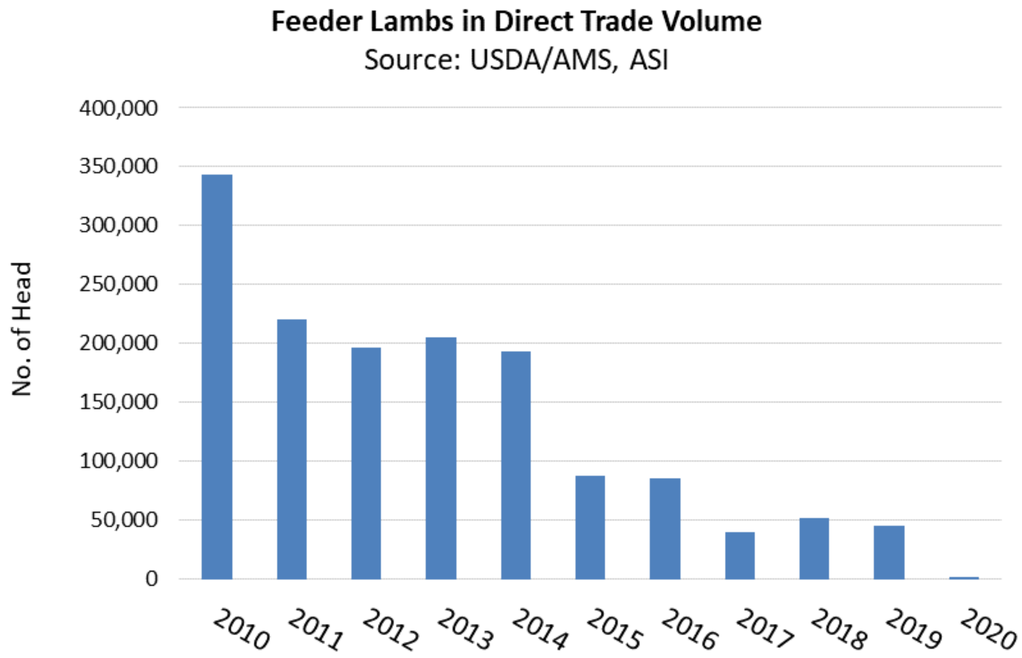


60-90 lbs. Feeders at Auction Lower

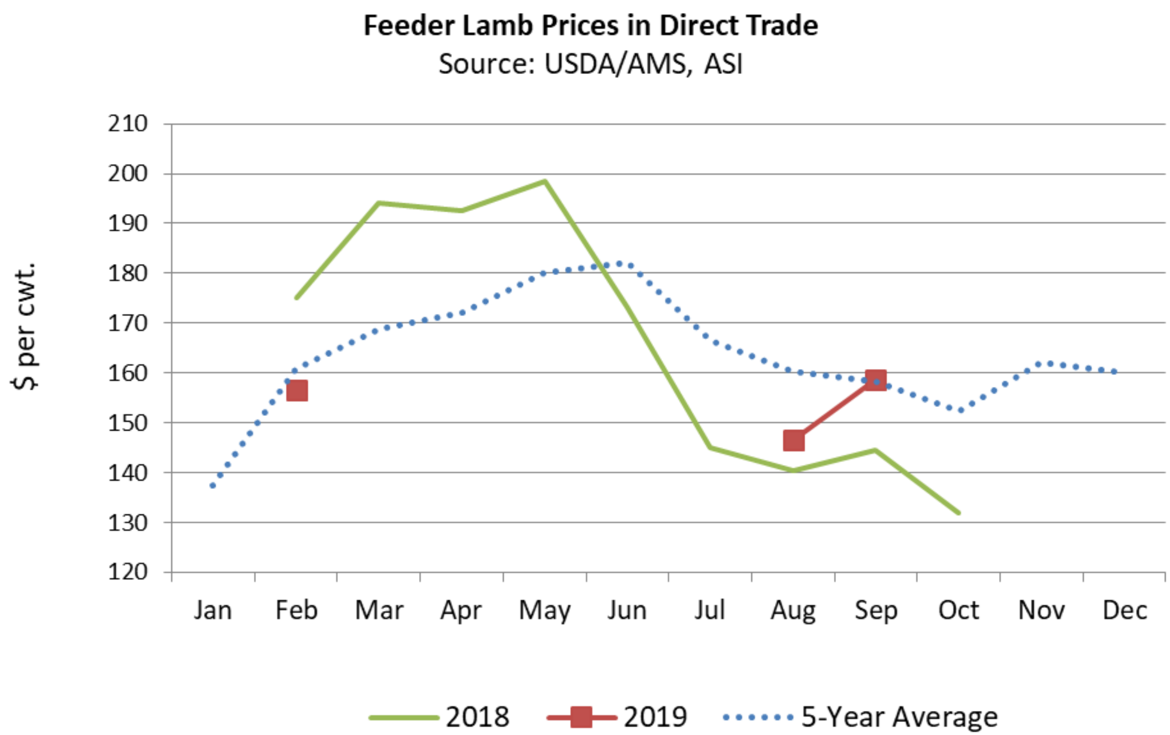
- Feeders averaged $177.33 per cwt. in 2019, down slightly annually
- San Angelo feeders averaged $178.09 per cwt., up 4%
- Ft. Collins feeders saw $165.22 per cwt., up 7%
- Sioux Falls feeders averaged $184.77 per cwt., down 1%

Number of Feeders in Direct Trade Down Sharply in Last Few Years:

Only 1,700 head reported in 2019, down from an average of 45,700 over each of the previous three years

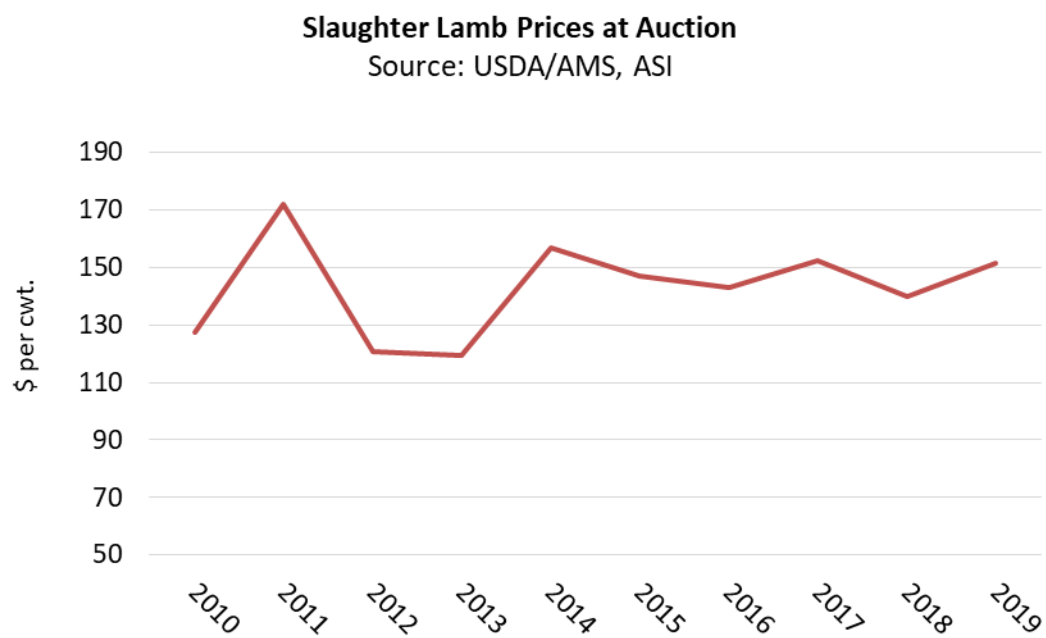


Only three months of feeder lambs prices in direct trade reported in 2019

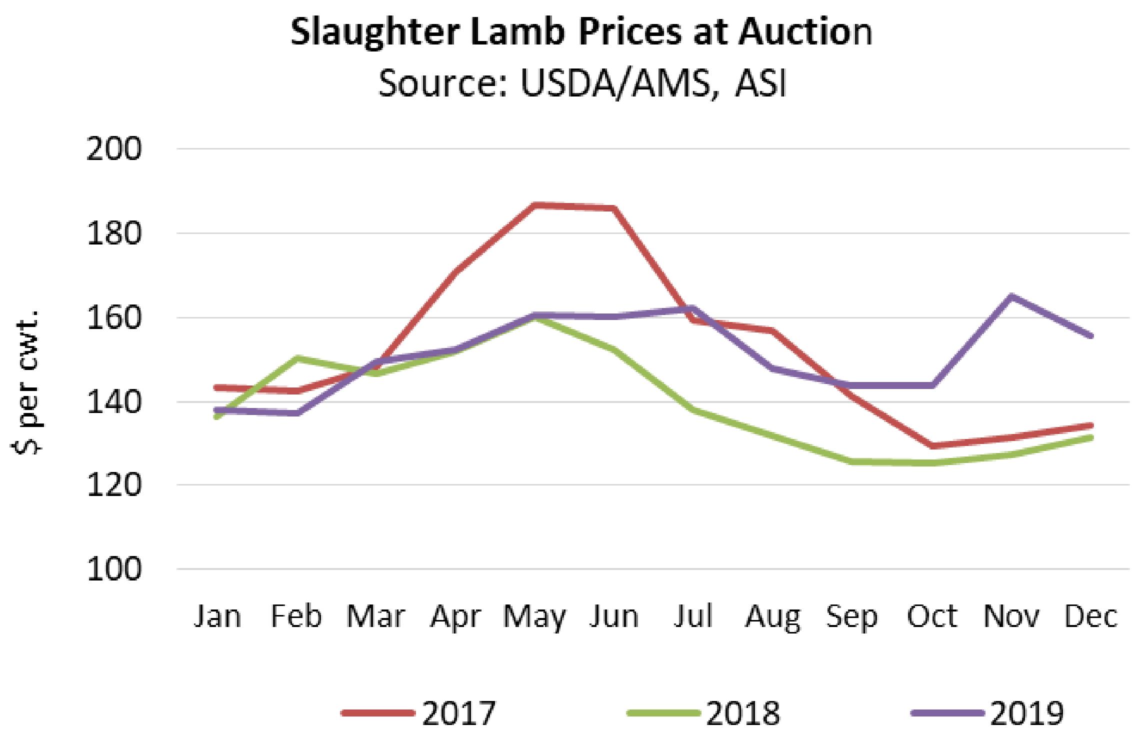


Slaughter lamb prices at auction averaged $151.31 per cwt. in 2019, 8% higher annually

--3% higher than its 5-year average

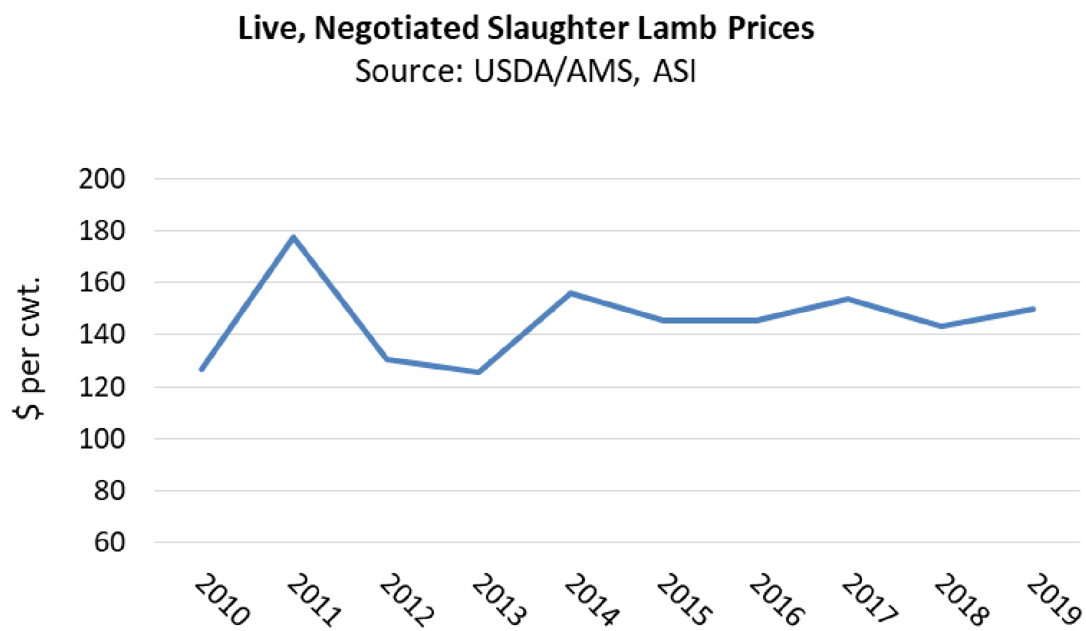


Slaughter lamb prices at auction exhibit pronounced seasonality



Live, negotiated slaughter lamb prices averaged $149.66 per cwt. in 2019, up 4% annually

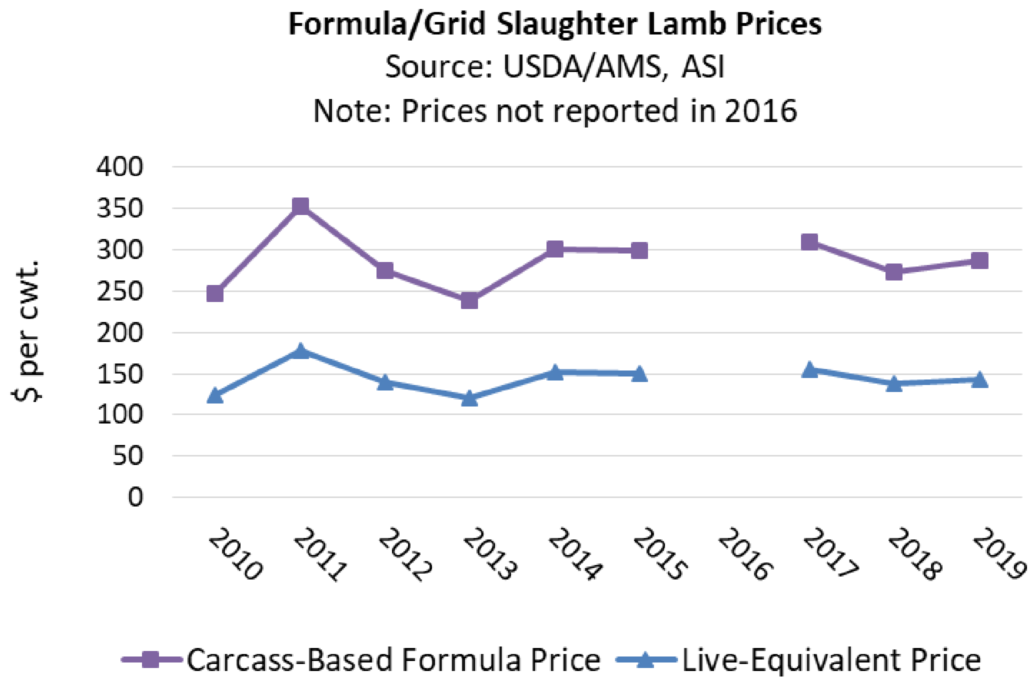
-- Up 1% from its 5-year average



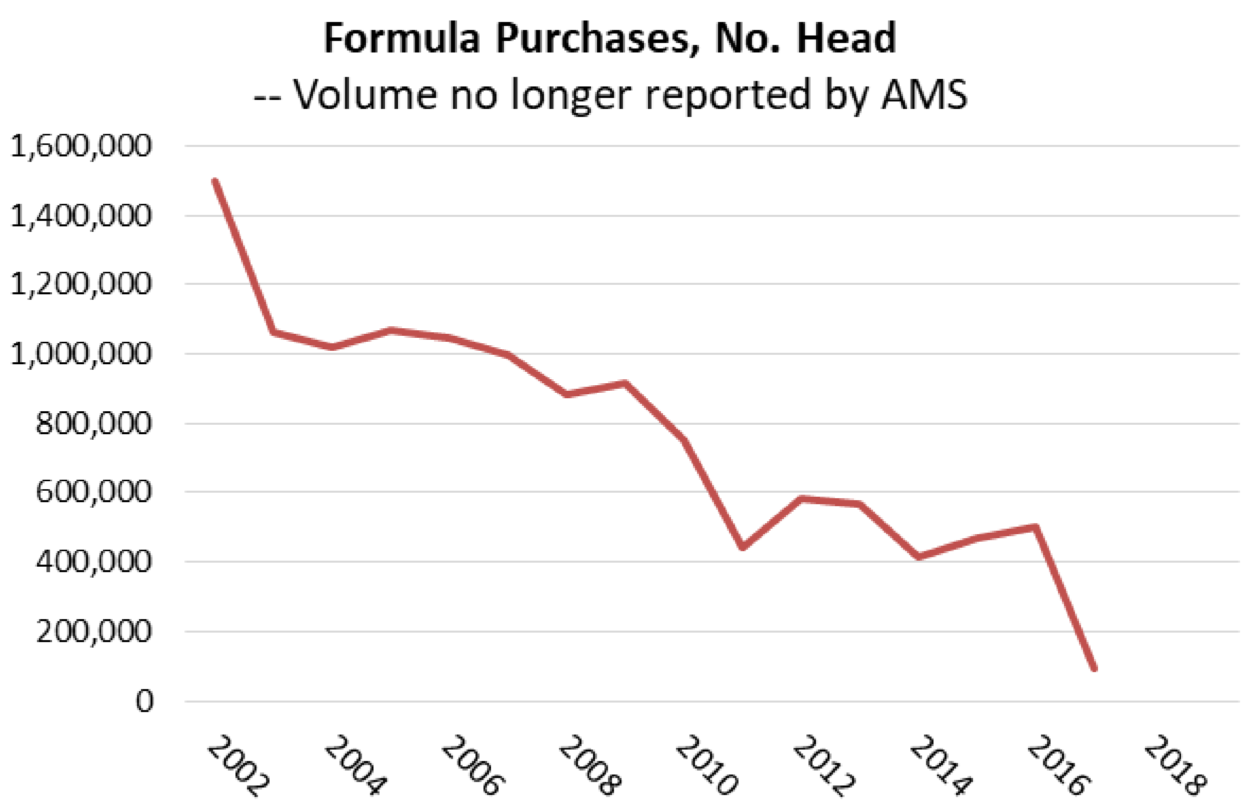
Formula/grid average was $287.46 per cwt. in 2019, up 5% annually, down 2% from its 5-year average

-- The live-equivalent average was $143.99 per cwt.

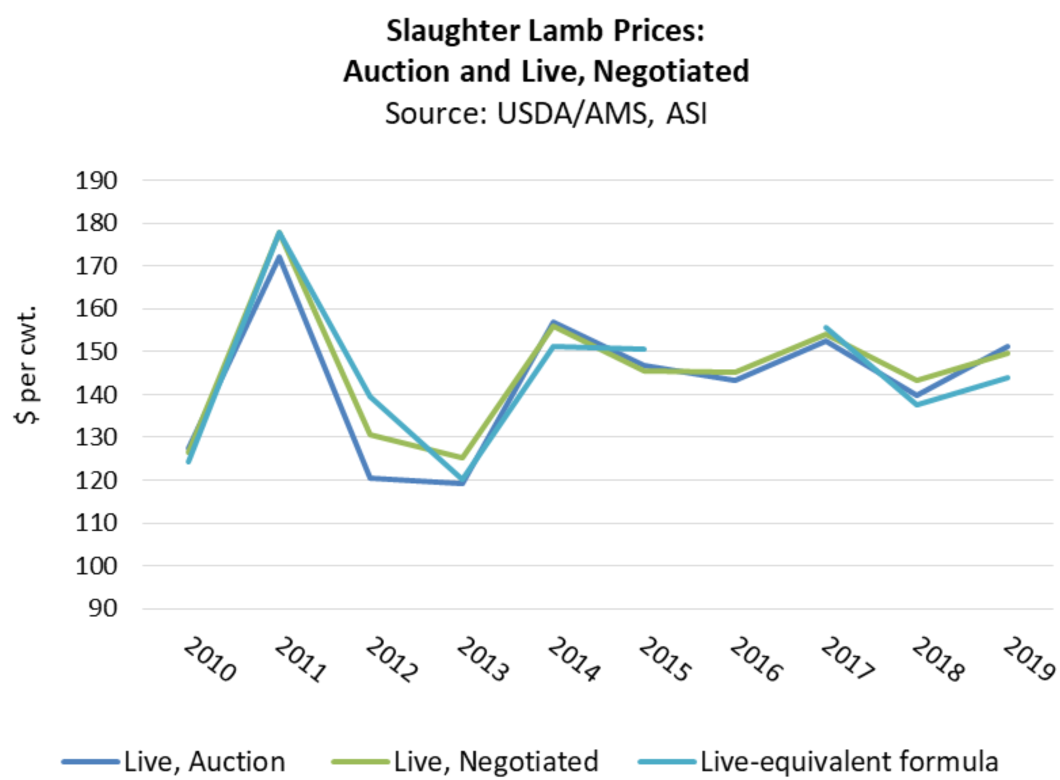
-- Lack of USDA/AMS reporting left 3/2016-3/2017 gap in the market.



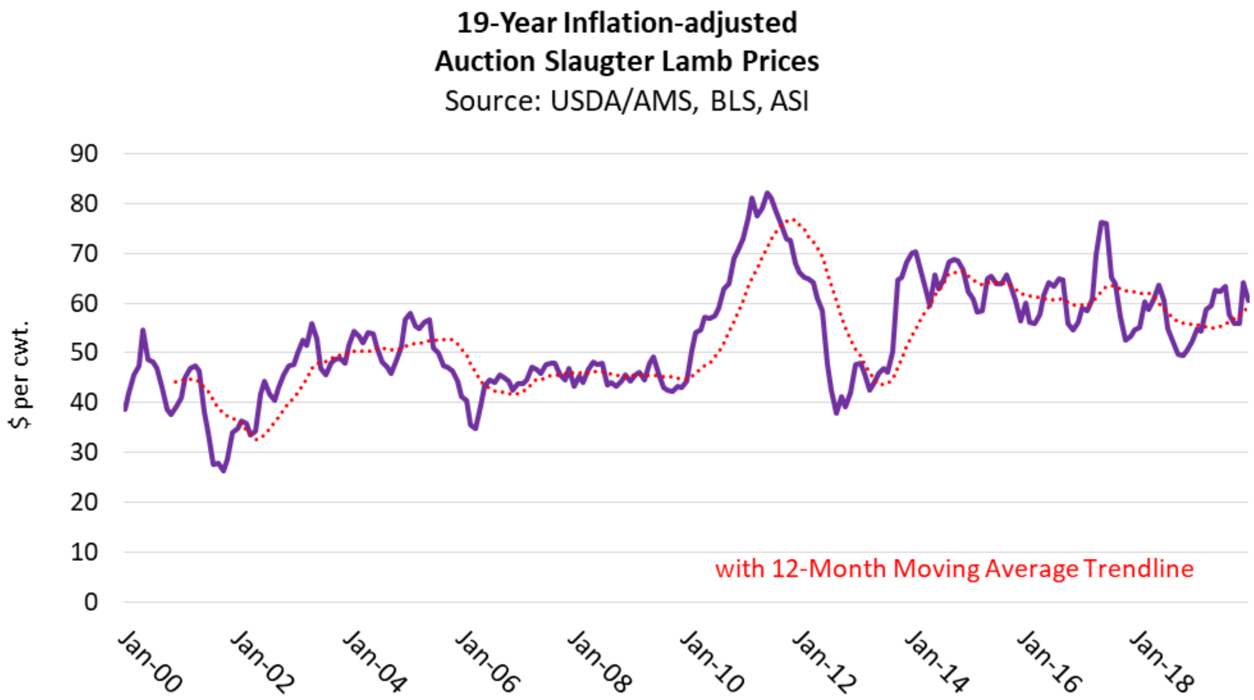
Volume of slaughter lambs on formula/grid not reported due to confidentiality



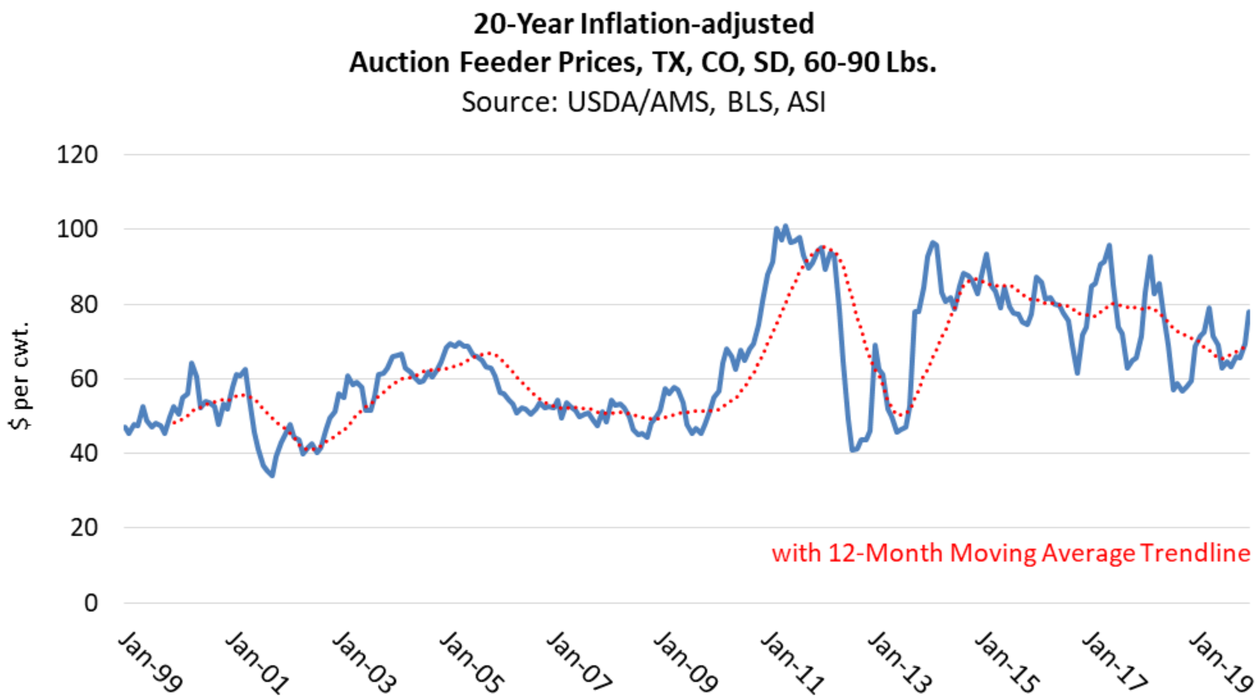
Slaughter lambs prices by purchasing method track closely



Real slaughter lamb prices lower in last five years



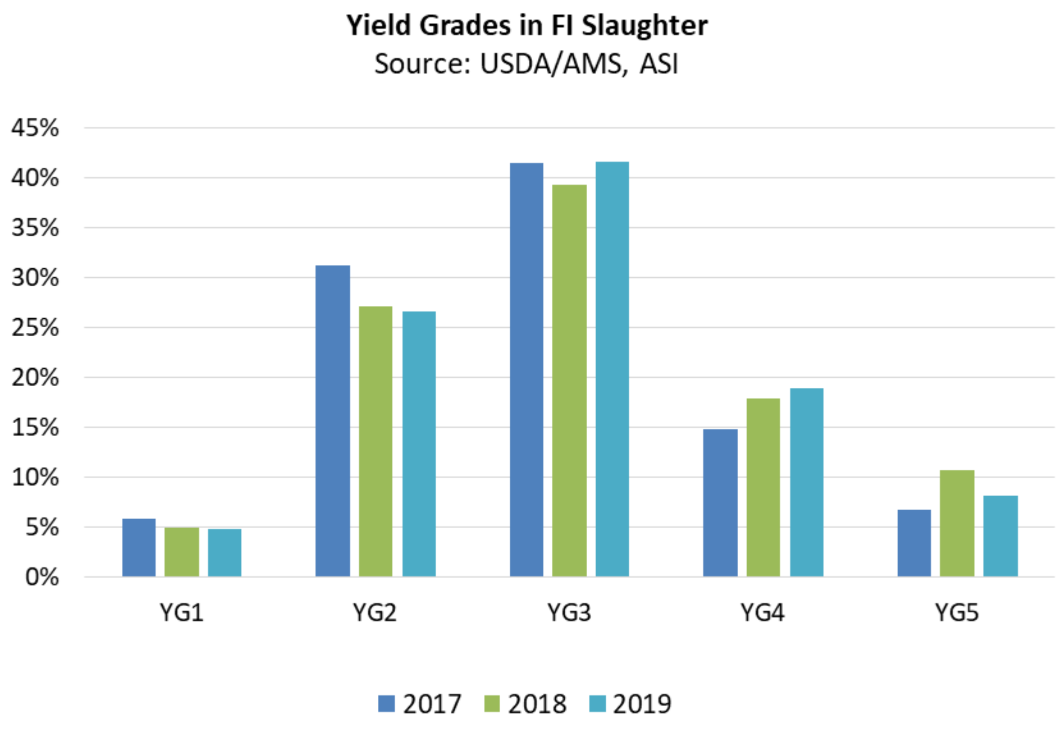
Real feeder lamb prices lower in last five years



III. Carcass and Boxed Lamb Market Trends

YG 4s and 5s 26% of Harvest in 2019, down from 27% in 2018

--Third highest percentage in 10 years



Federally Inspected Lamb and Mutton Yield Grades

Percentages derived from yield grade by lbs.

Source: USDA, AMS, Livestock and Seed Division

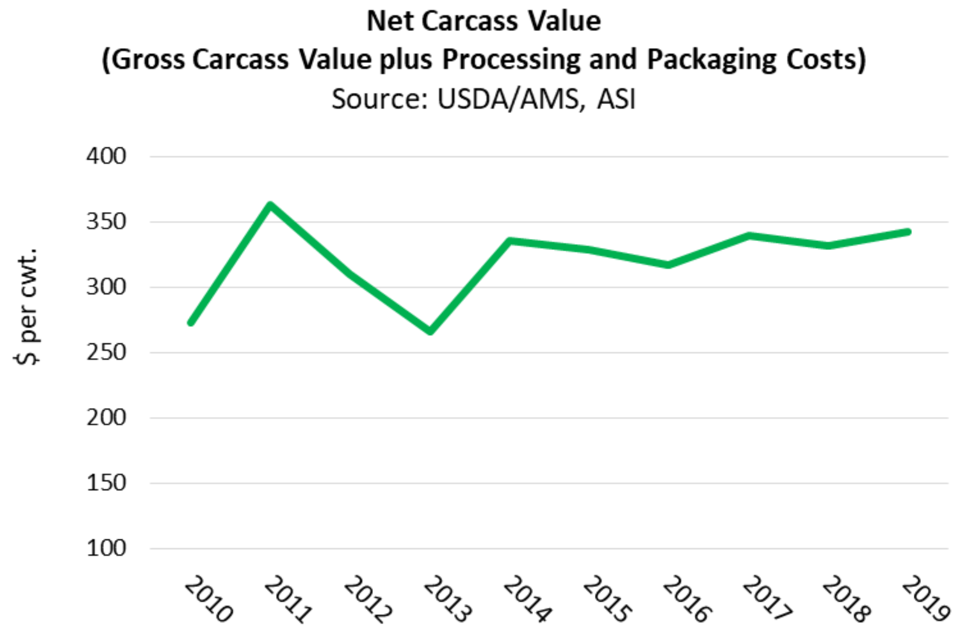
Percentage of Yield Grade in Total Yield Graded					
	YG1	YG2	YG3	YG4	YG5
2015	5%	29%	41%	16%	8%
2016	7%	30%	39%	16%	8%
2017	6%	31%	42%	15%	7%
2018	5%	27%	39%	18%	11%
2019	5%	27%	42%	19%	8%
Source: USDA/AMS, ASI, 2020					

2019 Carcass Prices Not Reported

- Carcass prices suspended May 2017
- Volume by weight class still reported

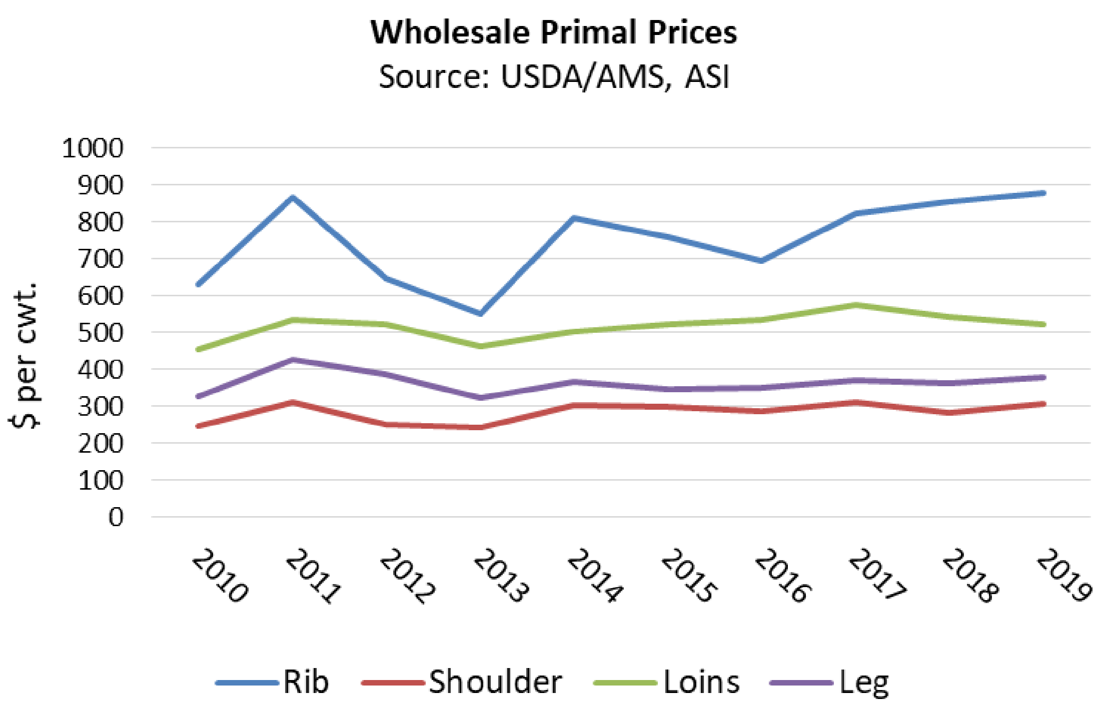
2019 net carcass value (i.e., gross cutout after processing and packaging) averaged $342.07 per cwt., up 3% annually, 3% higher than its 5-year average

--Gross carcass value averaged $390.429 per cwt. in 2019, up 4%

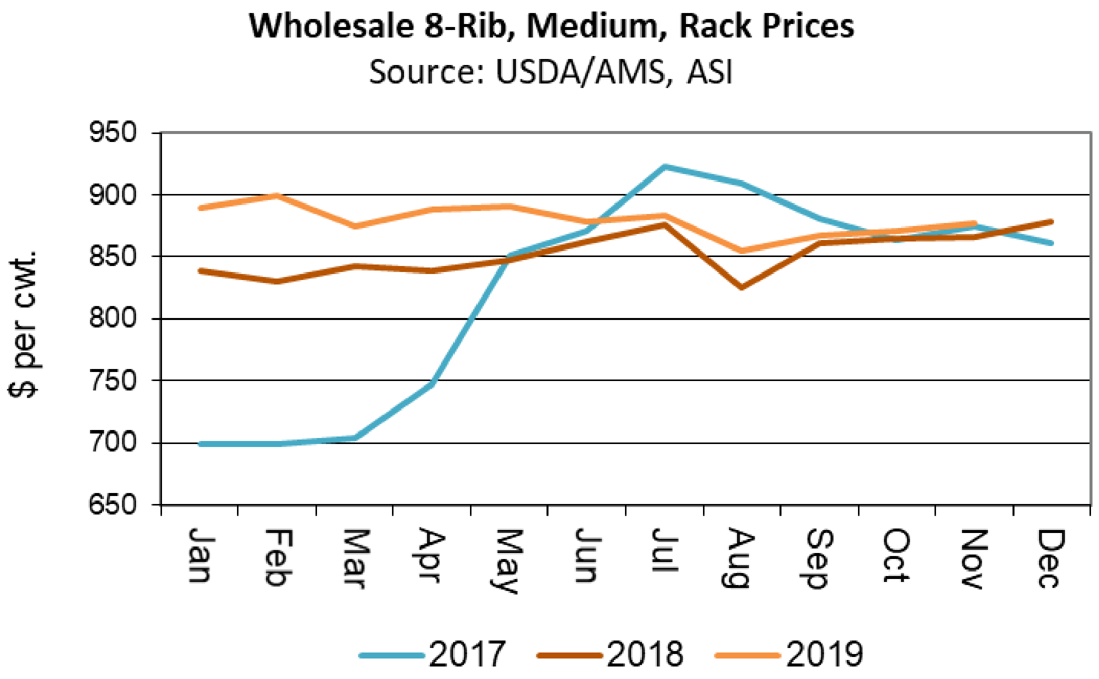


Rib, Leg and Shoulder Higher in 2019, but Loins Lower

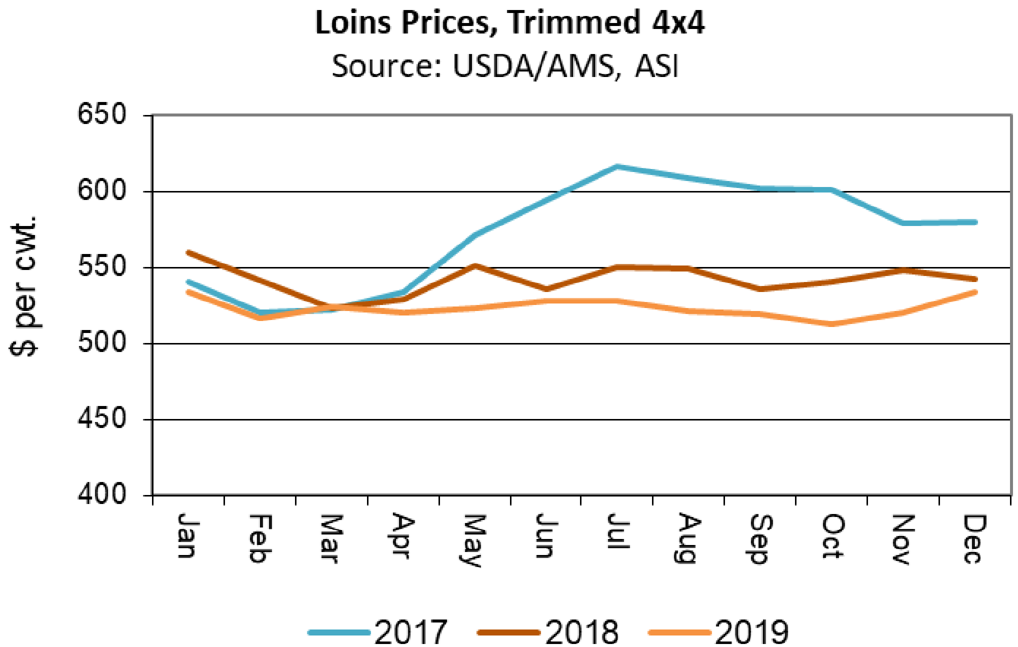
-- Lower-priced shoulder chops took some of the loins market share



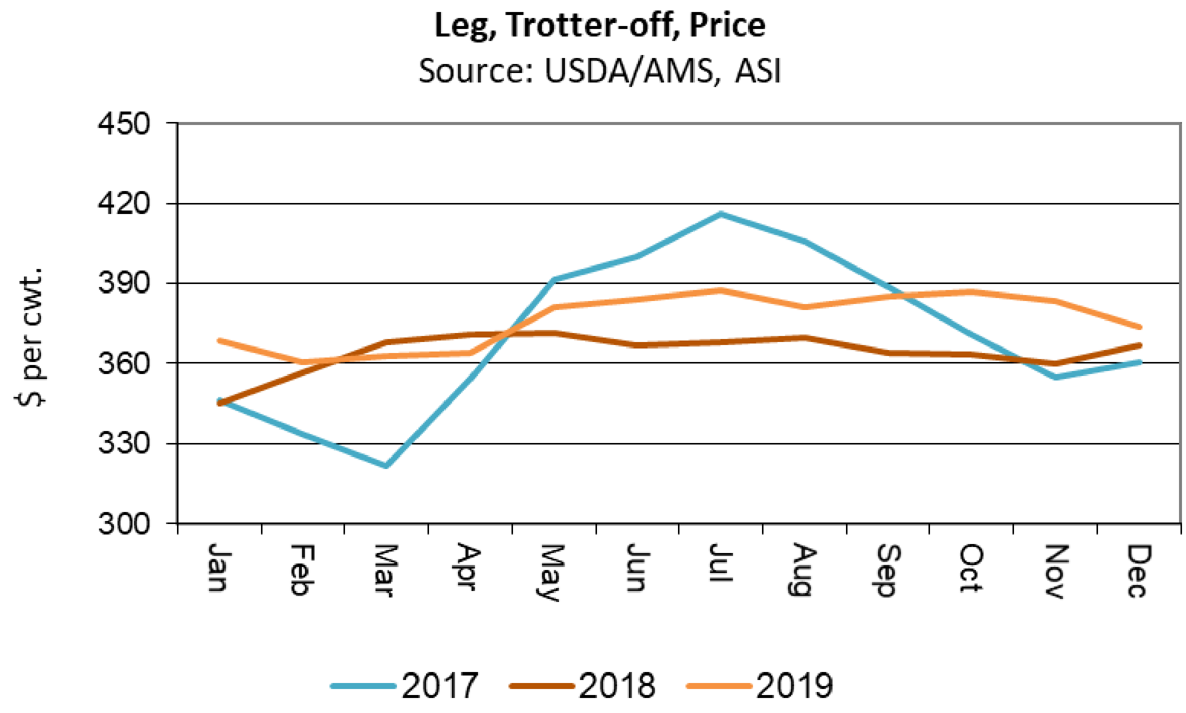
Rack, 8-rib medium, averaged $879.21 per cwt. in 2019, up 3% annually, up 10% from its 5-year average



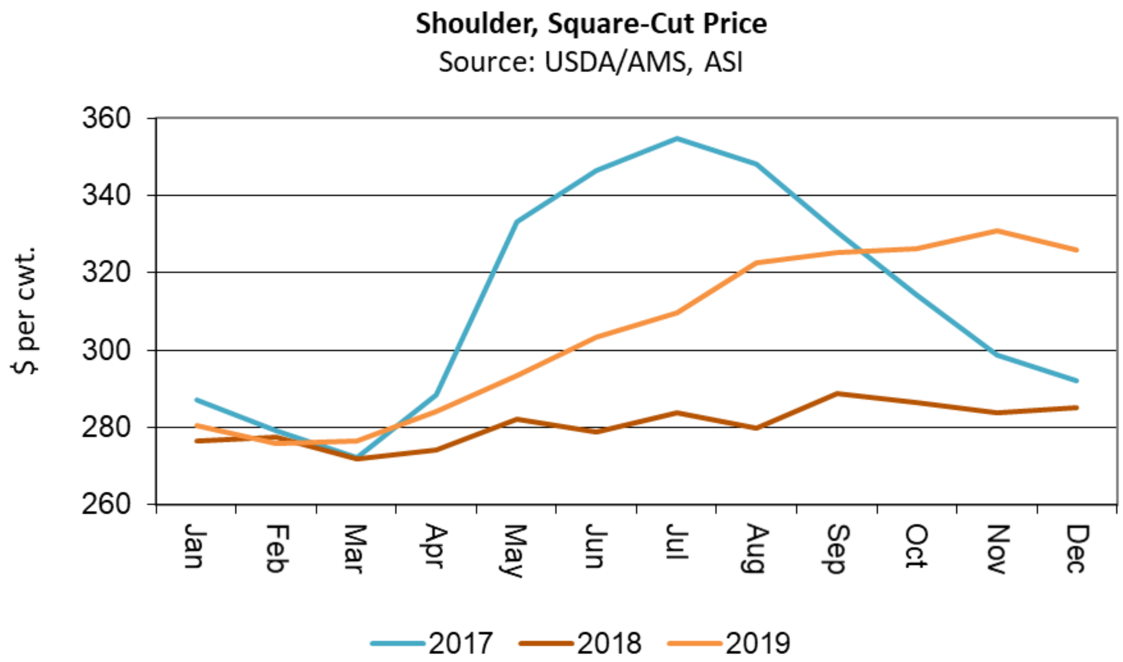
Loins averaged $523.52 per cwt. in 2019, down 3% annually, down 3% from its 5-year average



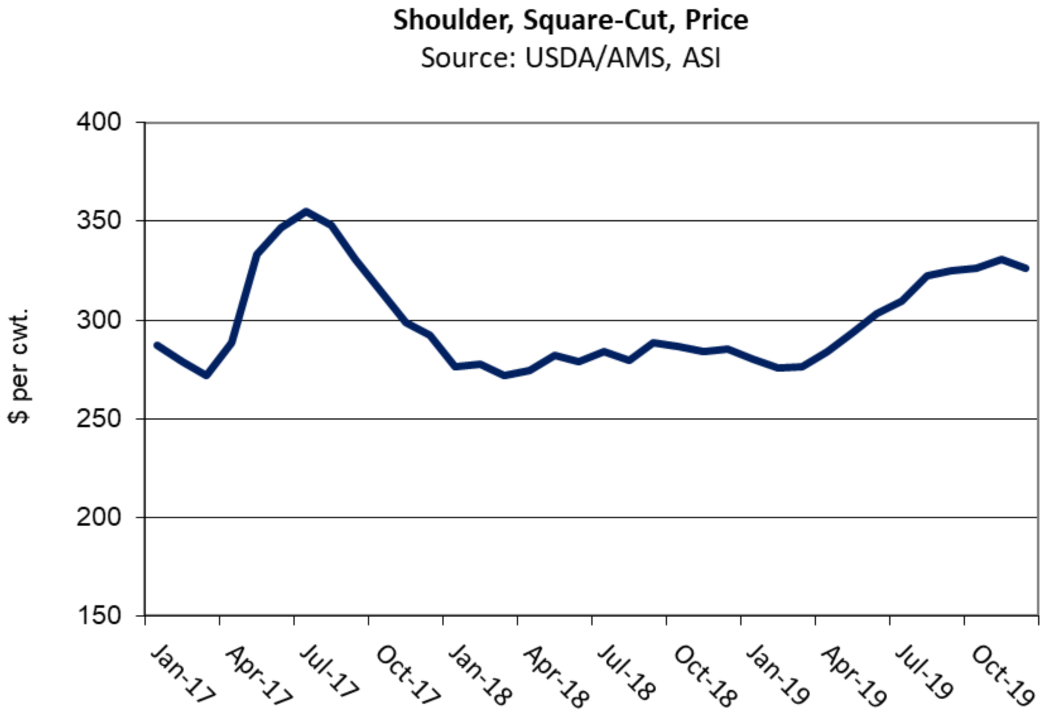
Leg, trotter-off, averaged $376.55 per cwt. in 2019, up 3% annually, up 4% from its 5-year average



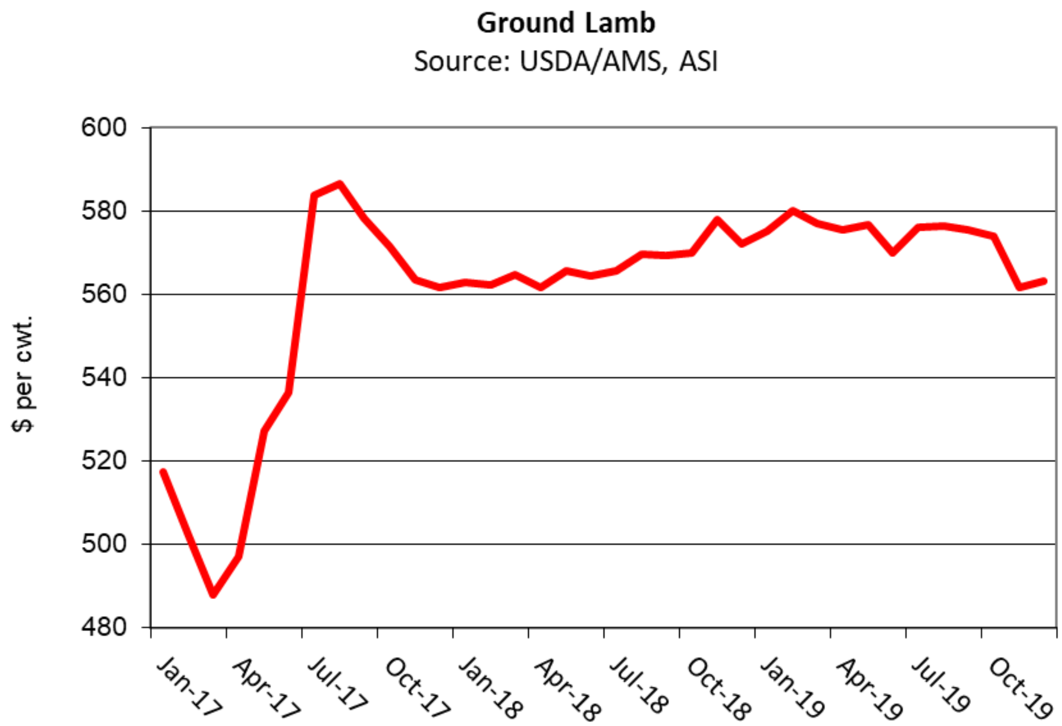
Shoulder averaged $304.52 per cwt., up 8% annually, up 3% from its 5-year average



Shoulder showed strong gains in 2019



Ground lamb averaged $573.44 per cwt., up 1% annually, up 3% from its 5-year average



IV.
Lamb at Retail

Retail feature activity mostly lower in 2019 while feature-weighted prices mixed

➔ Apart from loins, most fabricated cuts higher in 2019

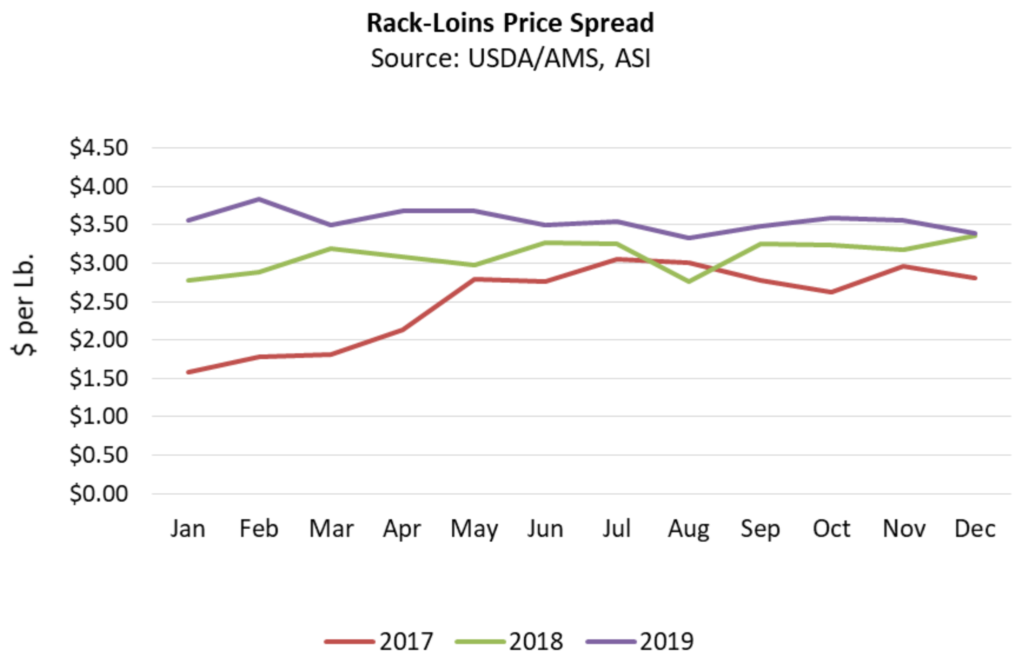
Lamb at Retail: Feature Activity and Prices

	Bone-in Leg		Boneless Leg		Rack		Loins Chop		Shoulder Blade Chop	
	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price
2018	18,230	$5.31	12,440	$7.63	16,820	$13.99	33,380	$9.13	28,630	$5.58
2019	15,610	$6.10	9,990	$7.95	4,170	$14.34	16,610	$8.19	10,790	$5.75
% Change	-14.4%	14.9%	-19.7%	4.2%	-75.2%	2.5%	-50.2%	-10.3%	-62.3%	3.1%

Source: USDA/AMS, ASI

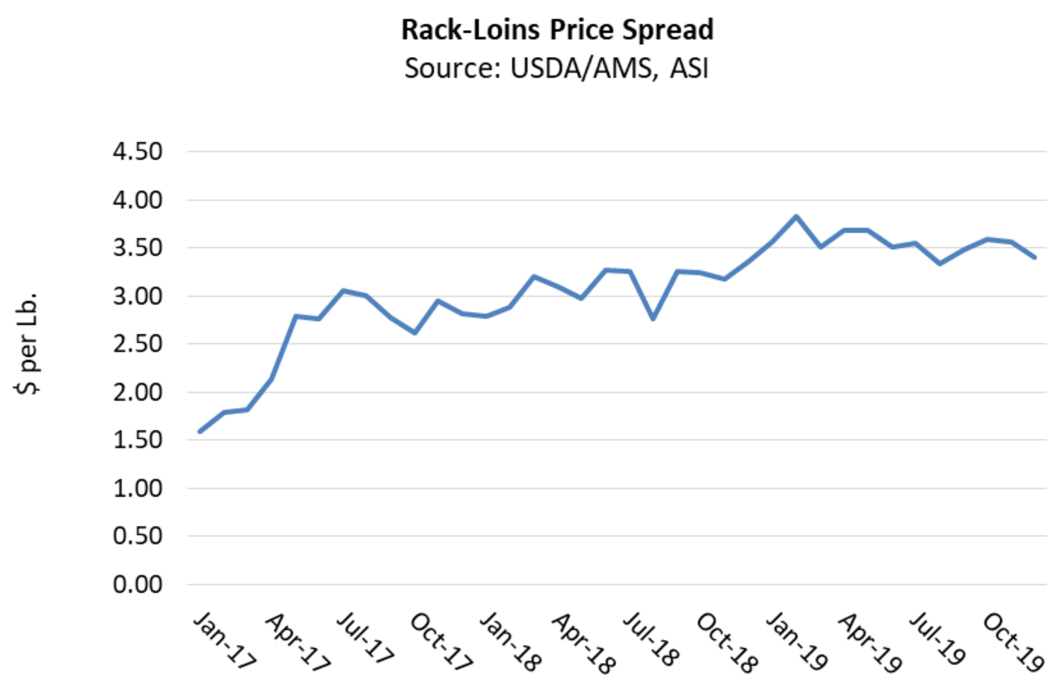
V. Price Spreads

In 2019 the rack-loin spread widened by 15% to $3.56 per lb.
--The rack gained 3%; the loins lost 3%



Comparing wholesale cuts:
rack, medium, 8-rib and 4x4 trimmed loins.

The spread gained mostly due to weaker loins



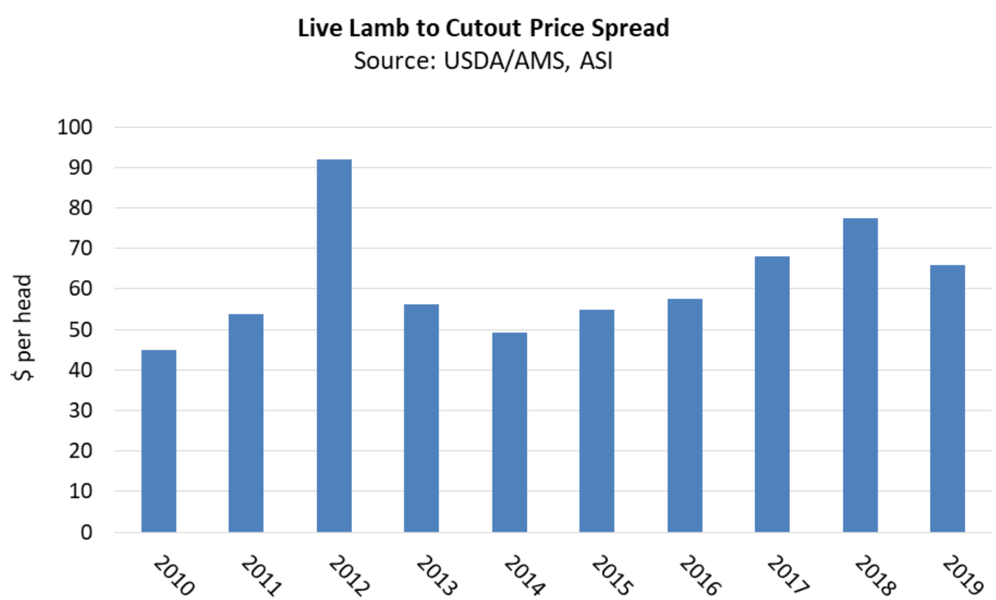
Understanding Packer Spreads

- Packer price spreads do not include any costs of processing.
- Packers sell wholesale primals (cuts) which are combined together and called the cutout.
- Packers also sell carcasses, to the processing industry and to one another. *Carcass prices no longer available, thus the live-carcass price spread is not updated.*
- The price spread assume all that is processed sells and no allowance is made for cold storage tonnage.
- Packer spreads do not represent profitability.

Live to Cutout Packer Spread Fell 15% in 2019 to $65.80 per head:

--First year of weakening after 4 years of consecutive gains

--Live lamb was up by 2% while the meat complex was down by 3% due to the loss of the pelt credit



VI. Pelts

U.S. Pelt Market Remained Depressed in 2019

- Important pelt markets of China, Russia and Europe have been relatively weak
- Warmer winters in these economies has also hurt sales
- Animal rights movement is affecting lambskin sales. The development of low-cost synthetics such as vegan leather (made from polyurethane) is hurting the industry.
- The cost of producing shearling leather has been increasing
- *Source: Nugget Company, ASI Convention in January 2020*

2019 Pelt Prices

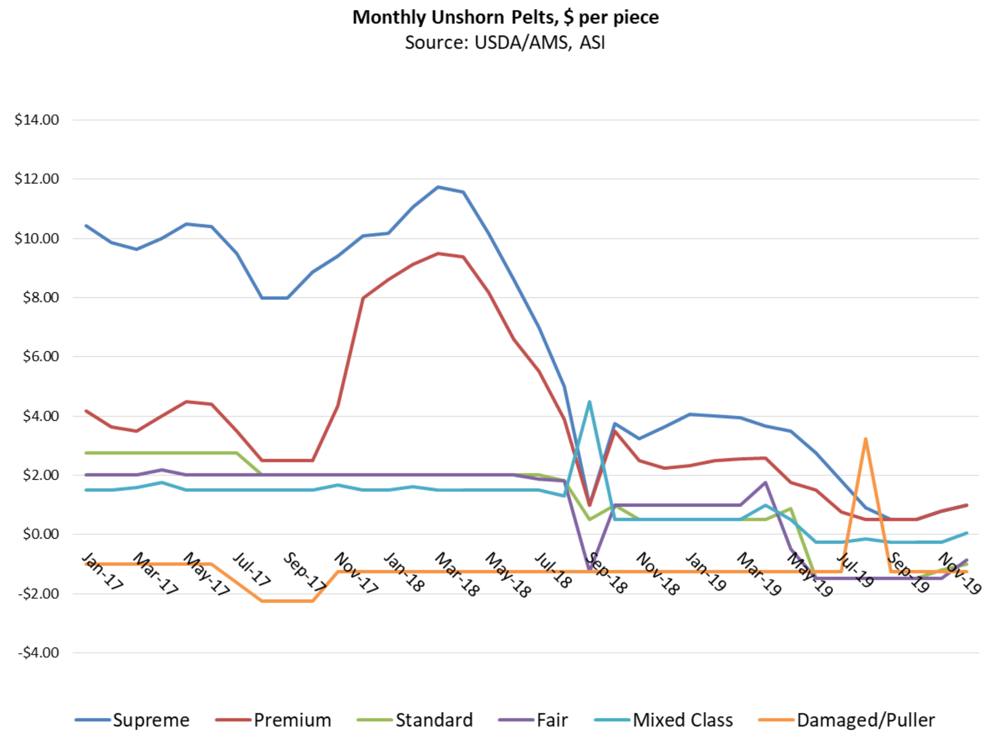
2019 Producer Pelt Credit, US$ per piece

Unshorn	Low price	High price	**Simple ave.**
Supreme	-1.08	2.29	0.60
Premium	-2.85	1.44	-0.70
Standard	-2.69	-0.57	-1.63
Fair	-2.63	-0.47	-1.55
Mixed Class	-2.70	0.14	-1.28
Damaged/Pulled	-2.69	-0.78	-1.74
Shorn			
Supreme	-2.13	2.00	-0.07
Premium	-2.70	1.10	-0.80
Standard	-2.69	-0.82	-1.87
Fair	-2.69	-0.98	-1.83
Mixed Class	-2.69	-2.15	-2.42
Damaged/Pulled	-2.69	-2.17	-2.43

Source: USDA/AMS, ASI

Pelts Lower Annually

- Supreme—highest quality—unshorn pelts brought -$1.08 to $2.29 per piece in 2019, down an average 86% annually



VII. Replacement Sheep

Replacement Sheep Prices Mixed in 2019:

-- Yearling ewes 3% lower

-- Young ewes 6% lower

-- Aged ewes 4% higher

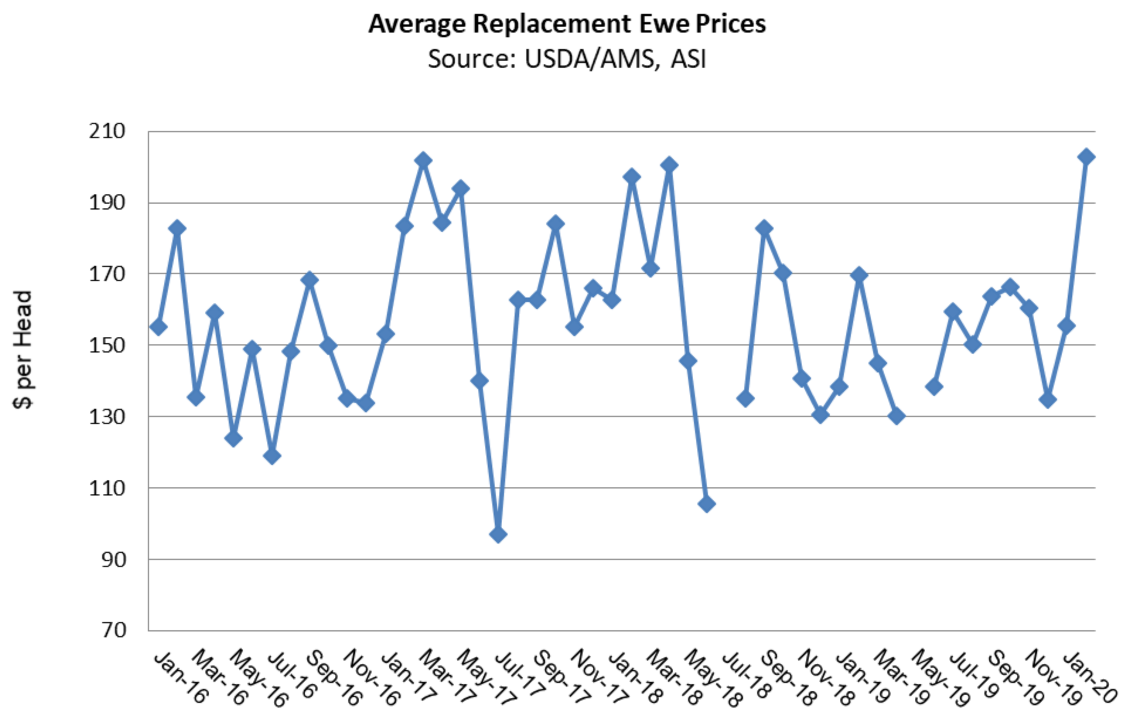
-- Ram prices not established

Replacement Sheep Prices, $ per head

	Ewe Lambs	Yearling Ewes	Young Ewes, 2-4 years	Middle Aged Ewes, 5-6 years	Aged Ewes	Rams Black Face	Rams White Face	Rams Cross Bred
2015	Not established.	237	192	151	109	767	675	662
2016	Not established.	226	186	151	96	NA	NA	NA
2017	295	256	181	148	95	NA	NA	NA
2018	239	242	189	141	92	Not established.		
2019	165	234	178	141	96	Not established.		
% change in 2019	*-31%*	*-3%*	*-6%*	*0%*	*4%*			

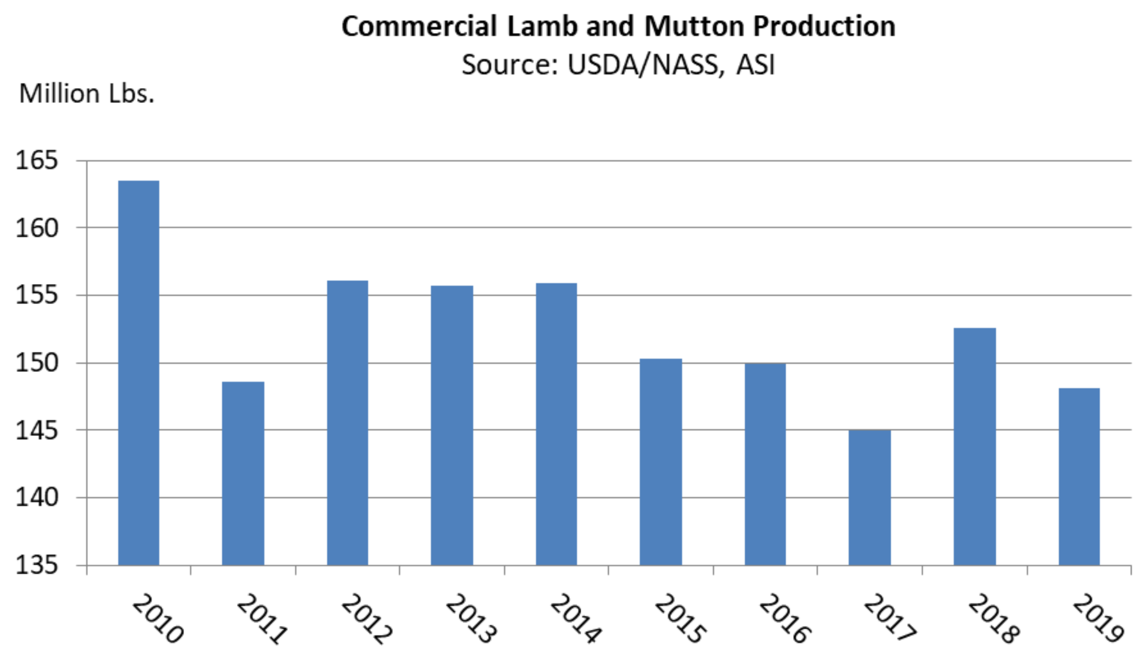
Source: USDA/AMS, ASI

Ewe Prices Variable, Dependent Upon Age



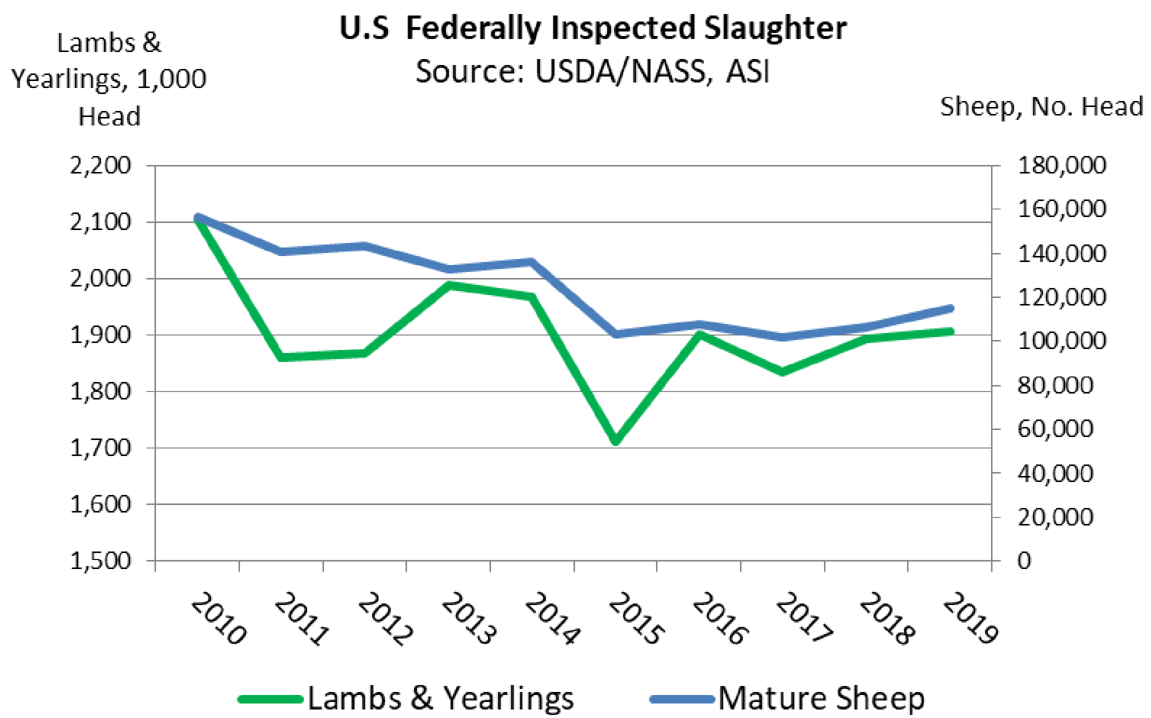
VIII.
Domestic Production and Trade

Commercial sheep and lamb production was 148.10 million lbs. in 2019, down 3% annually



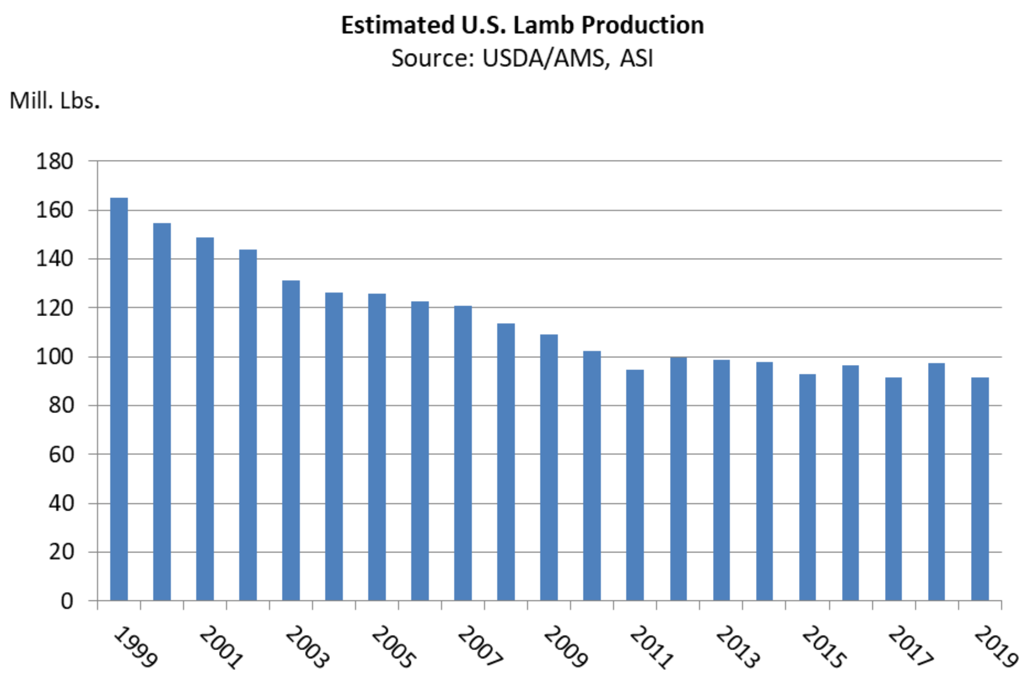
Lamb harvest was up 1% in 2019 to 1,905,500 head

--Mutton harvest was up 8% to 114,900 head



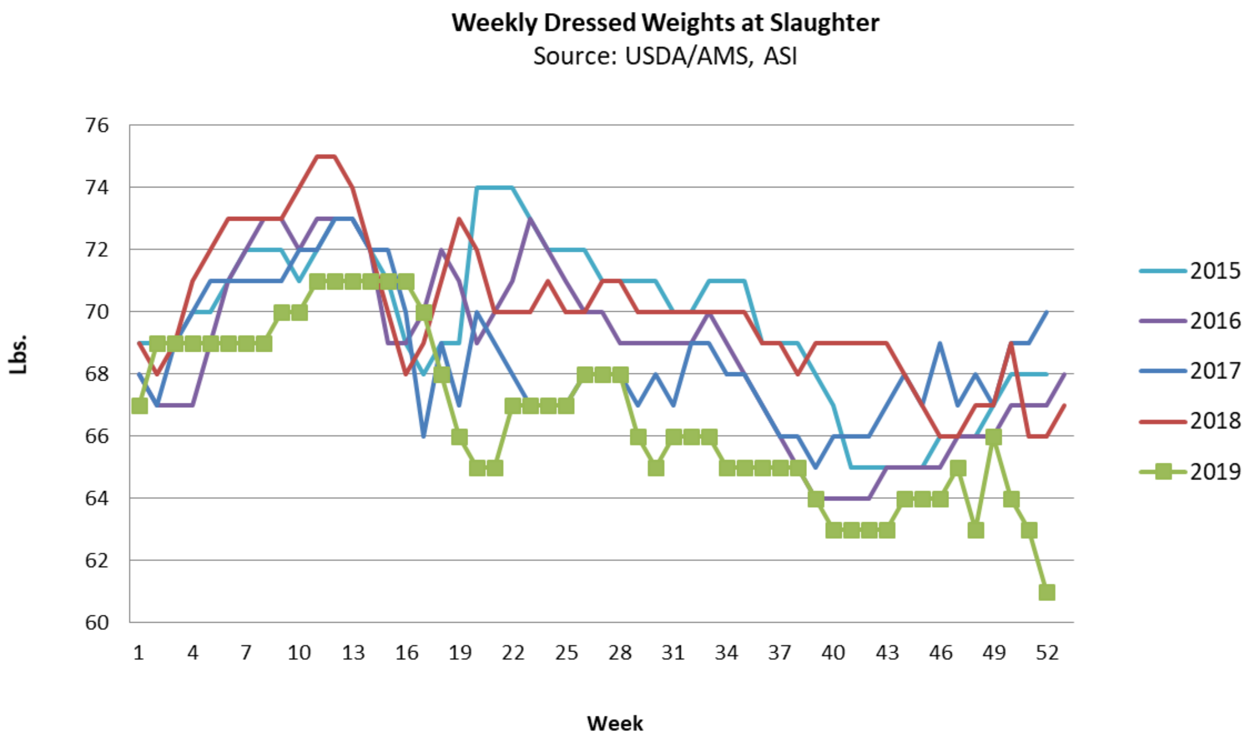
Estimated Lamb Production Totaled 91.47 million lbs., down 6% annually

-- Federal government doesn't report lamb production separate from mutton production, only slaughter numbers



As supplies tighten, dressed weights fell

-- Federally-inspected average dressed weight was 66.7 lbs. in 2019, down 5% annually



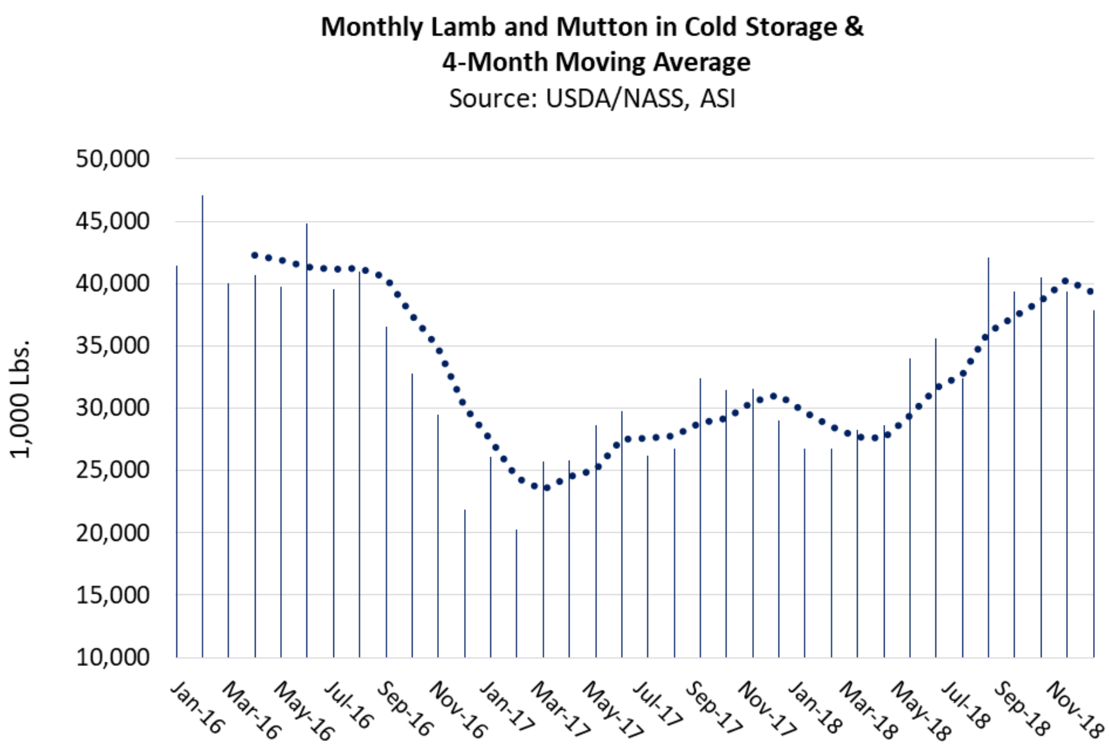
Freezer inventory climbed through 2019

-- We don’t know what portion of this is bone-in, boneless, or domestic versus imported product.

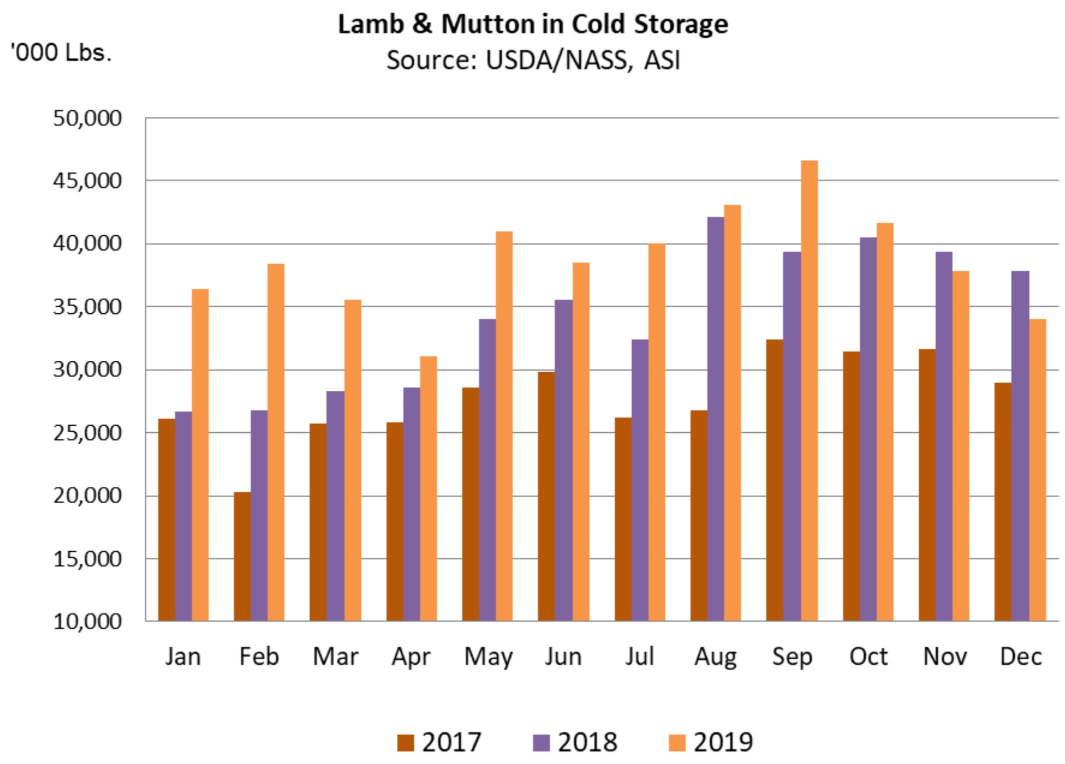
-- Some of the stored meat will be boneless and imported with lower cut weights.

Freezer inventory mostly climbed through 2019

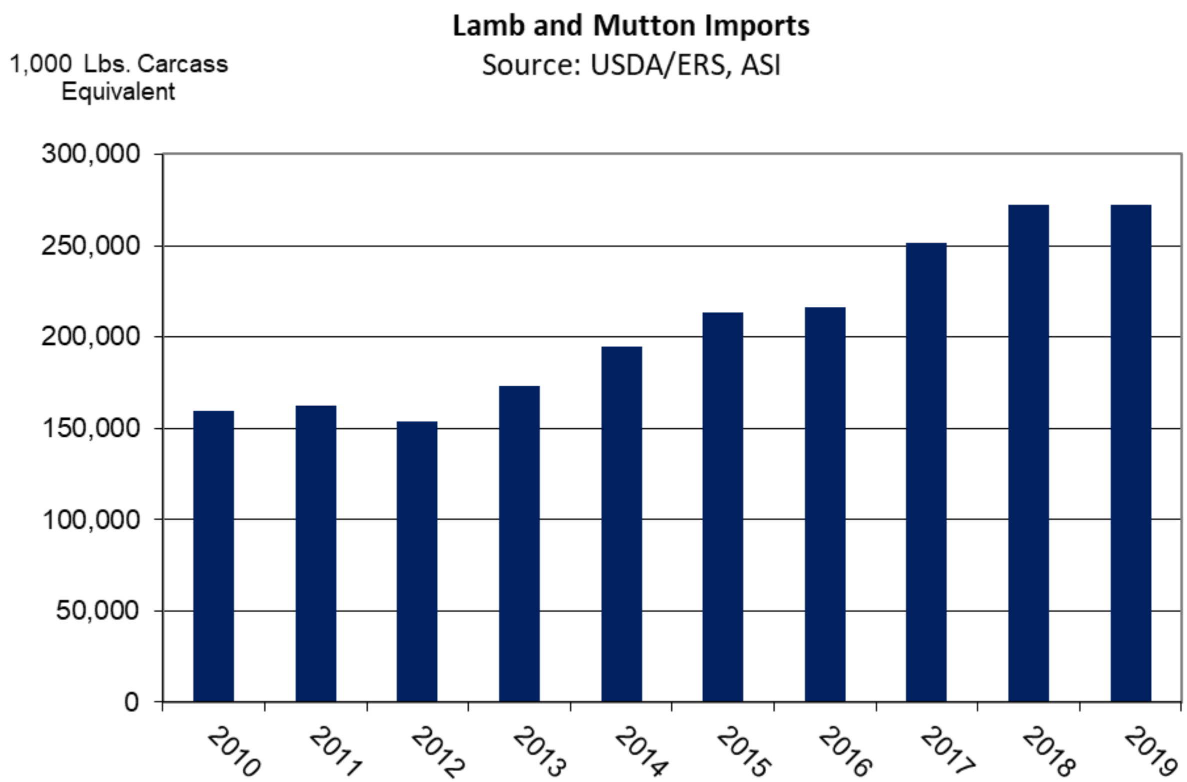
--Monthly average in 2019 was 34.3 million lbs., up 23% annually



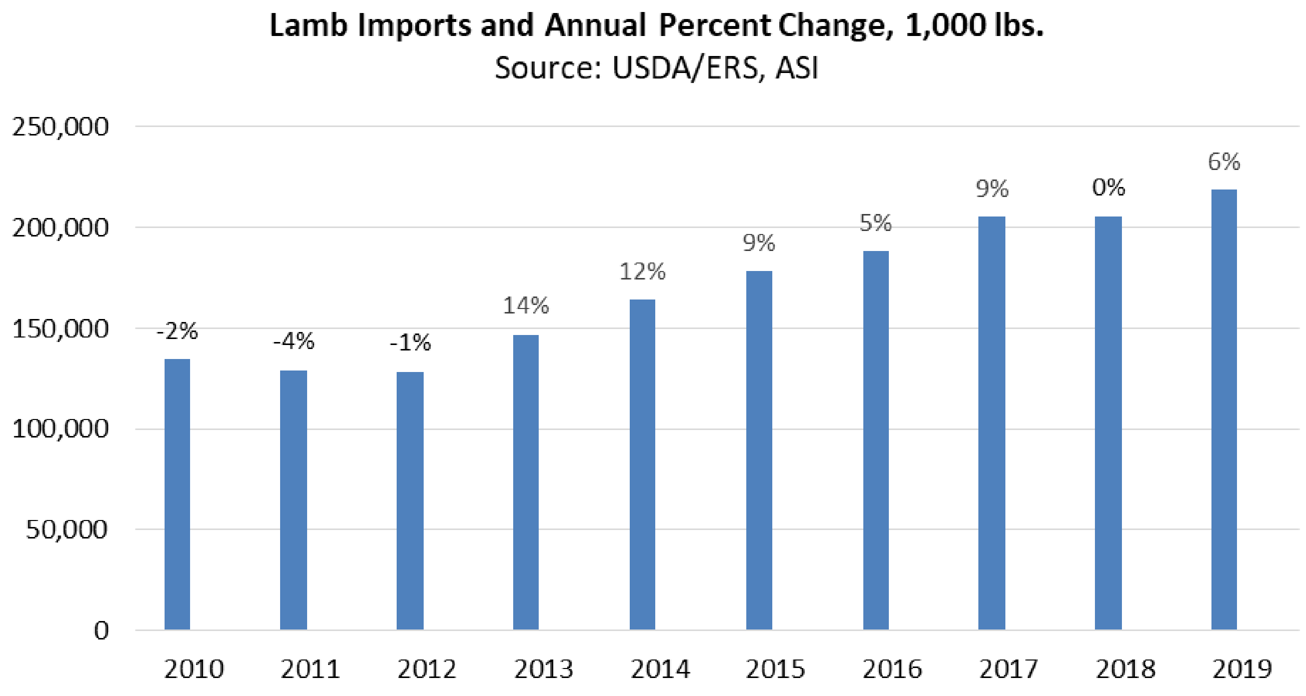
Monthly averages mostly higher in 2019 compared to 2017 and 2018



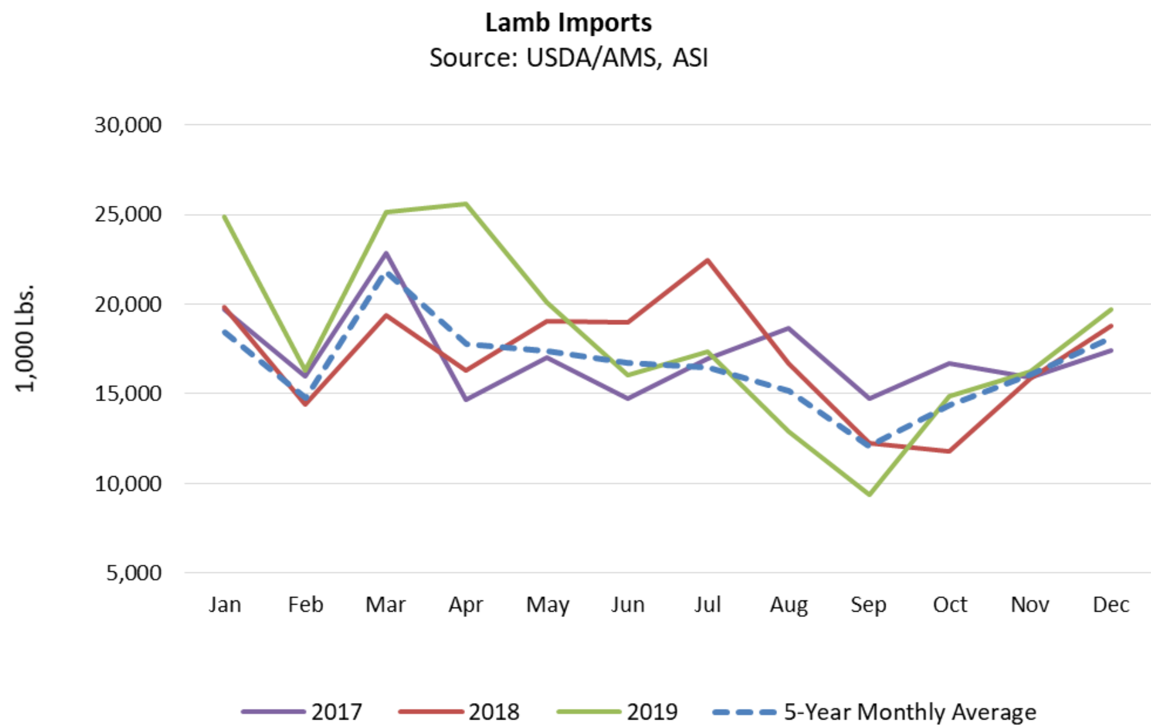
2019 lamb & mutton imports steady with 2018 at 272.4 million lbs.



Lamb imports jumped 6% in 2019 to 218.5 million lbs.

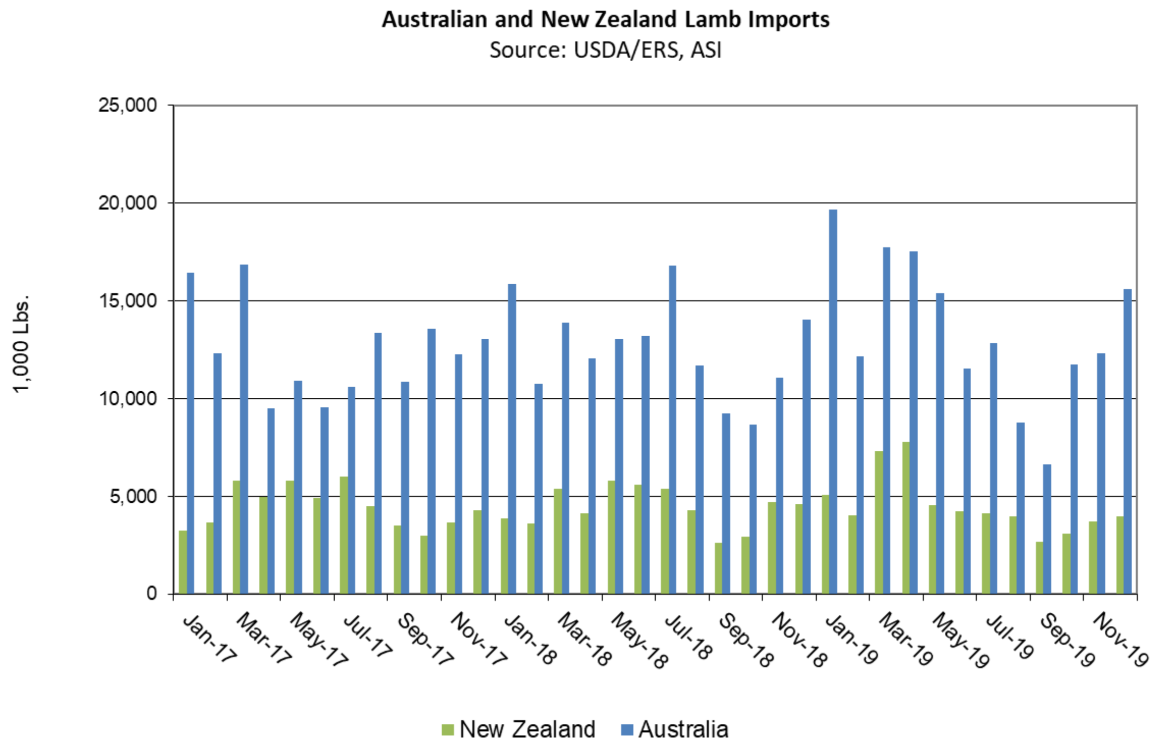


Monthly imports volatile compared to its 5-year average

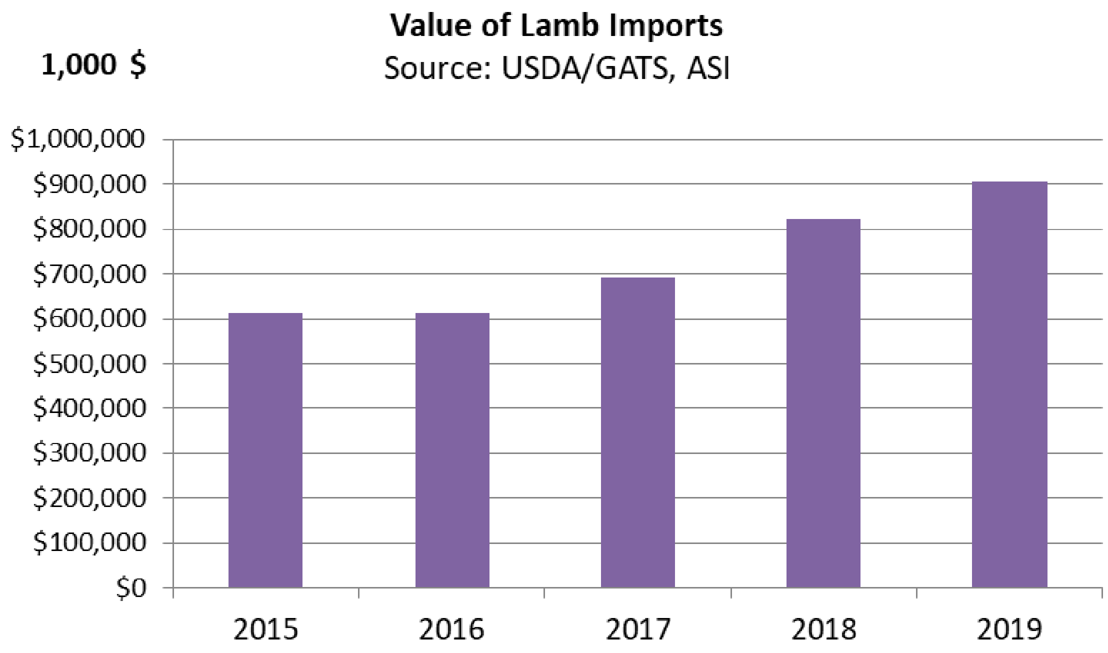


→ Australian lamb imports up 8% annually to 162.0 million lbs.

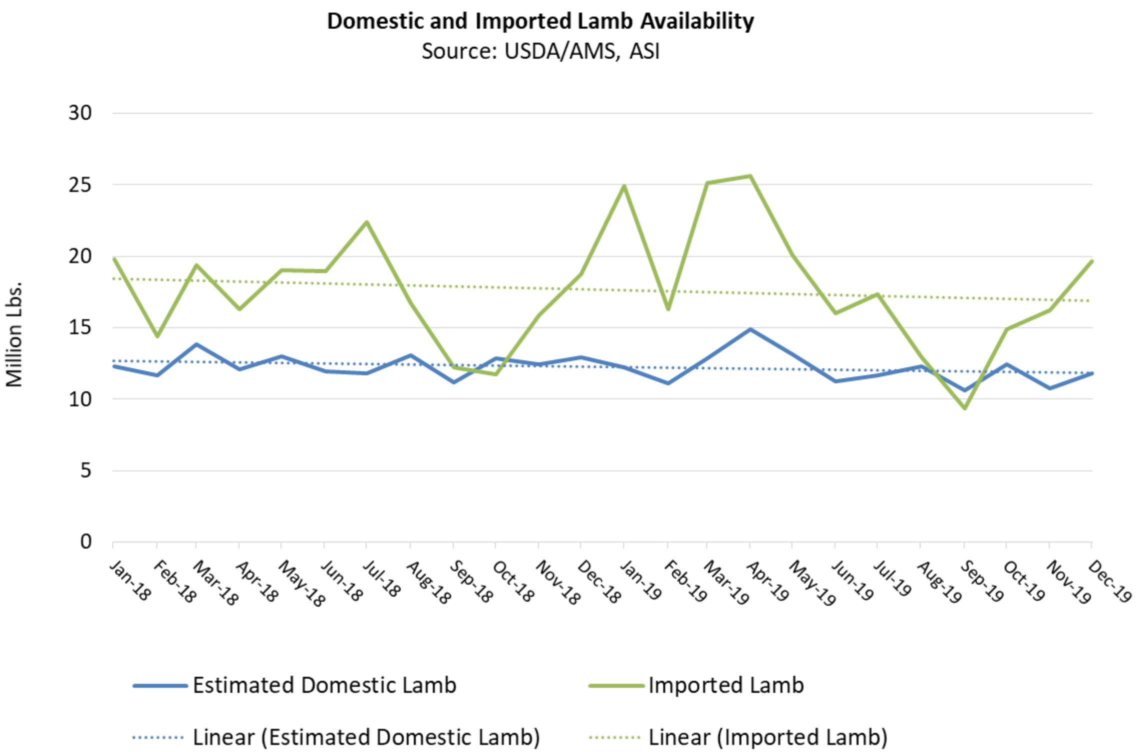
→ New Zealand lamb imports up 3% annually to 54.7 million lbs.



The value of lamb imports was up 10% in 2019 at $905.6 million

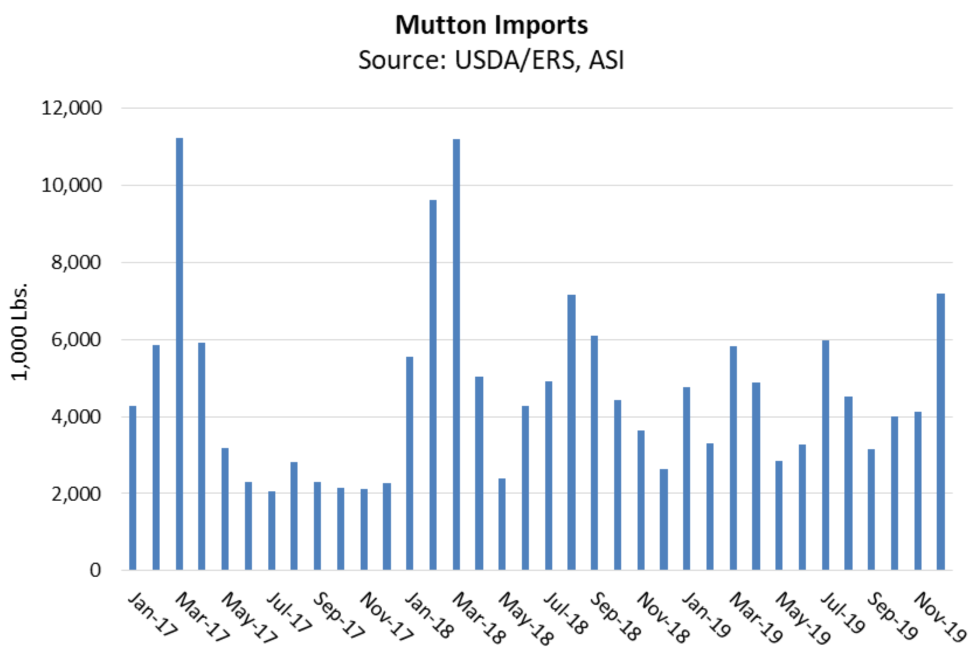


Monthly imports more volatile than domestic production

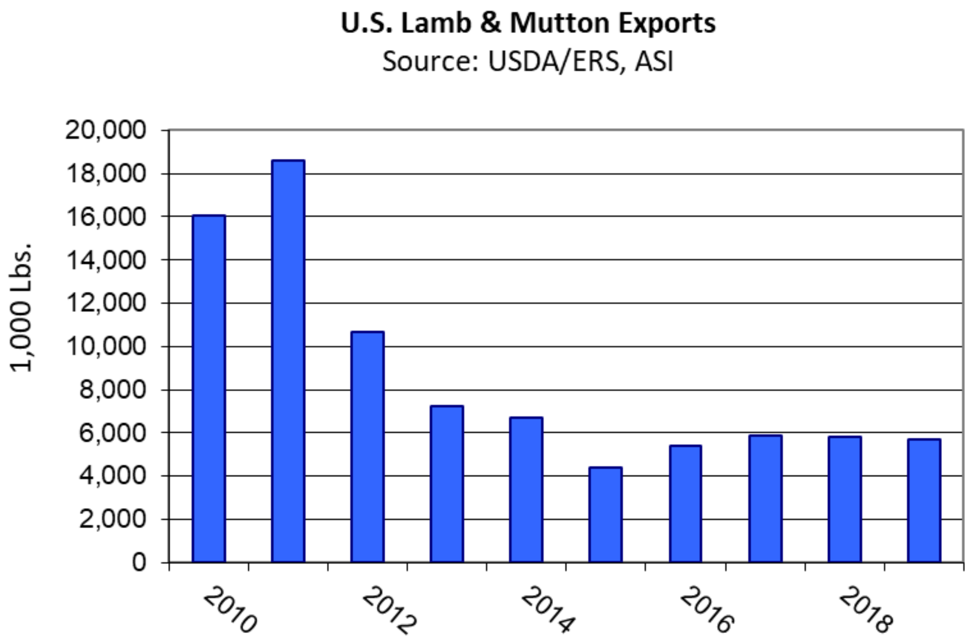


Total mutton imports were 54.0 million lbs. in 2019, down 19%

-- Australian imports were down 13% to 50.7 mill. lbs.
-- NZ imports were down 62% to 3.2 mill. lbs.

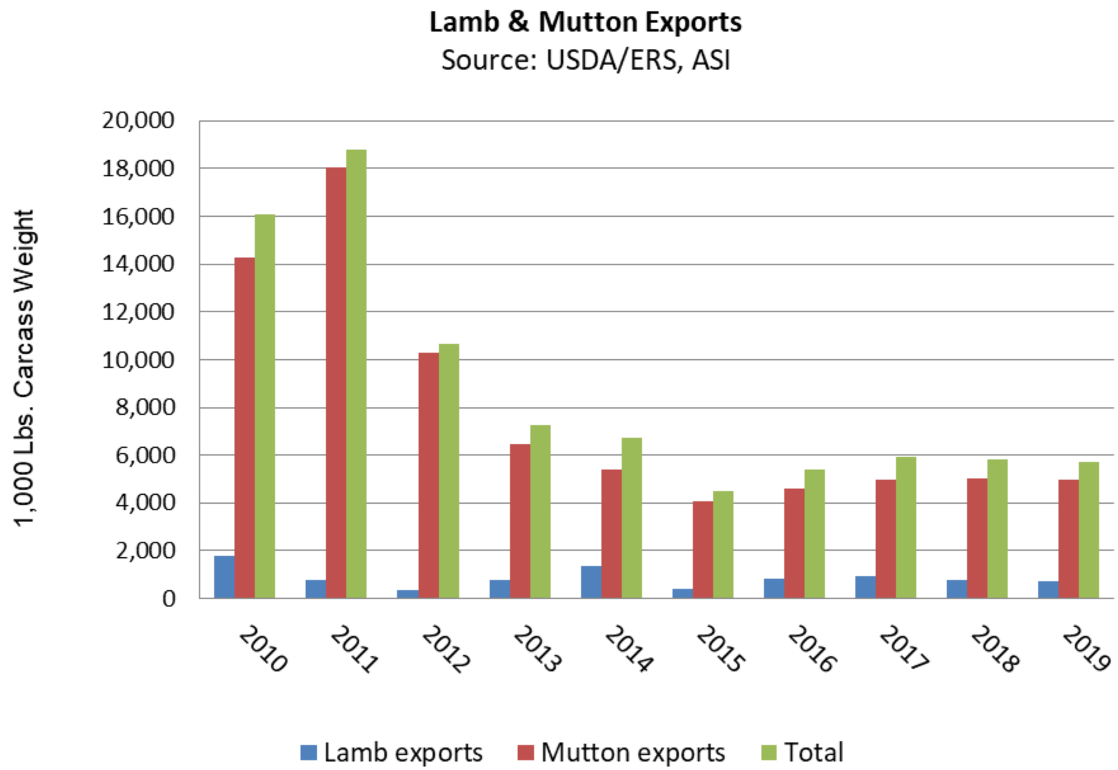


Total lamb & mutton exports were down 2% in 2019 to 5.7 million lbs.



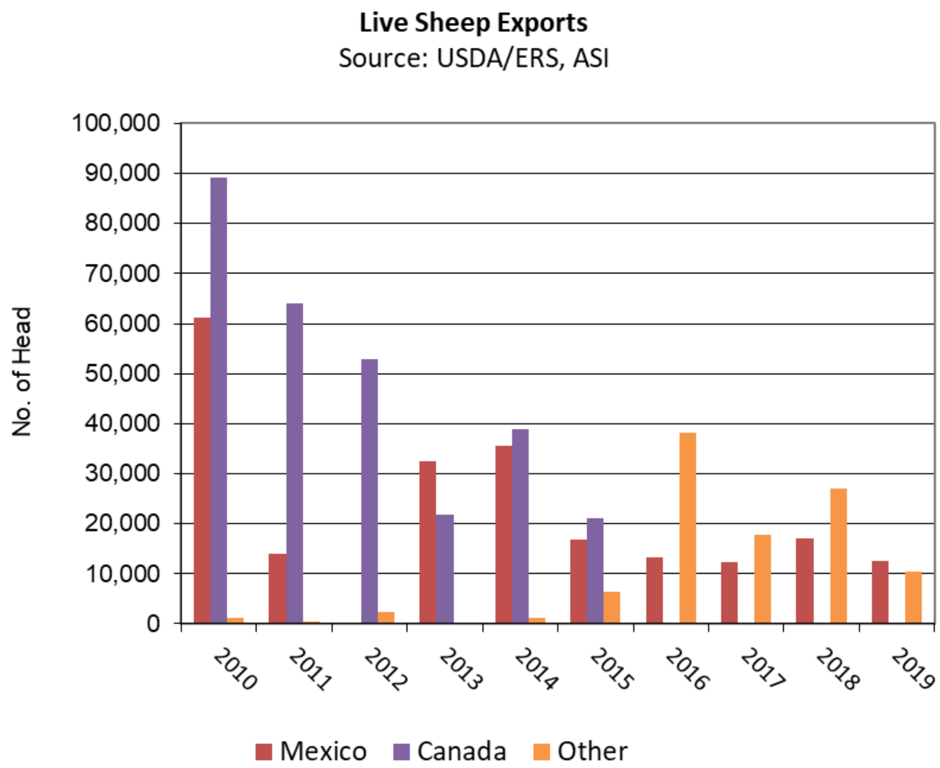
--Lamb exports down 6% to 737,000 lbs. (Lamb exports primarily variety meats)

--Mutton exports down 1% to 4.96 mill. lbs.

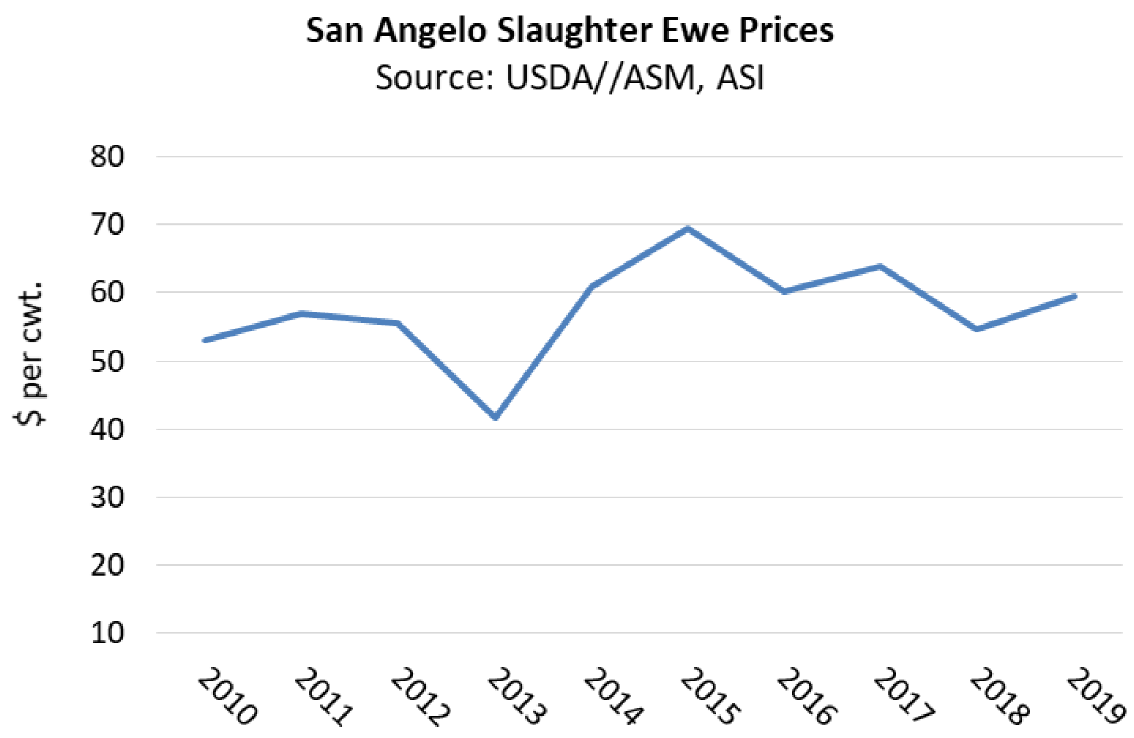


Live Lamb and Sheep Exports down 48% to 23,126 head in 2019

- Exports to Mexico were down 26% to 12,658 head
- Exports to Canada were down 58% to 109 head
- Exports to “Other” were down 62% to 10,359 head



2019 Cull Ewe Prices up 9% to $59.54 per cwt.



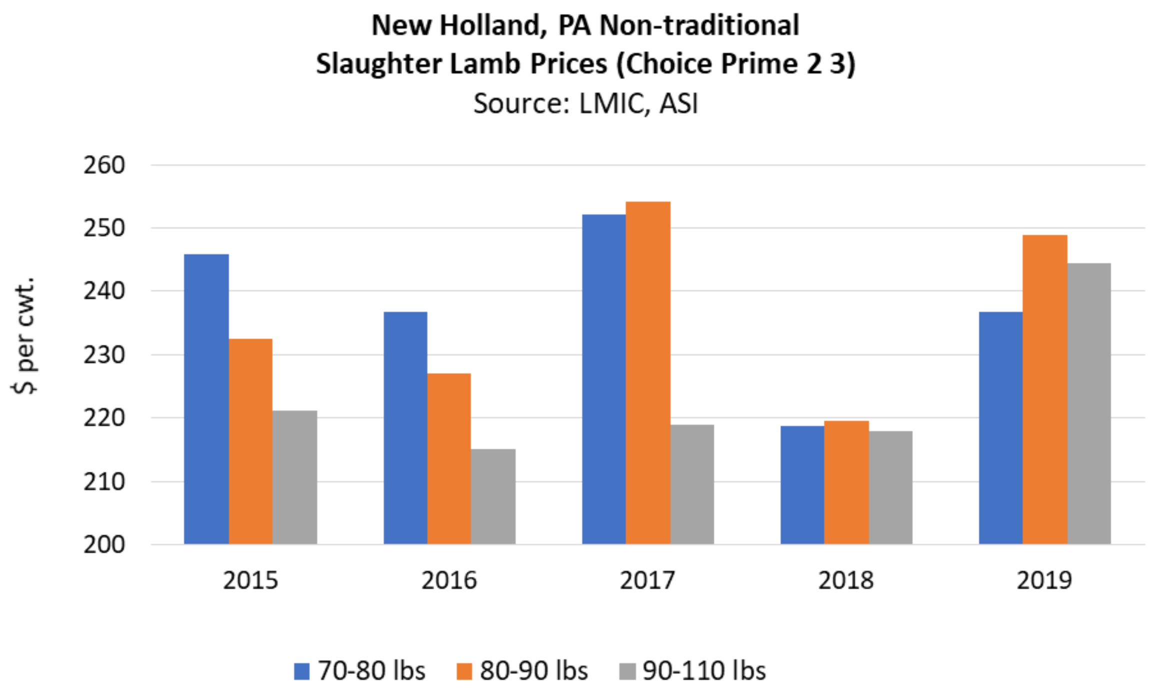
IX. Non-traditional Market

Non-traditional Market Significant Segment of U.S. Sheep Industry

- The non-traditional market is often characterized by a lighter-weight lamb, around 100 lbs., but very variable depending upon customer.
- Market is mainly comprised of lambs sold direct to consumers.
- Lambs are processed by state inspected plants and even some FI plants.
- The largest markets are the livestock auctions at New Holland, PA and San Angelo, TX, but nontraditional markets exists across most auctions.

Slaughter lamb prices at New Holland auction

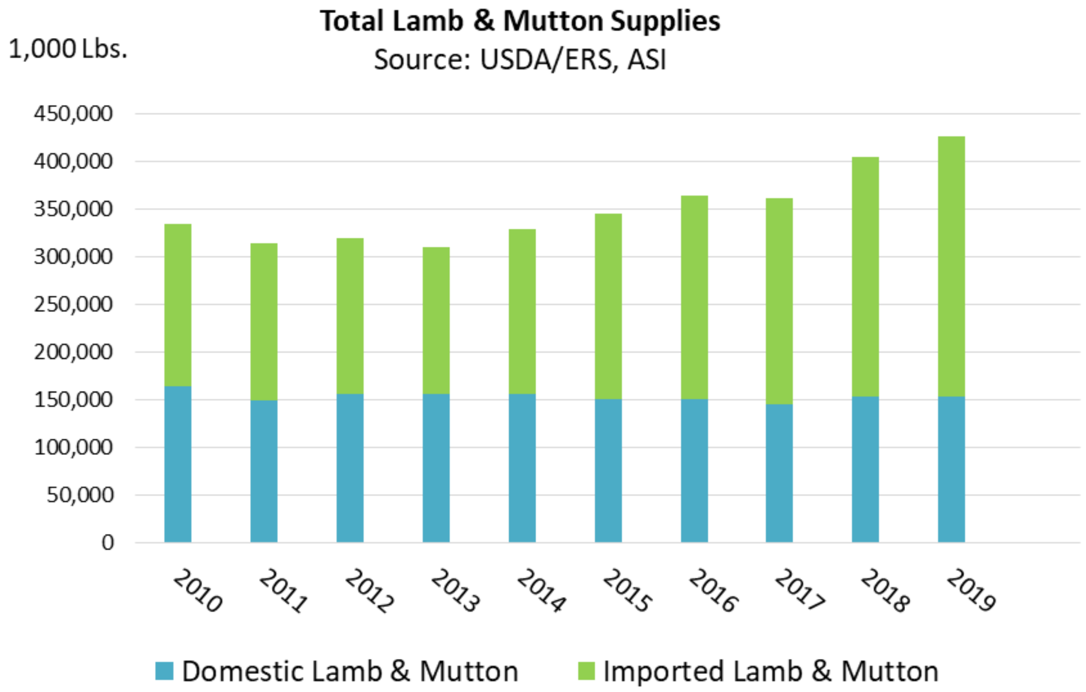
➔70-80 lbs. averaged $236.77 per cwt., up 8%
➔ 80-90 lbs. up 13% to $248.82 per cwt.
➔ 90-110 lbs. up 125 to $244.49 per cwt.



X. Total Lamb and Mutton Availability

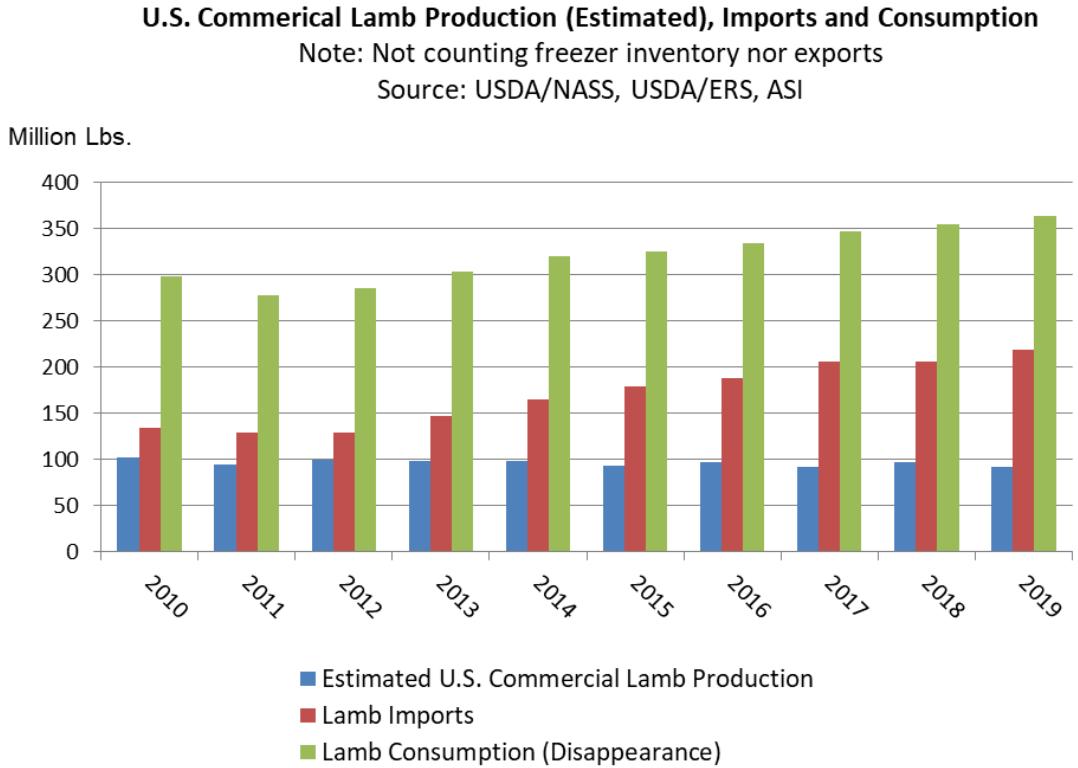
At 425.0 million lbs. total lamb and mutton availability held steady in 2019

-- First slow-down in 7 consecutive years



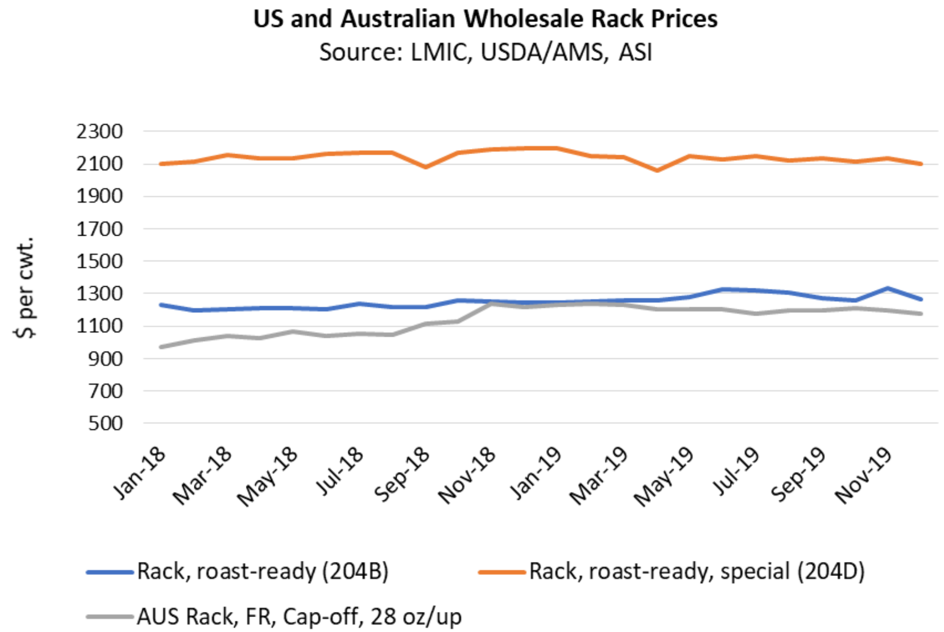
Total lamb consumption (disappearance) was 363.6 million lbs. in 2019, up 2% annually

- Estimated domestic lamb production up 6% annually to 91.5 million lbs.
- Lamb imports steady at 218.5 million lbs.



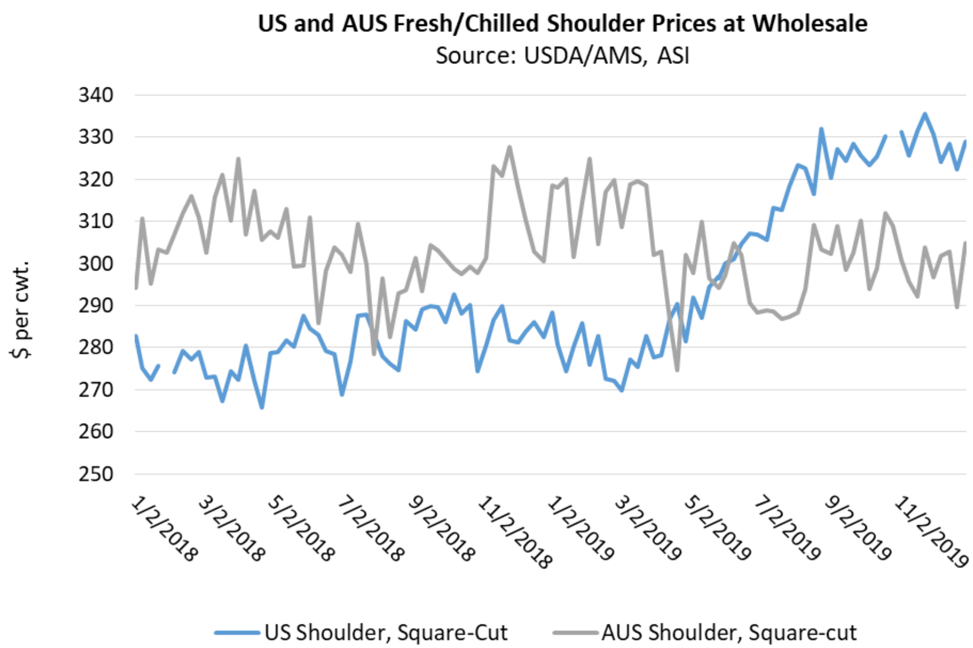
XI. Imported Product Price Comparisons

U.S. Fabricated Rack Topped $21 per Lb.



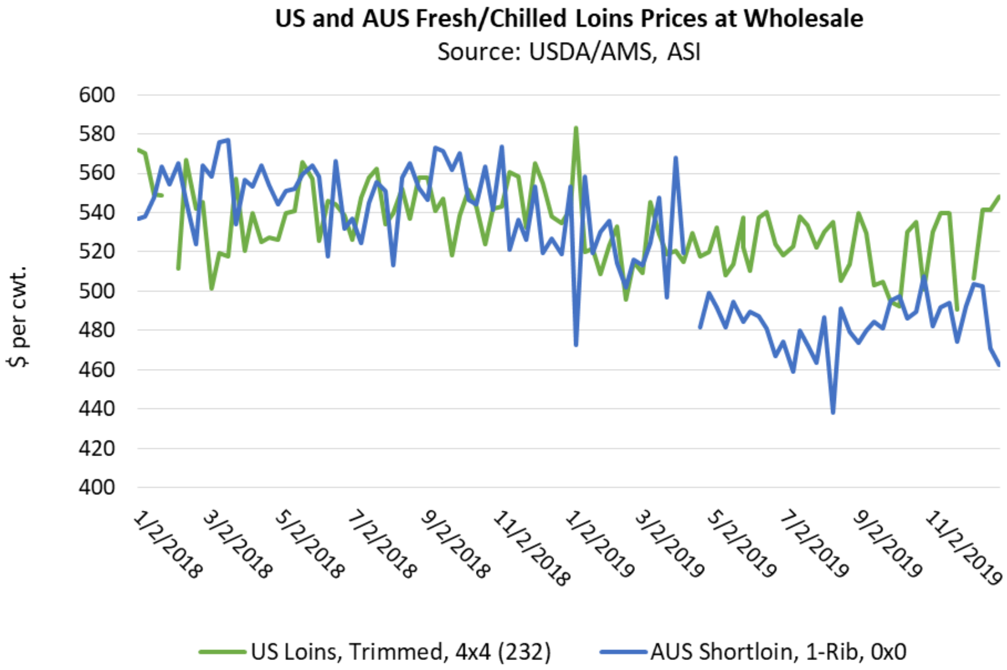
- U.S. rack, roast-ready (204B) averaged $1,280.83 per cwt. in 2019, up 5% year-on-year
- U.S. rack, roast-ready, special (204D) averaged $2,132.02 per cwt., down 1% year-on-year
- The AUS rack cap-off, 28 oz.+ was $1,205.84 per cwt., up 12% annually

U.S. Shoulder Gained Premium to Australian Shoulder in 2019



--U.S. shoulder, square-cut, averaged $304.32/cwt. in 2019, up 9% annually
--AU shoulder averaged $302.23/cwt., down 1%

U.S. Loins Gained Distinct Premium to Australian Loins in 2019



--U.S. loins averaged $523.76/cwt. in 2019, down 3% annually
--AU loins averaged $494.82/cwt., down 10%

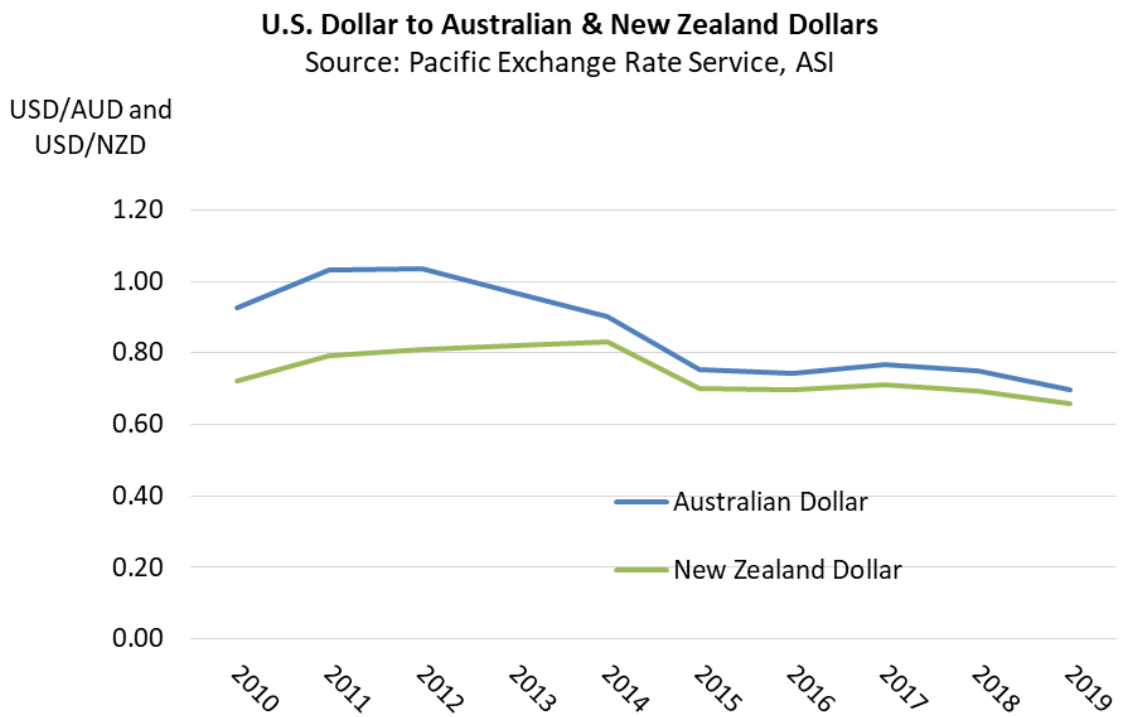
XII. Exchange Rates

Australian Dollar Weaker against US$ in 2018

-- In 2019 the Australian/U.S. rate lost 7% to 0.70 (1 AUD = 70 US cents)

-- In 2019 the NZ/U.S. rate lost 5% to 0.66 cents

Relatively Weaker AUD & NZD and Stronger USD Can Erode U.S. Lamb Export Competiveness & Boost Imports

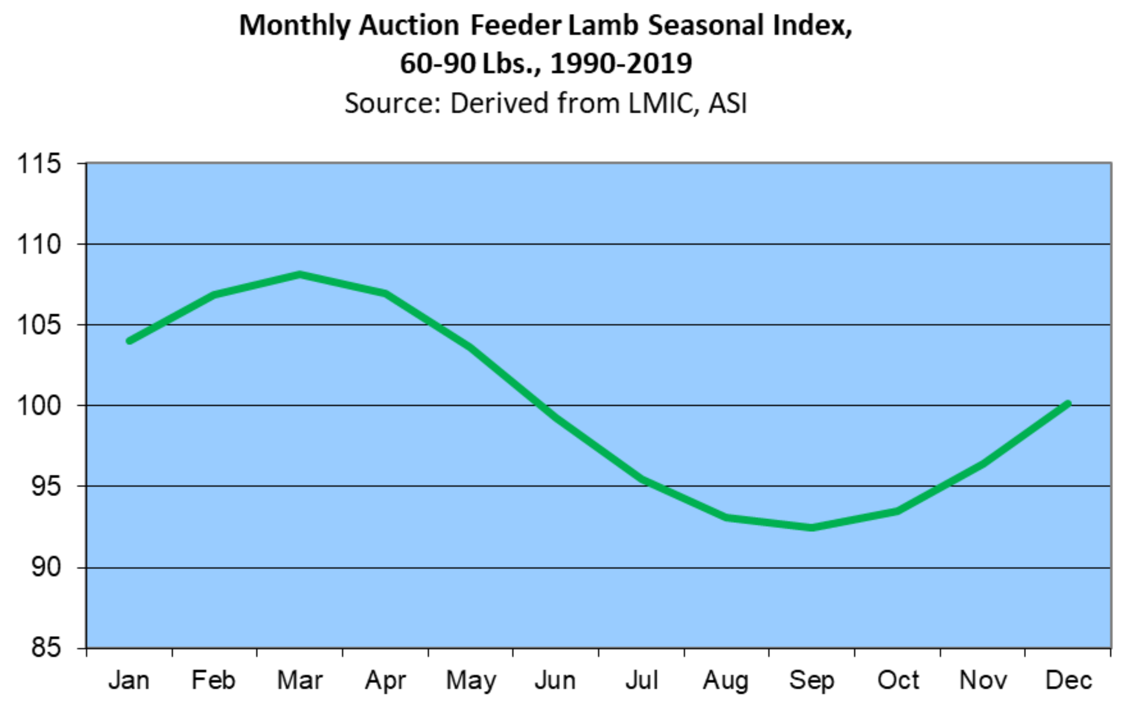


XIII. Price Projections and Outlook

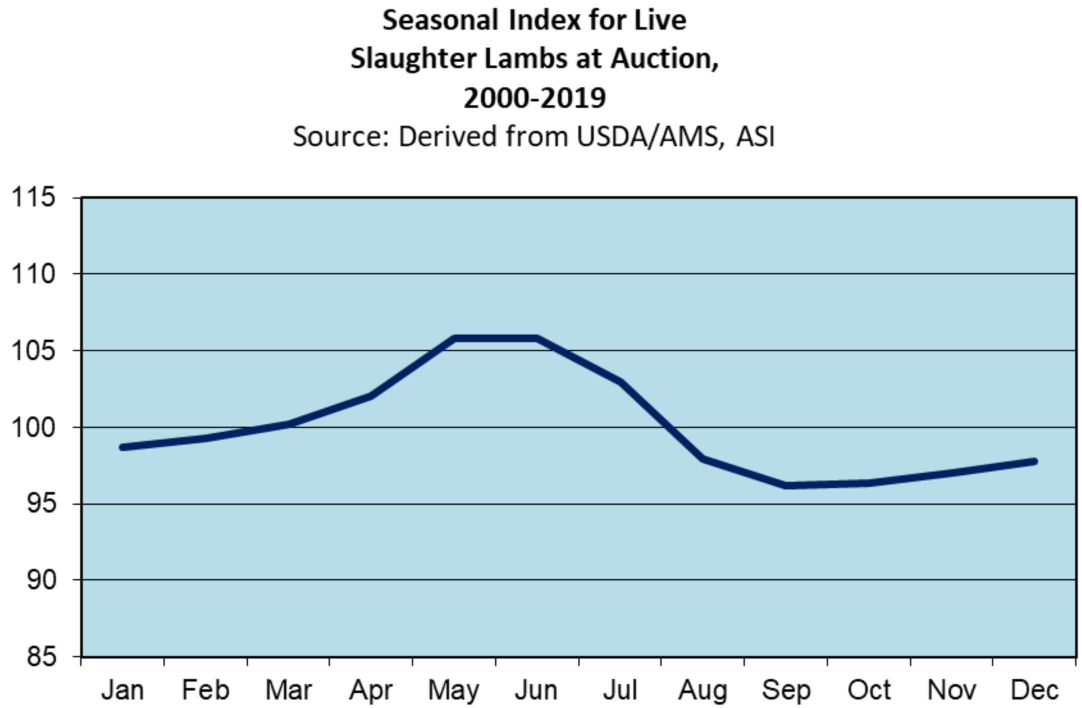
Index Lends Predictive Insight

- The index shows the average relationship of prices in each month to the average for the year
- An index of 105 means prices are 5% above the annual price average

Feeder lamb prices at auction highly seasonal with annual highs in the first quarter; annual lows in the third quarter



Slaughter lamb prices at auction seasonal with annual highs in the second quarter; lows in the fourth quarter



COVID-19:
The short-term and longer-term outlook

COVID-19: The short-term outlook

COVID-19: The short-term outlook

- During the week ended March 15, there was a 77% increase of at-home meat sales (Drovers, 3/23/20)
- At-home lamb sales increased by more than 50% (Drovers, 3/23/2)
- Surge of at-home sales was due to heightened uncertainty of meat availability
- Uptick in demand far outpaced the food system's logistical capabilities (Oklahoma Cooperative Extension Service, 3/23/20)

COVID-19: The short-term outlook, continued

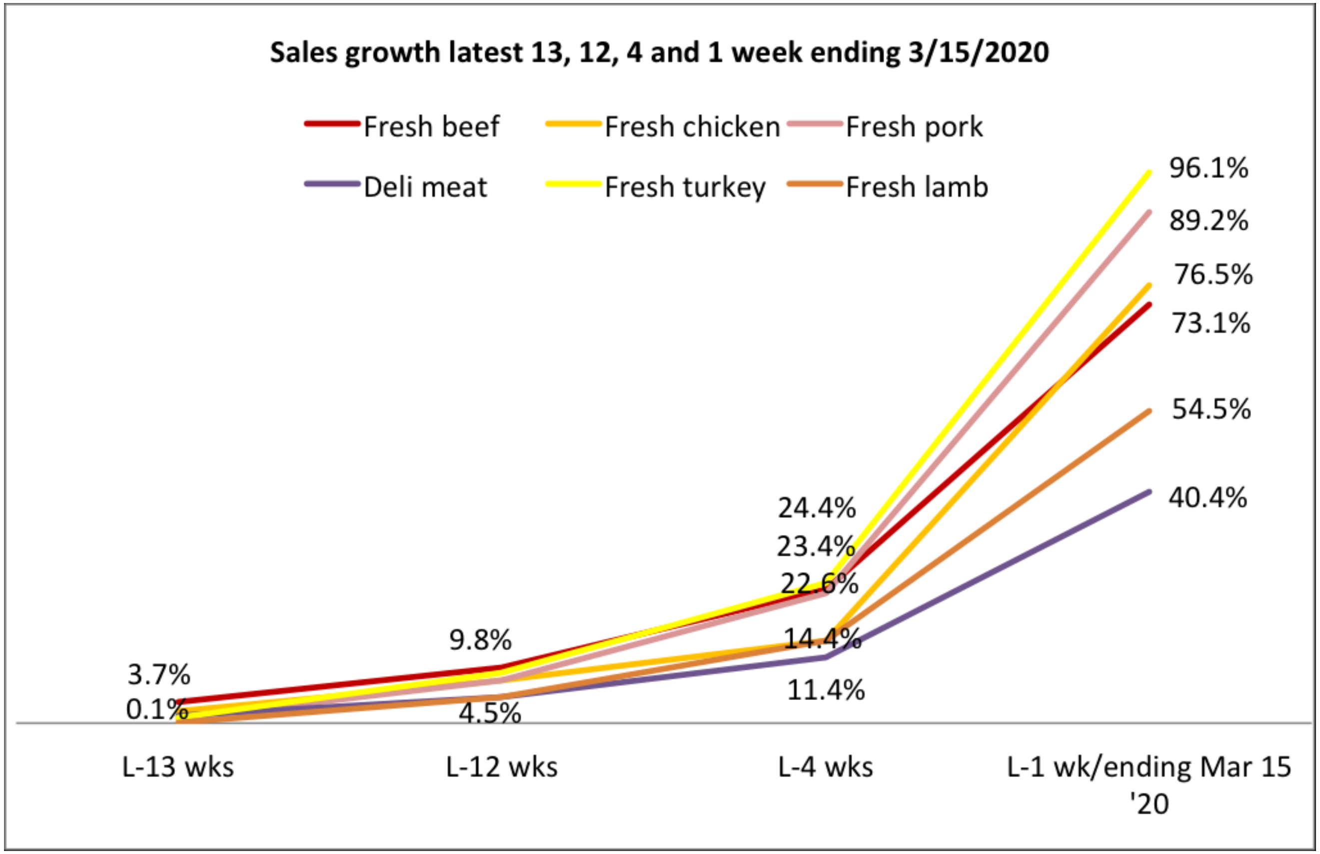
- Availability of lamb at grocery stores not an immediate issue, market will stabilize somewhat as meat cases draw down freezer inventory

- American lamb companies report weakening sales to food service customers as government-ordered dine-in food service is shut down

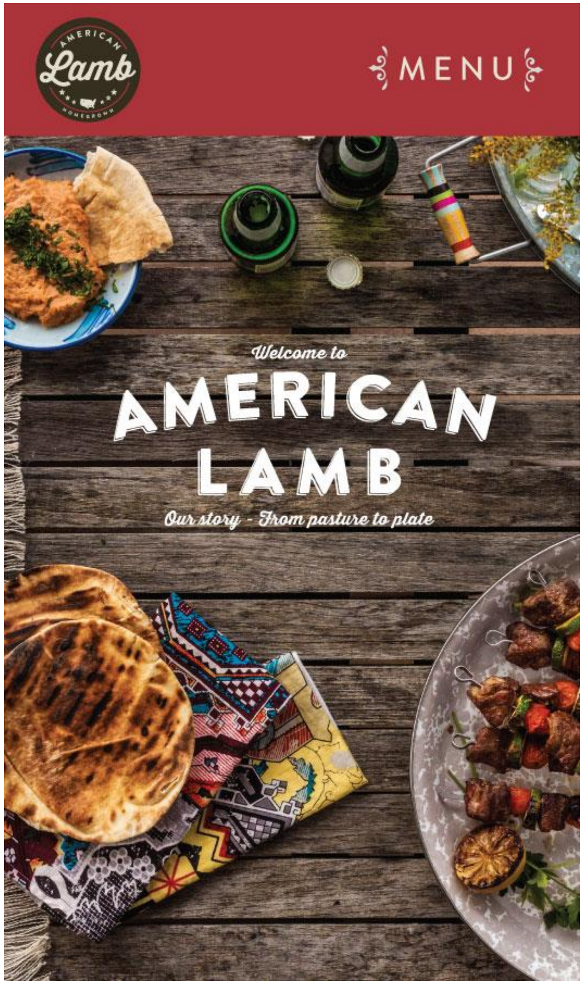
- Food service dine-in sales account for more than 50% of the value of American lamb

- Net effect of lamb sales in March and possibility April will be lower lamb sales due to lower consumer demand at food service

From Drovers, 3/23/20



COVID-19:
The long-term outlook



COVID-19: The long-term outlook

- Profound uncertainty surrounding consumer demand
- Loss of slaughter capacity as plants consider temporary shut downs due to COVID-19
- Potential backlog of supplies, and thus depressing effect on live lamb markets
- One positive: Some households might have rediscovered or discovered lamb during this time of shelter in place
- Another positive: Food service will rebound over time
- U.S. and imported lamb may face heightened competition at retail and food service if imported lamb increases

Livestock Market Information Center (LMIC) 2020 Forecasts: Very Uncertain Given COVID-19

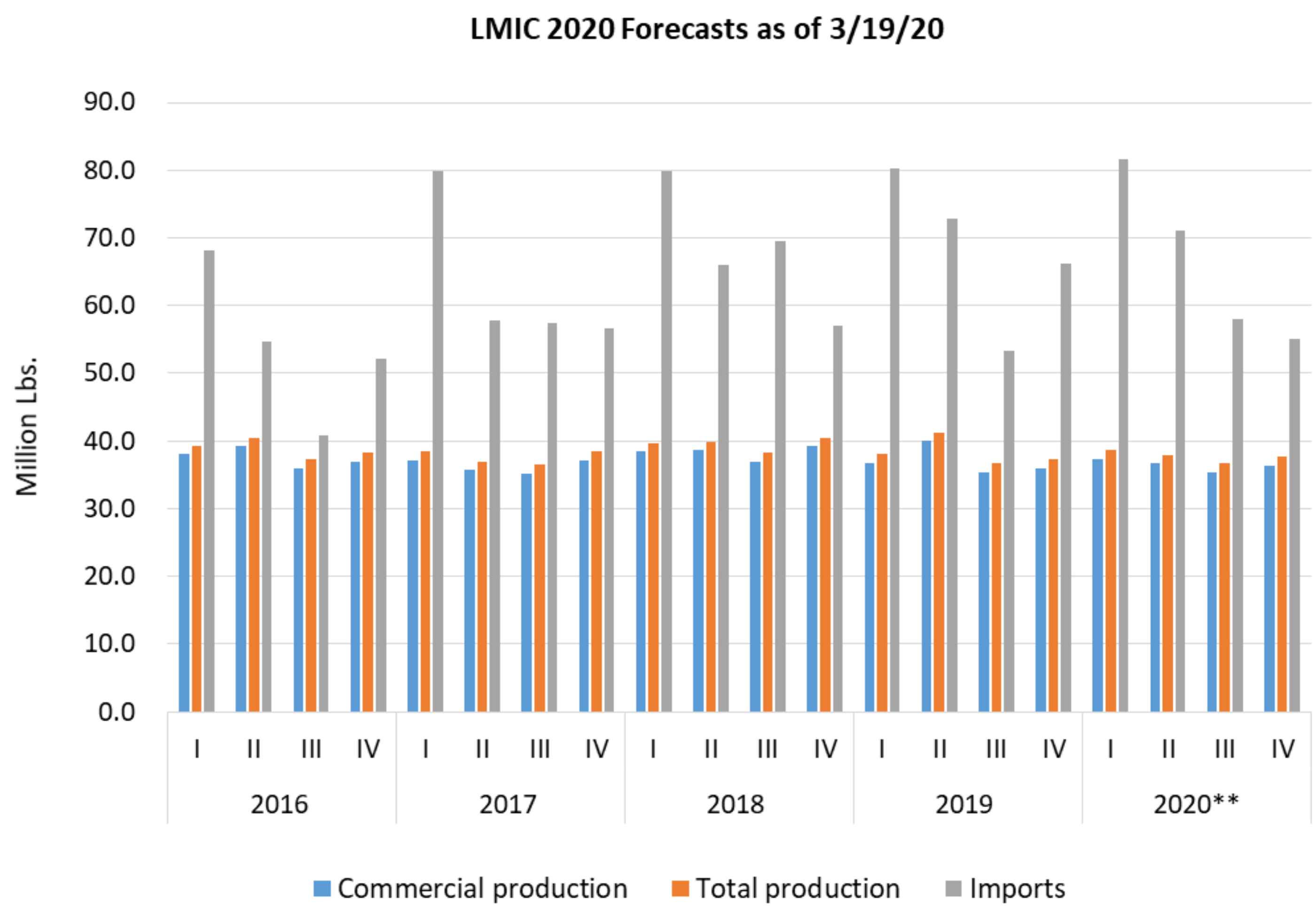
- ➔ National Direct Slaughter Lambs, on a carcass basis could averaged $288 per cwt. in 2020, 0.15% higher annually (forecast as of March 19, 2020)

- ➔ 60-90 feeder lambs could average $184.50 per cwt., 4% higher annually (forecast as of March 19, 2020)

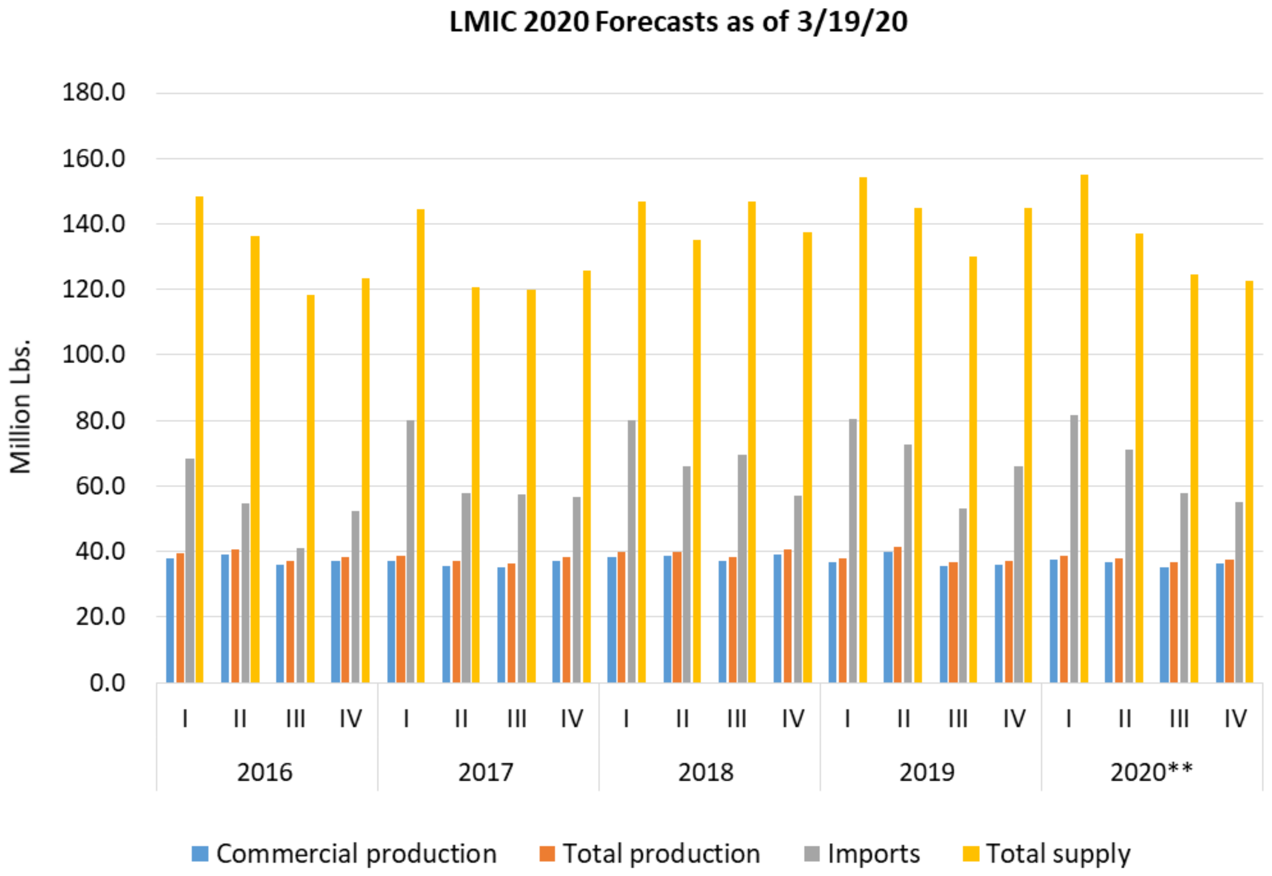
LMIC forecasts, as of March 19, 2020

- Commercial slaughter 2.3 million head, down 0.05%
- Dressed harvest weight, 66 lbs., down 0.11%
- Commercial production 149 million lbs., down 0.05%
- Per capita consumption, 1.10 lbs. per capita, down 1%

- Imports up an estimated 2% to 257 million lbs.


LMIC 2020 Forecasts as of 3/19/20
Million Lbs.
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
I II III IV I II III IV I II III IV I II III IV I II III IV
2016
2017
2018
2019
2020**
Commercial production
Total production
Imports

Total supply down an estimated 6% in 2020 to 539.4 million lbs. according to LMIC



The import dilemma

- Lamb supplies very tight in Australia, but heavier harvest weights will help offset lower harvest numbers
- China’s lamb demand depressed in 2020 with COVID-19 and general pre-virus slowdown
- Will the U.S. market support increased lamb imports from Australia?

  If so, at what price point?
- U.S. and global lamb demand very uncertain given COVID-19
- According to LMIC on March 19, 2020, imports could total 257 million lbs. in 2020, up 2% annually

Thank ewe!