2018 Sheep Industry Review

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

March 2019

Contents

Executive Summary

In 2018, live lamb markets were notably lower year-on-year, the pelt market dropped sharply, and the meat market saw a moderate weakening. Price weakening came on the back of higher domestic production and a marginal increase in lamb imports, creating expanded lamb supplies in the U.S. After a 2016 drawdown in freezer inventory, stocks began to build in early 2017 and continued to grow through late 2018. Freezer inventories provided a buffer, insulating the market from more severe price volatility. Looking forward, cold storage stocks are now at 83% of the record high and could cause a drag on the market, but which may yet be offset by lower lamb imports in 2019.

The U.S. lamb market with strong lamb demand and an expanding lamb supply within the backdrop of a concentrated domestic market heavily dependent upon imports is predisposed for continued year-to-year price volatility.

Sheep Inventory Contracted

Breeding ewes totaled 3.0 million in on January 1, 2019, down 1.1% annually. Sheep, including lamb, inventory was 5.23 million head on January 1, 2019, down 1% annually. The geographic distribution of the contraction was mixed. The two largest states Texas and California saw ewe inventory contractions, but the third and fourth largest states, Wyoming and Utah, gained ewes.

Feeders Lower

Feeder lambs struggled in 2018 due to a moderating meat market and challenging placement-harvest schedules with lambs getting backed up in feedlots. Feeder lambs in direct trade averaged $166.12 per cwt. in 2018, down 8% annually and 1% lower than its 5-year average. Feeders averaged $177.46 per cwt. at auction (San Angelo, Ft. Collins, and Sioux Falls) in 2018, down 11% year-on-year, and 3% lower than its 5-year average.

Slaughter Lambs Weaker

Slaughter lamb prices at auction averaged $139.80 per cwt. in 2018, 8% lower annually and 5% higher than its 5-year average. Live, negotiated slaughter lamb prices averaged $143.36 per cwt. in 2018, down 7% annually and down 1% from its 5-year average. The formula/grid average was $272.75 per cwt. in 2018, down 12% annually and down 5% from its 5-year average. The live-equivalent average was $137.56 per cwt.

Pelts took a hit in 2018. Supreme unshorn pelts, the highest quality, brought $1.48-$7.25 per piece in 2018, down an average 45% annually.

The industry continues to struggle to maintain current harvest weights. In 2018, the percent of yield grade 4s and 5s (indicative of overweight lambs with excess back fat) was 29% of harvest, up from 22% in 2017.

Meat Market Weaker

In 2018 the net carcass value averaged $331.34 per cwt., down 2% annually and 4% higher than its 5-year average. The rib was higher in 2018, but leg, shoulder and loin weakened. The rack stood apart in 2018, perhaps boosted by foodservice strength. The rack, 8-rib medium, topped $9 per lb. in 2017, then weakened marginally and held above $8 in 2018.

The live to cutout packer spread gained 14% in 2018 to $77.60 per head. Live lamb was down 7% and meat prices were up by 3% which led to the gain. It was the fourth year of consecutive gains.

Lamb and mutton in cold storage climbed through 2018. The monthly average in 2018 was 34.3 million lbs., up 23% annually, and roughly equivalent to 3 months of lamb and mutton production. It is unknown what portion of freezer inventory is domestic versus imported product.

Domestic Production Expanded

Expanded sheep and lamb inventory in 2018 by 0.3% and an estimated 9% reduction in the non-traditional market translated into increased 2018 commercial production. Commercial sheep and lamb harvest was 2.250 million head in 2018, up 3% annually. Lamb and mutton production totaled 152.6 million lbs. in 2018, up 5% year-on-year. Lambs and yearling harvest was up 3% to 1.893 million head and mature sheep harvest was up 5% to 106,600 head.

Estimated lamb production totaled 134.03 million lbs., up 6% annually. The federal government doesn't report lamb production separate from mutton production.

In 2018, lamb imports had increased for 6 consecutive years, but slowed dramatically last year. Imports were up 0.2% to 205.7 million lbs. after gaining 9% in 2017.

Forecast

In 2019 we will likely see a continued slowdown in lamb imports. The Livestock Market Information Center (LMIC) forecasted in March that lamb and mutton imports are forecasted to fall 7% in 2019 and then gain 2% in 2020. History suggests lower import levels can support the live lamb market, but the degree to which is subject to the strength of the U.S. dollar versus the Australian dollar. If the U.S. dollar continues to strengthen against the Australian dollar, imports will be relatively cheaper. The strength of the U.S. dollar, in turn, is determined by how valuable it is relative to currencies of major trading partners. Chinese growth, worldwide growth, the uncertainty regarding the US-Sino trade war, and political instability in the EU with respect to Brexit are all factors to watch.

I. Inventory

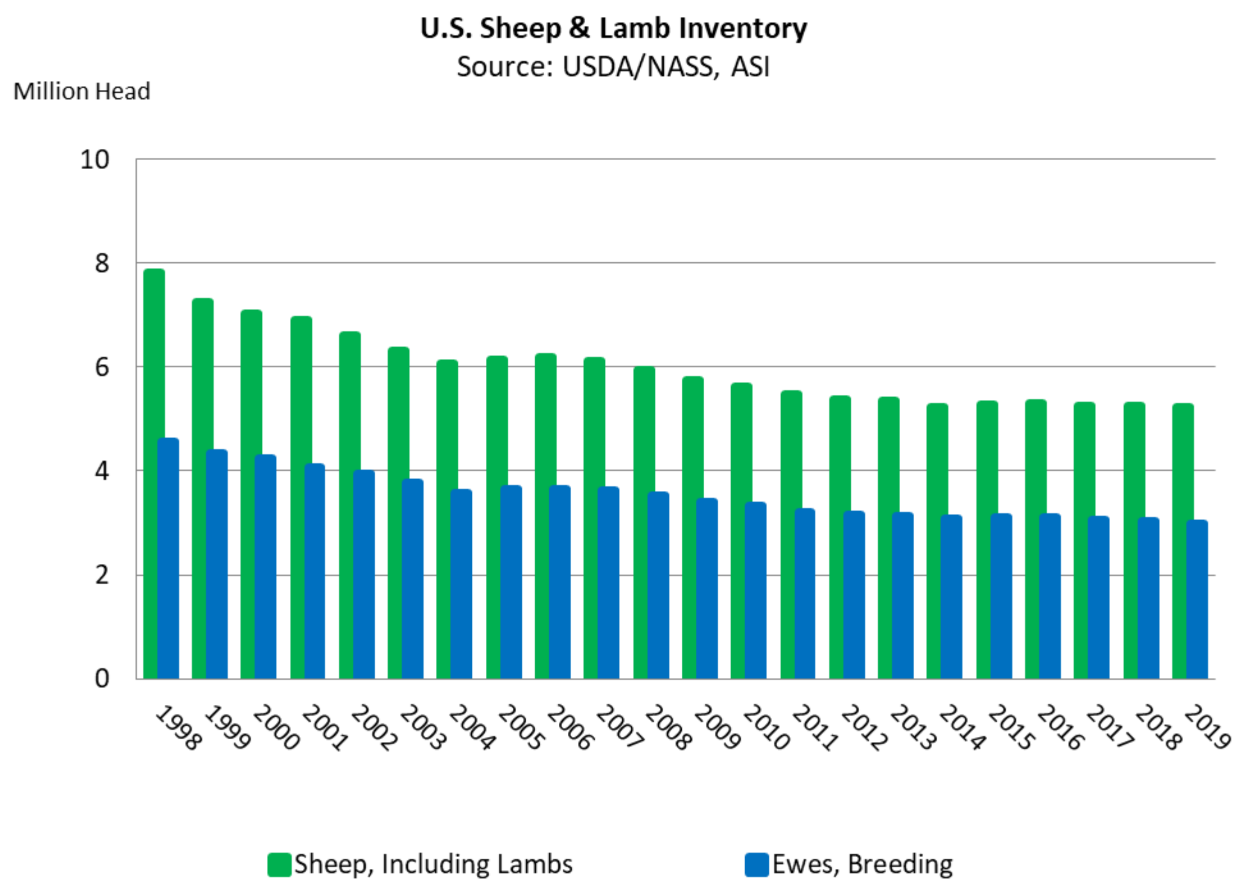
Breeding ewes totaled 3.0 million in on January 1, 2019, down 1.1% annually

--Ewe numbers were down 4% in 5 years;

--Ewe numbers were down 10% in 10 years;

--Sheep, including lamb, inventory was 5.23 million head on Jan. 1, 2019, down 1% annually.

Sheep Industry Inventory



The largest sheep state, Texas, saw a 2% ewe inventory contraction

→ Second largest state, California, saw a 4% contraction

→ Third and fourth largest states, Wyoming and Utah gained ewes.

Top 10 Largest Sheep States by Breeding Ewes and Inventory Change		
State	2019 No. of Ewes	Year-to-Year % Change
Texas	455,000	-2.15%
California	250,000	-3.85%
Wyoming	215,000	2.38%
Utah	210,000	5.00%
South Dakota	157,000	-2.48%
Colorado	150,000	-3.85%
Montana	141,000	-6.00%
Idaho	130,000	-5.11%
Oregon	95,000	1.06%
Iowa	80000	-12.1%
Source: USDA/NASS, ASI		

At 29%, North Carolina topped the states in terms of ewe inventory gain

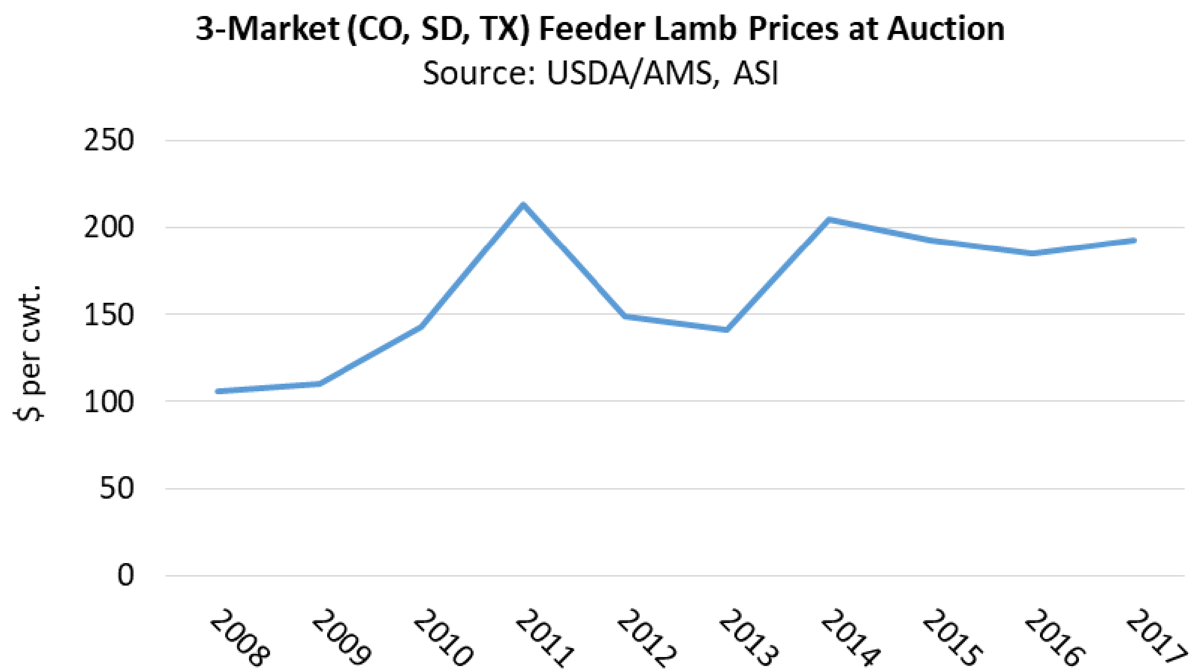
→ Utah, in the top 5 for ewe numbers, saw a 5% expansion

Top 10 States by 2019 Inventory Gains		
State	2019 No. of Ewes	Year-to-Year % Change
North Carolina	18,000	28.57%
Kentucky	37,000	19.35%
Missouri	63,000	14.55%
Indiana	40,000	14.29%
Other States	94,000	10.59%
Michigan	45,000	9.76%
Kansas	37,000	8.82%
Virginia	48,000	6.67%
New Mexico	61,000	5.17%
Utah	210,000	5.00%
Source: USDA/NASS, ASI		

II. Feeder and Slaughter Lamb Market Trends

ASI

Auction Feeders Higher Annually

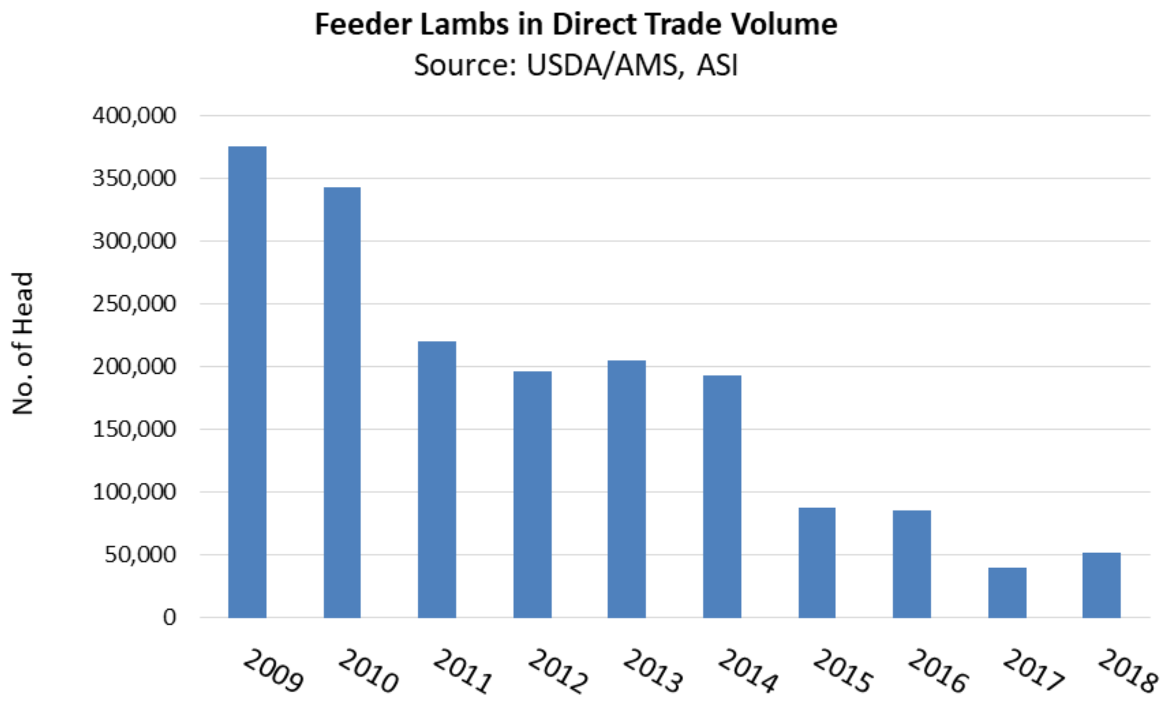


60-90 lbs. Feeders at Auction Lower

- Feeders averaged $177.46 per cwt. in 2018, down 8% year-on-year, and 3% lower than its 5-year average
- San Angelo feeders averaged $171.09 per cwt., down 11%
- Ft. Collins feeders saw $154.35 per cwt., down 15%
- Sioux Falls feeders averaged $186.94 per cwt., down 9%

Number of Feeders in Direct Trade Down Sharply in Last Few Years, but Higher in 2018

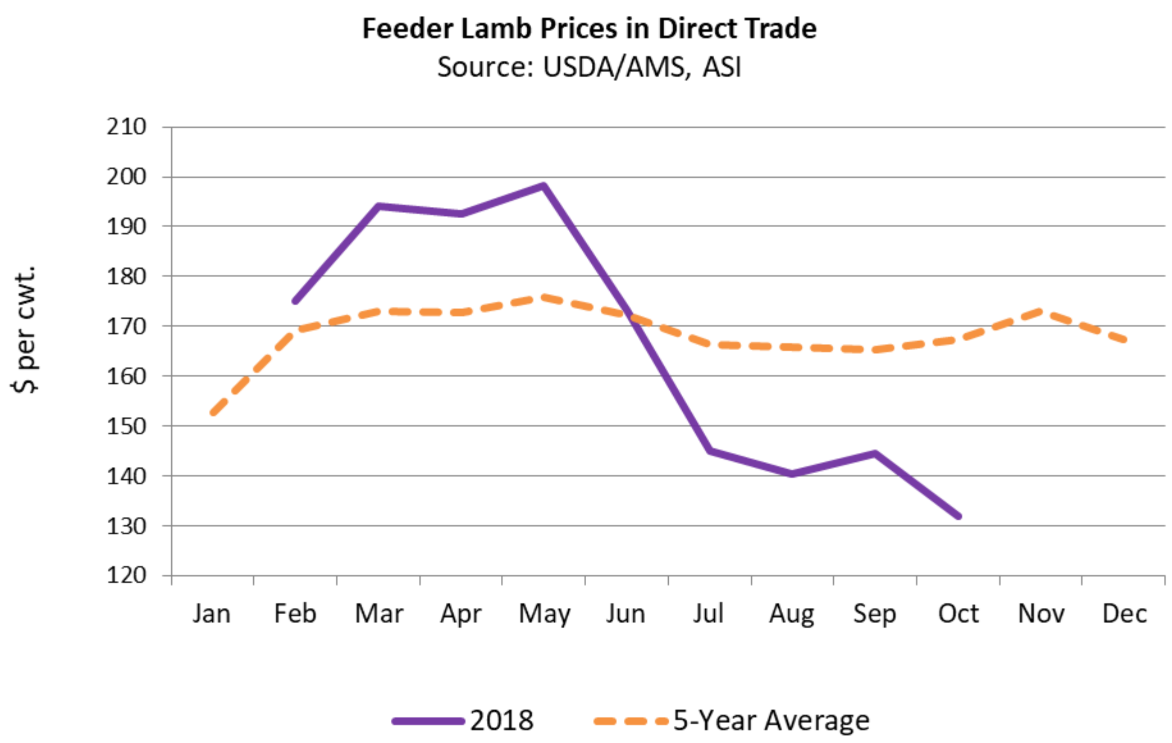
--Number of feeders trading in direct sales up 31% annually to 51,900 head



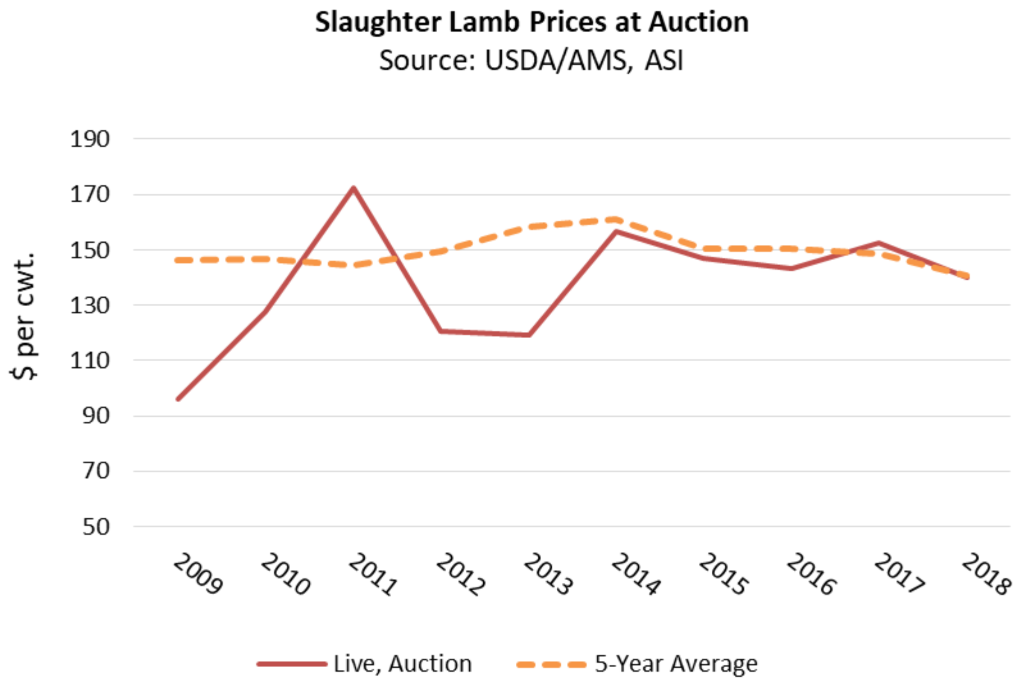
Feeder lambs in direct trade averaged $166.12 per cwt. in 2018, down 8% annually

-- 1% lower than its 5-year average

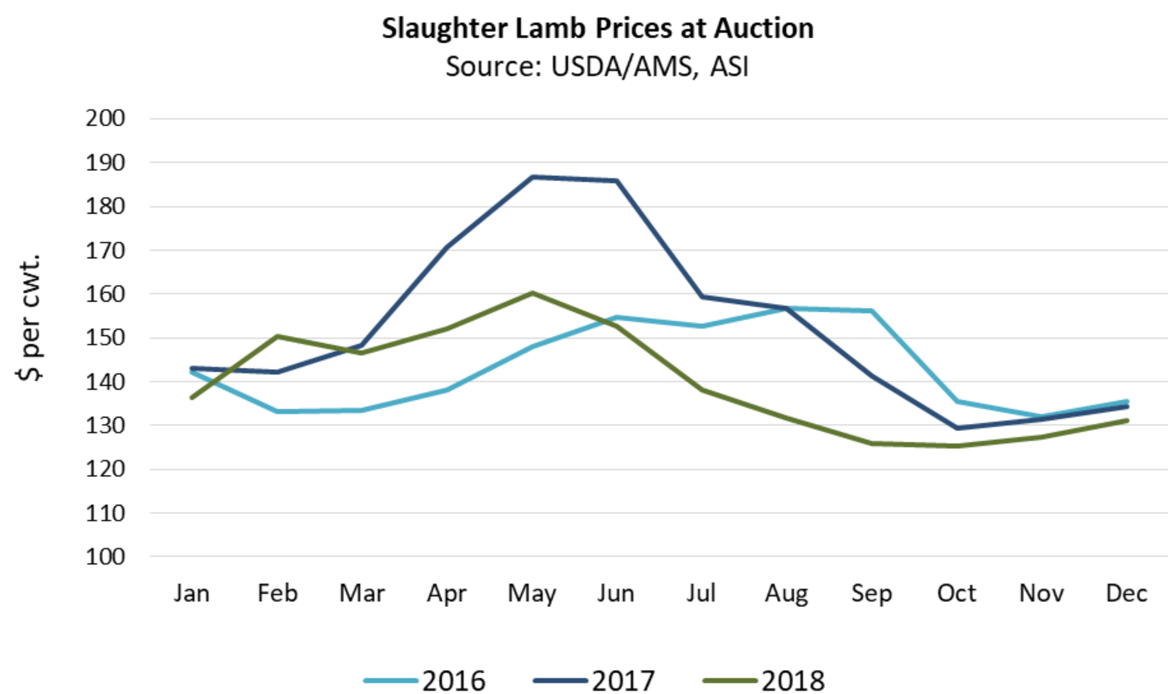
-- Prices not reported during some months



Slaughter lamb prices at auction averaged $139.80 per cwt. in 2018, 8% lower annually
--5% higher than its 5-year average

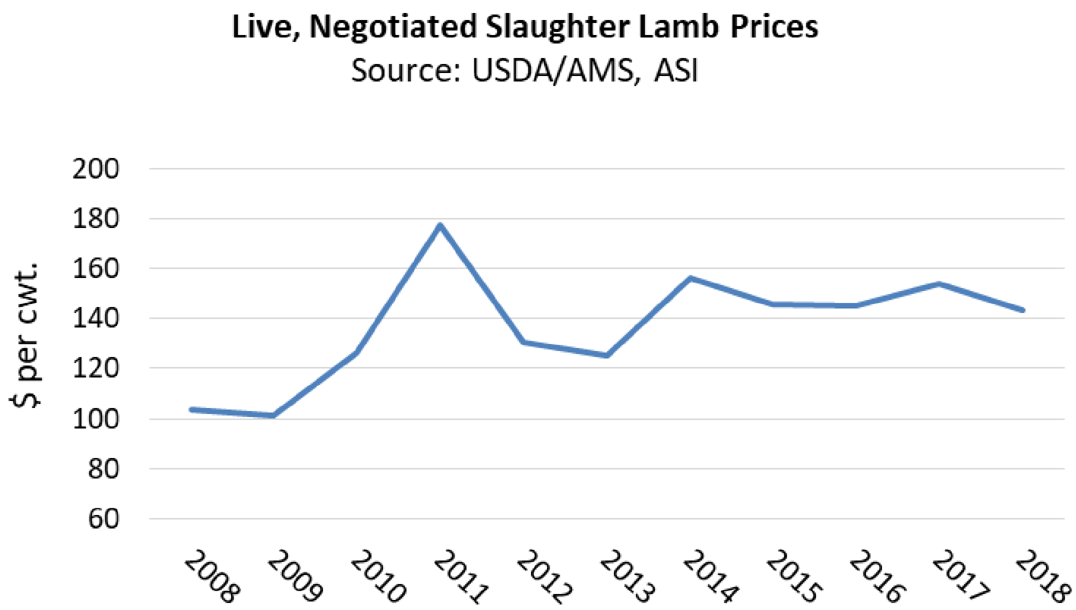


Slaughter lamb prices at auction exhibit pronounced seasonality



Live, negotiated slaughter lamb prices averaged $143.36 per cwt. in 2018, down 7% annually

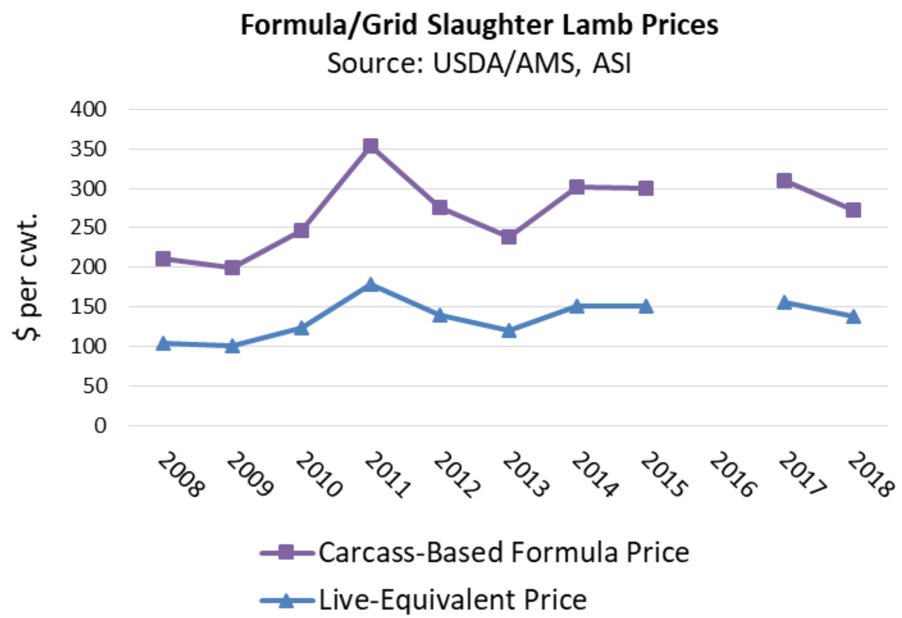
-- Down 1% from its 5-year average



Formula/grid average was $272.75 per cwt. in 2018, down 12% annually, down 5% from its 5-year average

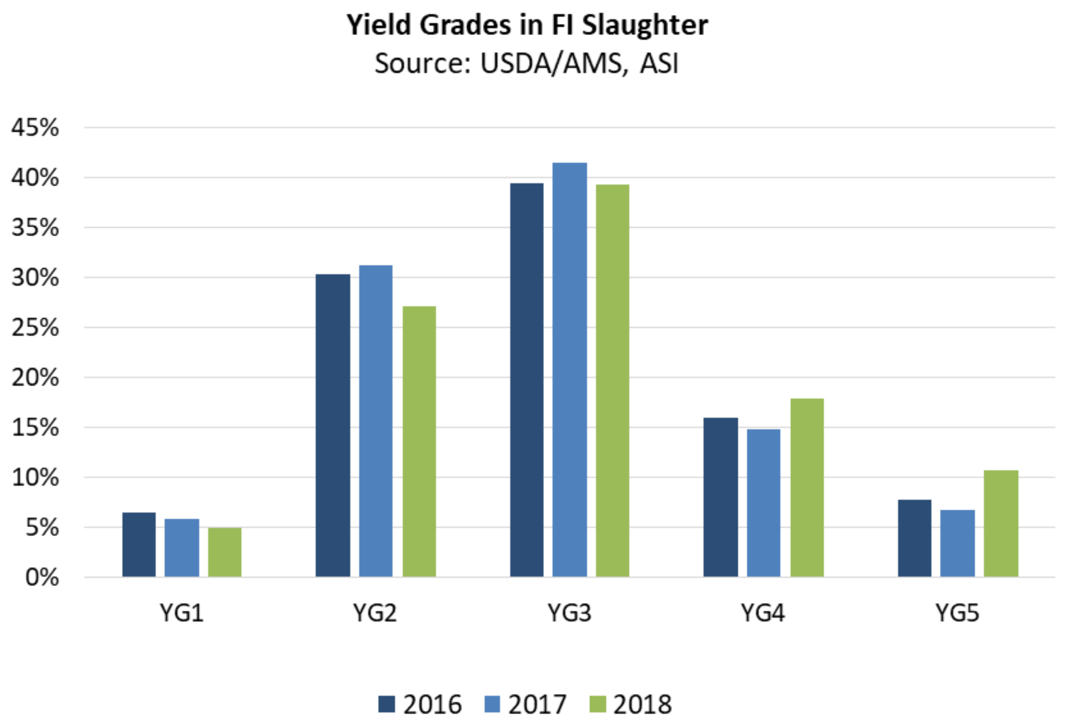
-- The live-equivalent average was $137.56 per cwt.

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



III. Carcass and Boxed Lamb Market Trends

YG 4s and 5s 29% of Harvest in 2018, up from 22% in 2017



Federally Inspected Lamb and Mutton Yield Grades

Percentages derived from yield grade by lbs.

Source: USDA, AMS, Livestock and Seed Division

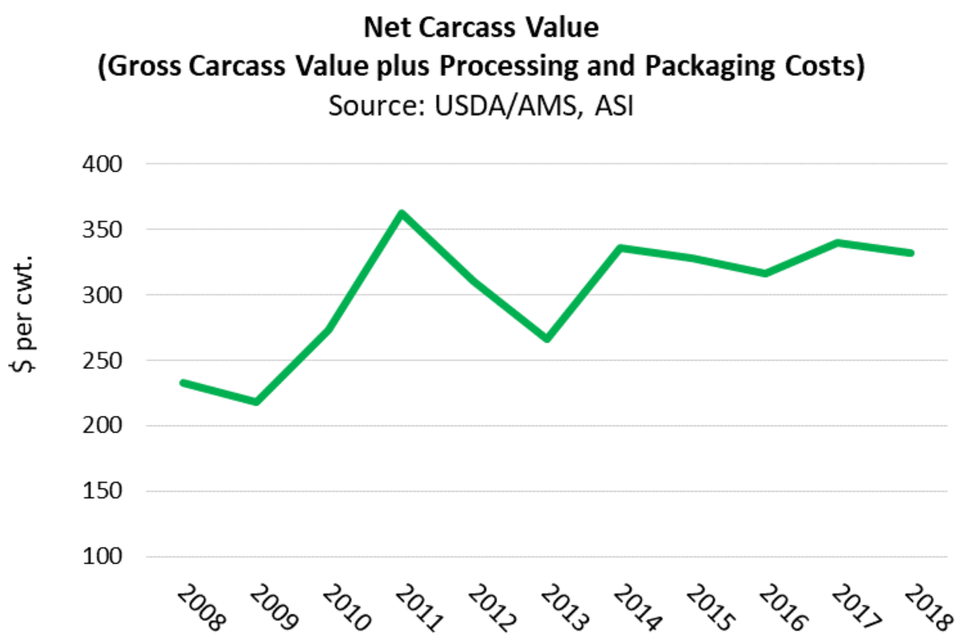
Percentage of Yield Grade in Total Yield Graded					
	YG1	YG2	YG3	YG4	YG5
2014	6%	33%	41%	14%	6%
2015	5%	29%	41%	16%	8%
2016	7%	30%	39%	16%	8%
2017	6%	31%	42%	15%	7%
2018	5%	27%	39%	18%	11%
Source: USDA/AMS, ASI, 2019					

2018 Carcass Prices Not Reported

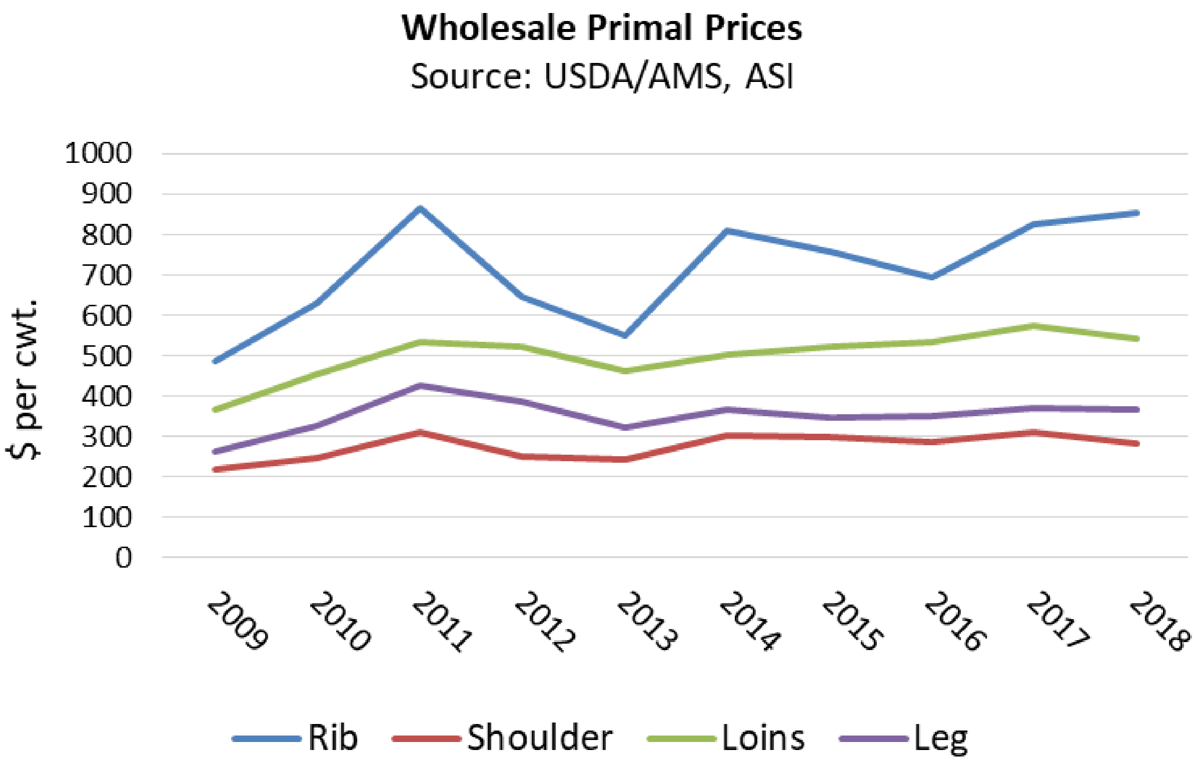
- Carcass prices suspended May 2017
- Volume by weight class still reported
- Number of reported carcass trades down 19% in 2019 to 135,582, and down 56% in 5 years
- Carcass trade down or fewer trades reported, don't know

2018 net carcass value (i.e., gross cutout after processing and packaging) averaged $331.34 per cwt., down 2% annually, 4% higher than its 5-year average

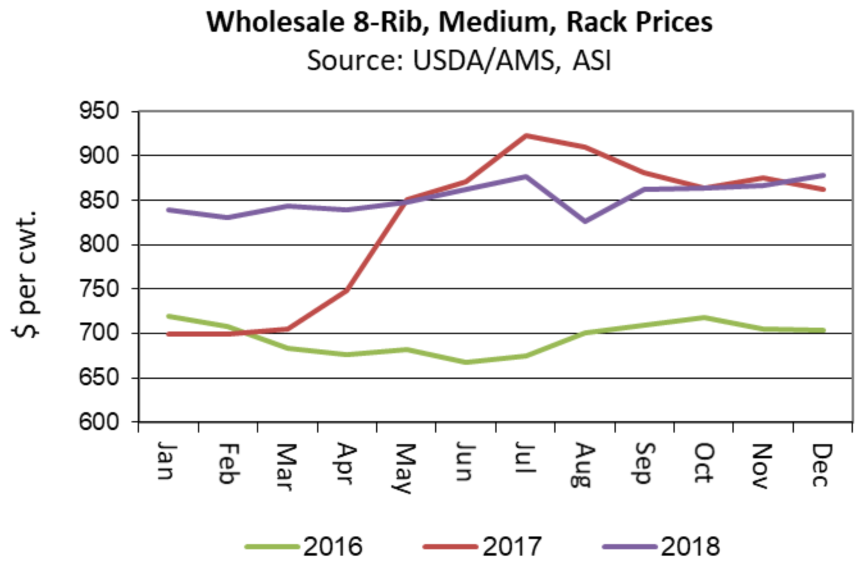
--Gross carcass value averaged $376.19 per cwt., down 2%



Rib Higher in 2018, but Leg, Shoulder and Loin Lower

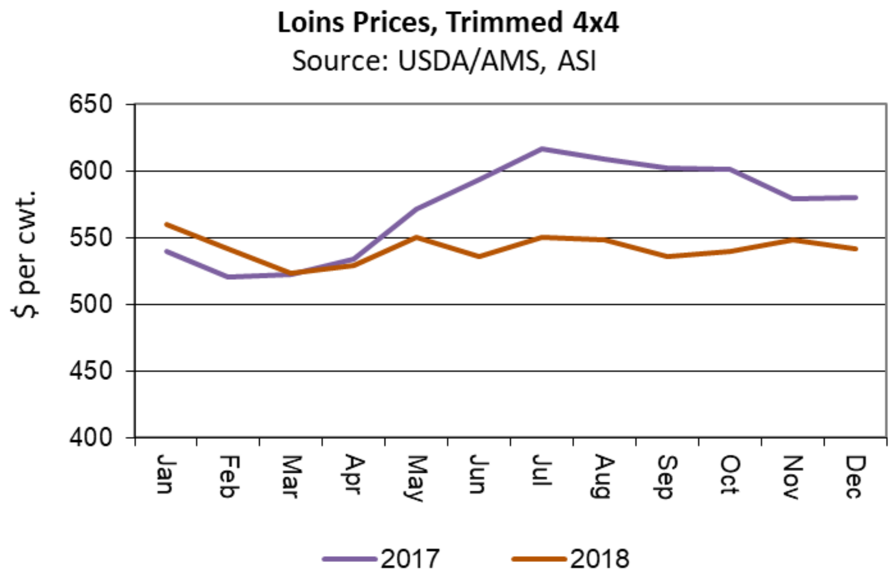


Rack, 8-Rib Medium, Topped $9 per Lb. in 2017, then held above $8 in 2018



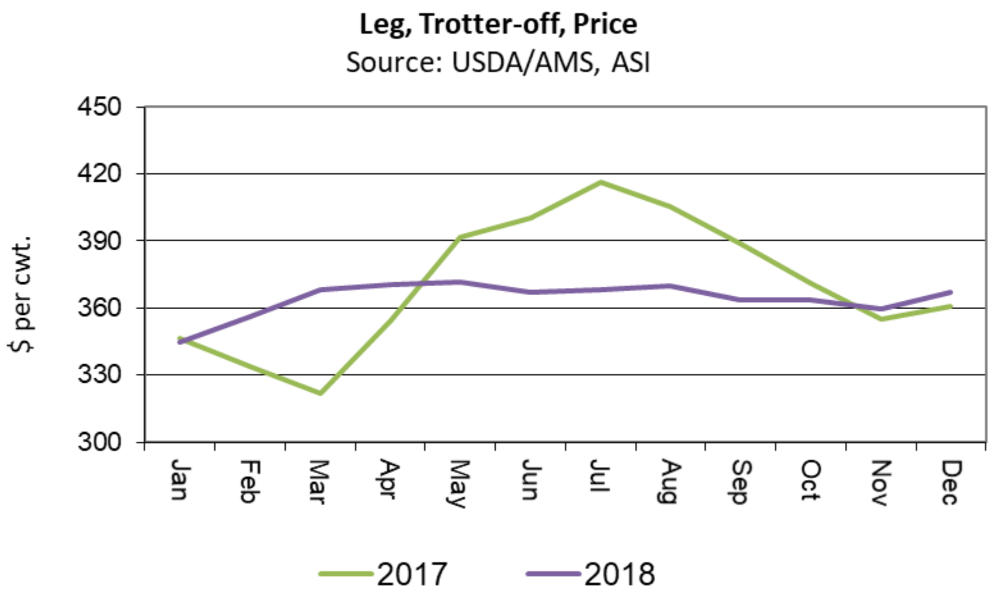
- The rack averaged $852.80 per cwt. in 2018, up 4% year-on-year.

Loins topped $6 per lb. in 2017, but then softened marginally in 2018



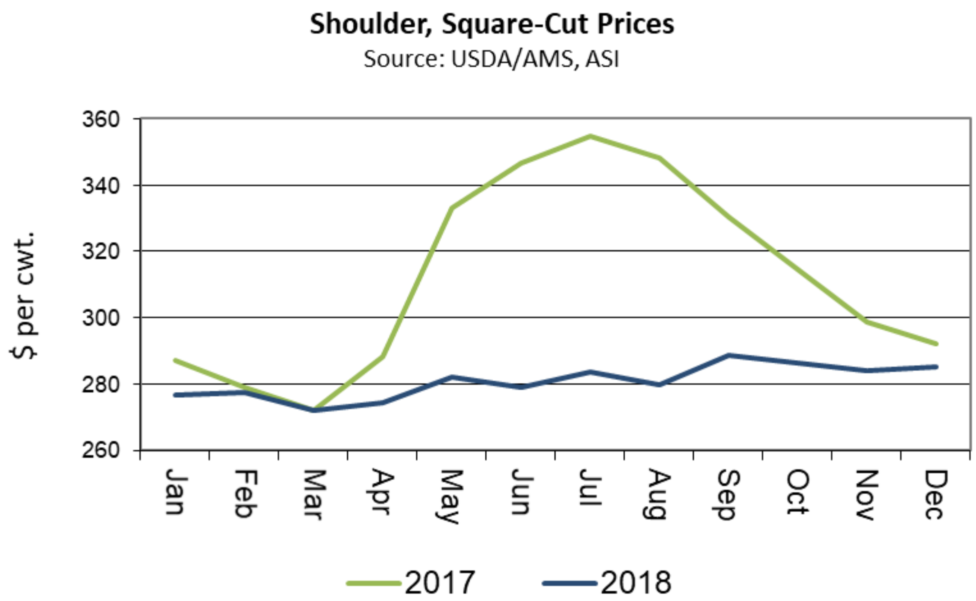
- Loins, trimmed 4x4, averaged $542.29 per cwt., down 5% year-on-year.

Leg, Trotter-Off, Steadied after Volatile 2017



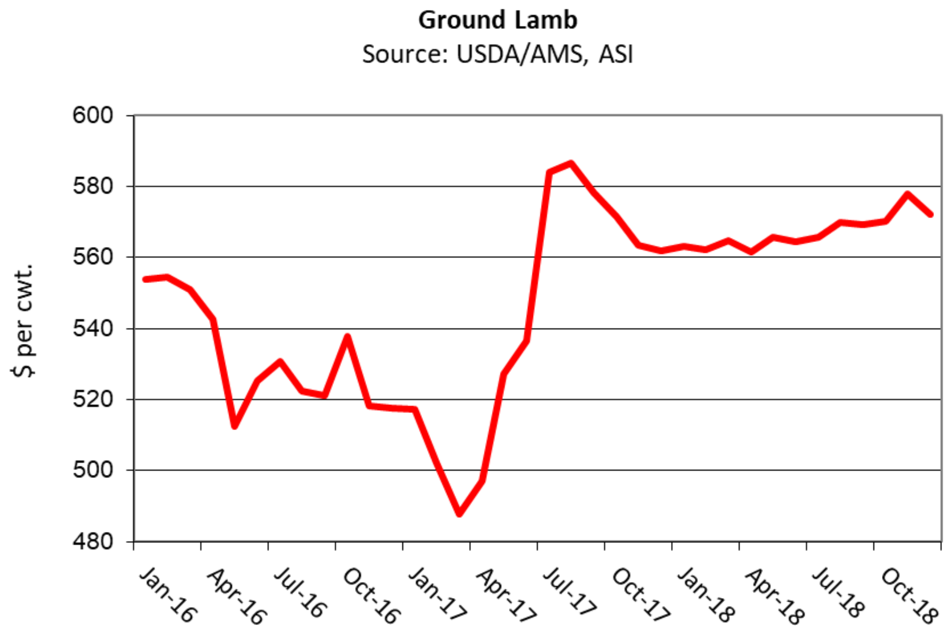
- The leg averaged $364.18 per cwt. in 2018, down 2% year-on-year.

Shoulder Drops Below $3 per Lb. in 2018



- The shoulder, square-cut, averaged $280.74 per cwt. in 2018, down 10% annually.

Ground Lamb Higher



- Ground lamb averaged $567.22 per cwt., up 4% annually.

IV.
Lamb at Retail

Retail feature activity mostly lower in 2018 while feature-weighted prices mixed

➔ As rack strengthened 16%, its feature activity dropped 25%

Lamb at Retail: Feature Activity and Prices

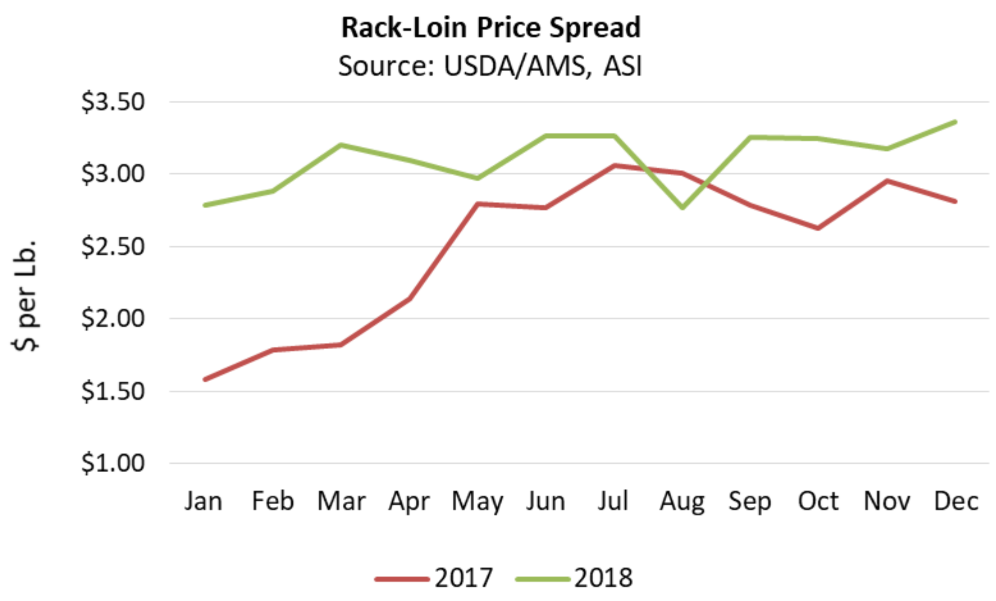
	Bone-in leg		**Boneless leg**		**Rack**		**Loin chop**		**Shoulder blade chop**	
	No. of stores with feature activity	Weighted-average price in features	No. of stores with feature activity	Weighted-average price in features	No. of stores with feature activity	Weighted-average price in features	No. of stores with feature activity	Weighted-average price in features	No. of stores with feature activity	Weighted-average price in features
2017	18,840	$5.92	16,650	$7.97	19,650	$12.08	48,630	$8.33	31,640	$5.38
2018	18,230	$5.31	12,660	$7.63	14,780	$13.99	42,230	$9.13	34,760	$5.58
% change	-3%	-10%	-24%	-4%	-25%	16%	-13%	10%	10%	4%

Source: USDA/AMS, ASI

V. Price Spreads

In 2018 the rack-loin spread widened by 24% to $3.11 per lb.

--The rack gained 4%; the loins lost 5%



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

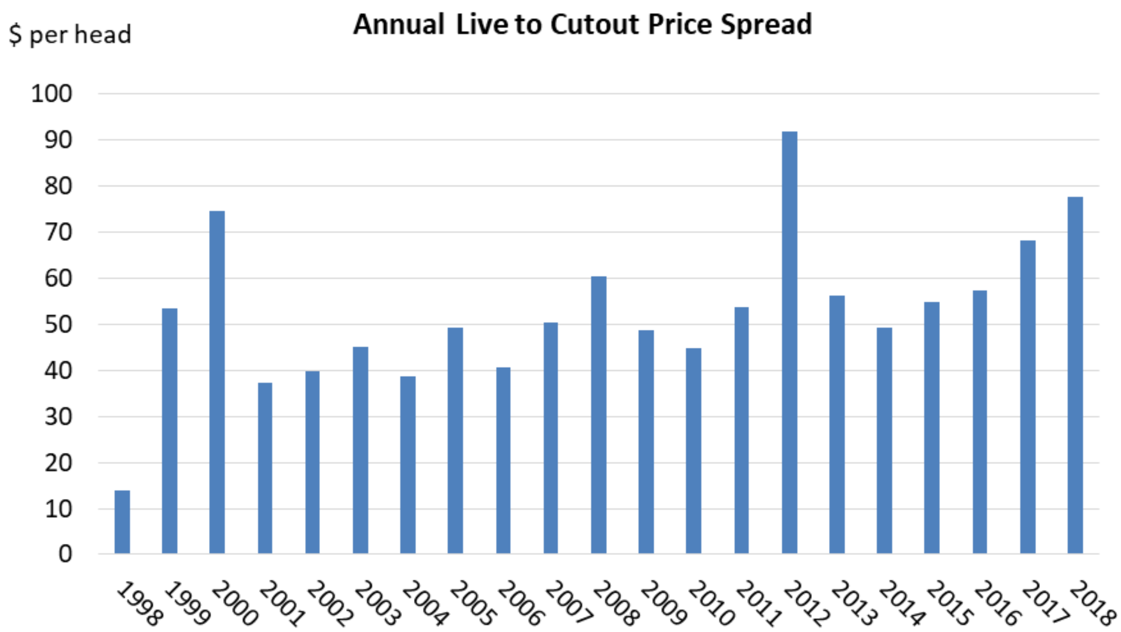
Understanding Packer Spreads

- 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, spread not updated.*
- The price spreads assume that all that is processed sells and no allowance is made for cold storage tonnage.
- Packer spreads do not represent profitability

Live to Cutout Packer Spreads Gained 14% in 2018 to $77.60 per head:

--4th year of consecutive gains

--Live lamb was down by 7% and meat prices up by 3%



VI. Pelts

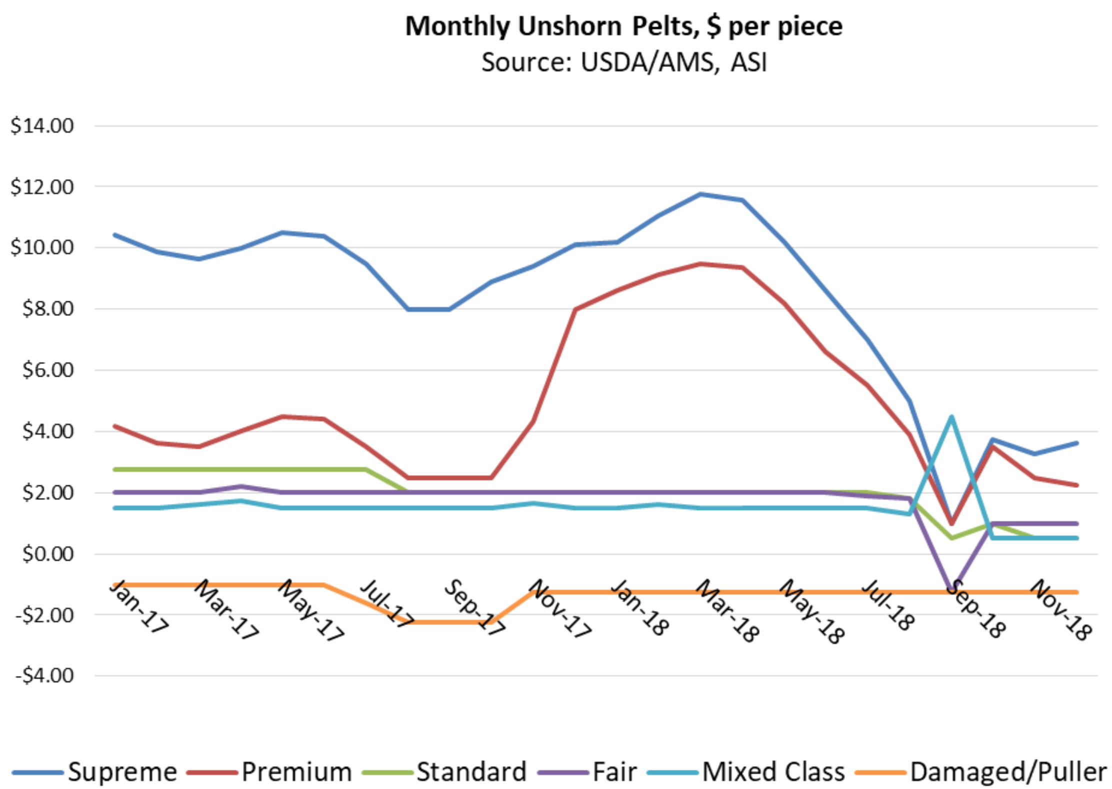
New U.S. Pelt Reporting

- In late January 2016, USDA/AMS adopted new classes for pelt reporting, to better identify prices for like quality pieces.

- Descriptors for Pelt Classes include square footage, discolored fiber, manure/seed free, staple length, micron, and processing defects.

Pelts Lower Annually

- Supreme—highest quality—unshorn pelts brought \$1.48-\$7.25 per piece in 2018, down an average 45% annually.



VII. Replacement Sheep

Ewe Prices Mixed in 2018

-- Yearling ewes 5% lower

-- Young ewes 4% higher

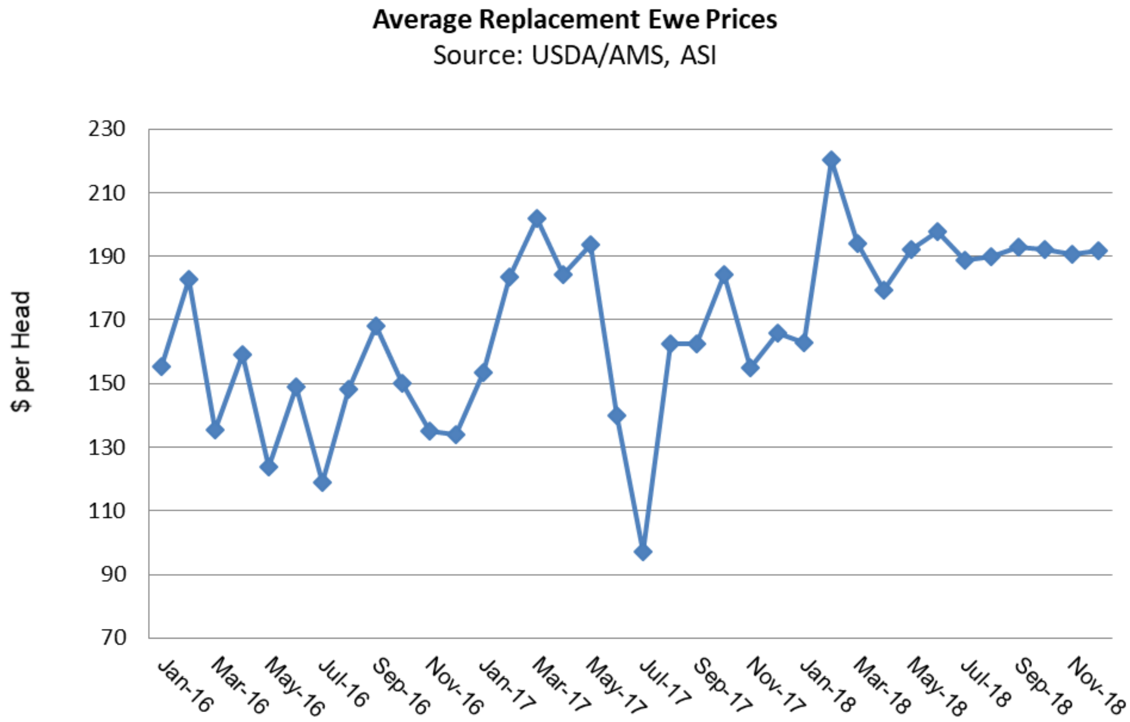
-- Ram prices not established

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
2014	172	279	238	158	118	650	479	697
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	276	242	189	141	92	Not established.		
% change in 2018		*-5%*	*4%*	*-4%*	*-3%*			

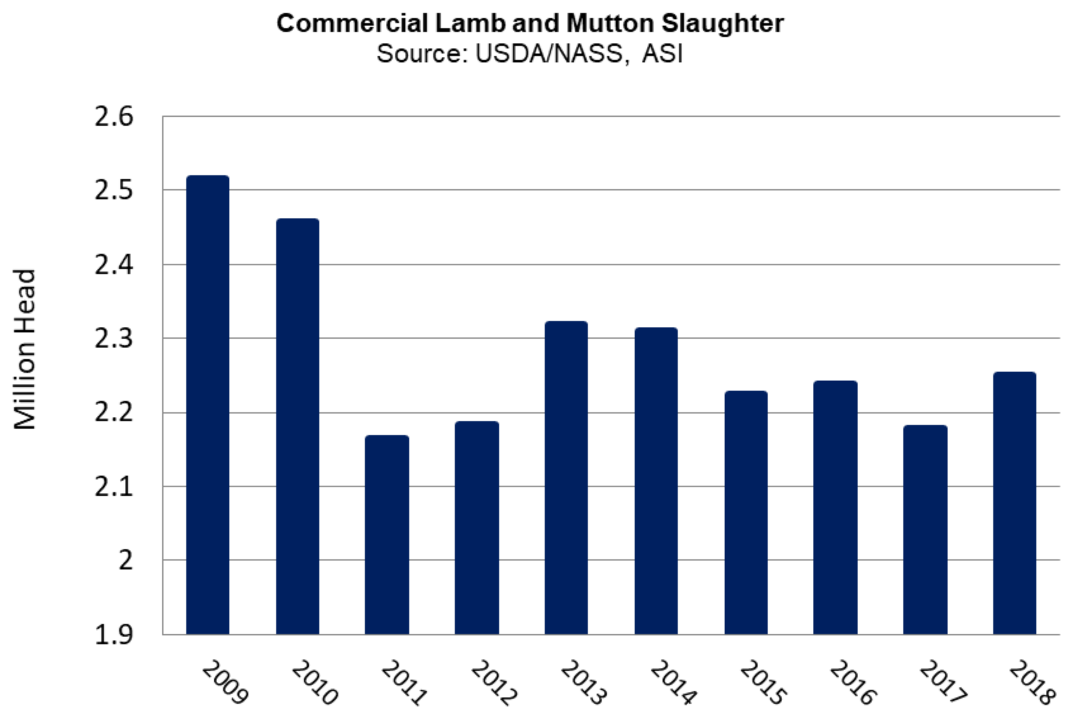
Source: USDA/AMS, ASI

Ewe Prices Variable, Dependent Upon Age



VIII.
Domestic Production and Trade

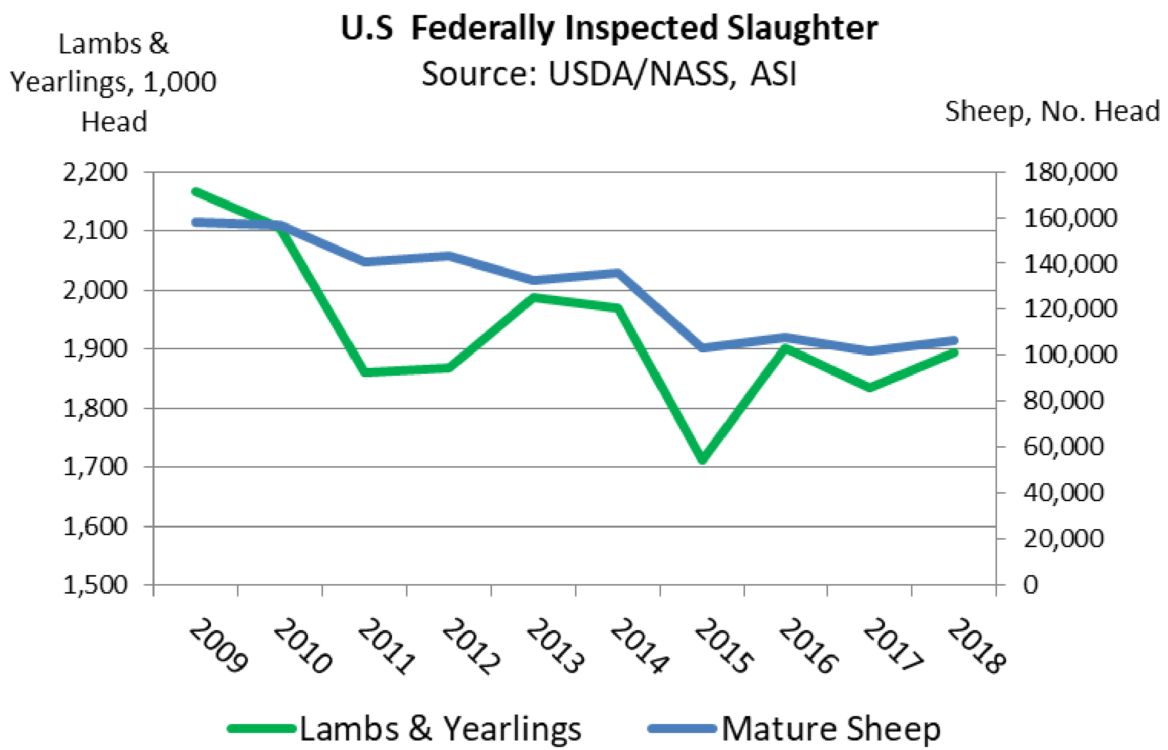
Commercial sheep and lamb harvest was 2.250 million head in 2018, up 3% annually



Lamb & mutton production totaled 152.6 million lbs. in 2018, up 5% year-on-year

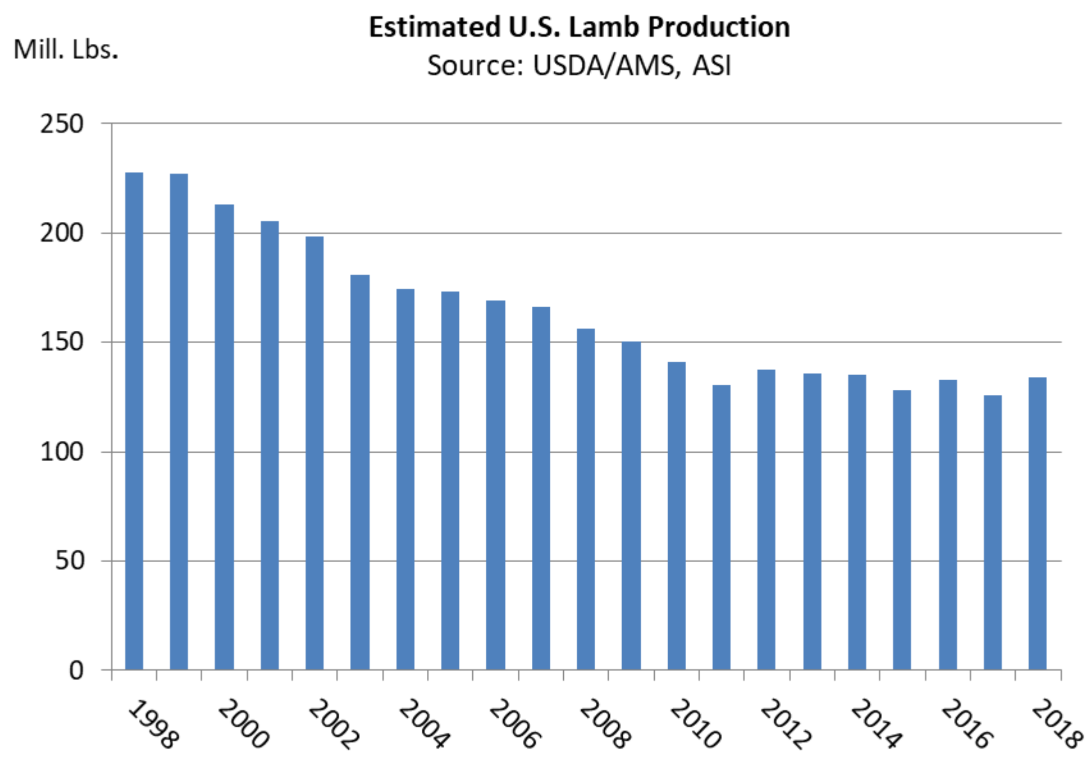
Lambs and yearling harvest up 3% to 1.893 million head

--Mature sheep harvest was up 5% to 106,600 head

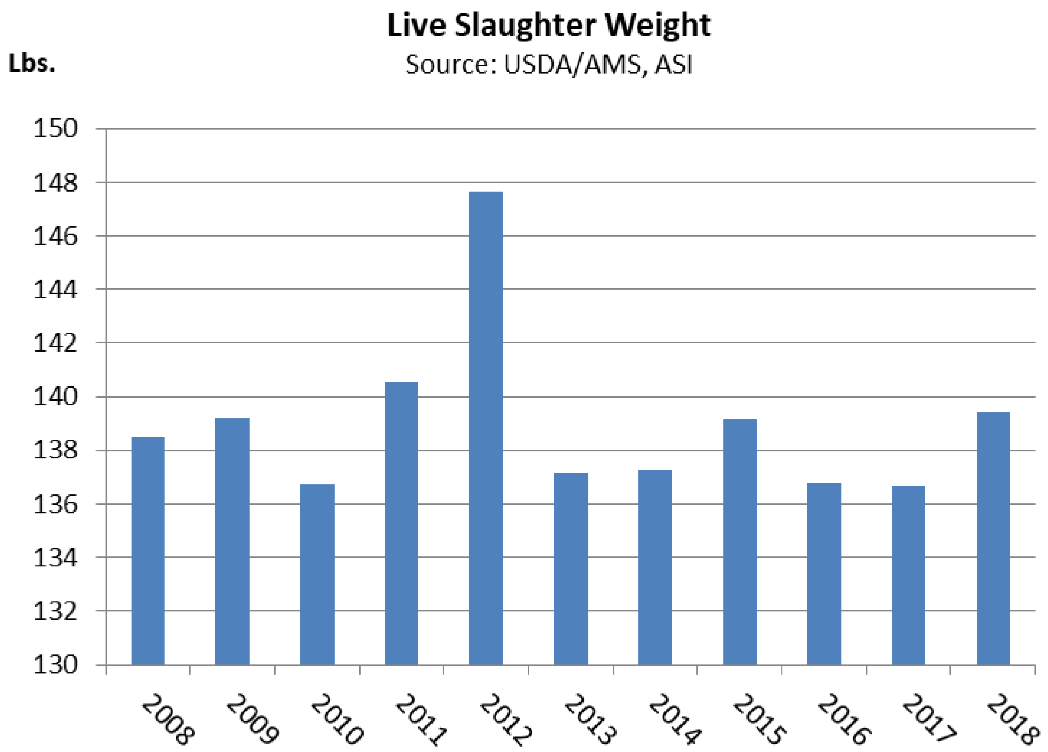


Estimated Lamb Production Totaled 134.03 million lbs., up 6% annually

-- Federal government doesn't report lamb production separate from mutton production



Federally-inspected Live Slaughter Weight Gained 2% in 2018 to 139 lbs.



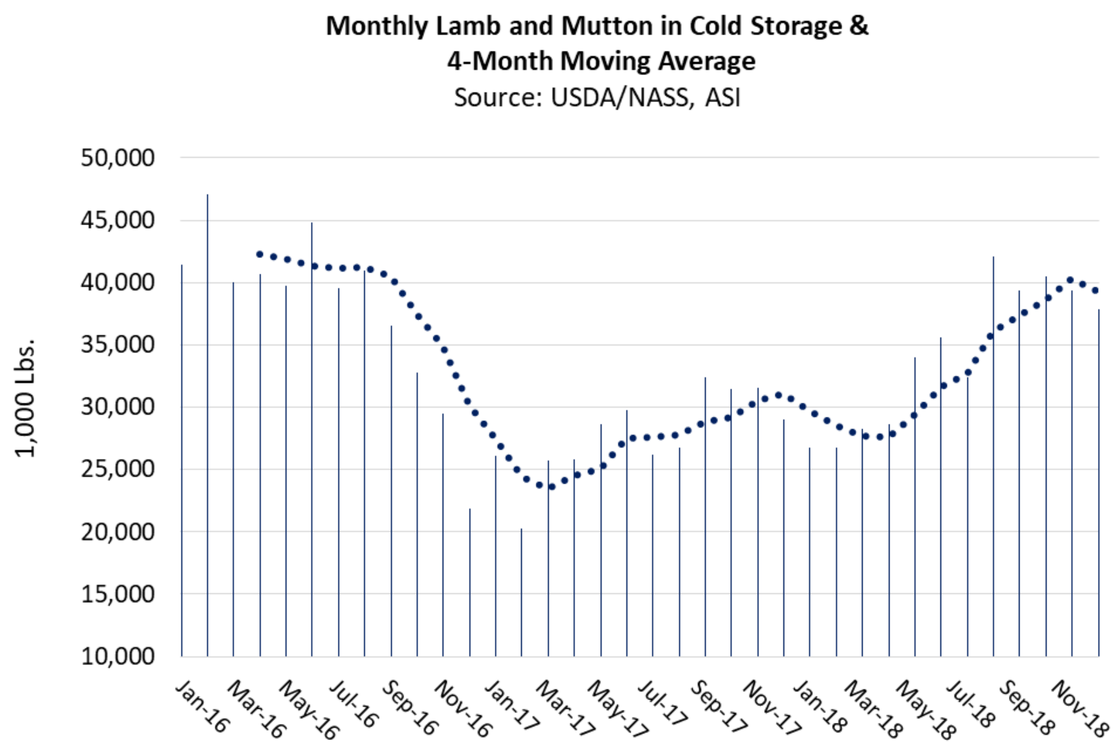
Freezer inventory climbed through 2018

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

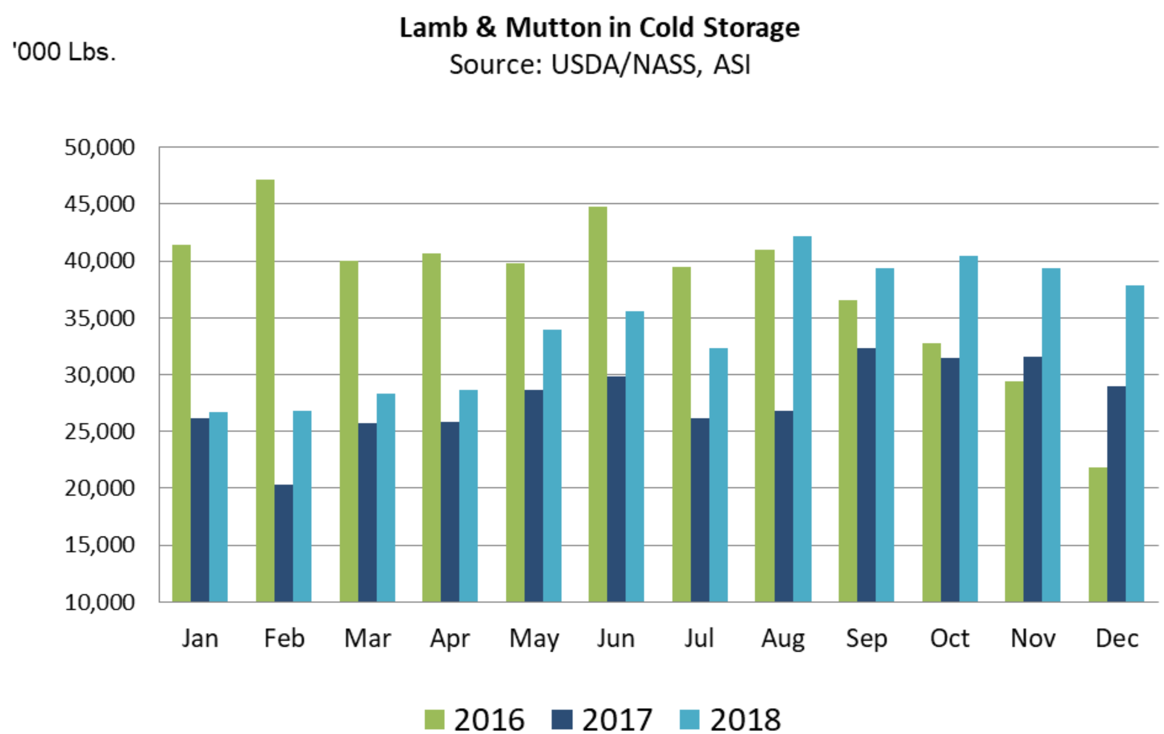
--Some of the stored meat will be boneless and imported with lower cut weights.

Freezer inventory climbed through 2018

--Monthly average in 2018 was 34.3 million lbs., up 23% annually



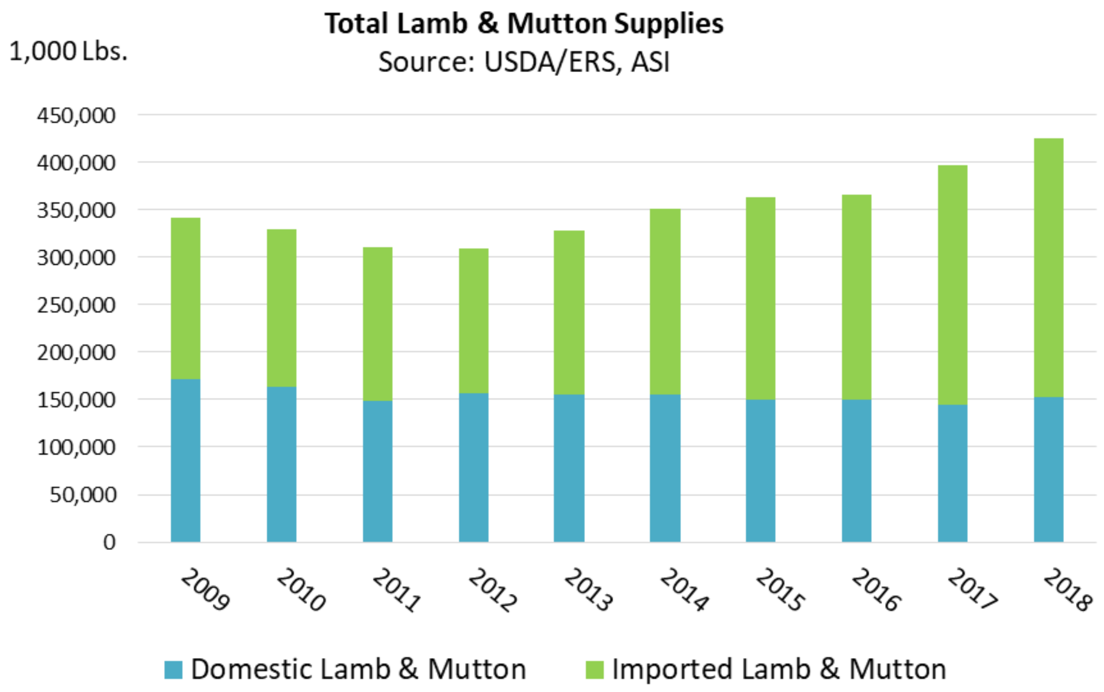
Beginning in August 2018, cold storage surpassed 2017 levels



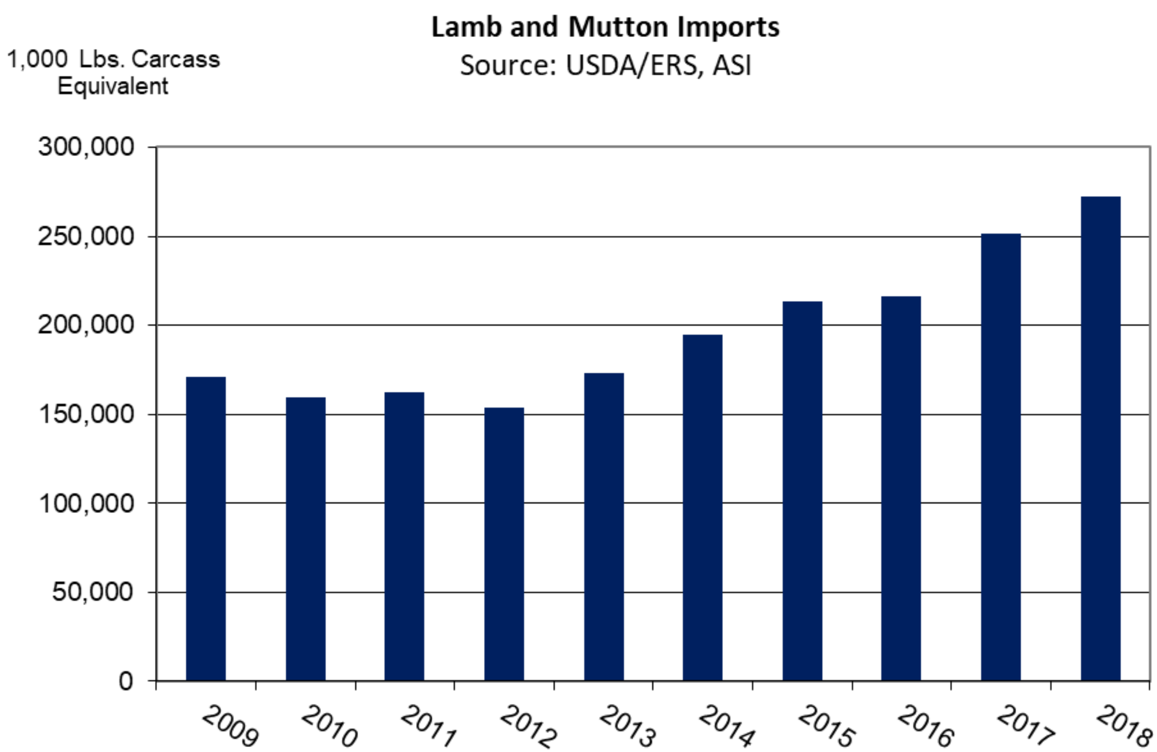
Total lamb and mutton availability climbs for third consecutive year

--Supplies expanded 7% in 2018

--Supplies expanded for 6th consecutive year

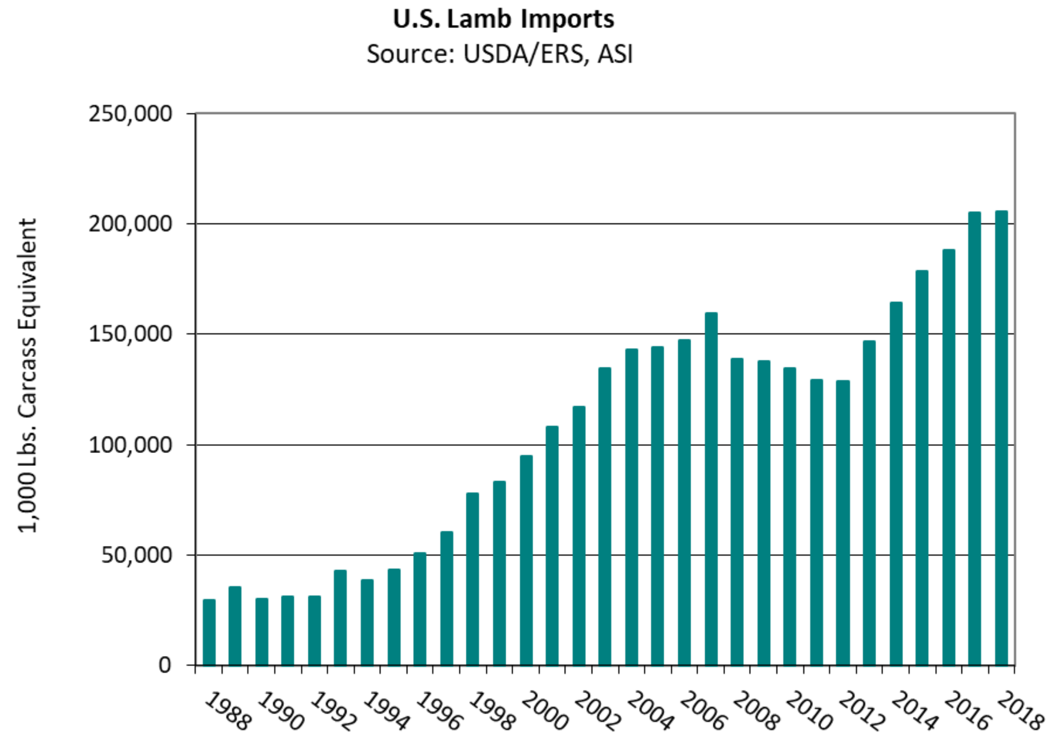


Lamb & Mutton Imports were Up 8% Year-on-Year to 272.3 Million Lbs. in 2018



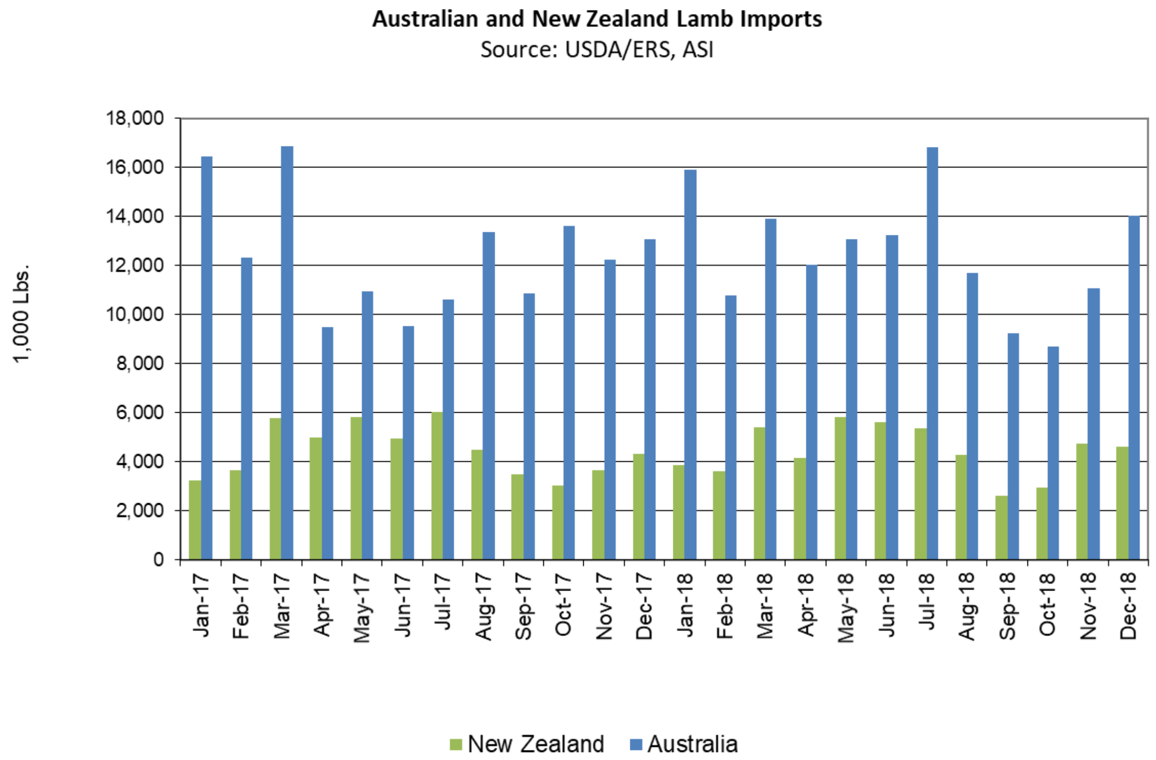
Lamb Imports Slowed, were Up 0.2% Year-on-Year to 205.7 Million Lbs.

--Lamb imports increased for 6 consecutive years

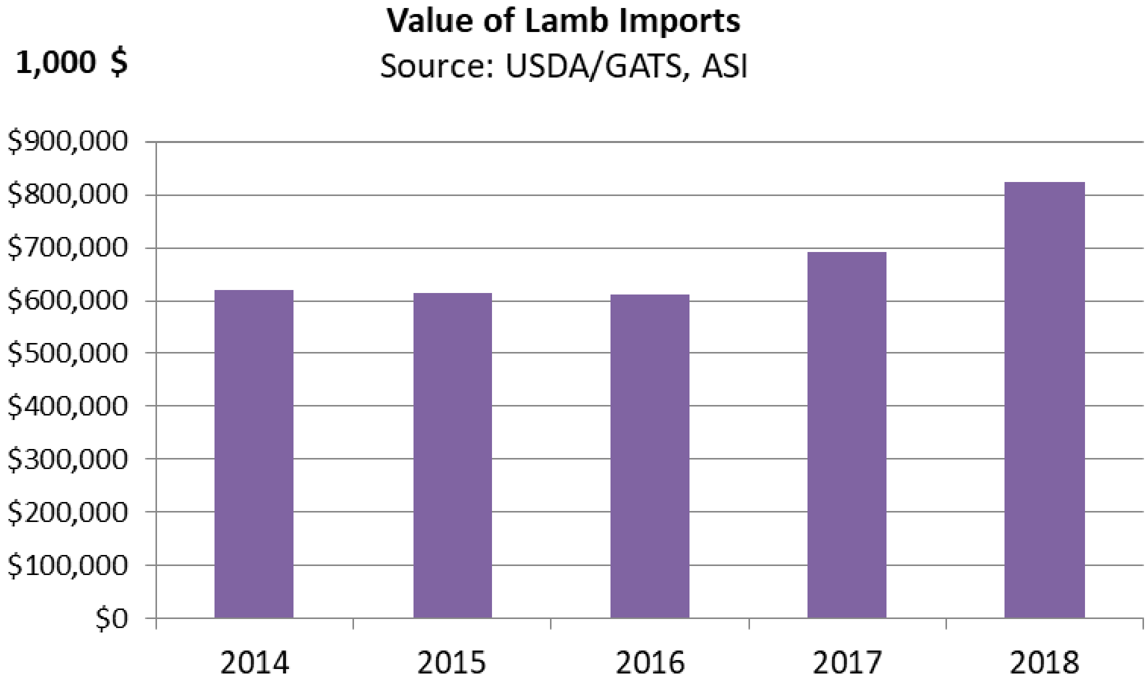


→ Australian Lamb Imports Up 1% Annually to 150.4 million lbs.

→ New Zealand lamb imports down 1% to 52.9 million lbs.

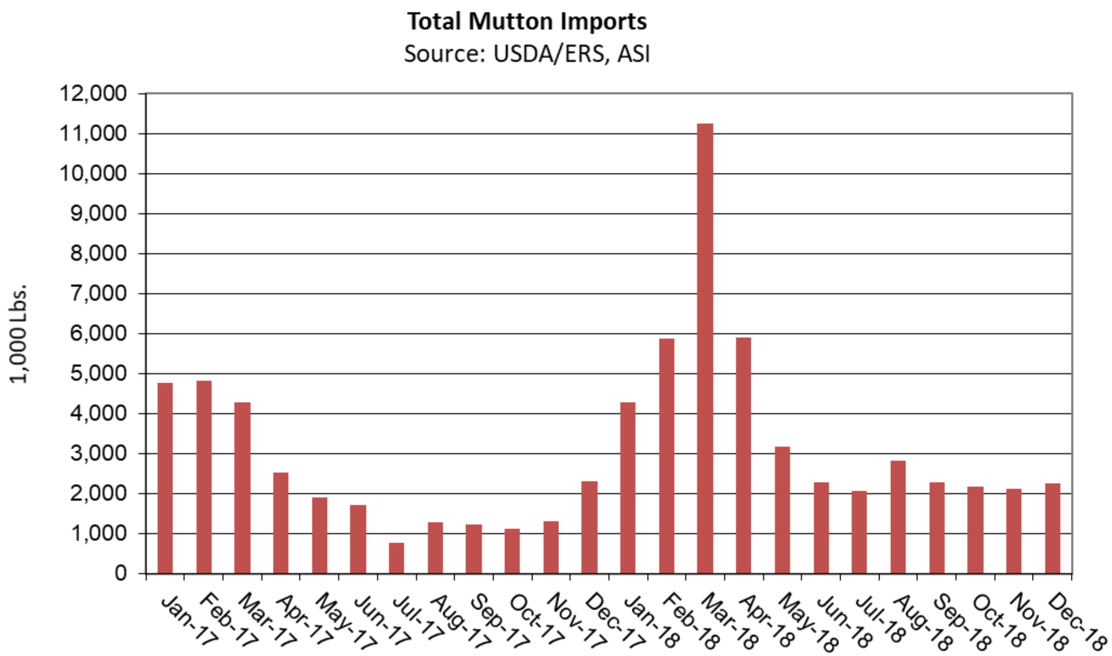


The value of lamb imports was up 19% in 2017 at $823.3 million



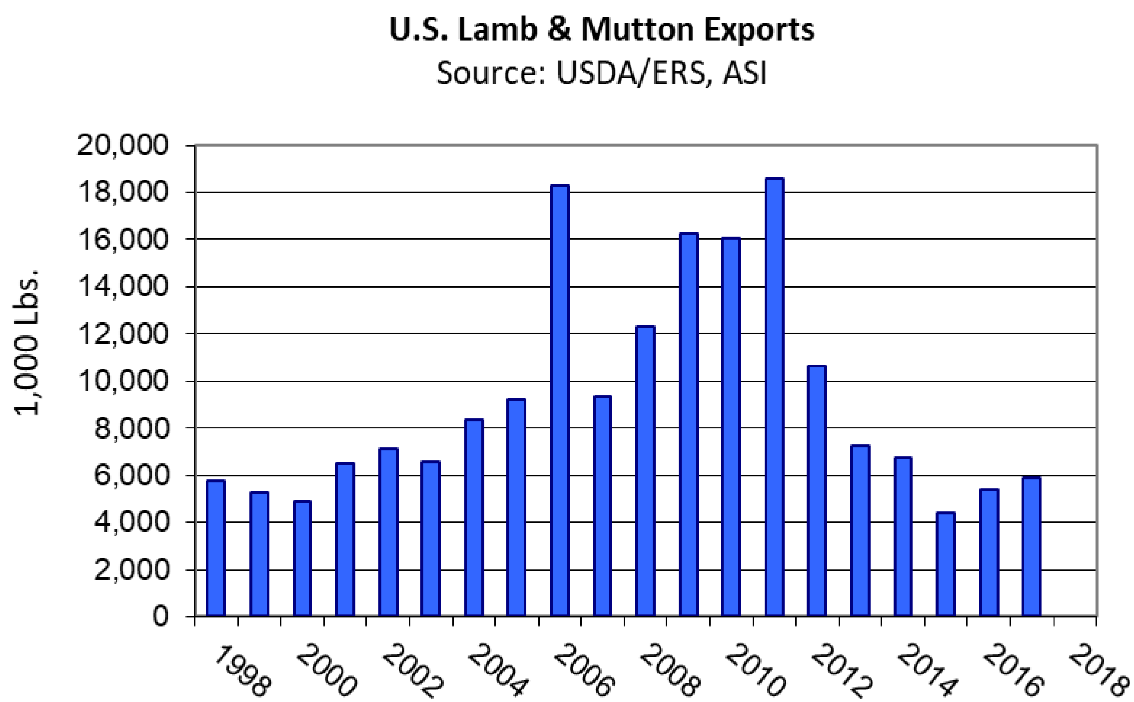
Total mutton imports were 67.0 million lbs. in 2018, up 44%

-- Australian imports were up 78% to 58.5 mill. lbs.
-- NZ imports were down 36% to 8.3 mill. lbs.



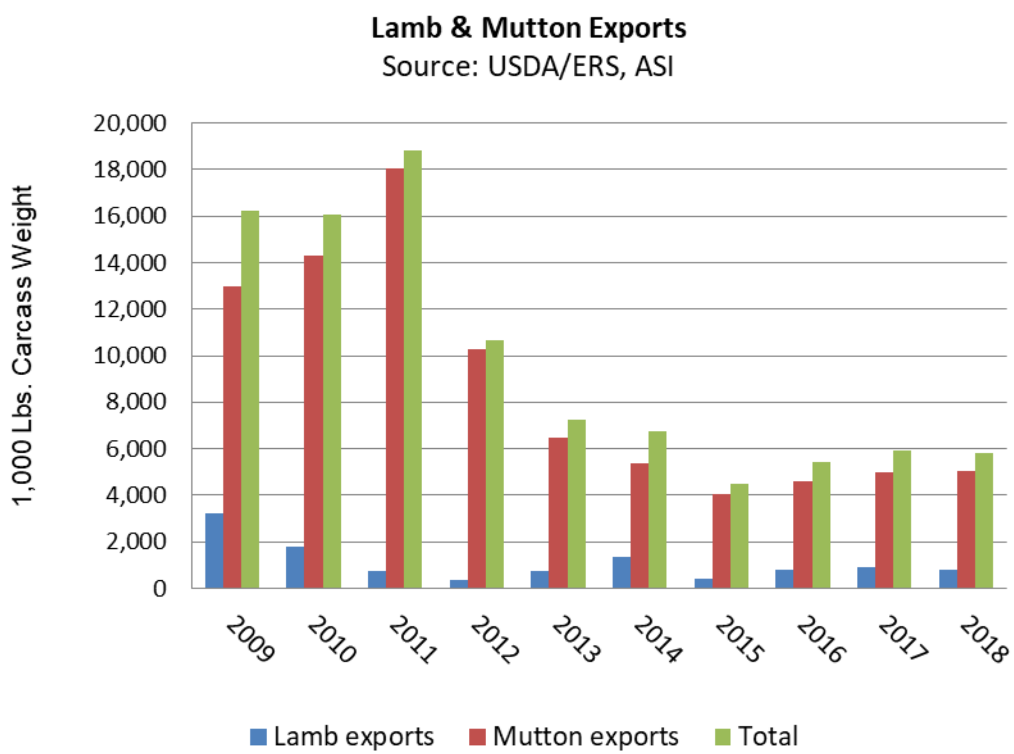
***Note March 2018 is correct*.

Total lamb & mutton exports were down 1% in 2018 to 5.8 million lbs.



--Lamb exports down 15% to 788,000 lbs.
(Lamb exports primarily variety meats)

--Mutton exports up 1% to 5.03 mill. lbs.

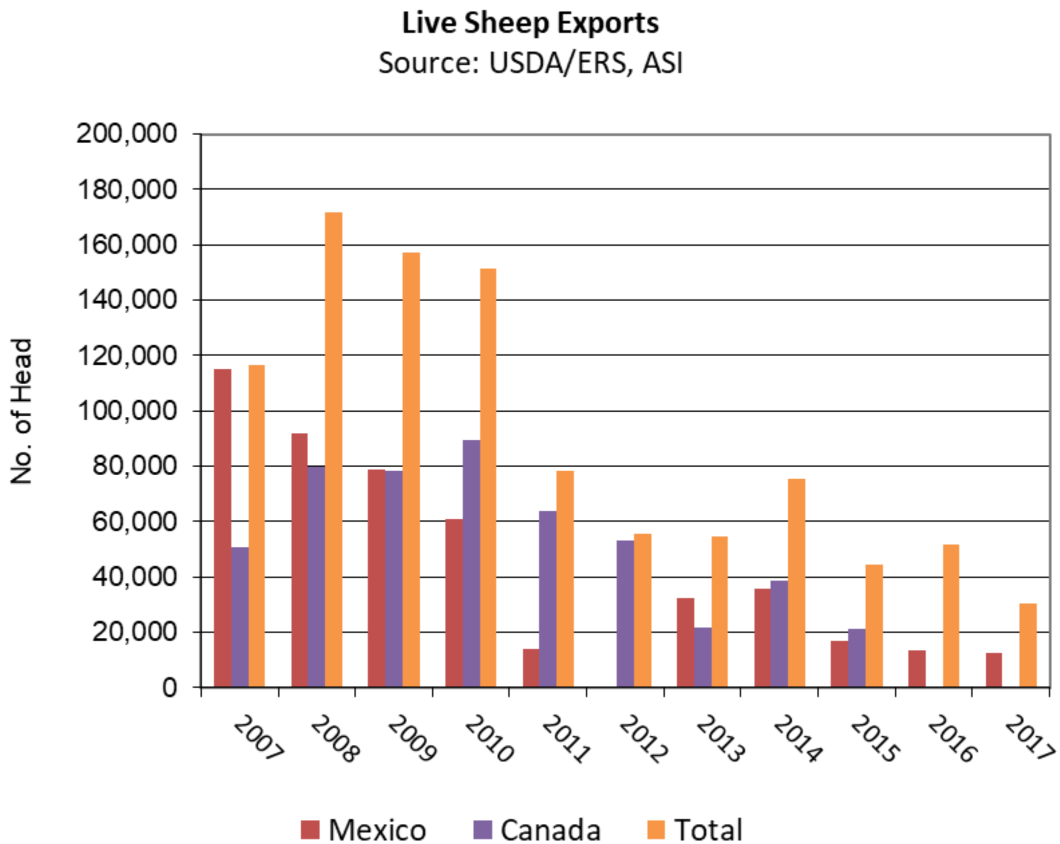


Live Lamb and Sheep Exports Up in 2017

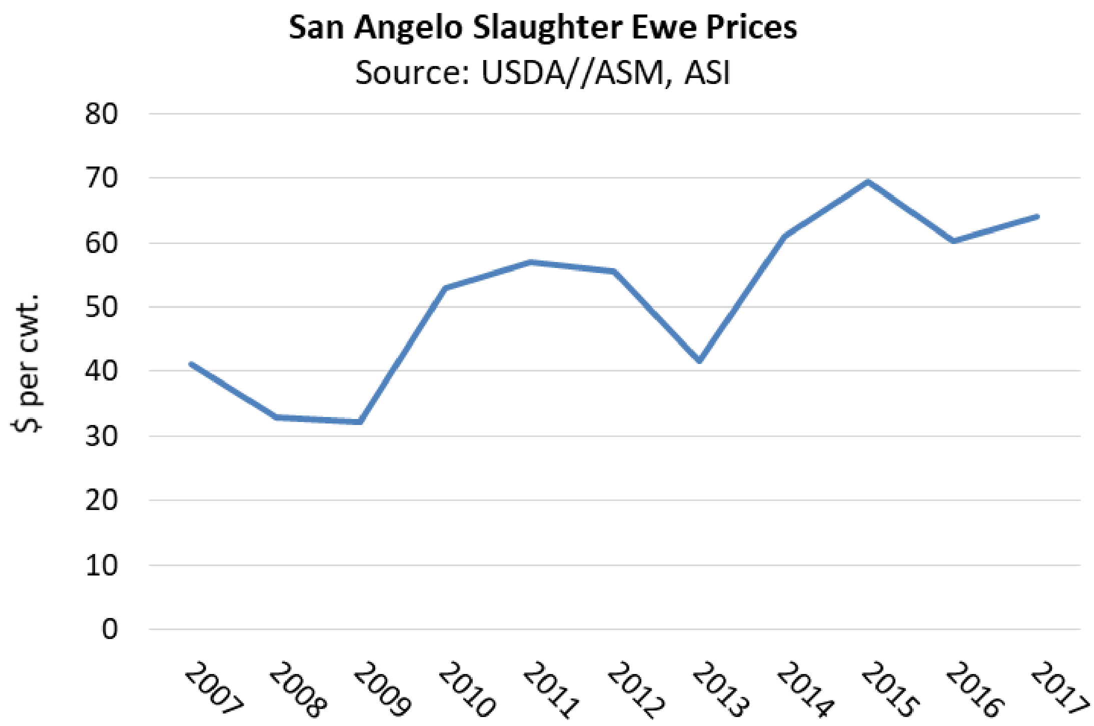
--Exports to Mexico were up 9% to 11,508 head

--Exports to Canada were up 8% to 121 head

Recent Live Exports Low



2017 Cull Ewe Prices up 6% to $63.97 per cwt.

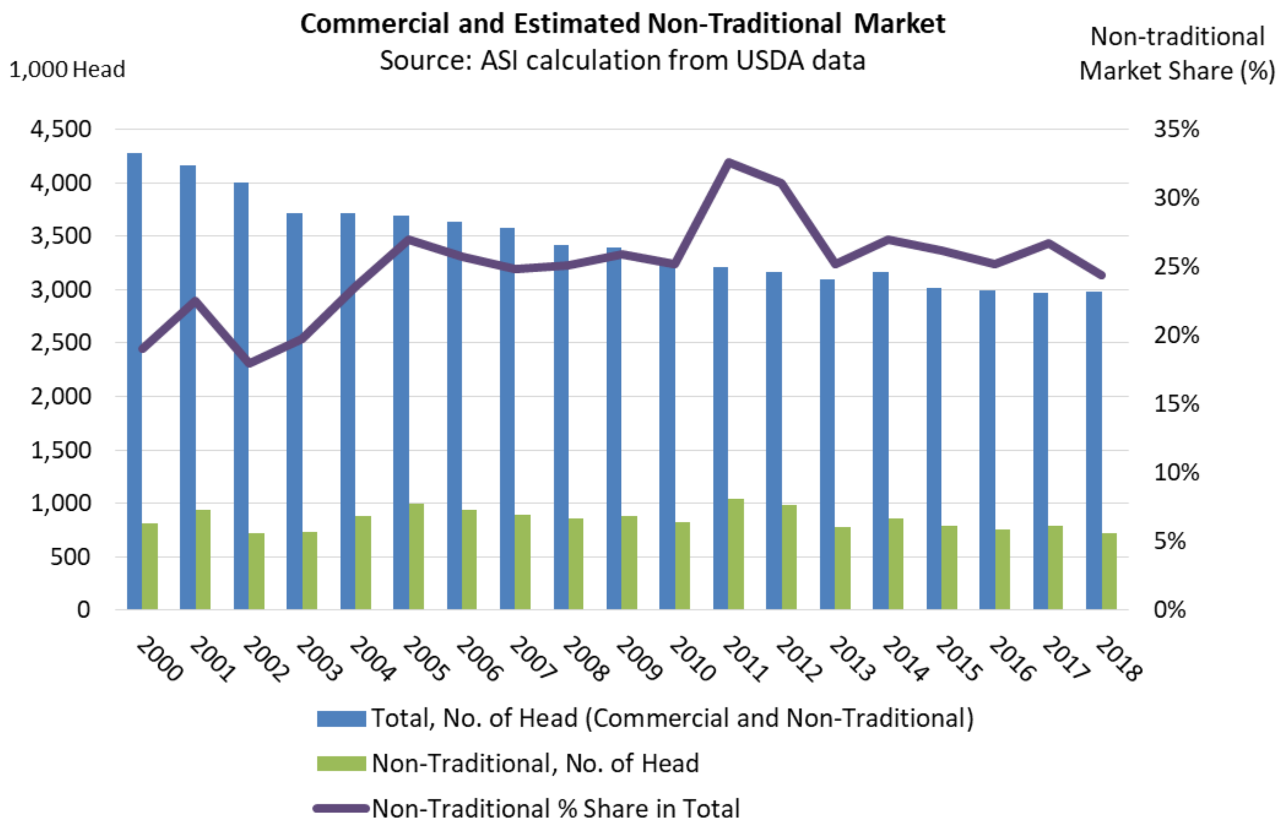


IX. Non-traditional Market

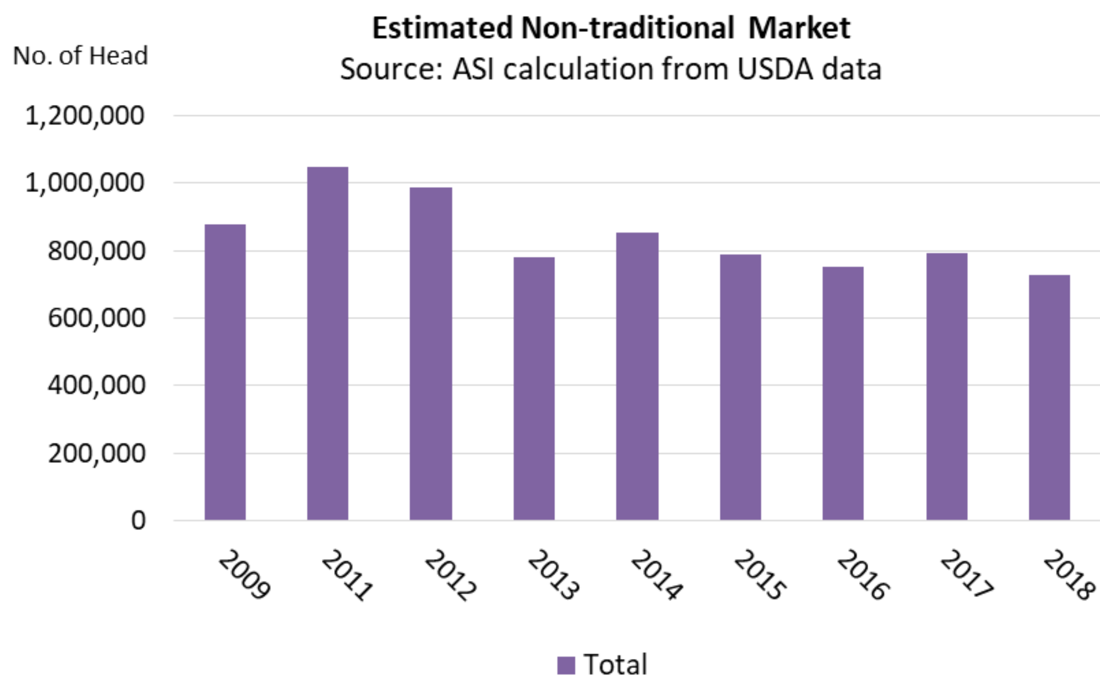
Non-traditional Market Significant Segment of U.S. Sheep Industry

- 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.

725,800 lambs estimated in the non-traditional market in 2018, 24% of commercial harvest

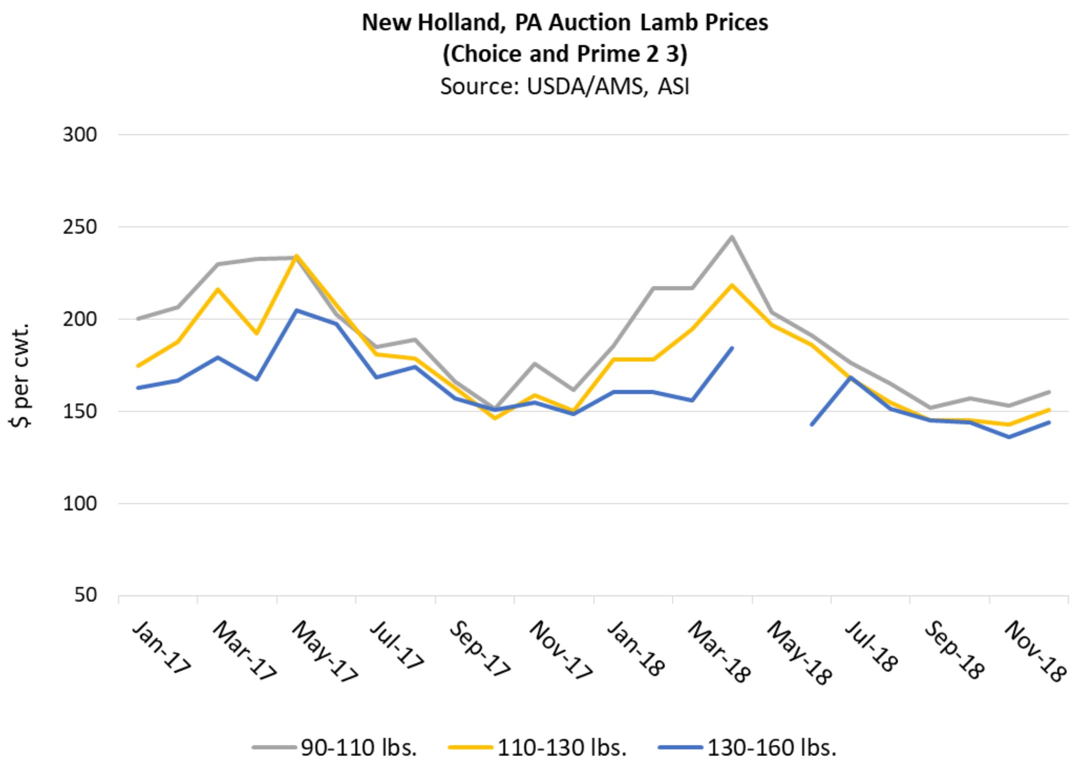


For every commercial lamb slaughter reported, 0.36 lamb estimated in the non-traditional market



Slaughter lamb prices at New Holland mirror commercial market

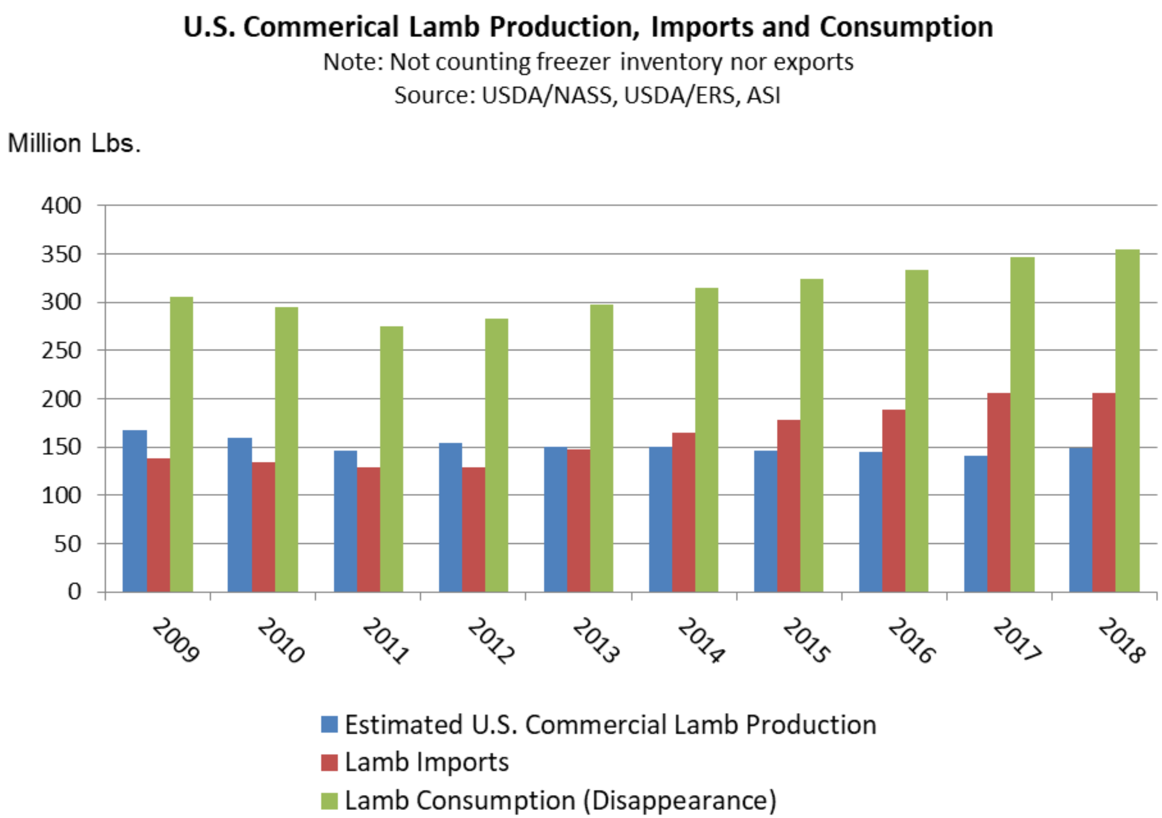
-- 90-110 lbs. down 5% to $185.09 per cwt.
-- 110-130 lbs. down 6% to $171.43 per cwt.
-- 130-160 lbs. down 9% to 153.77 per cwt.



X. Total Lamb and Mutton Availability

Total lamb supply estimated at 354.9 million lbs., up 2% annually

--Import share was 58% of total availability

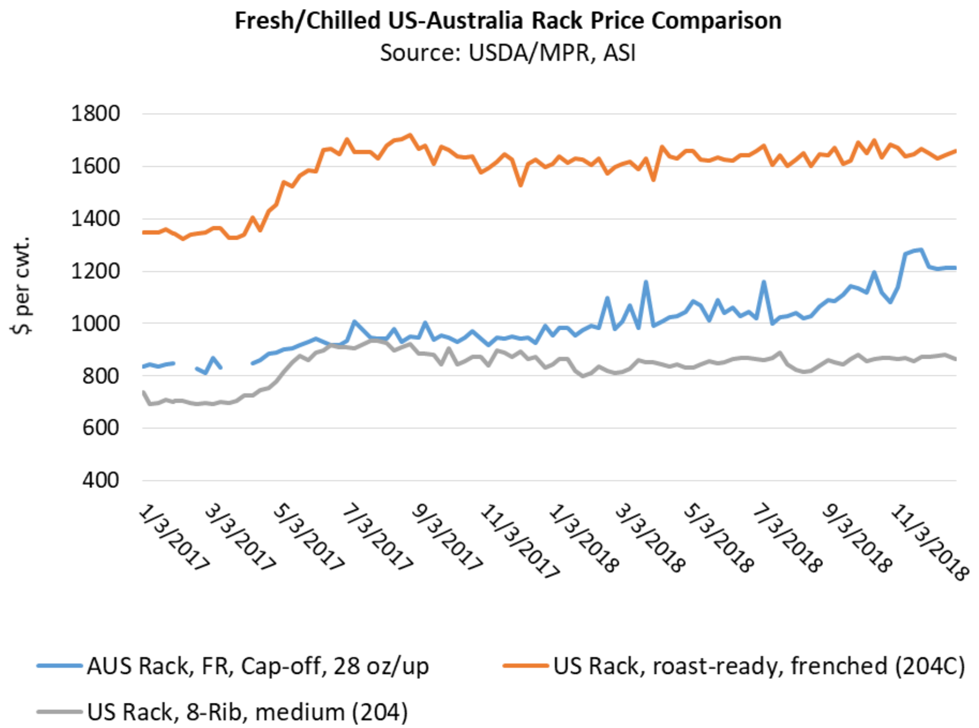


XI. Imported Product Price Comparisons

U.S. Fabricated Rack Topped $16 per Lb., 152% of Australian Rack

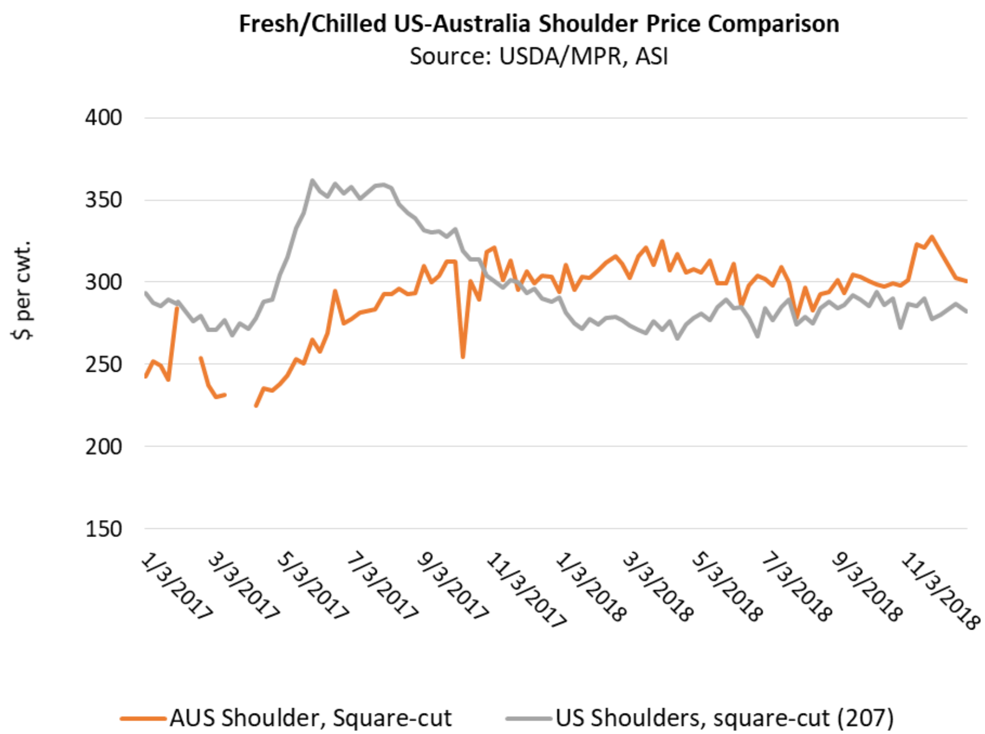
- U.S. rack, 8-rib medium (204) averaged $850.29 per cwt. in 2017, up 3% year-on-year.
- U.S. rack, roast-ready, frenched, special (204c) averaged $1,634.99 per cwt., up 7% year-on-year.
- The AUS rack cap-off, 28 oz.+ was $1,075.78 per cwt., up 17% annually.

U.S. Rack Premium Narrowed in 2018



Note: US National 5-Day Rolling Average Boxed Lamb Cuts - Negotiated Sales

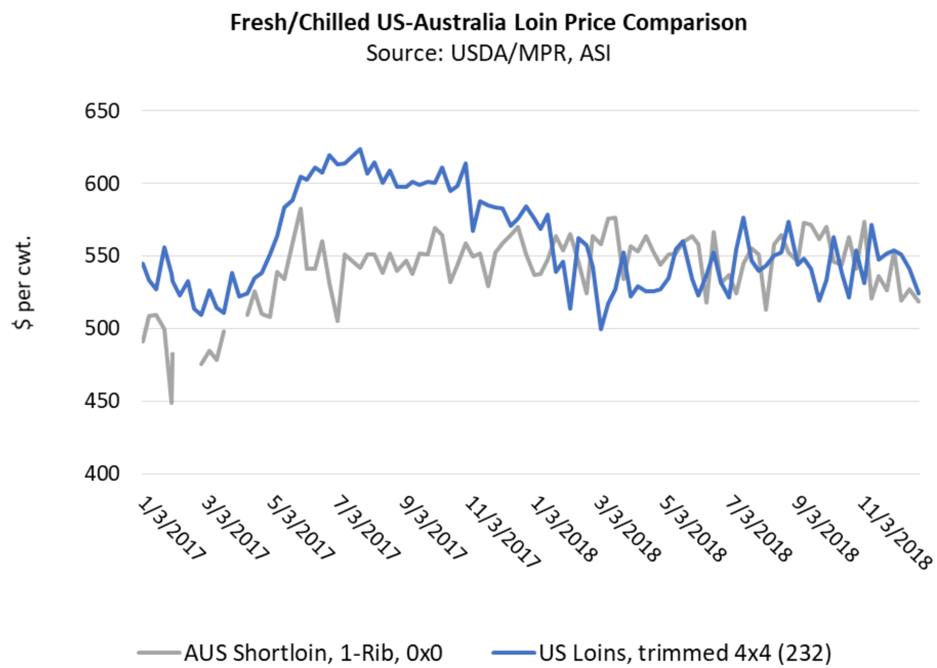
U.S. Shoulder Historically holds Premium Relative to AU Shoulder, but Lost Ground in Late 2017 through 2018



--U.S. shoulder, square-cut, averaged $280.64/cwt. in 2018, down 10% annually

--AU shoulder averaged $304.54/cwt., up 10%

U.S. Loin Lost Premium in 2017, More Competitive to AU Loin in 2018



--U.S. loin averaged $543.07/cwt. in 2018, down 5% annually
--AU loin averaged $549.09/cwt., up 3%

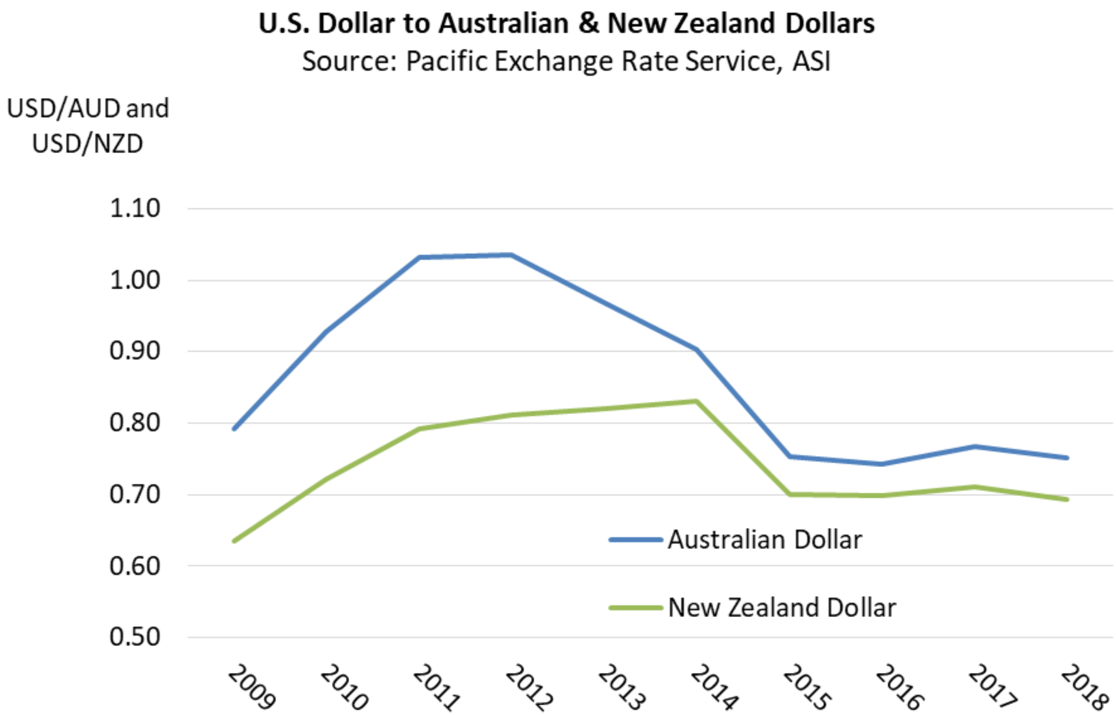
XII. Exchange Rates

Australian Dollar Weaker against US$ in 2018

-- In 2018 the Australian/U.S. rate lost 2% to 0.75 (1 AUD = 75 US cents).

-- In 2018 the NZ/U.S. rate lost 2% to 0.69 cents.

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

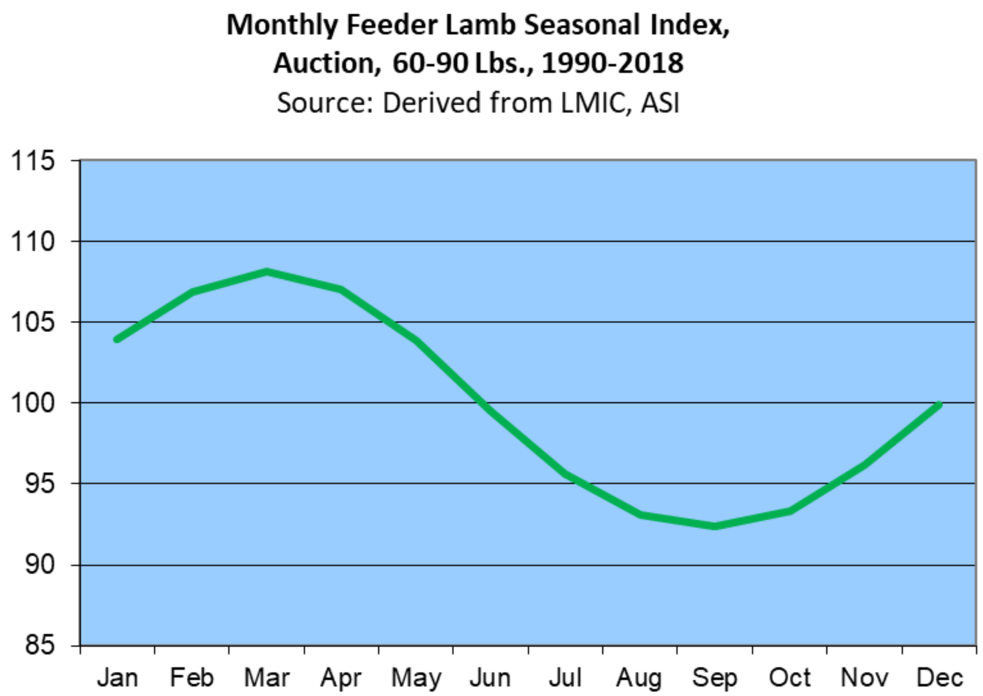


XIII. Price Projections and Outlook

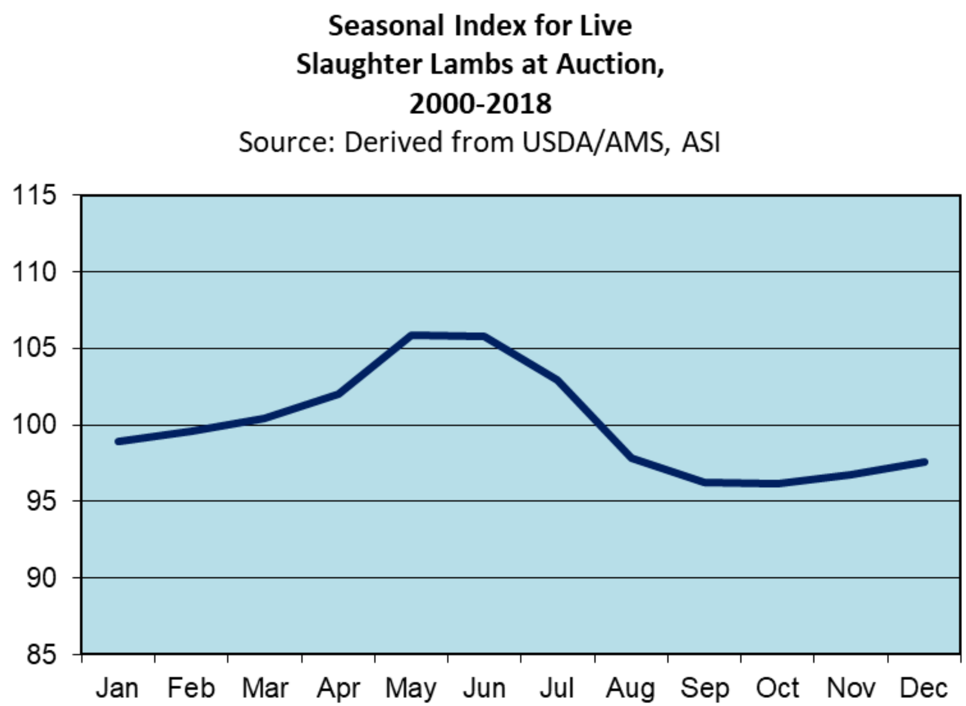
Index Lends Predictive Insight

- 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 second quarter; annual lows in the third quarter

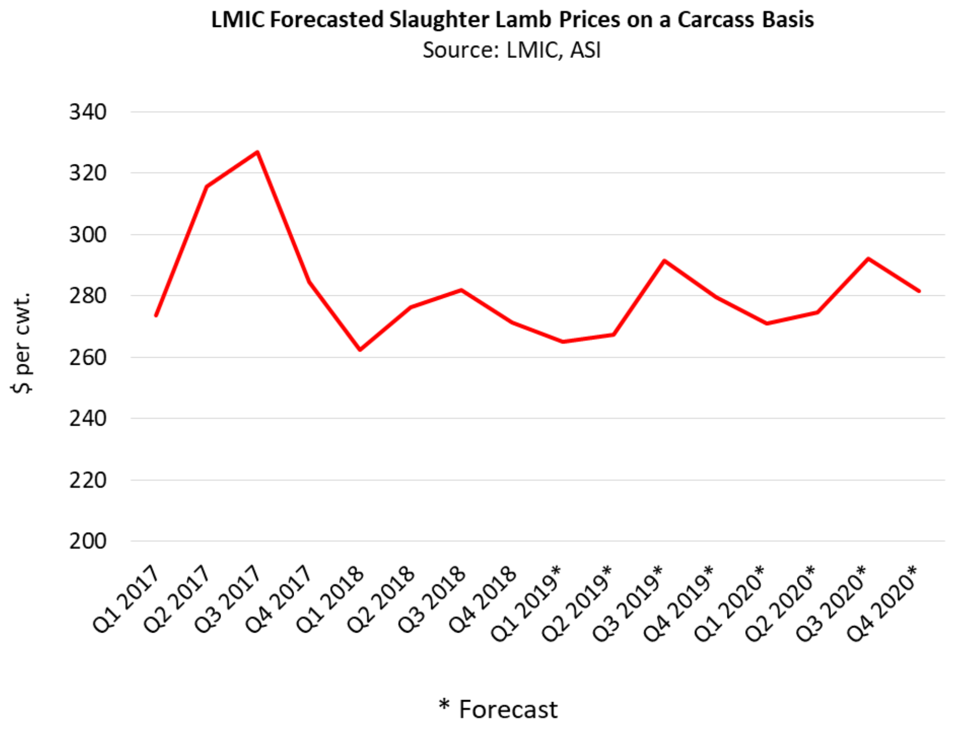


Slaughter lamb prices at auction seasonal with annual highs in the second quarter; lows in the fourth quarter

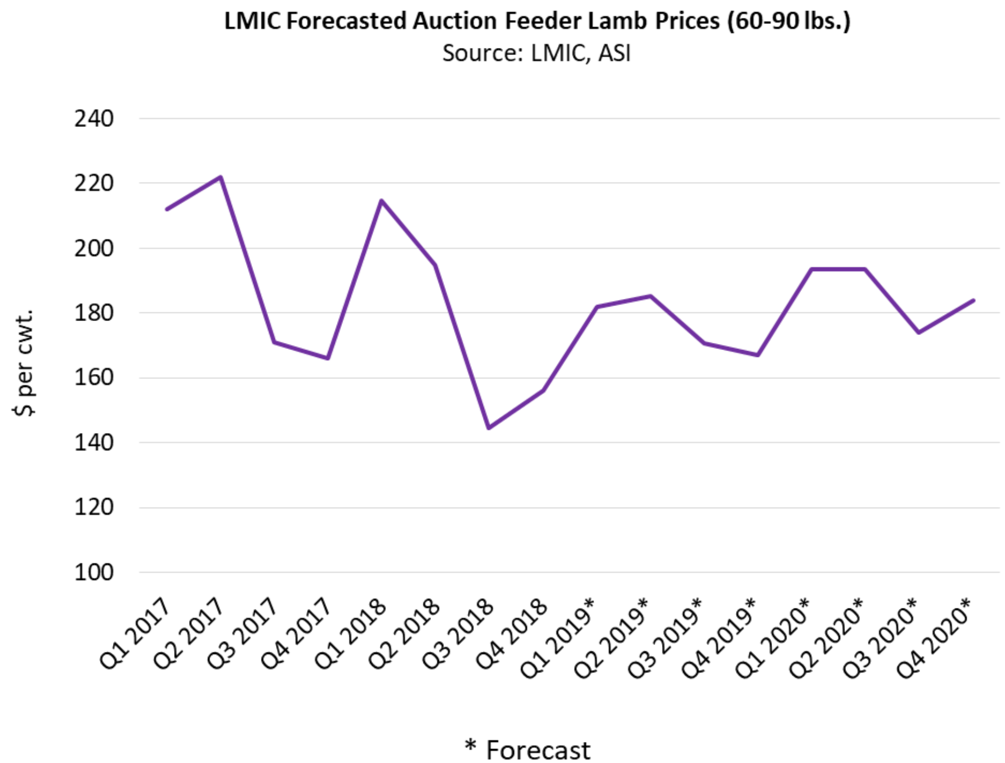


Livestock Market Information Center (LMIC) 2019/20 Forecasts:

➔ Slaughter Lambs: 2019 and 2020 highs forecasted for third quarter, when supplies tight



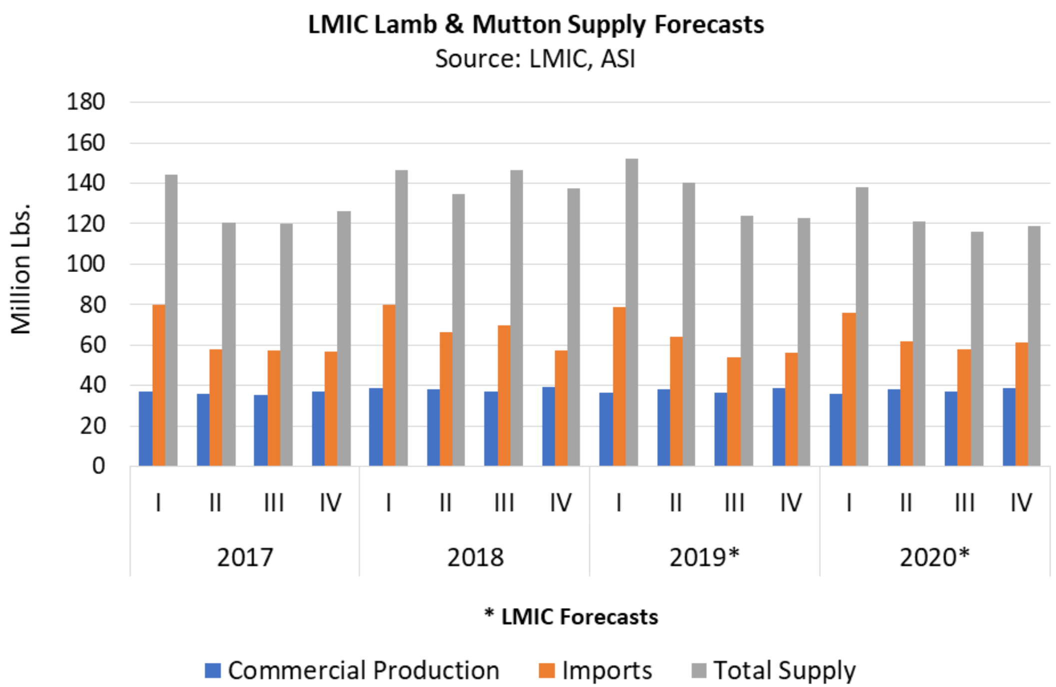
➔Feeder Lambs: 2019 and 2020 highs forecasted for second quarter, when supplies tight.



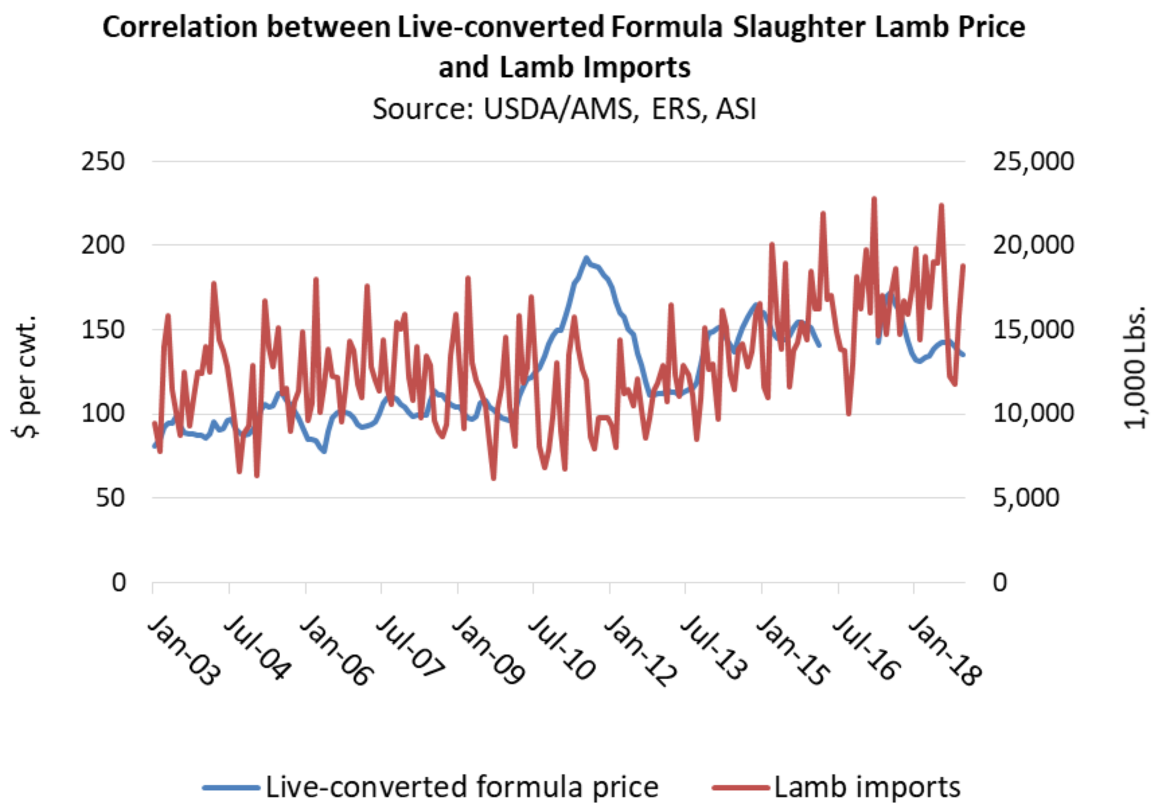
LMIC: In 2019 & 2020 imports moderate, total supplies down

- ➔ Lamb & mutton imports forecasted to fall 7% in 2019 and then up 2% in 2020, Slower than the 8% gain in 2019

- ➔ "Australian lamb exports in 2018–19 and 2019–20 are expected to fall, in line with production," (ABARE, 3/2019).



Domestic slaughter lamb prices appear to be correlated to imports: If lamb imports slow in 2019 then slaughter lamb prices could strengthen



Thank ewe!