

# 2017 Sheep Industry Review

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

March 2018



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# Executive Summary

The U.S. sheep and lamb industry faced significant price volatility in 2017, price swings not seen since the industry posted record highs in 2011 followed by a dramatic collapse. Price volatility can have a negative impact on lamb industry investment. It appears that increased market unpredictability is correlated with the rising import share of the U.S. market.

Last year represented the third consecutive year of sheep inventory contractions. Breeding ewes totaled 3.005 million in 2017, down 1.3% annually. Sheep, including lamb, inventory was 5.23 million head, down 0.4% annually. The largest sheep state, Texas, saw a 6% inventory gain. However, the second largest state, California, contracted sheep numbers. At 8%, New York topped the states in terms of sheep inventory gain. Some regional growth was apparent: Texas and Oklahoma together grew by 6% to 496,000 head.

## **Live Lamb Markets**

Feeder lambs at auction saw a \$50 per cwt. price spread between annual lows and highs. Feeders at auction averaged \$192.71 per cwt. in 2017, up 4% year-on-year, and 5% higher than its 5-year average. Feeders were averaged over auctions in San Angelo, Ft. Collins, and Sioux Falls. Feeder lambs in direct trade averaged \$181.40 per cwt., up 15% annually, and 13% higher than its 5-year average.

Slaughter lamb prices were mixed with auction averages moving higher, perhaps because lambs in direct trade (live, negotiated and formula lambs) weights moved higher. Slaughter lambs on formula weighed an average 163 lbs., compared to 136 lb. in average federally-inspected harvest.

Slaughter lamb prices at auction averaged \$152.50 per cwt. in 2017, 7% higher annually, and 6% higher than its 5-year average. Live, negotiated slaughter lamb prices averaged \$135.74 per cwt., down 7% annually, and 4% lower than its 5-year average.

Formula/grid slaughter lamb price reporting by USDA/AMS resumed in April 2017 after a 13-month suspension over confidentiality concerns. Fourth-quarter slaughter lamb prices on formula averaged \$306.80 per cwt. for a carcass weight of 80.59 lbs. (\$154.80 per cwt. live weight basis).

## **Meat Market**

The meat market was unusually volatile in 2017 with a steep run-up mid-year followed by an equally sharp contraction. In mid-2017, the wholesale composite beat its 2011 record by nearly \$20 per cwt. In the matter of five months the net carcass value gained \$96 per cwt. Lower imports and expectations of lower imports through the summer likely played a role in pushing meat prices to near-record highs mid-2017. In April through June, lamb imports from Australia were 25% lower than 2016 volumes.

The rack, 8-rib medium, surged past \$8 per lb. for first time since 2011. The rack averaged \$823.62 per cwt. in 2017, up 18% year-on-year. The loins, trimmed 4x4, gained year-over-year for four consecutive years. Loins, averaged \$572.53 per cwt., up 7% year-on-year. The leg, trotter-off, averaged \$370.40 per cwt., up 6% year-on-year. It has been four years since the shoulder averaged above \$3 per lb. The shoulder, square-cut, averaged \$312.13 per cwt. in 2017, up 9% annually.

Full reporting of carcasses ended in January 2016, but spotty coverage continued for weight categories with the volume for another 14 months. Since April 2017 carcass prices have not been reported.

Packer spreads estimated with the live to cutout value gained 19% in 2017. The value of live lamb was up by 3% and meat prices were up by 8%. The packer spread in 2017 was the second highest calculated after the 2012 record highs.

### **Production and Trade**

Federally-inspected sheep and lamb harvest was 1.934 million head in 2017, down 5% annually. Lambs and yearling harvest was down 4% to 1.8 million head. In 2017, estimated lamb production totaled 125.9 million lbs., down 5% year-on-year. Lamb imports were up 9% year-on-year to 205.23 million lbs.

Nearly 770,000 lambs were estimated in the non-traditional market in 2017, 26% of all estimated harvested lambs. While total commercial harvest was down 3%, the estimated volume of non-traditional supplies was up 1.8%.

### **Forecasts**

The U.S. sheep industry is likely to face another strong year in 2018 with a possible slow-down in imports and tight domestic supplies supporting prices. If the U.S. dollar weakens further against major trading partners' currencies, this can reduce imports competitiveness, but also increase the competitiveness of U.S. pelts. Overall, domestic live lamb prices and wholesale prices will be subject to import flows and expectation of imports. The U.S. continues to do a good job carving out its niche as a local, fresher alternative.

# I. Inventory



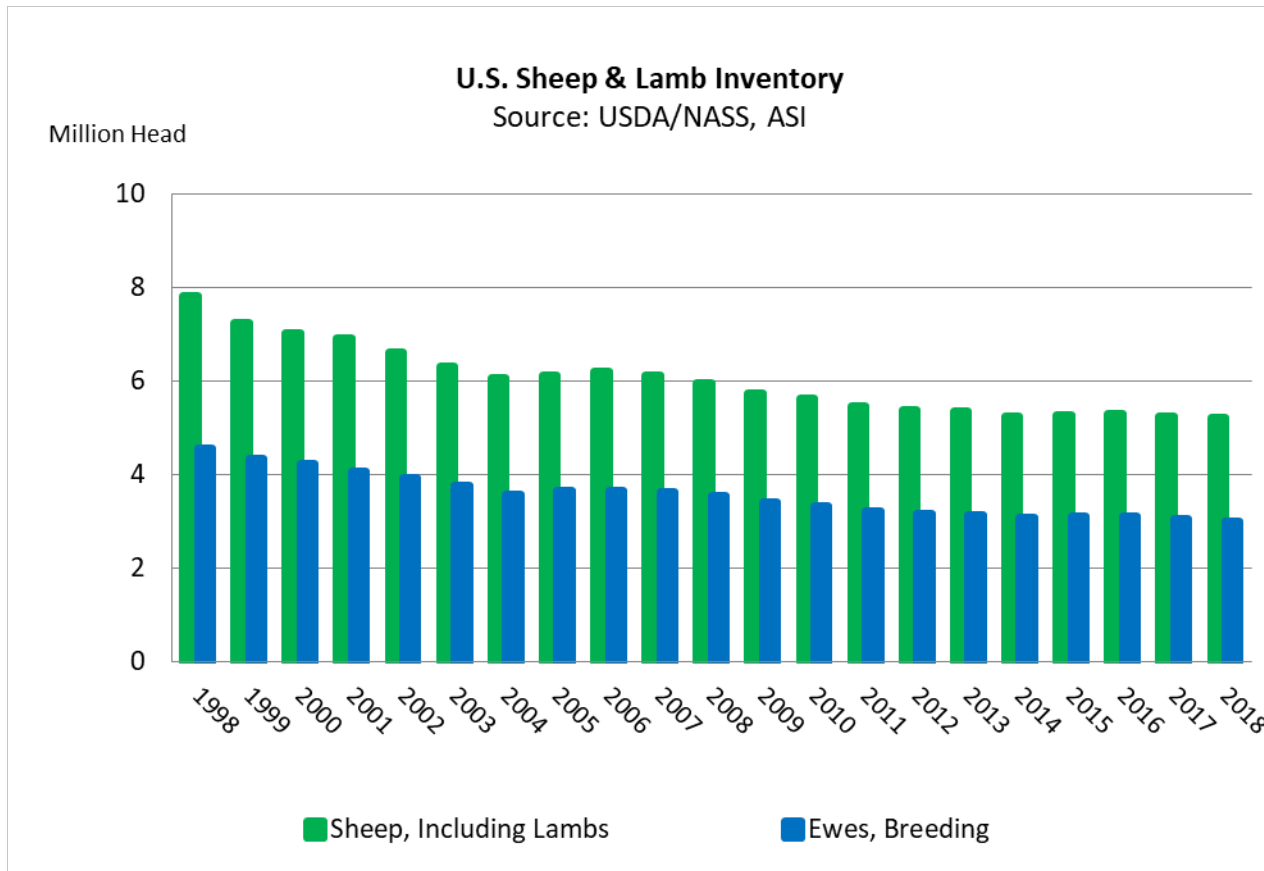
# **Breeding ewes totaled 3.005 million in 2017, down 1.3% annually**

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

--Ewe numbers were down 15% in 10 years;

--Sheep, including lamb, inventory was 5.23 million head in 2017, down 0.4% annually.

# Sheep Industry Inventory





# The largest sheep state, Texas, saw a 6% inventory gain

--Second largest state, California, contracted sheep numbers

## Top 10 Largest Sheep States by Ewe Inventory Change

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State	2018	Year-to-Year % Change
TEXAS	465,000	5.68%
CALIFORNIA	260,000	-5.45%
WYOMING	210,000	-6.67%
UTAH	200,000	-2.44%
SOUTH DAKOTA	161,000	3.87%
COLORADO	156,000	-2.50%
MONTANA	150,000	-5.66%
IDAHO	137,000	-0.72%
OREGON	94,000	-6.93%
IOWA	91,000	-4.21%

# At 8%, New York topped the states in terms of sheep inventory gain

## --TX and OK together gained 6%

### Sheep States with Growth

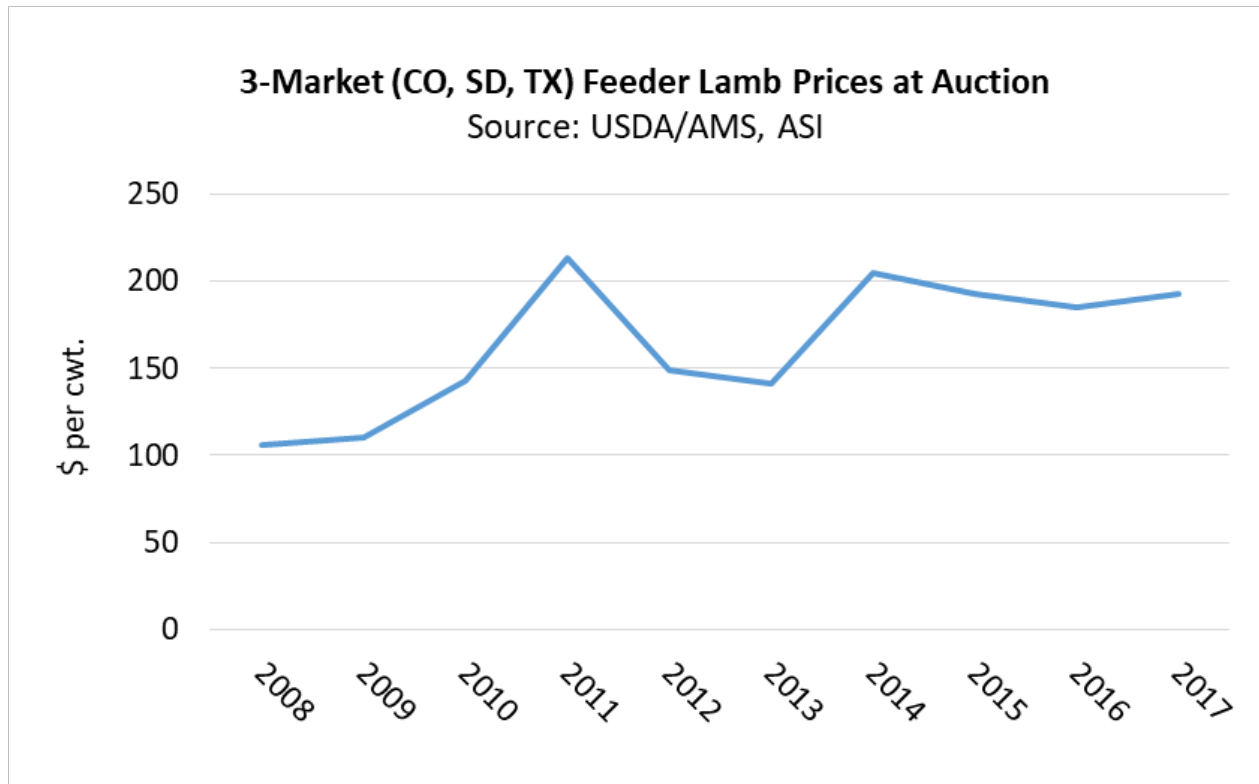
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State	2018	Year-to-Year % Change
NEW YORK	55,000	7.84%
OKLAHOMA	31,000	6.90%
TEXAS	465,000	5.68%
OHIO	73,000	4.29%
SOUTH DAKOTA	161,000	3.87%
KENTUCKY	31,000	3.33%
MINNESOTA	74,000	2.78%
PENNSYLVANIA	60,000	1.69%

## II. Feeder and Slaughter Lamb Market Trends



# Auction Feeders Higher Annually

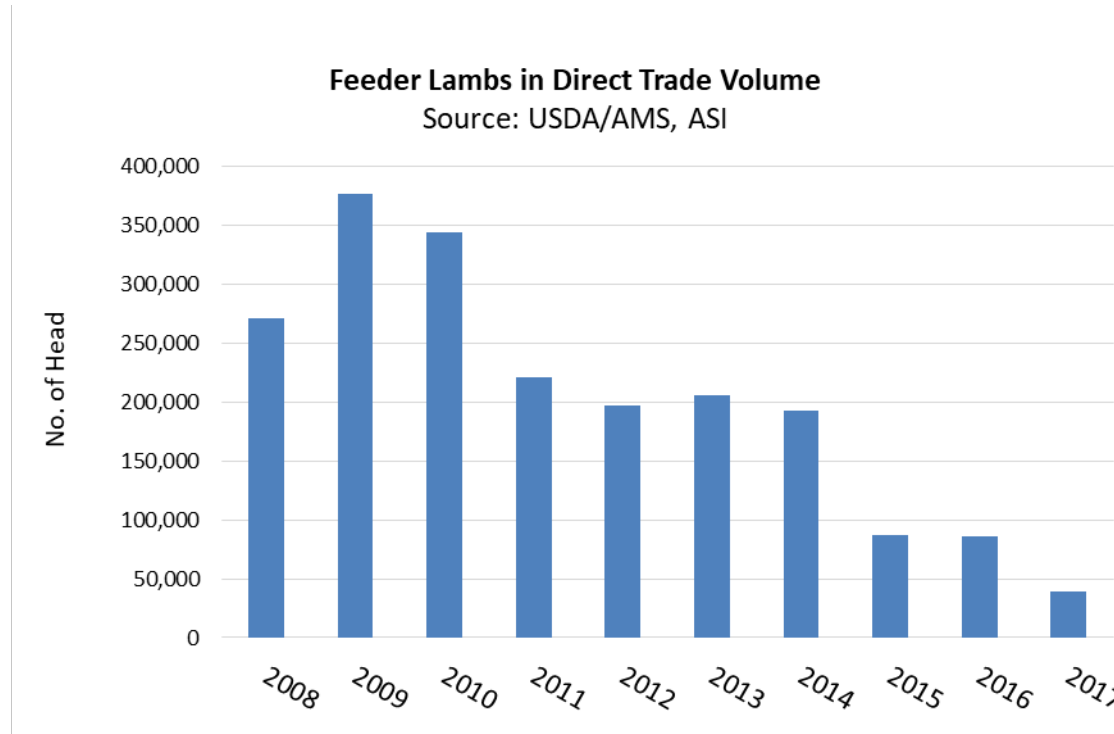


# 60-90 lbs. Feeders at Auction Higher

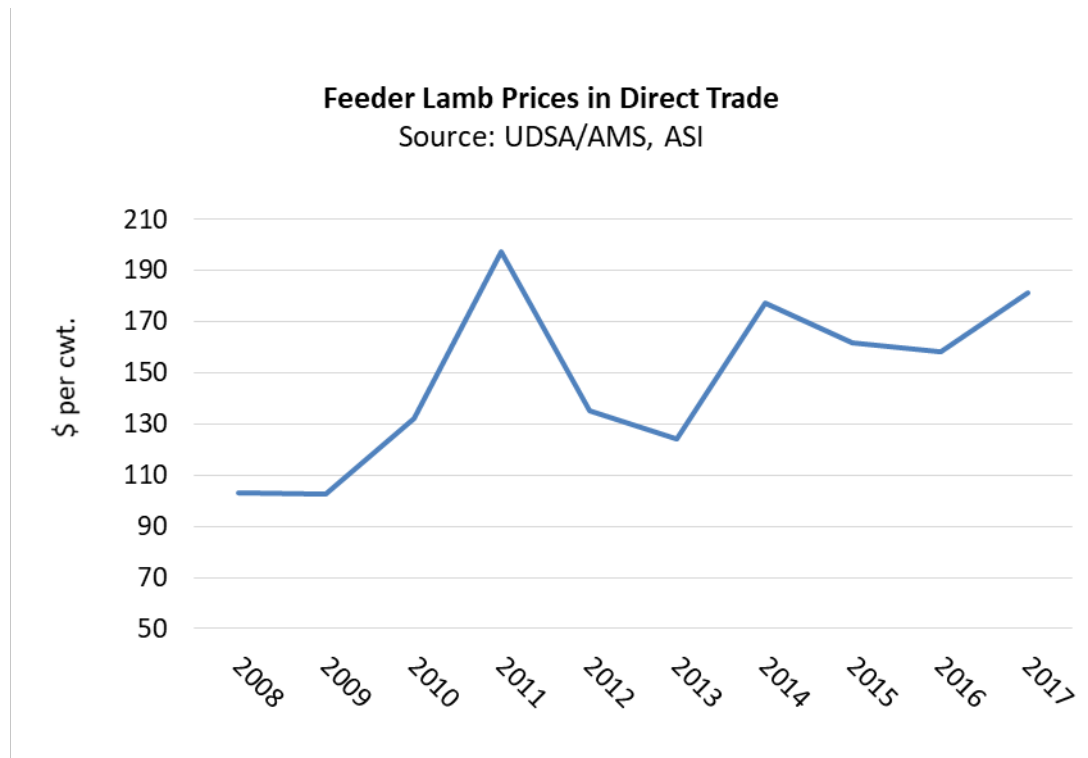
- Feeders averaged \$192.71 per cwt. in 2017, up 4% year-on-year, and 5% higher than its 5-year average
- San Angelo feeders averaged \$191.27 per cwt., up 6
- Ft. Collins feeders saw \$182.26 per cwt., down 0.25%
- Sioux Falls feeders averaged \$204.60 per cwt., up 7%

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

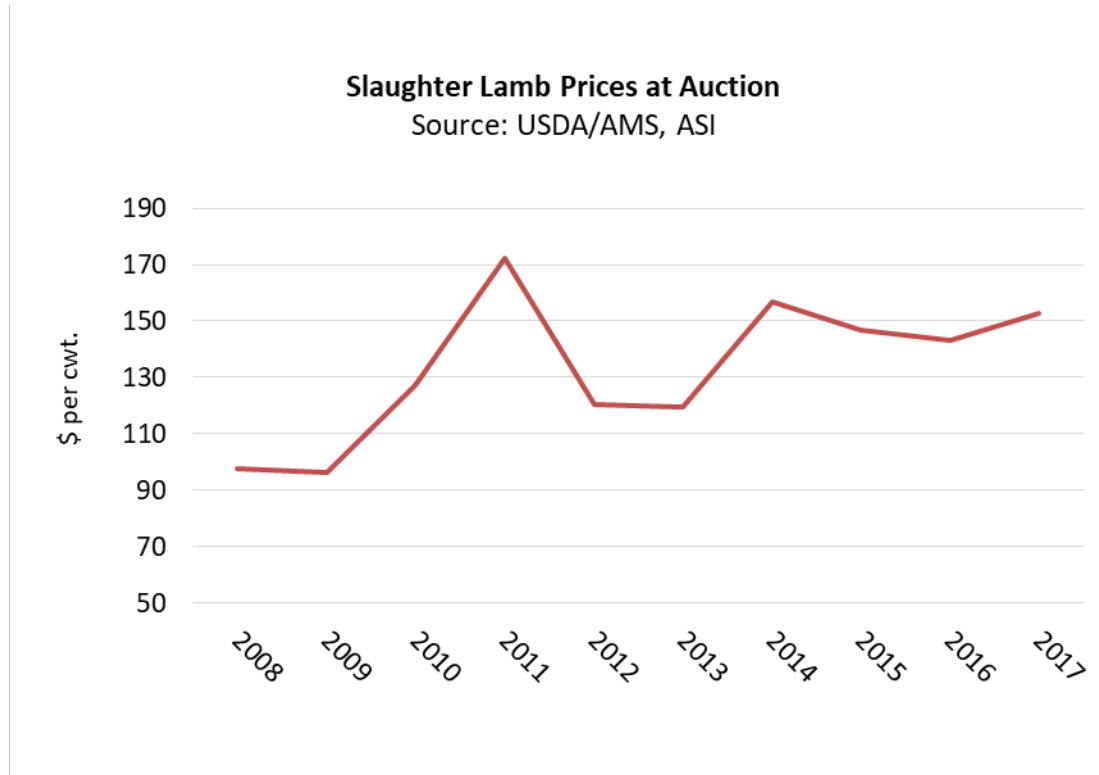
--Number of feeders trading in direct sales down 54% annually to 39,600 head



**Feeder lambs in direct trade averaged \$181.40 per cwt. in 2017, up 15% annually, --13% higher than its 5-year average**

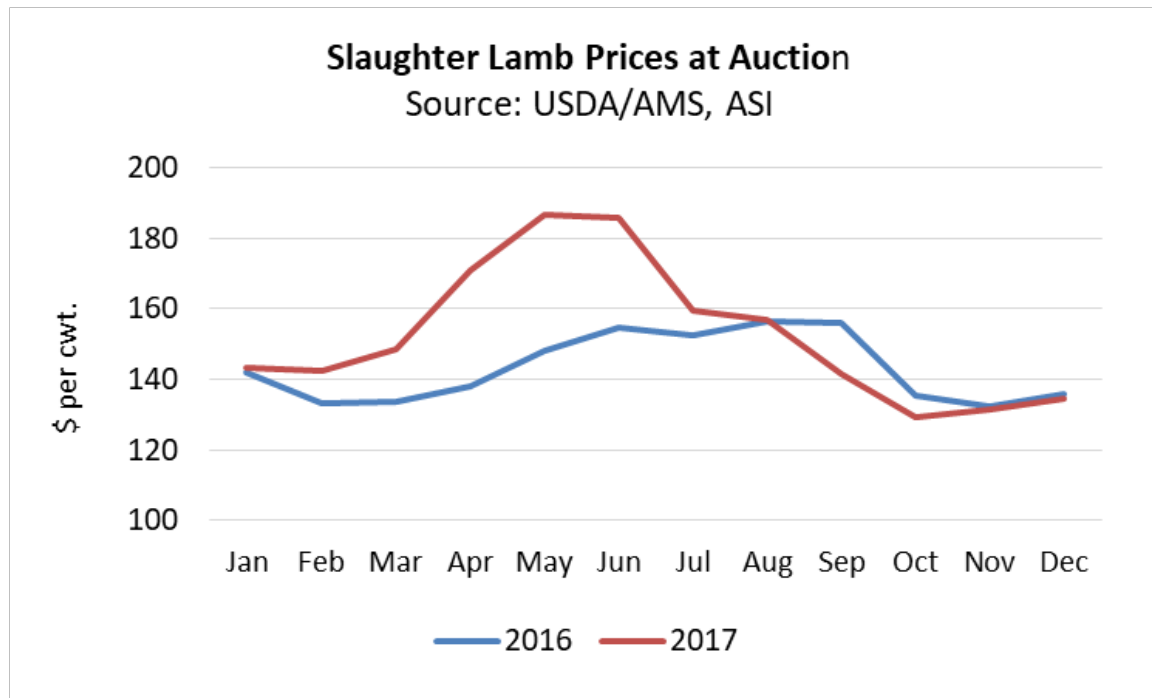


**Slaughter lamb prices at auction averaged \$152.50 per cwt. in 2017, 7% higher annually, --6% higher than its 5-year average**





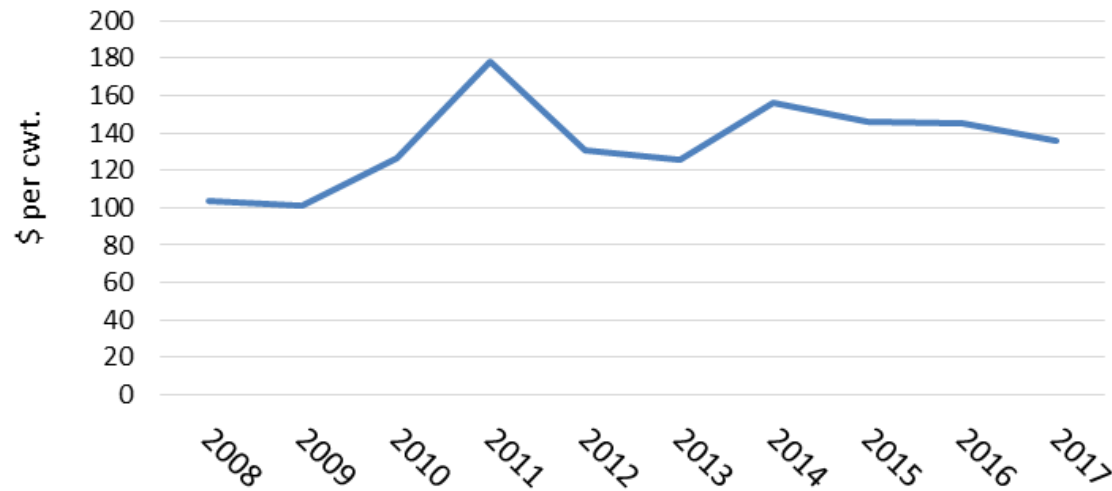
# Slaughter lamb prices at auction in 2017 saw more pronounced seasonality than 2016



**Live, negotiated slaughter lamb prices averaged \$135.74 per cwt. in 2017, down 7% annually, --4% lower than its 5-year average**

### Live, Negotiated Slaughter Lamb Prices

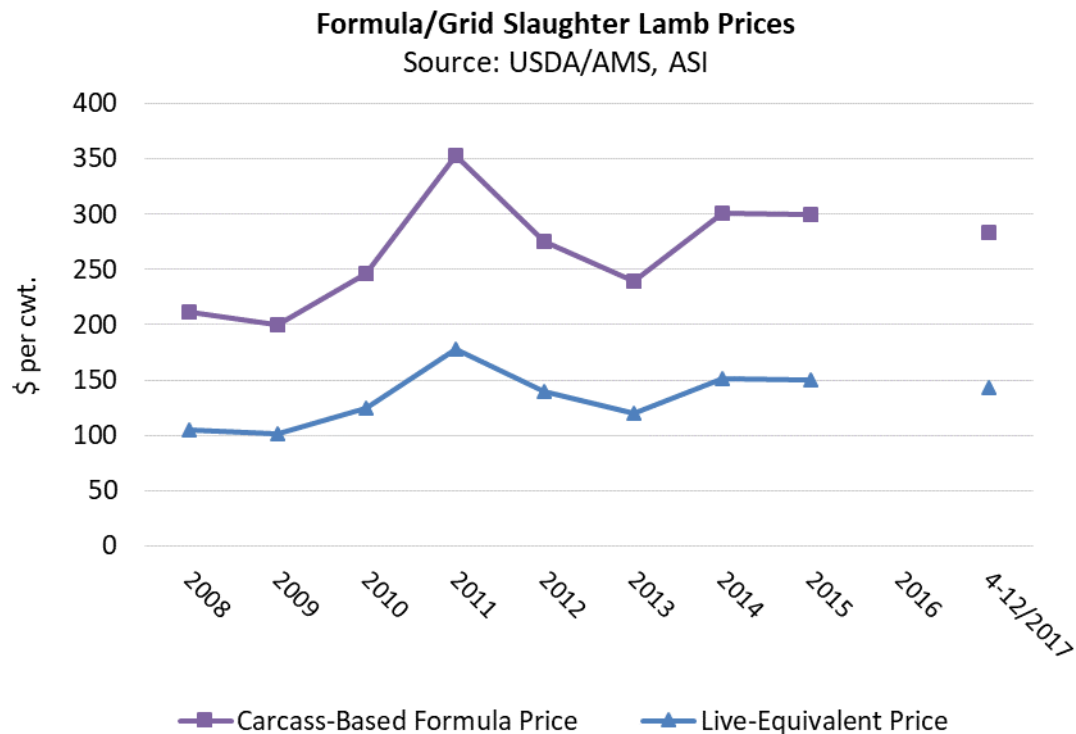
Source: USDA/AMS, ASI



# Formula Slaughter Lamb Prices Resumed After 13-month Suspension

- USDA/AMS resumed reporting formula/grid slaughter lamb prices in April 2017
  - Reports not published due to USDA/AMS concerns about packer confidentiality
- Fourth-quarter slaughter lamb prices on formula averaged \$306.80 per cwt. for a 80.59-lbs. carcass weight (\$154.80 per cwt. live weight basis)

# Lack of reporting left gaps in the market place



# III. Carcass and Boxed Lamb Market Trends

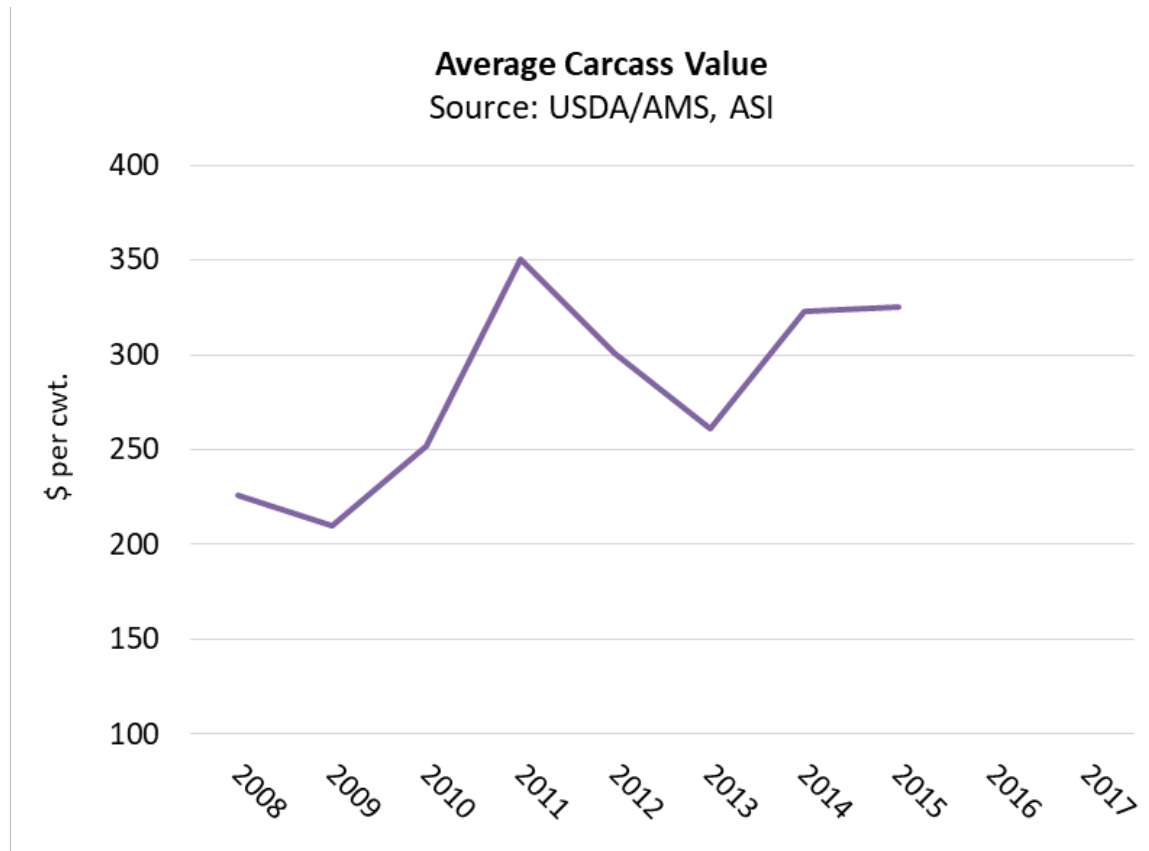


# 2017 Carcass Reporting Suspended

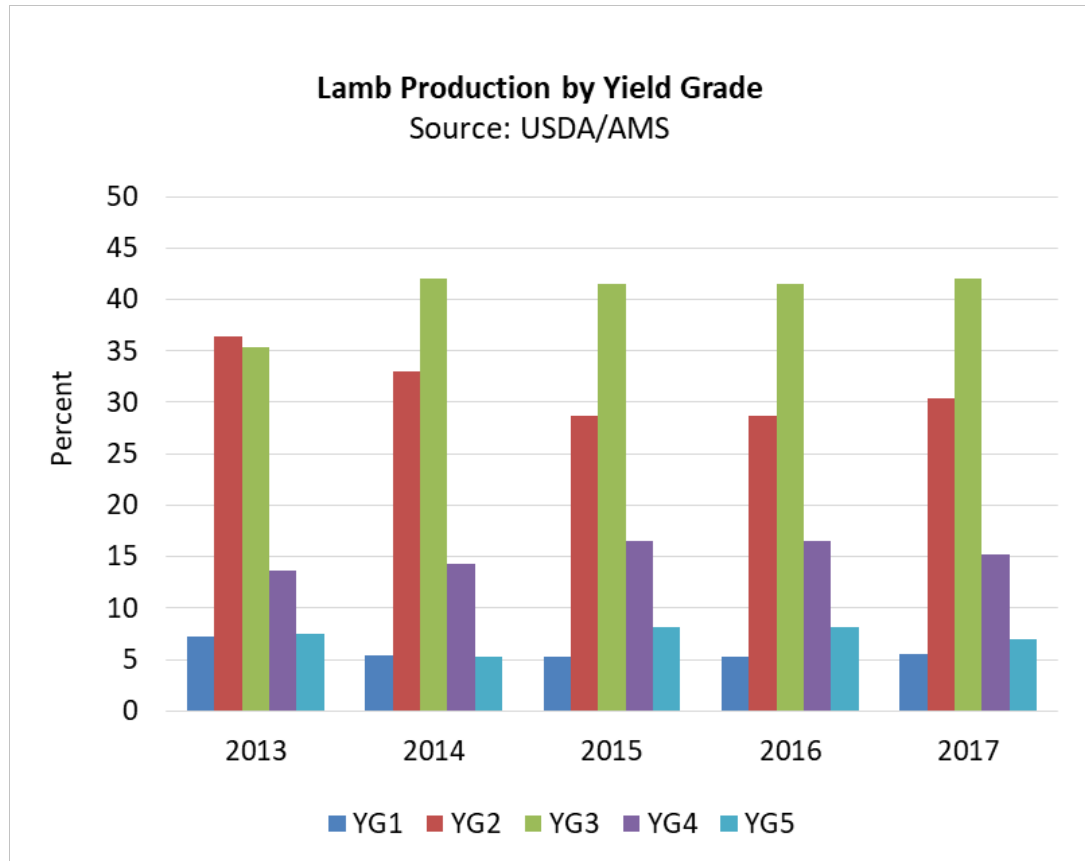
- 65-75 lb. carcasses priced through April 2017 then suspended
- All other weight classes not fully covered since January 2016



# Carcasses Not Reported in 2016 & 2017



# YG Largely Unchanged from 2016-17





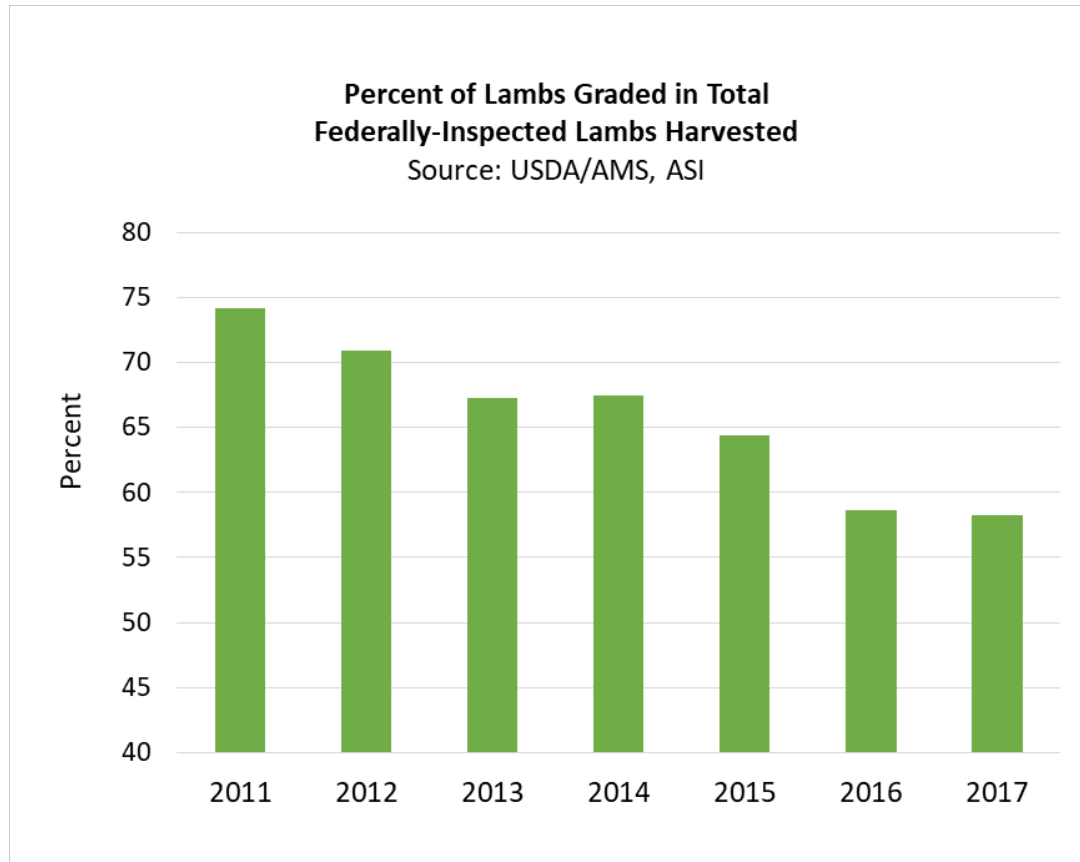
## Federally Inspected Lamb and Mutton Yield Grades

Percentages derived from yield grade by lbs.

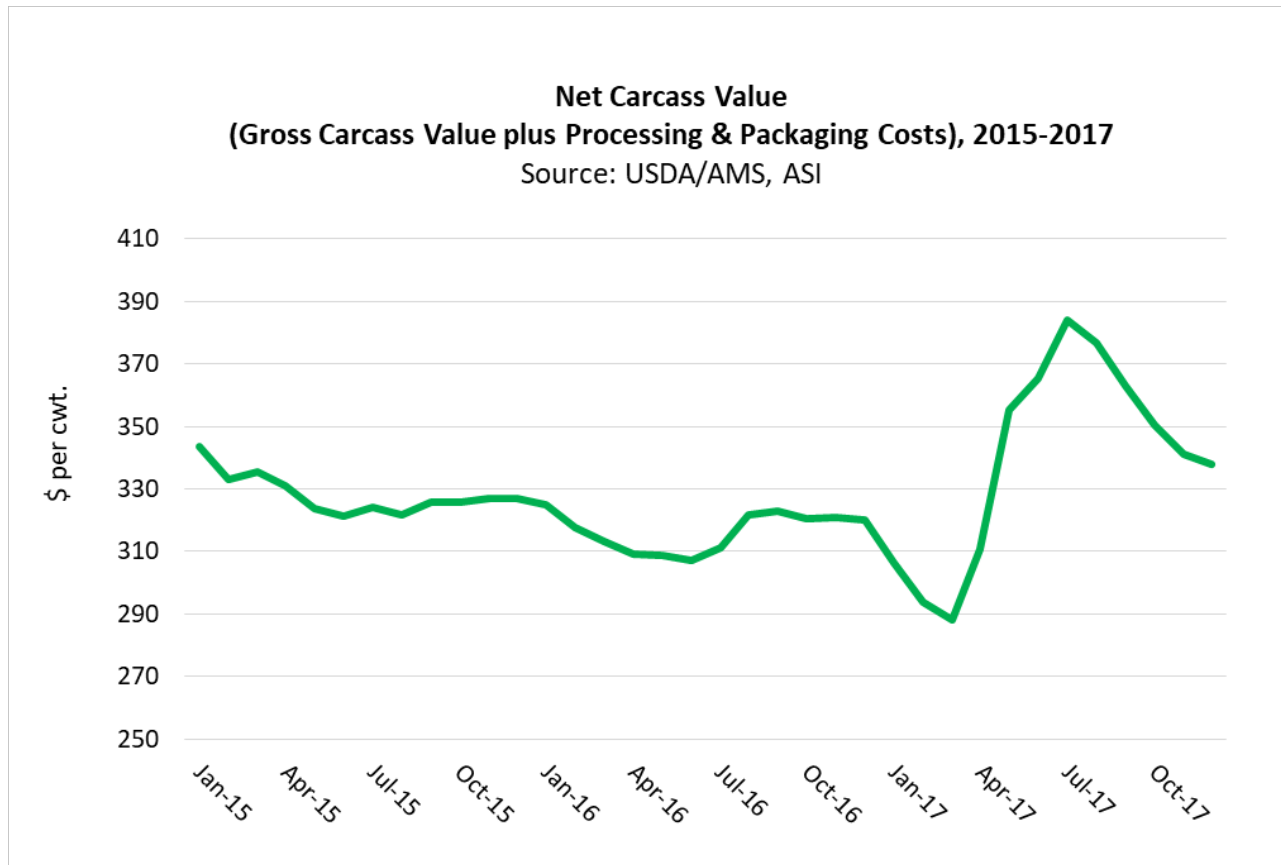
Source: USDA, AMS, Livestock and Seed Division

	YG1	YG2	YG3	YG4	YG5
2013	7%	36%	35%	14%	7%
2014	6%	33%	41%	14%	6%
2015	5%	29%	41%	16%	8%
2016	7%	30%	39%	16%	8%
2017	6%	31%	42%	15%	7%

# Number of Lambs Graded Trending Downward, 0.6% lower in 2017



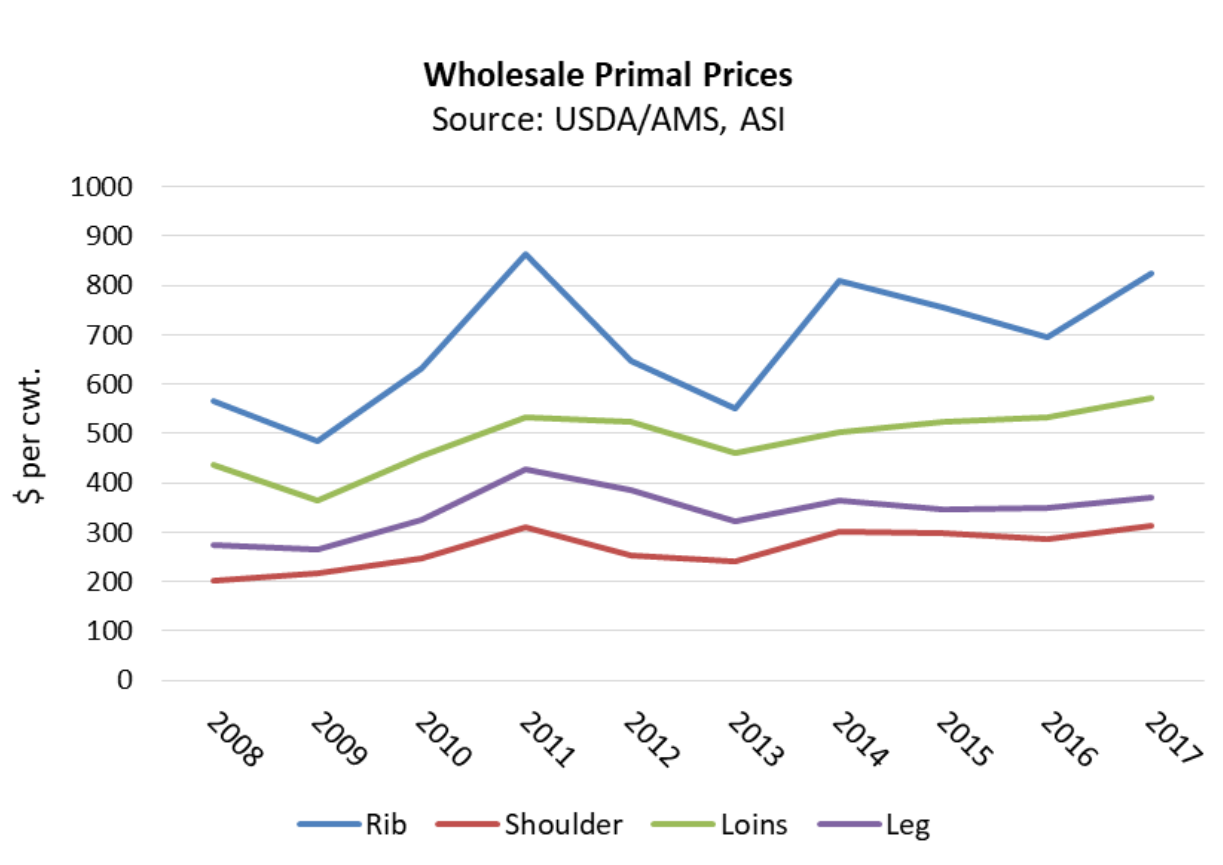
# 2017 Net Carcass Value Unusually Volatile



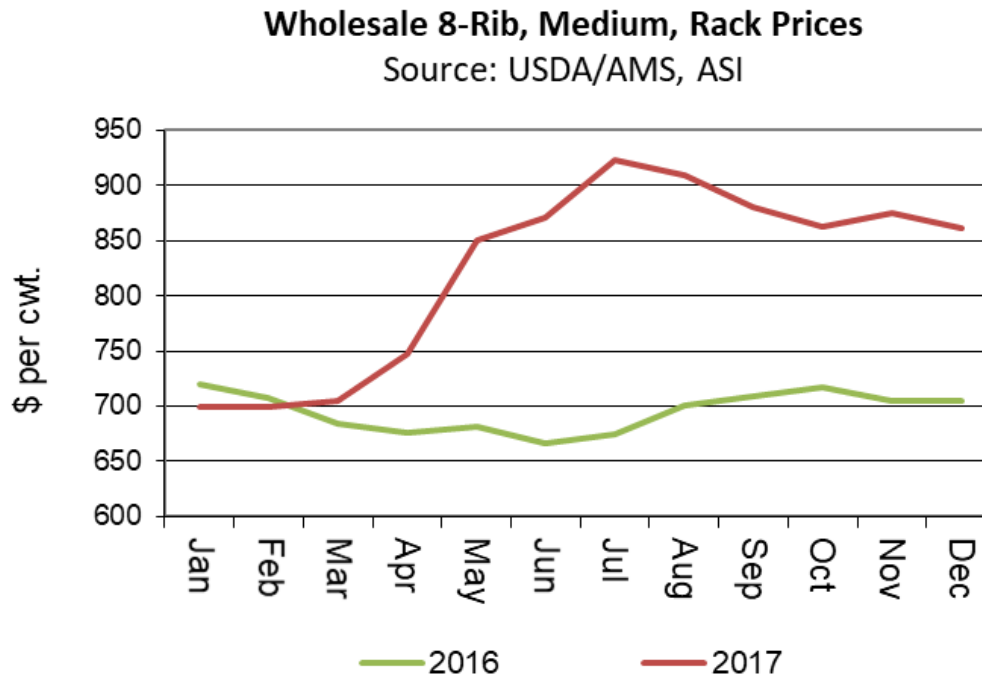
## 2017 Net Carcass Value Higher

- The net carcass value (wholesale composite less processing and packaging) averaged \$339.37 per cwt. in 2017,
  - up 7% year-on-year., and
  - up 7% from its 5-year average

# All Primals were Higher in 2017; Most Saw Sharp Price Hike Mid-Year

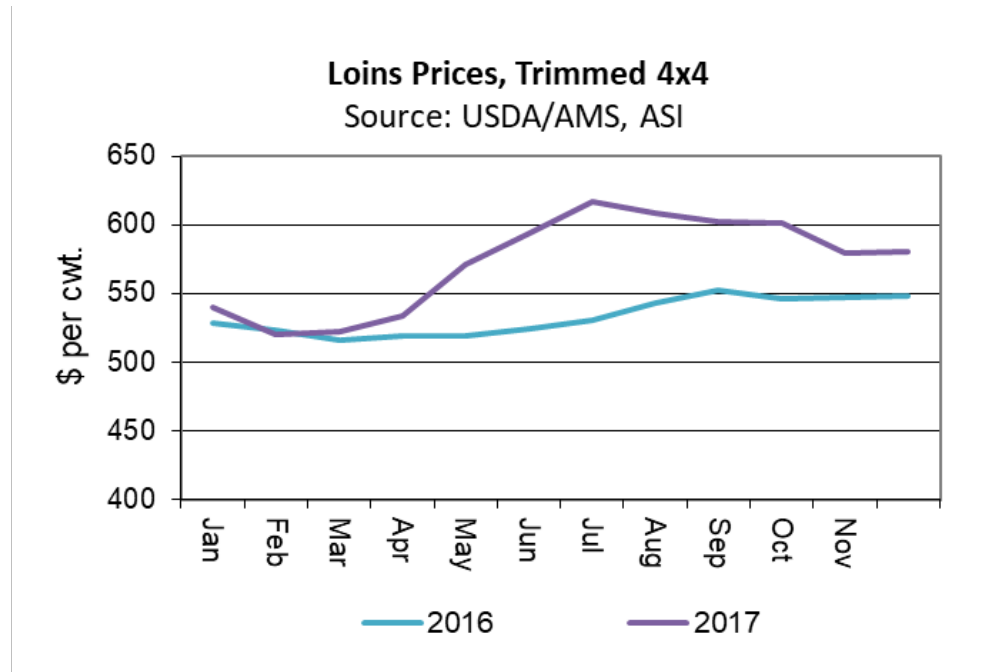


# Rack, 8-Rib Medium, Surged Past \$8 per lb. for First Time Since 2011



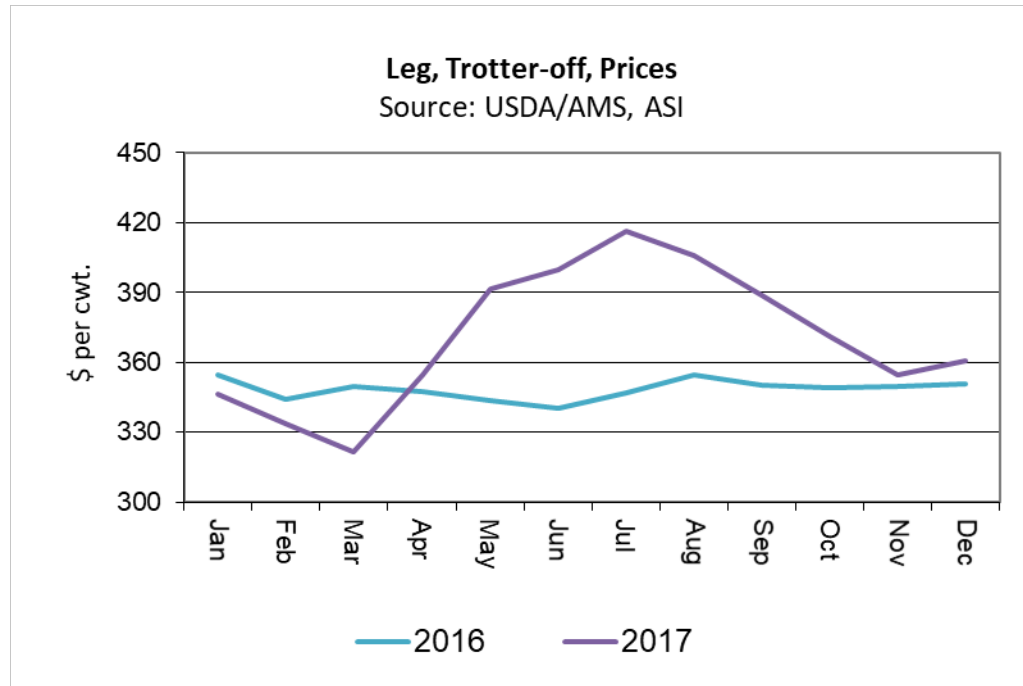
- The rack averaged \$823.62 per cwt. in 2017, up 18% year-on-year.

# Loins Gained Year-over-year for the 4<sup>th</sup> Consecutive Year



- Loins, trimmed 4x4, averaged \$572.53 per cwt., up 7% year-on-year.

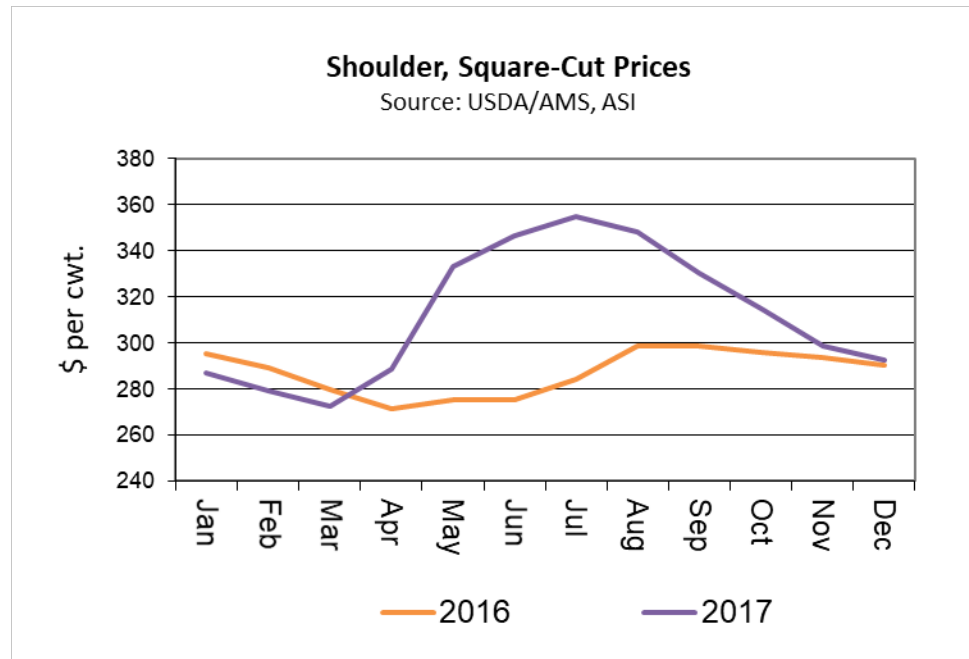
# Leg, Trotter-Off, Higher Year-on-Year



- The leg averaged \$370.40 per cwt. in 2017, up 6% year-on-year.

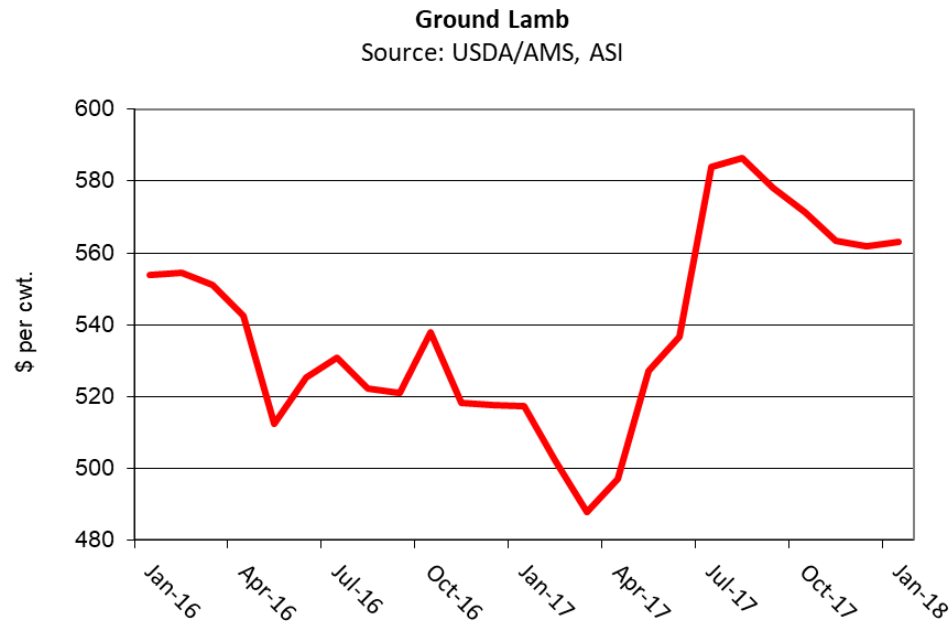


# It has been four years since the shoulder averaged above \$3 per lb.



- The shoulder, square-cut, averaged \$312.13 per cwt. in 2017, up 9% annually.

# Ground Lamb Higher



- Ground lamb averaged \$542.81 per cwt., up 2% annually.

# IV. Lamb at Retail



# Retail feature activity lower in 2017 while price levels higher

**Lamb at Retail: Feature Activity and Prices**

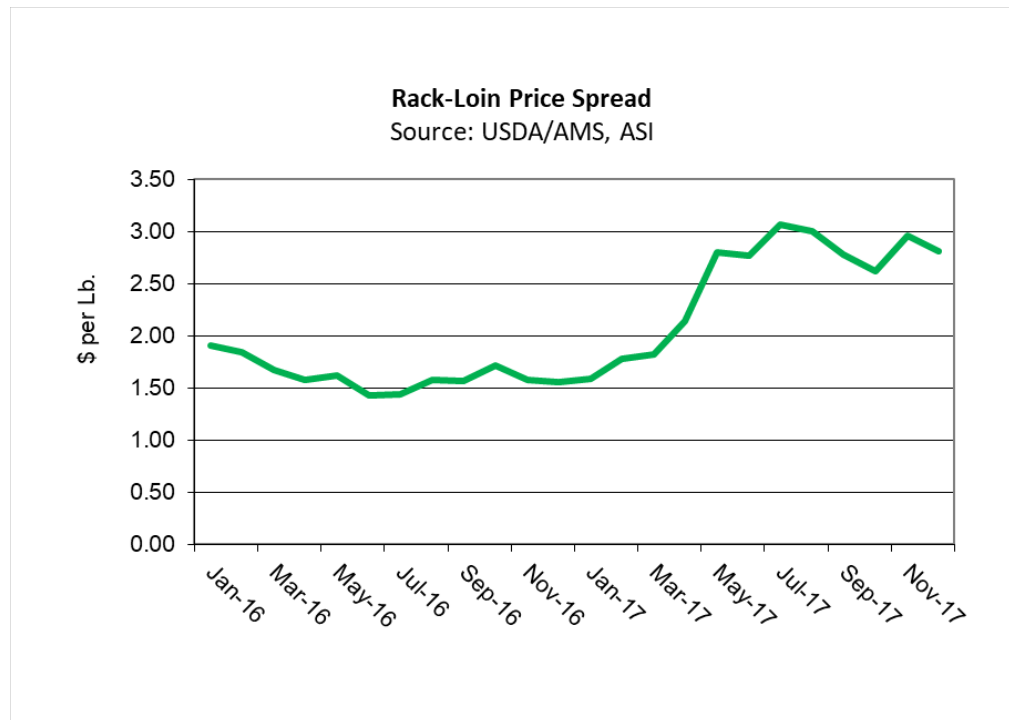
	bone-in leg		boneless leg		rack		loin chop		shoulder blade chop	
	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price	No. of stores with feature activity	weighted-average price
2016	24,250	\$5.77	18,720	\$7.30	20,780	\$12.03	69,930	\$7.74	52,310	\$5.01
2017	18,840	\$5.92	16,650	\$7.97	19,650	\$12.08	48,630	\$8.33	31,640	\$5.38
% change	-22%	3%	-11%	9%	-5%	0%	-30%	8%	-40%	7%

Source: USDA/AMS, ASI

# V. Price Spreads



**In 2017 the rack-loin spread widened by 55% to \$2.51 per lb.  
--The rack gained 18%; the loins, 7%**



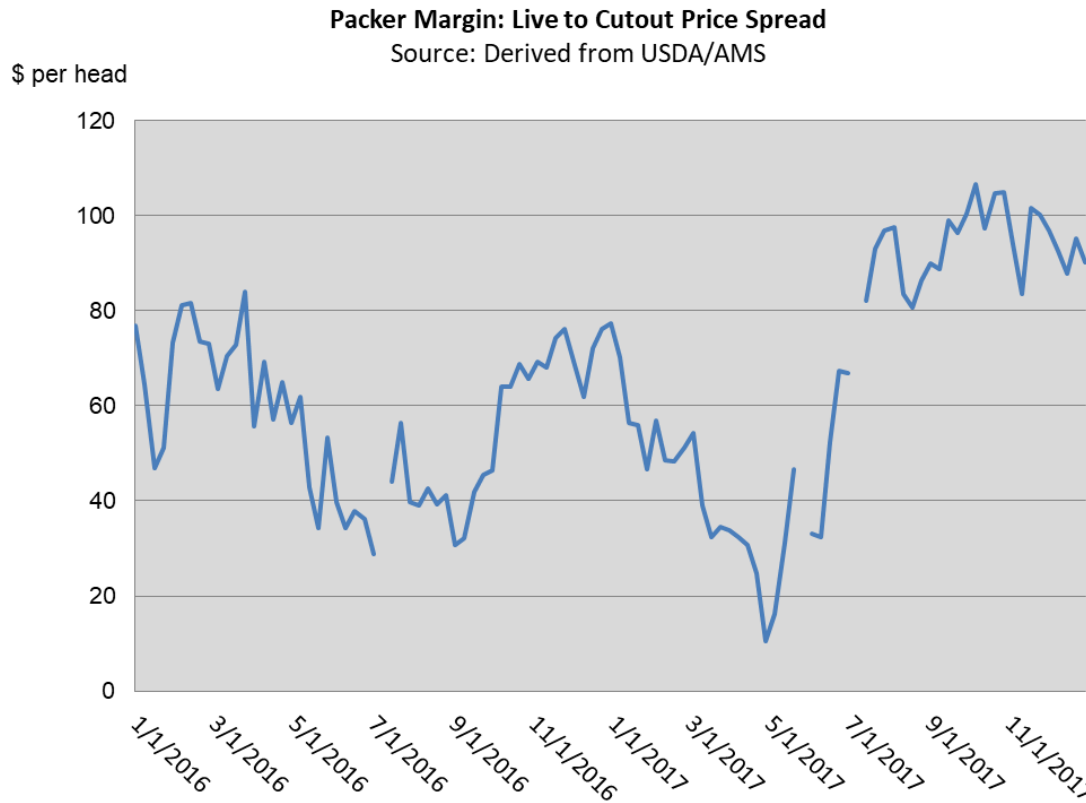
Comparing wholesale cuts:  
rack, medium, 8-rib and 4x4 trimmed loins.

# 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.
- The price spreads assume that all that is processed sells and no allowance is made for cold storage tonnage.

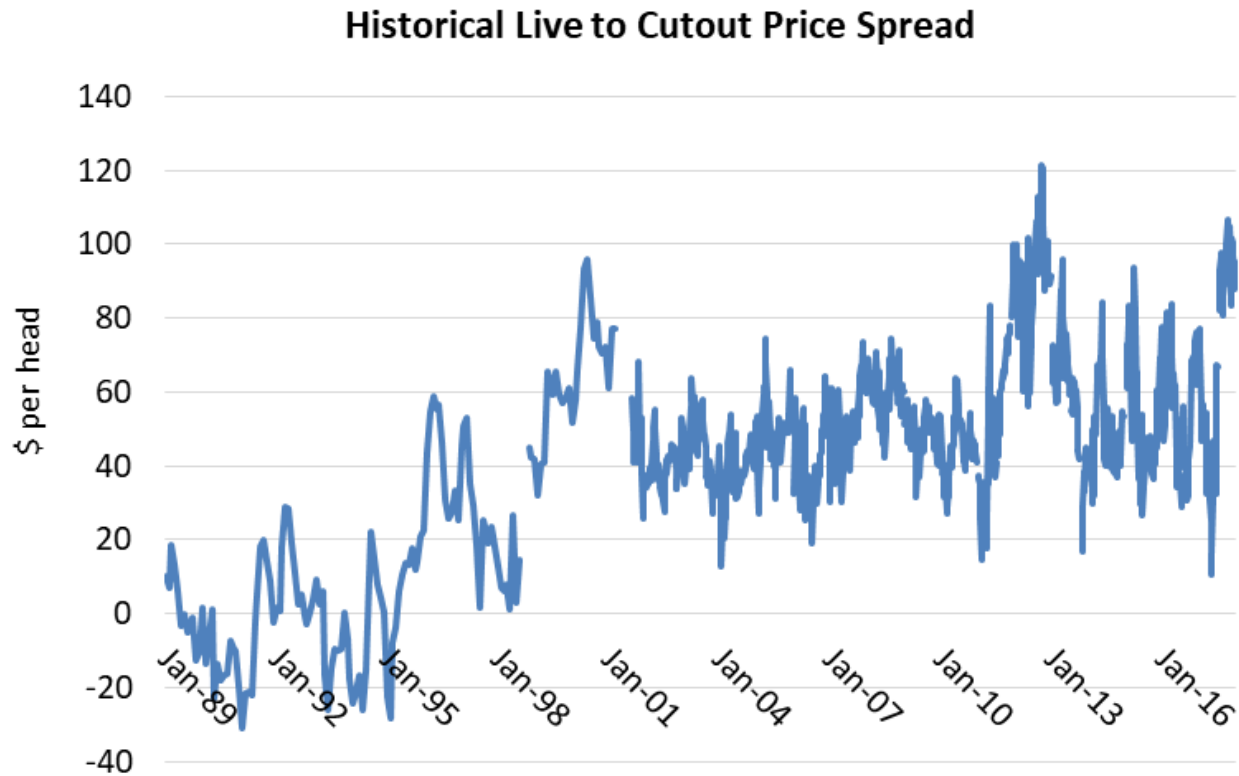
# Packer spreads gained 19% in 2017:

--Live lamb was up by 3% and meat prices up by 8%





# 2017 Packer Spread 2<sup>nd</sup> Highest Historically



## 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 \$5.87-\$9.71 per piece in 2017, down an average 2% annually.
- Damaged/puller pelts—the lowest quality—averaged -\$1.50 to -\$1.25 per piece, down an average 28% annually.  
--Packers asked for a disposal fee.

# VII. Replacement Sheep



# Ewe Prices Mixed in 2017

- Yearling ewes 13% higher;
- Ram prices not established.

## Replacement Sheep Prices, \$ per head

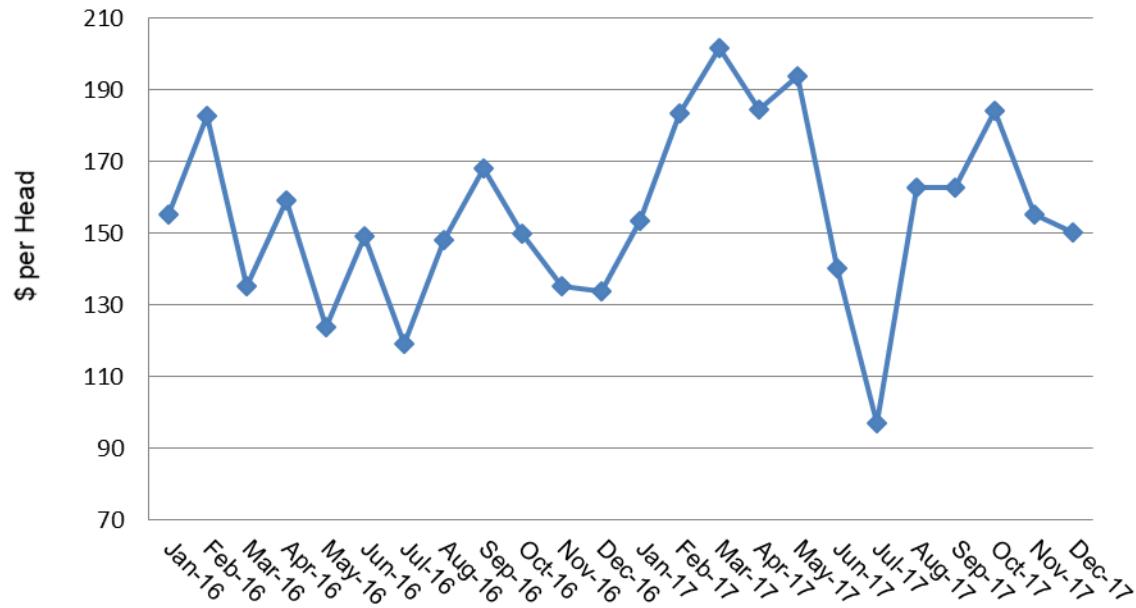
	Ewe Lambs	Yearling Ewes	Young Ewes, 2-4 years	Middle Aged Ewes, 5-6 years	Aged Ewes	Rams Black Face	Rams White Face	Rams Cross Bred
2013	122	170	138	99	71	508	648	470
2014	172	279	238	158	118	650	479	697
2015	NA	237	192	151	109	767	675	662
2016	NA	226	186	151	96	NA	NA	NA
2017	NA	256	182	146	95	NA	NA	NA
<i>% change in 2017</i>		13%	-3%	-3%	-1%			

Source: USDA/AMS, ASI

# Ewe Prices Variable, Dependent Upon Age

Average Replacement Ewe Prices

Source: USDA/AMS, ASI



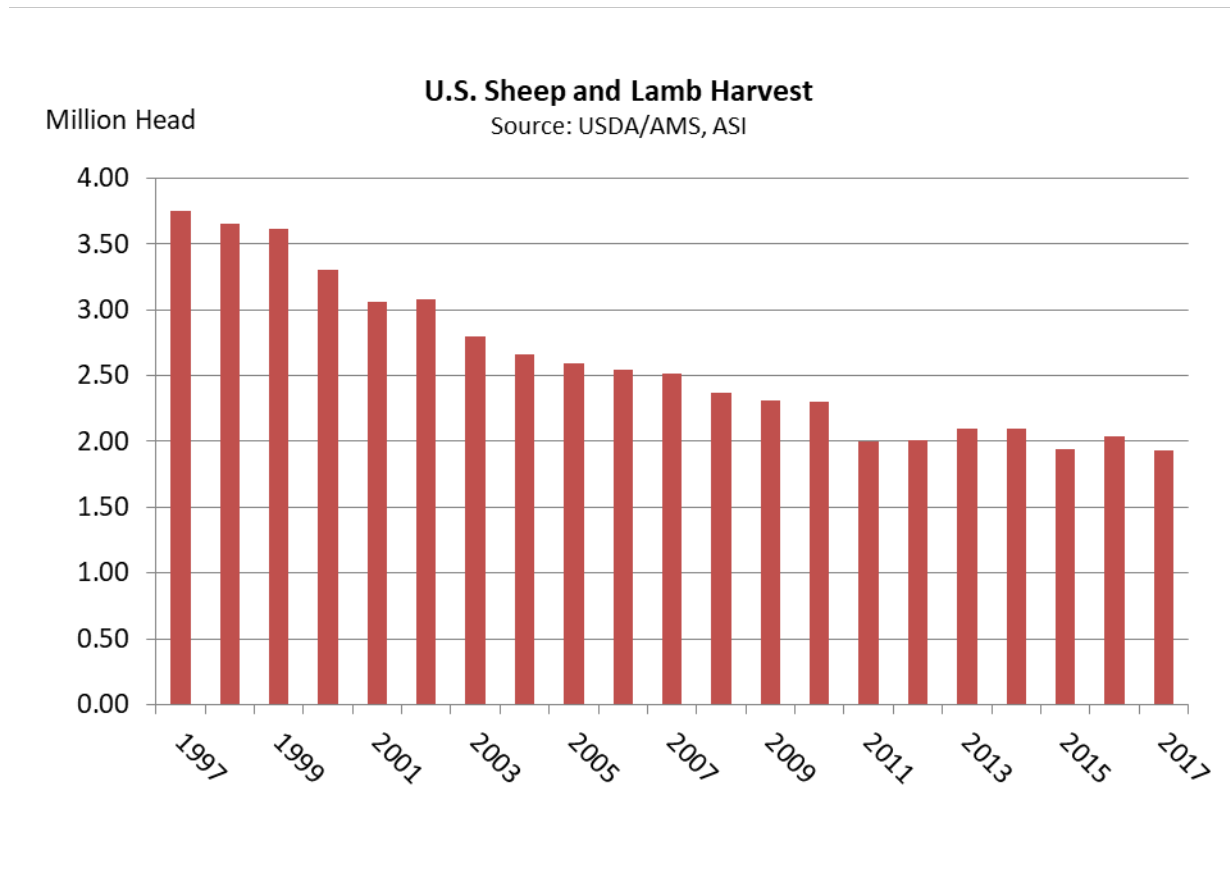
# VIII.

## Domestic Production and Trade



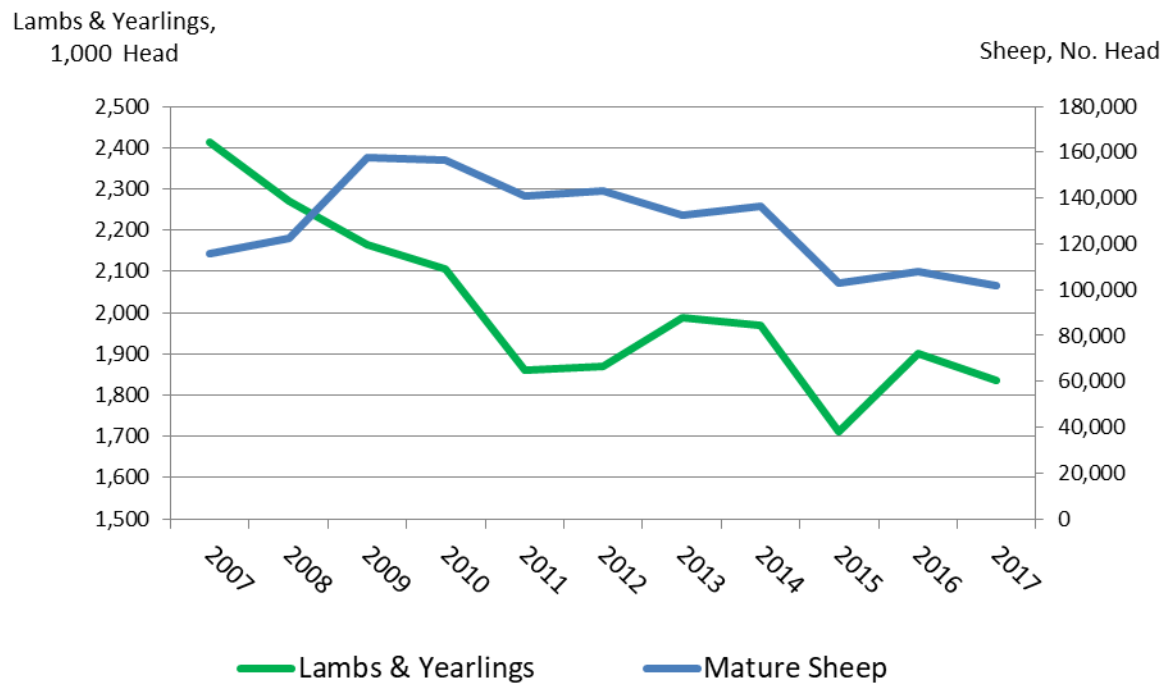


# Federally-inspected sheep and lamb harvest was 1.934 million head in 2017, down 5% annually

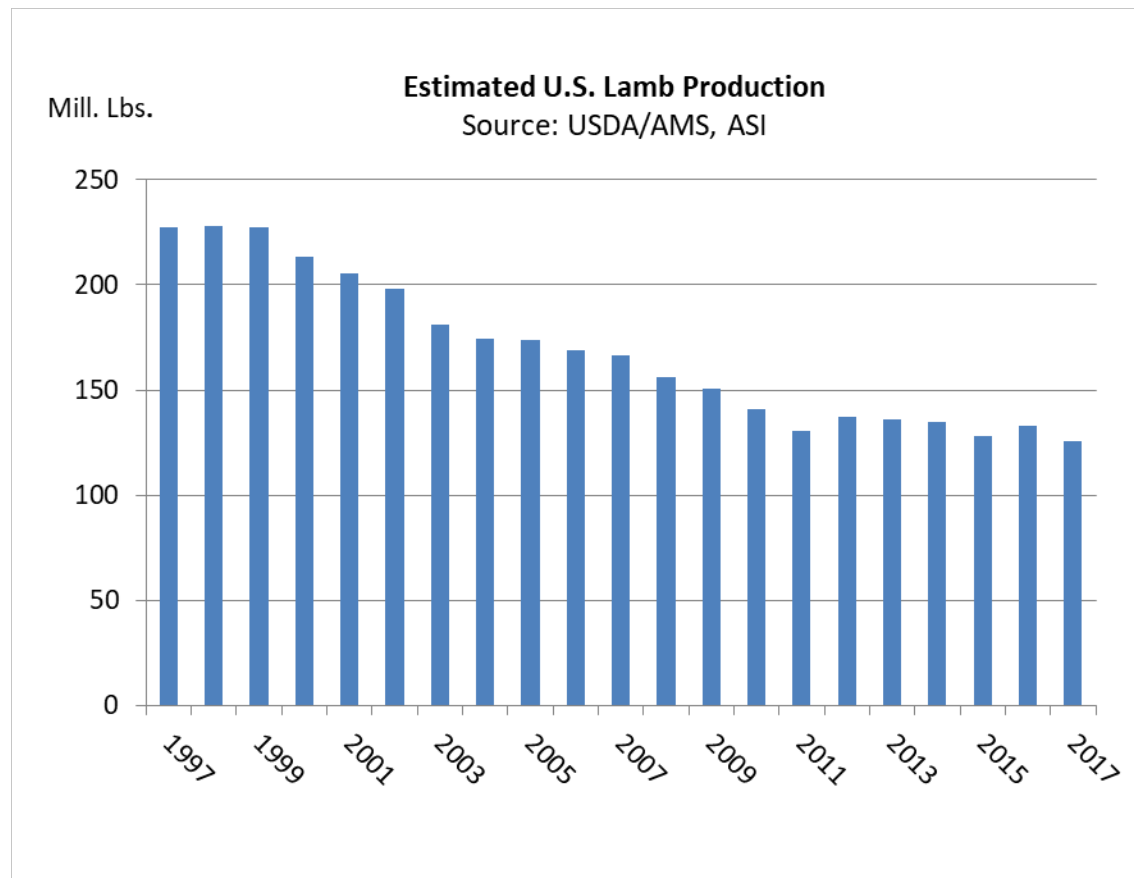


**Lambs and yearling harvest down 4% to 1.8 million head;**  
**--Mature sheep harvest was down 6% to 101,800 head**

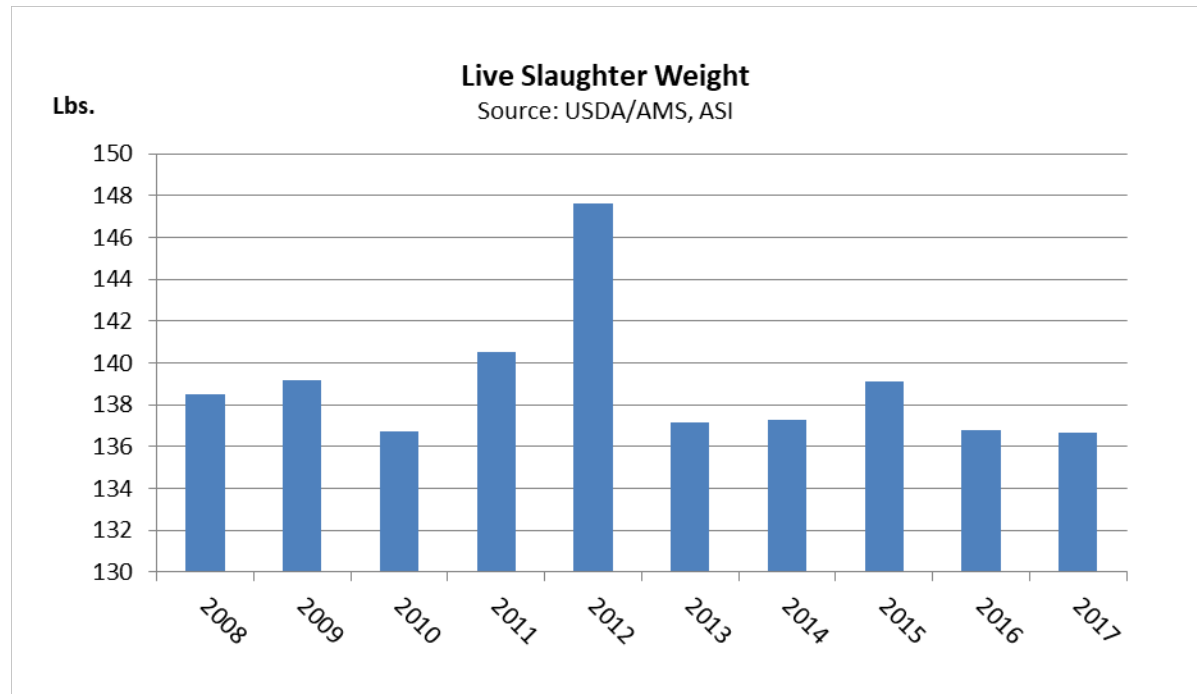
**U.S. Federally Inspected Slaughter**  
Source: USDA/NASS, ASI



2017 estimated lamb production totaled 125.9 million lbs., down 5% year-on-year



# Federally-inspected Live Slaughter Weights Mostly Unchanged at 136.7 lbs.



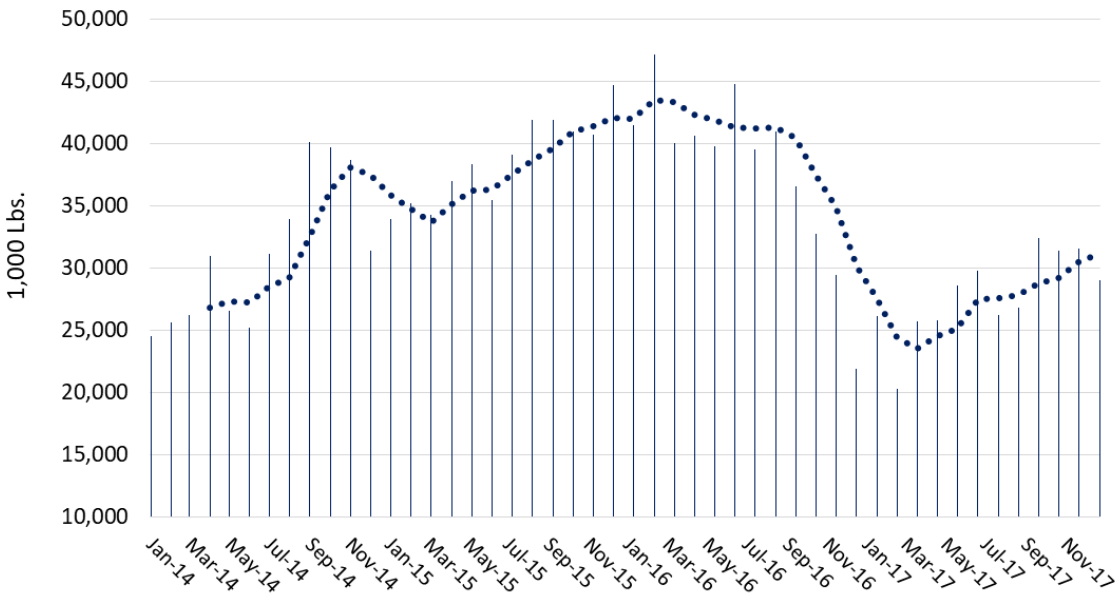
**Cold storage 2017 monthly average was 27.8 million lbs. of lamb and mutton, down 27% from 2016's average**

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

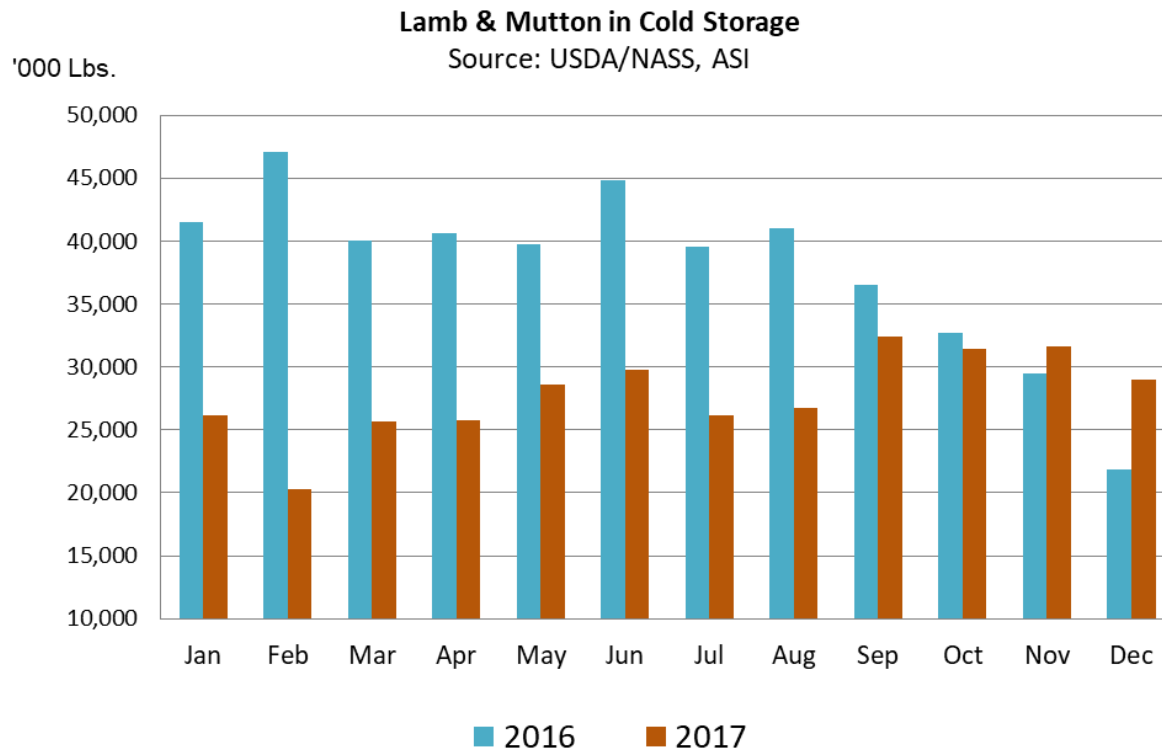
--Some of the stored meat will be boneless and imported with lower cut weights.

# Freezer inventory was down in early 2017, but then increased through year's end

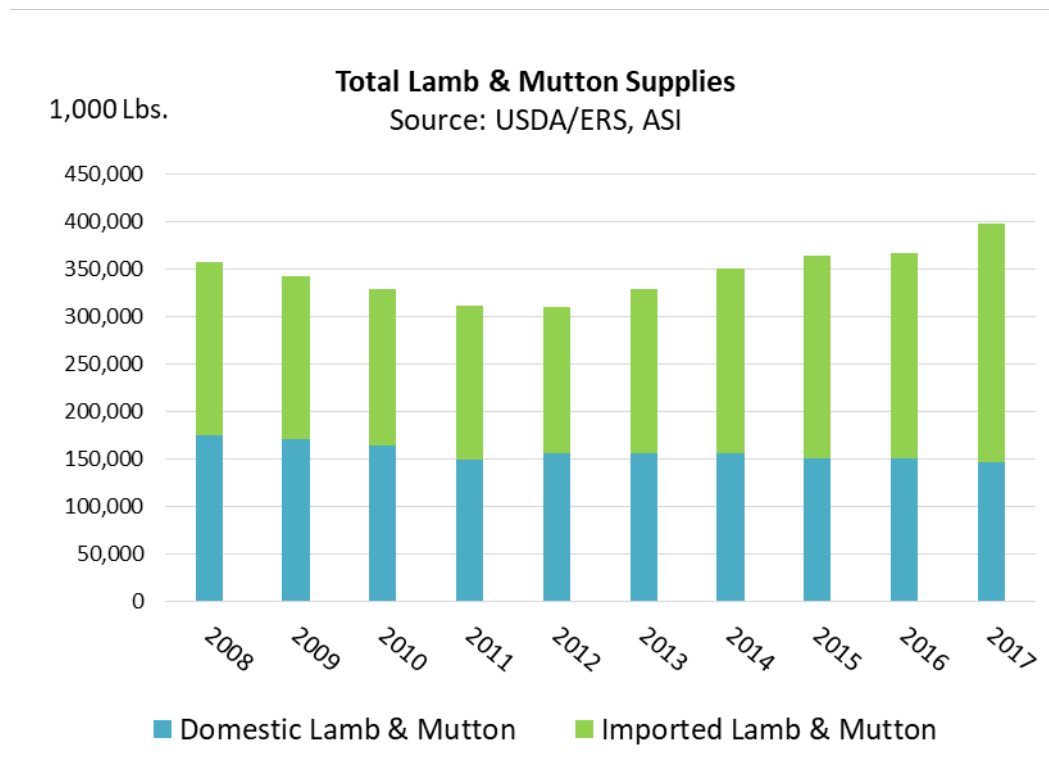
Monthly Lamb and Mutton in Cold Storage & 4-Month Moving Average  
Source: USDA/NASS, ASI



# In November 2017 cold storage stocks surpassed 2016 monthly levels

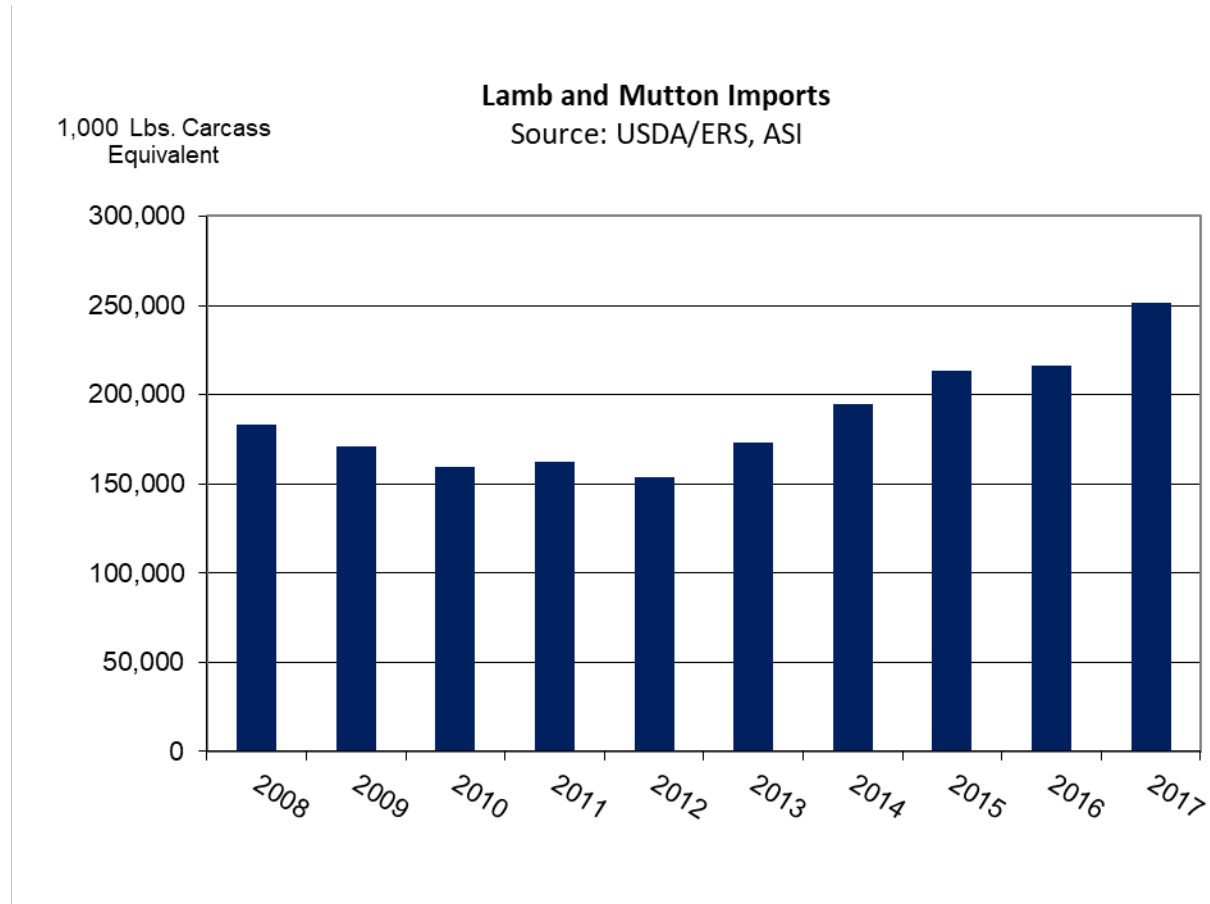


# Lamb imports climbed to over half the U.S. market



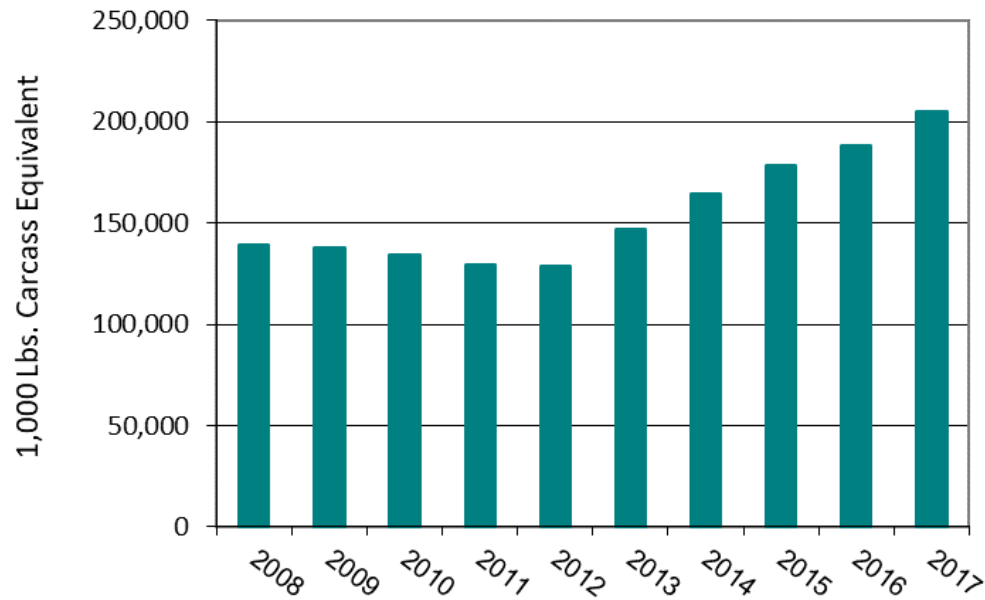


# Lamb & Mutton Imports were Up 16% Year-on-Year to 251.7 Million Lbs. in 2017

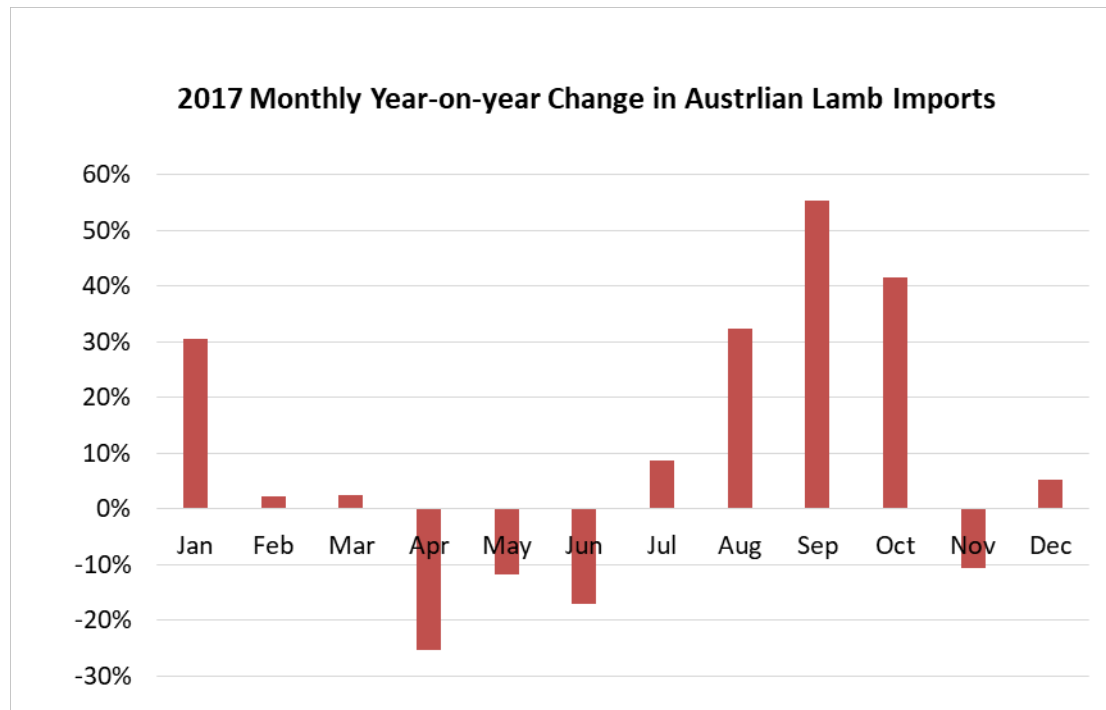


# Lamb Imports were Up 9% Year-on-Year to 205.23 Million Lbs.

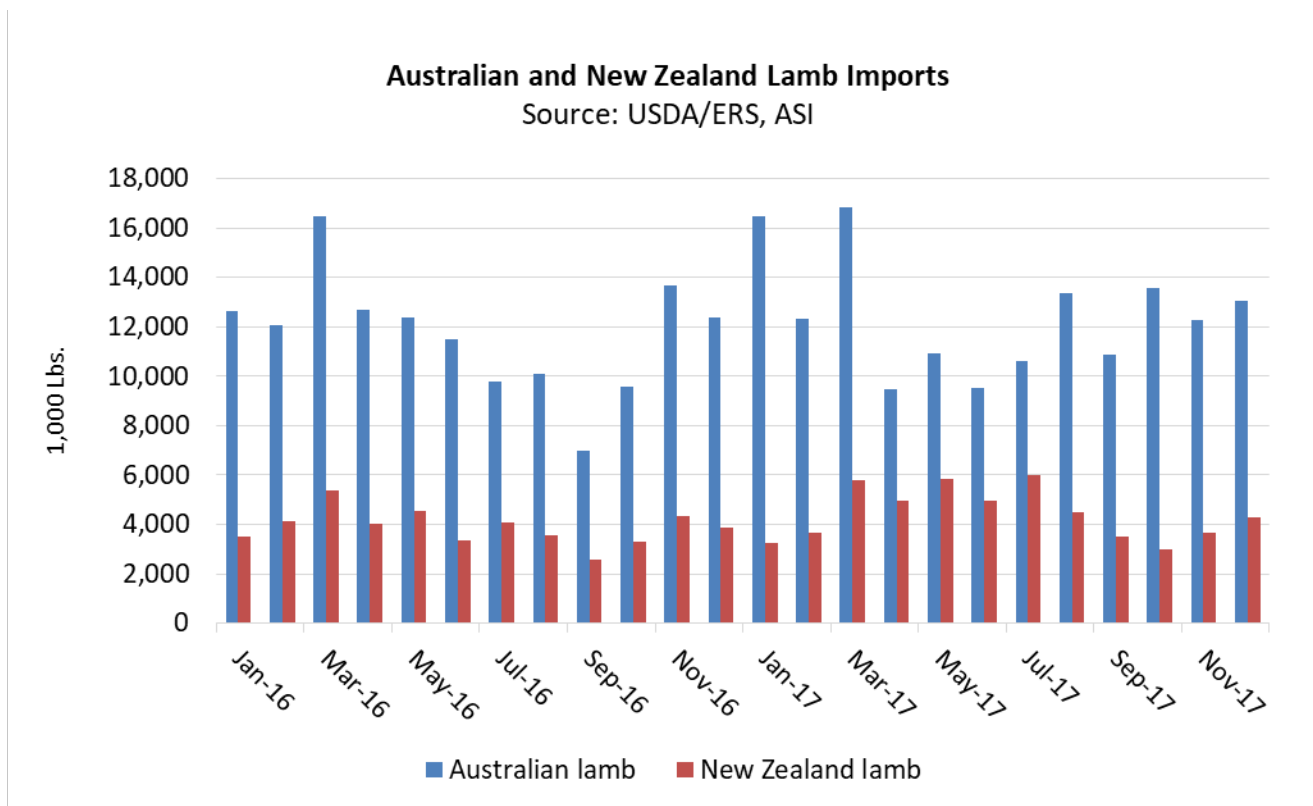
**U.S. Lamb Imports**  
Source: USDA/ERS, ASI



# Lamb imports from Australia were down Feb.-Jun. compared to 2016

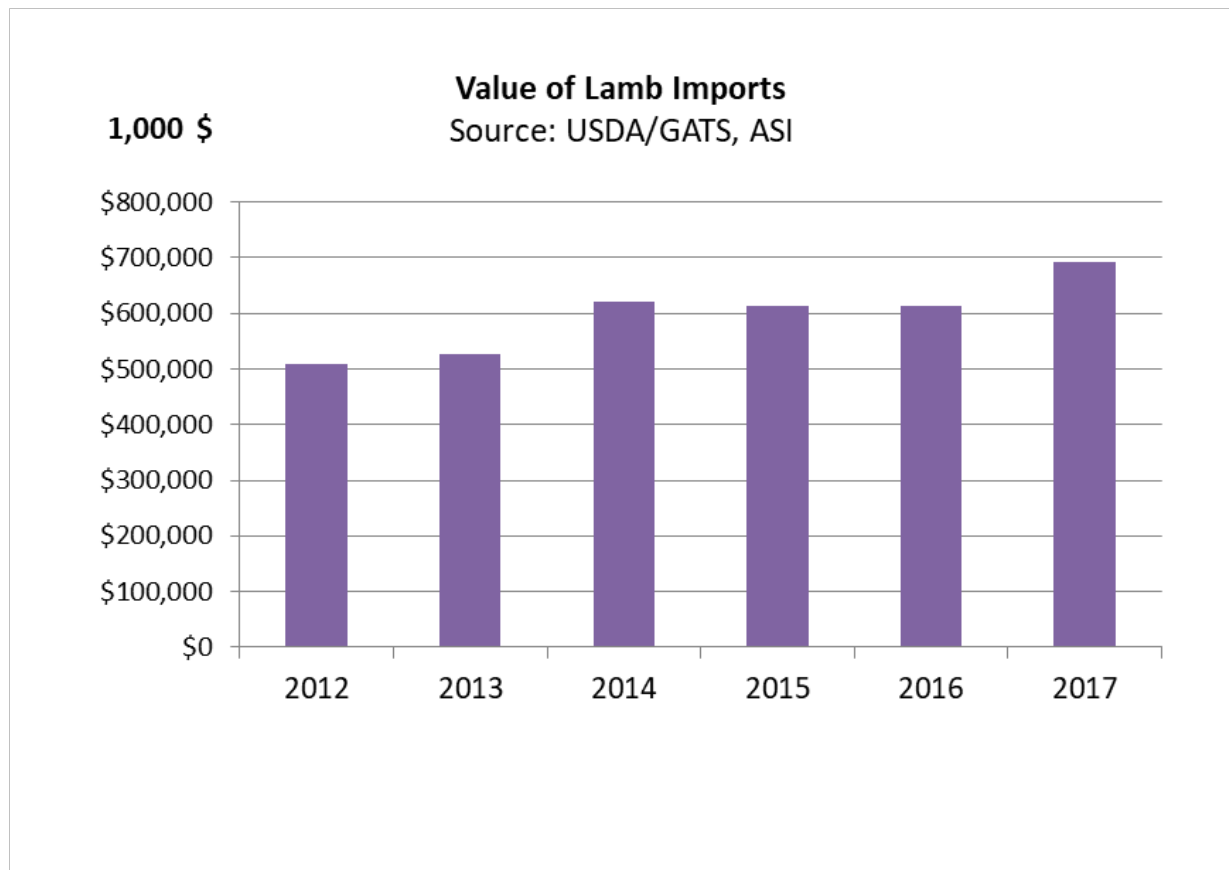


# Australian Lamb Imports Up 6% Annually to 149.4 million lbs.



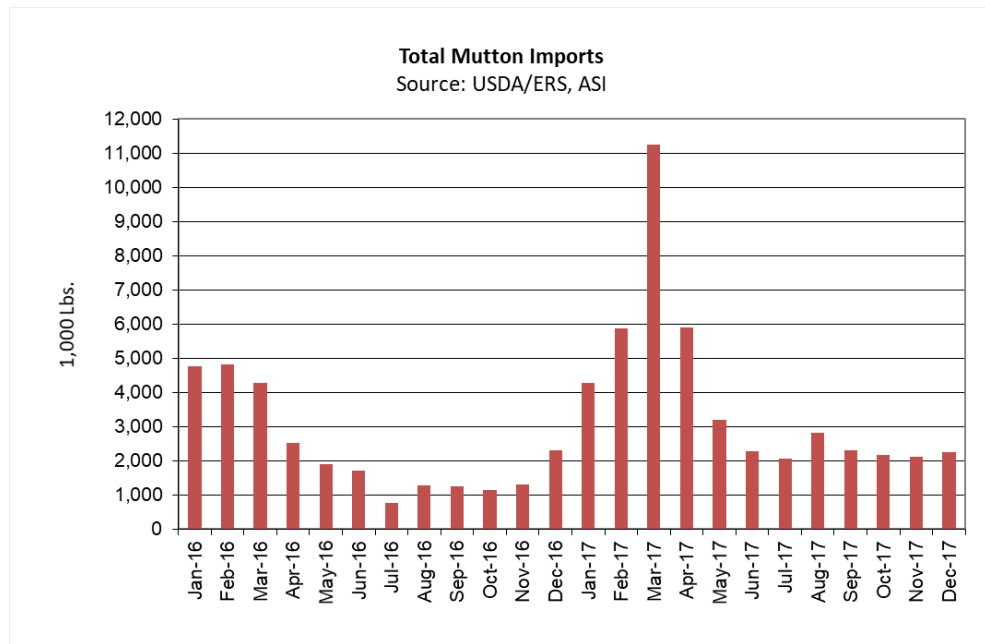
- New Zealand lamb imports were up 14% to 53.4 million lbs.

# The value of lamb imports was up 13% in 2017 at \$692.3 million



# Total mutton imports were 46.5 million lbs. in 2017, up 66%

- Australian imports were up 50% to 32.9 mill. lbs.;
- NZ imports were up 118% to 13 mill. lbs.

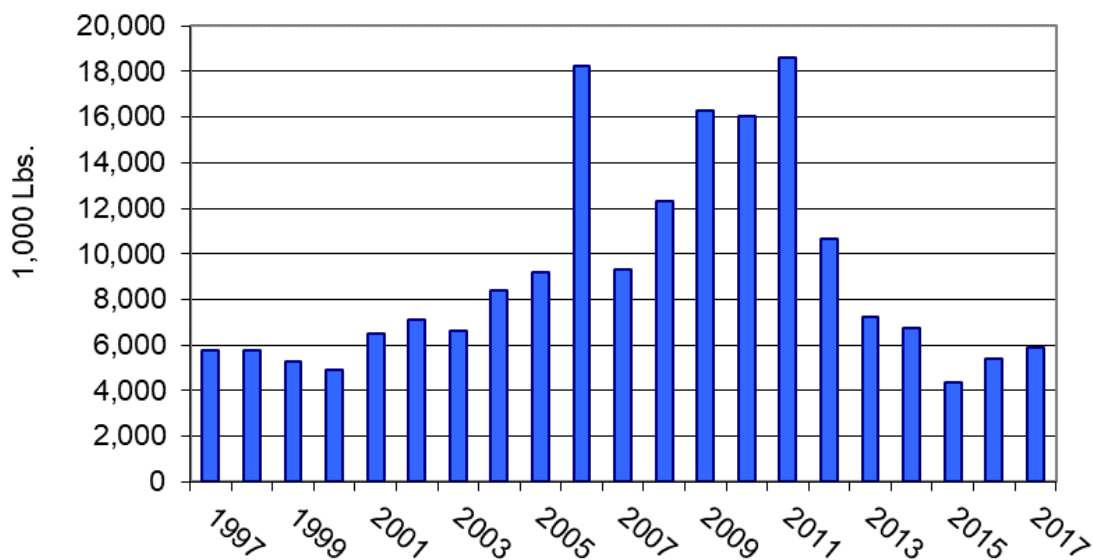


**\*\*Note March 2017 is correct.**

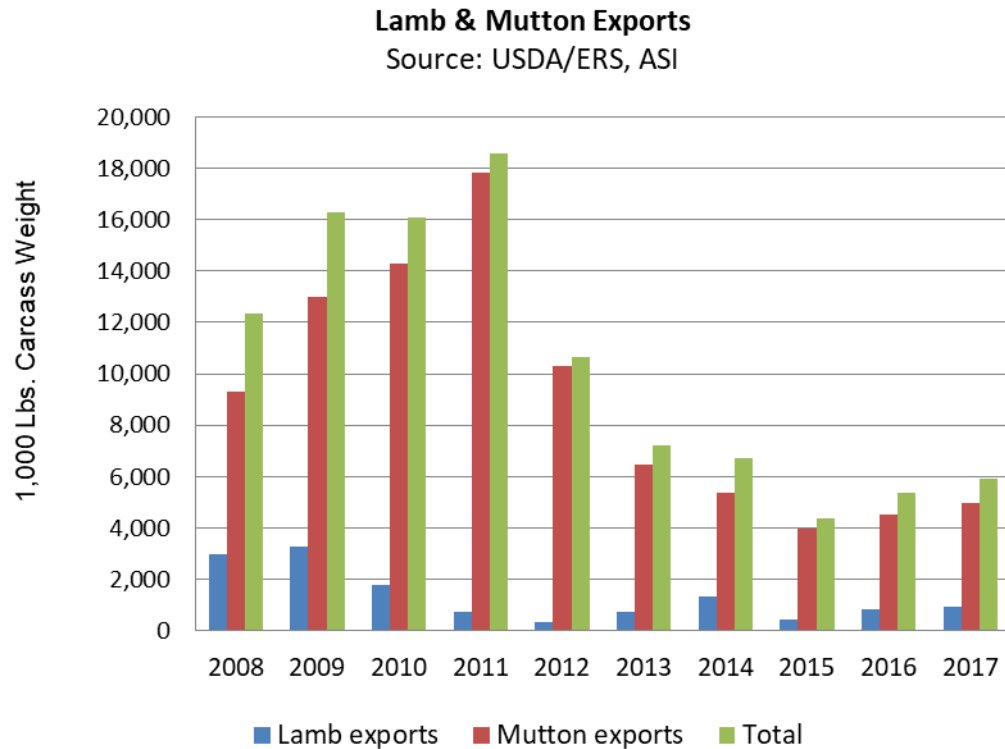
# Total lamb & mutton exports were up 10% in 2017 to 6.0 million lbs.

U.S. Lamb & Mutton Exports

Source: USDA/ERS, ASI



- Lamb exports up 11% to 924,000 lbs.
- Mutton exports up 9% to 5.0 mill. lbs.



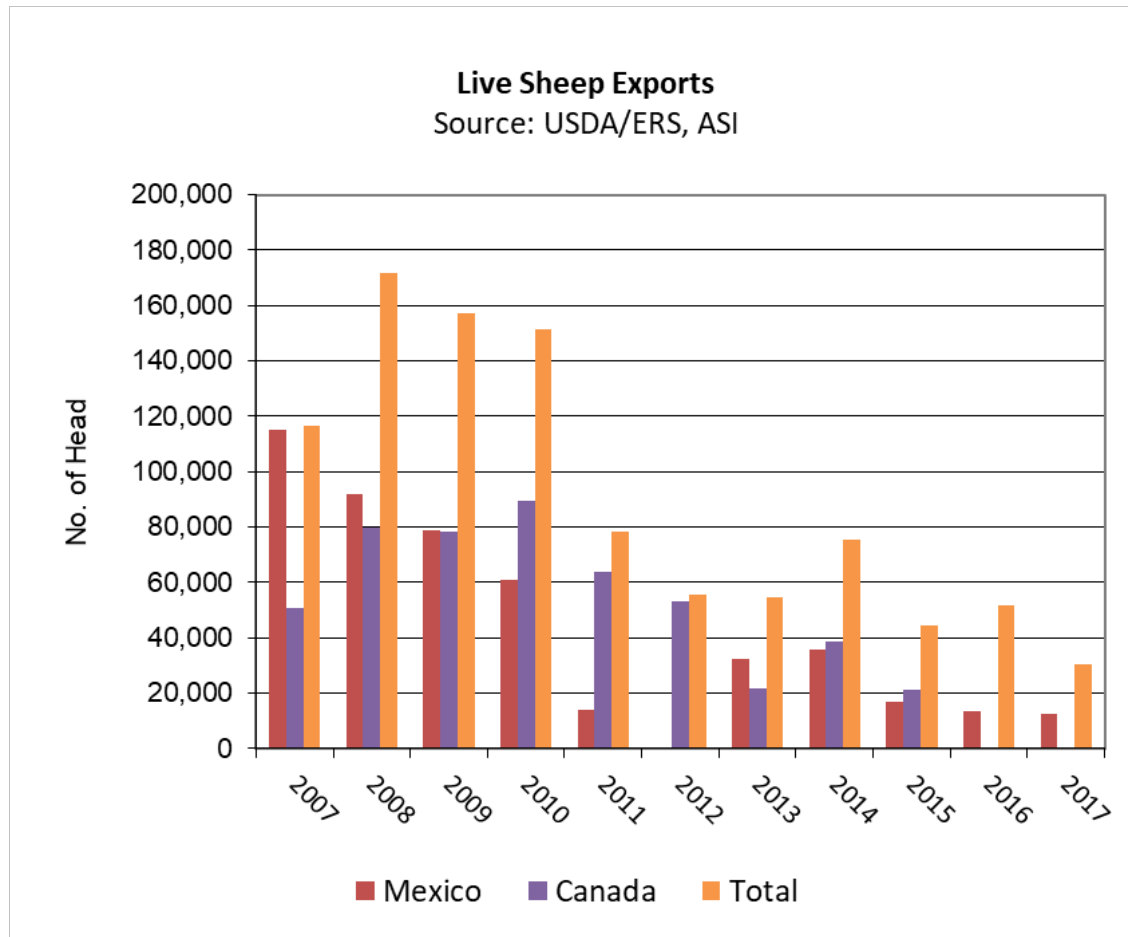


# Live Lamb and Sheep Exports Up in 2017

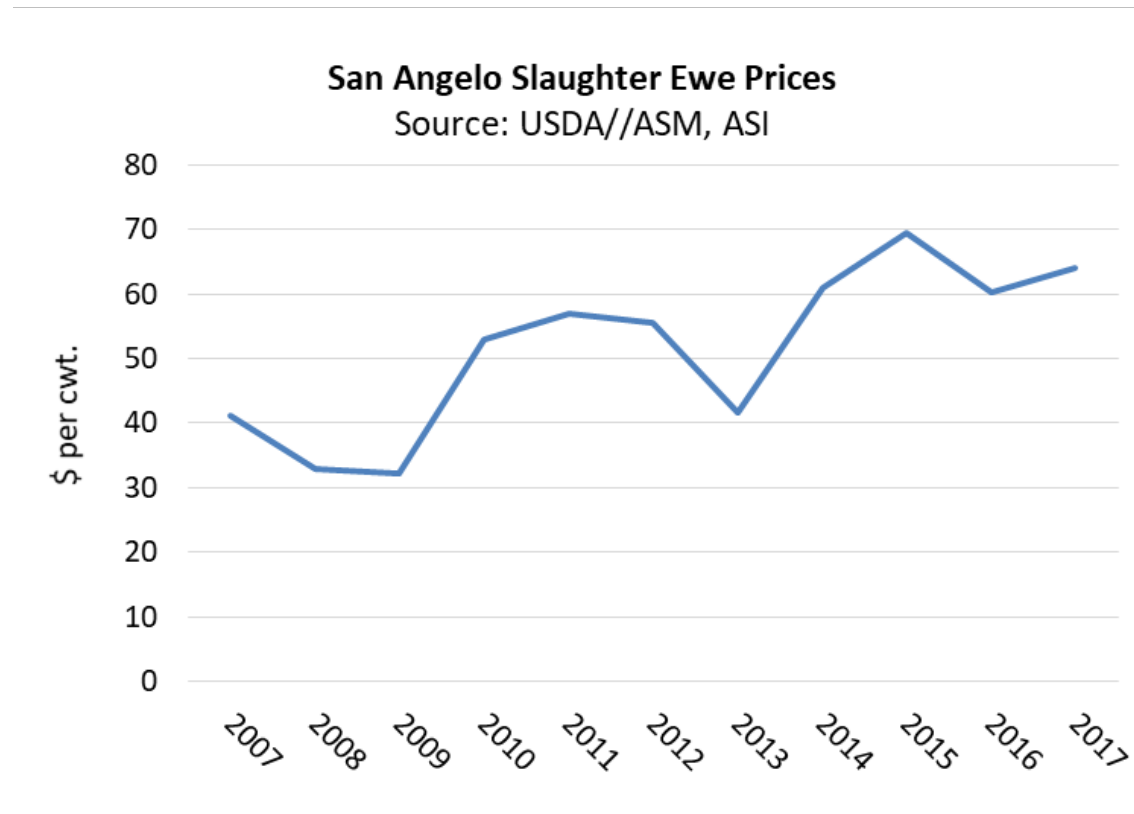
--Exports to Mexico were up 9% to 11,508 head; and

--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

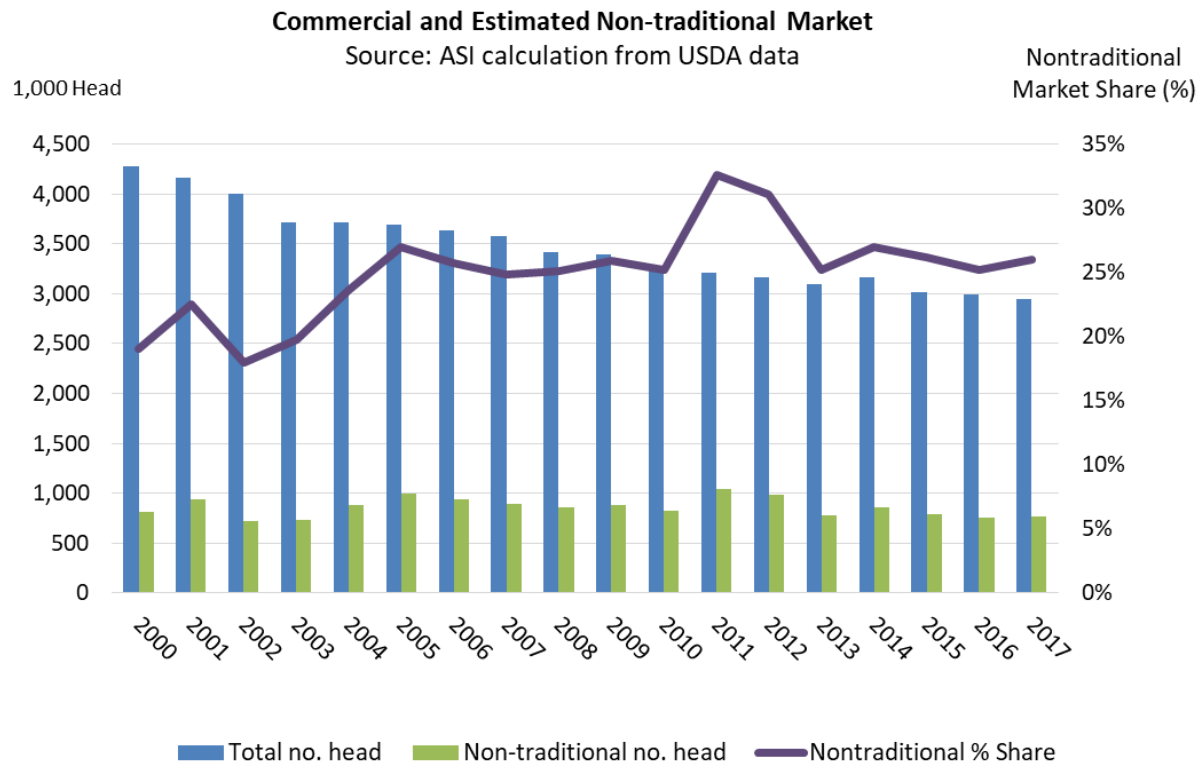


# Non-traditional Market Significant Segment of U.S. Sheep Industry

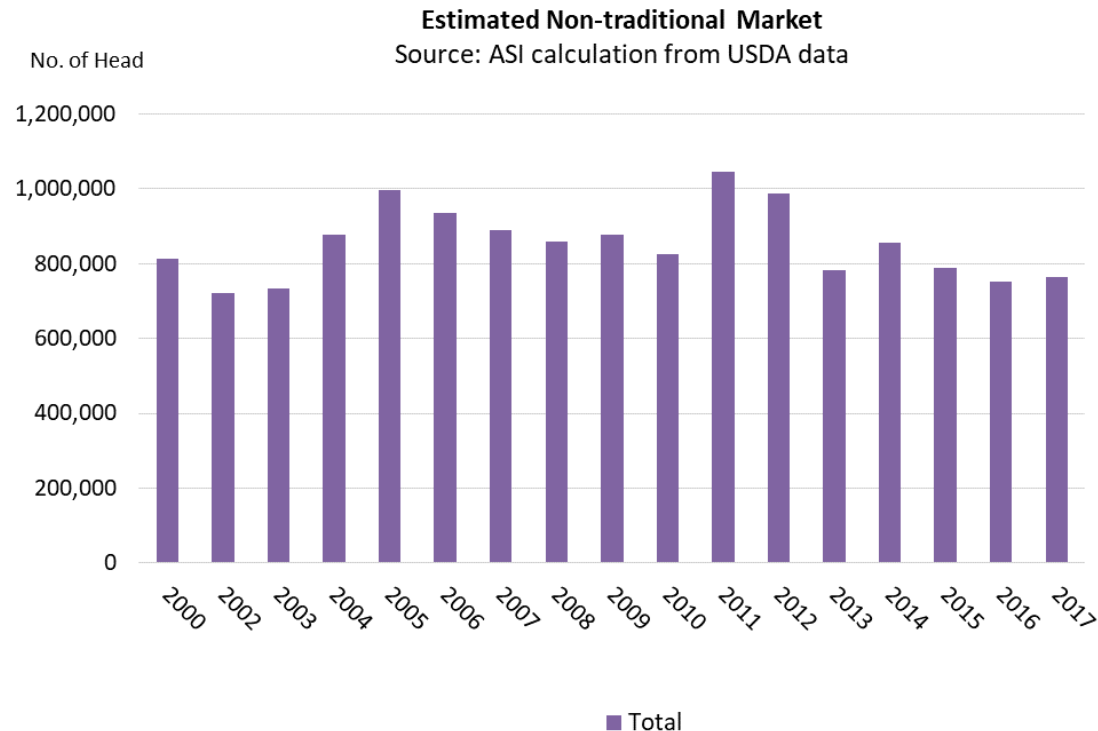
- The non-traditional market is often characterized by a lighter-weight lamb, around 100 lbs., but very variable depending upon customer.
- Market is mainly comprised of lambs sold direct to consumers.
- Lambs are processed by state inspected plants and even some FI plants.
- The largest markets are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

# Nearly 770,00 lambs estimated in the non-traditional market in 2017

--26% of all harvested lambs

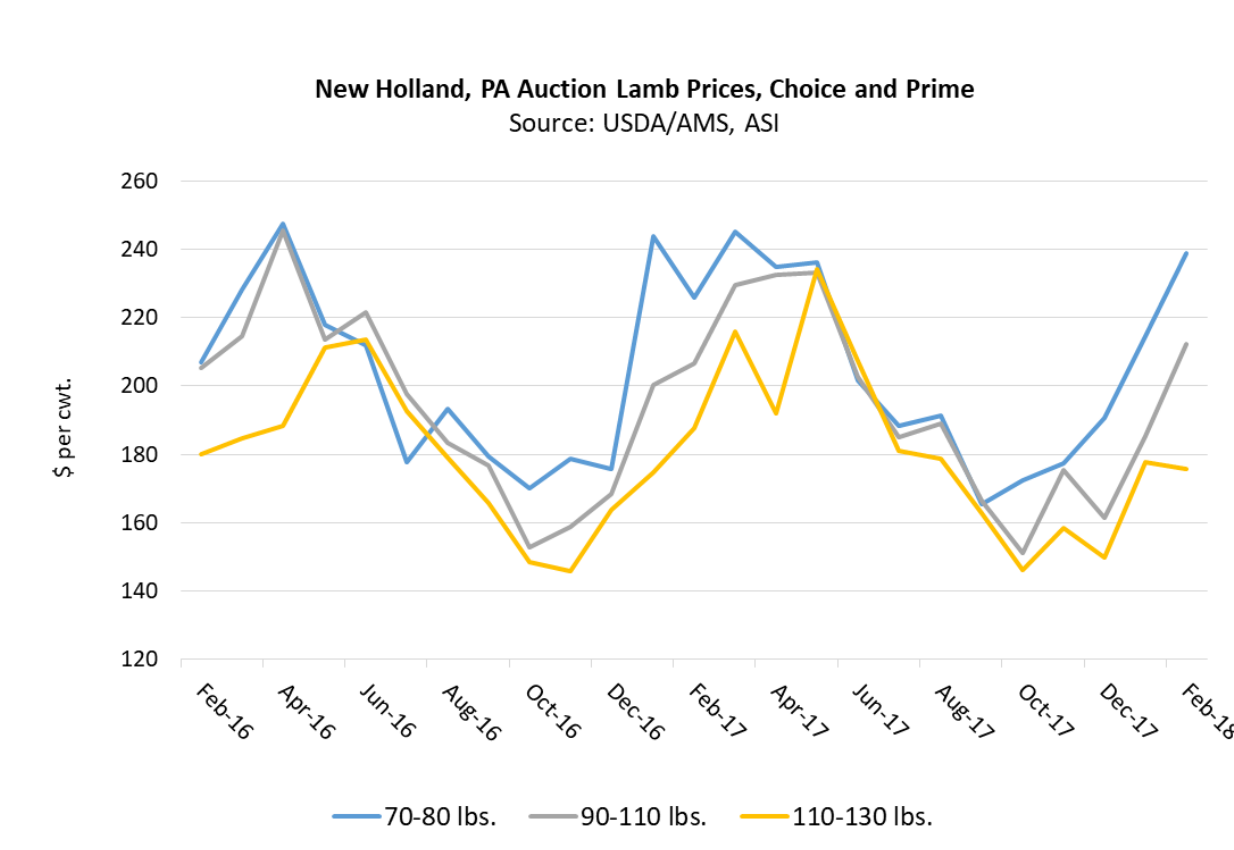


While total commercial harvest was down 3%, the estimated volume of non-traditional supplies was up 1.8%



# Slaughter lamb prices at New Holland in 2017 were about 9% lower year-on-year

--Price trends differed by weight class



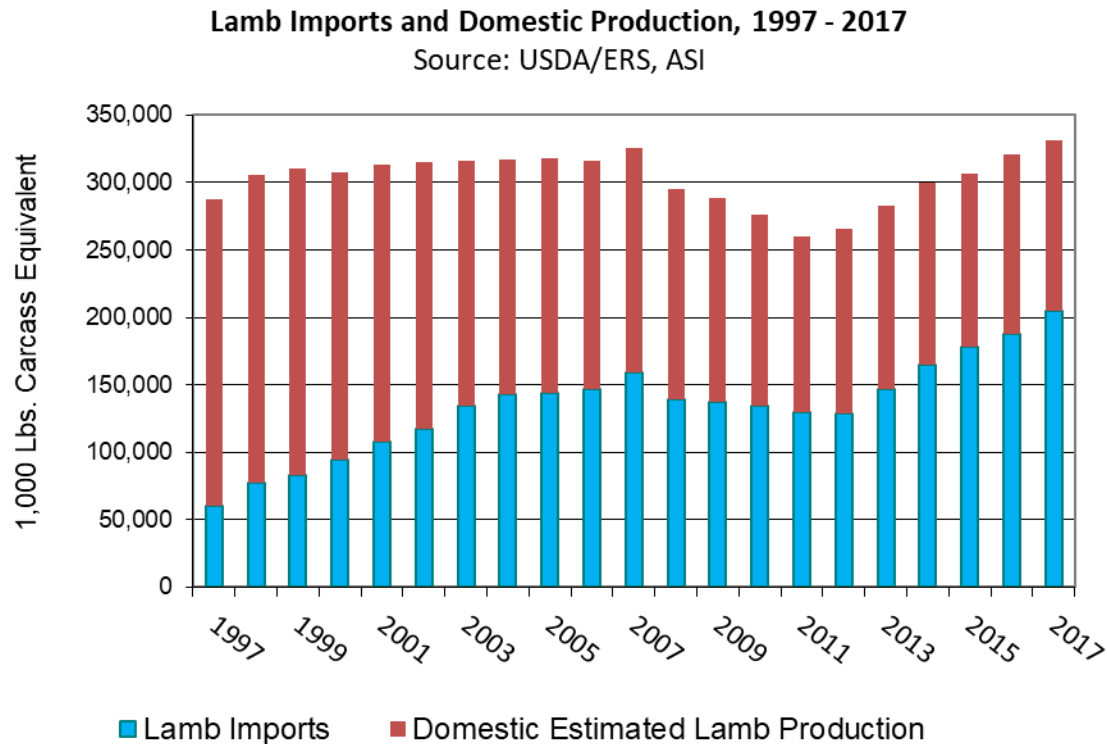


# X. Total Lamb and Mutton Availability

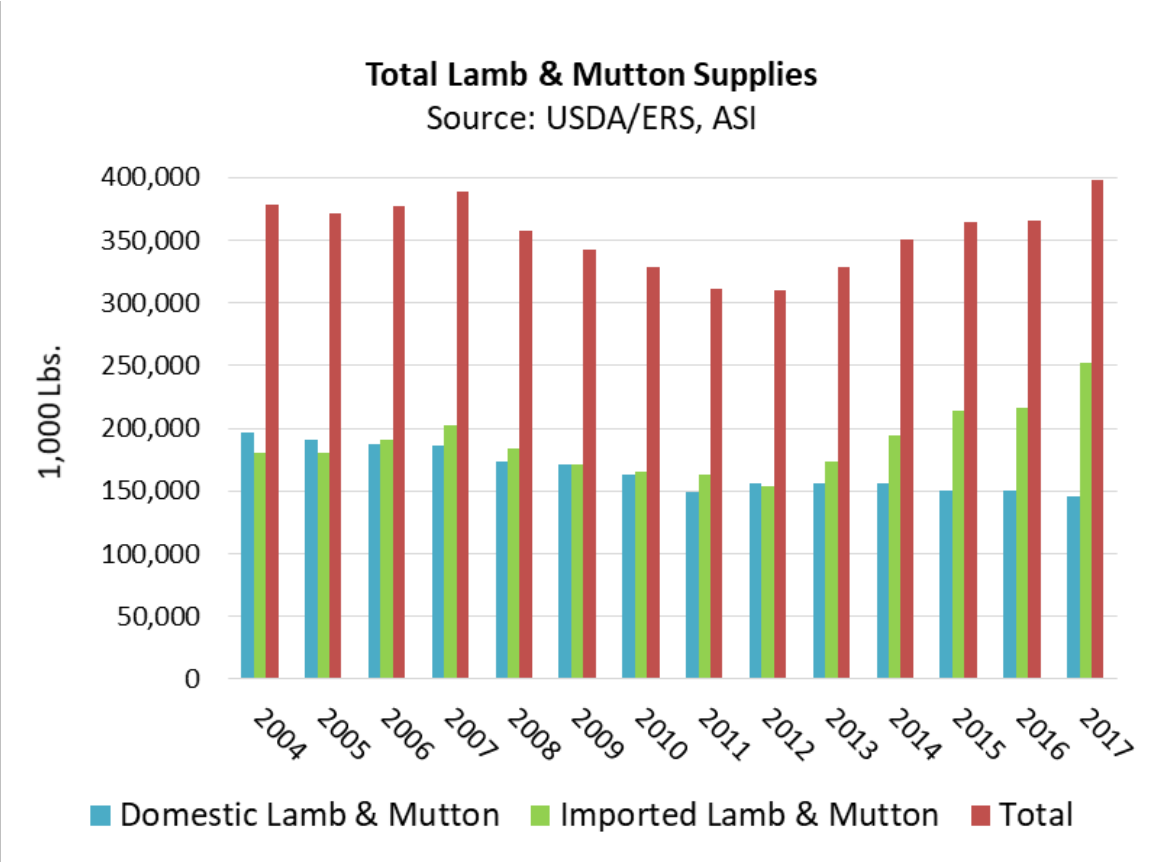


# Total lamb supply estimated at 331.1 million lbs., up 3% annually

--Import share up 9% in 2017 to 62% of market



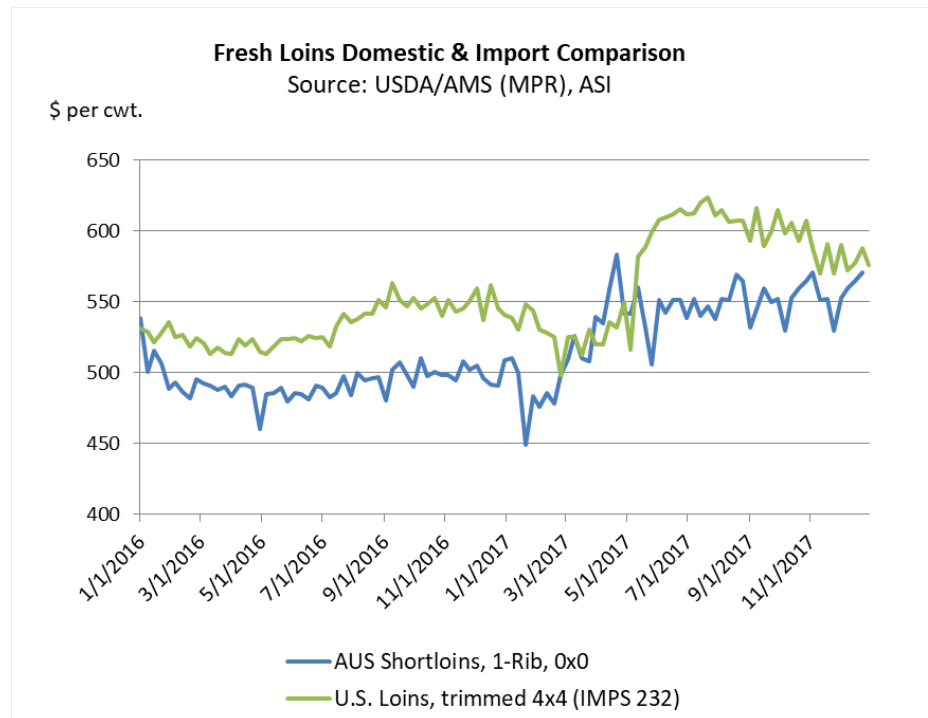
# Total lamb and mutton supplies higher in 2017



# XI. Imported Product Price Comparisons



# In 2017 the US loins held a premium over the AUS loins, but it narrowed by year's end

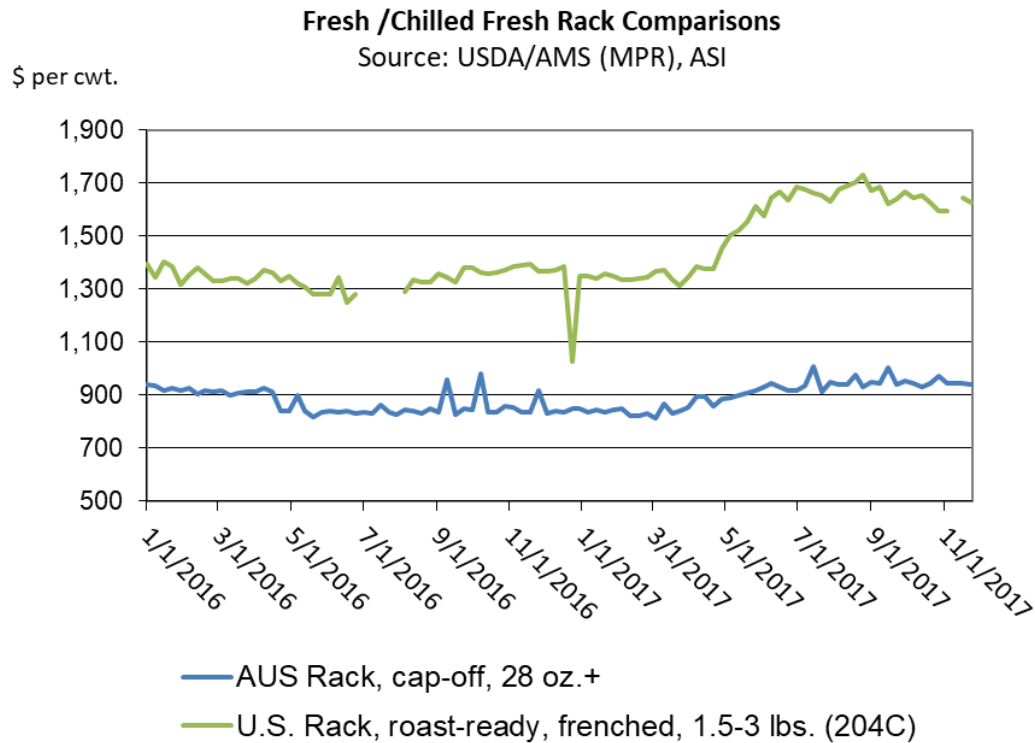


- The U.S. loins averaged \$562.06 per cwt. in 2017, up 5% annually;
- The AU loins averaged \$544.37 per cwt., up 10% annually.

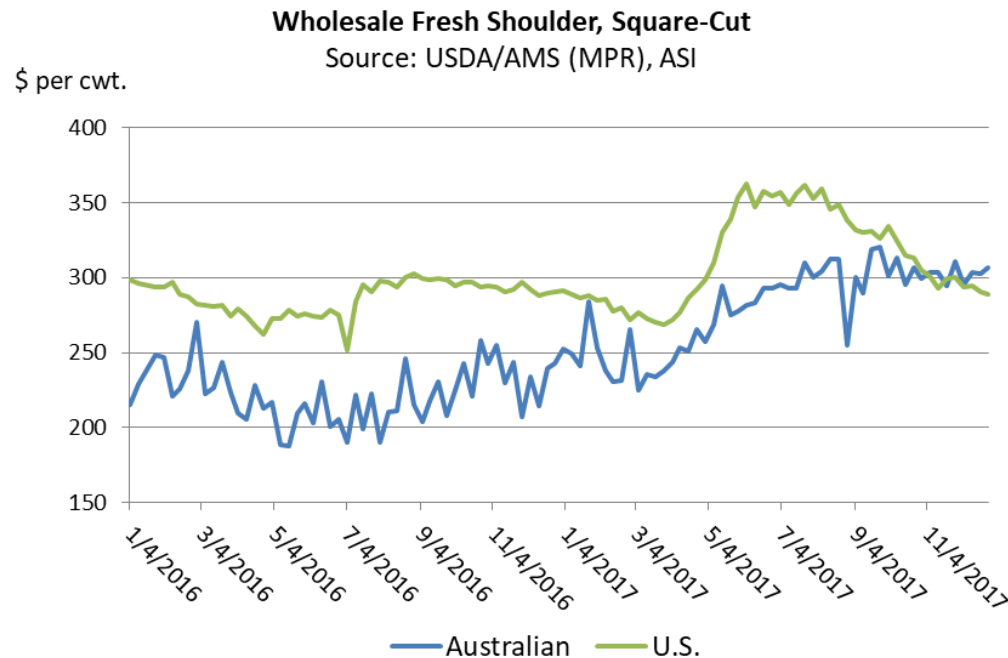
# U.S. Fabricated Racks Topped \$20 per Lb., More than Double an Australian Rack

- U.S. rack, roast-ready, frenched (204C) averaged \$1,540.58 per cwt. in 2017, up 15% year-on-year.
- U.S. rack, roast-ready, frenched, special (204D) averaged \$2,046.46 per cwt., up 28% year-on-year.
- The AUS rack cap-off, 28 oz.+ was \$911.54 per cwt., up 5% annually.

# U.S. rack receives price premium; --U.S. and imported rack prices tend to move together



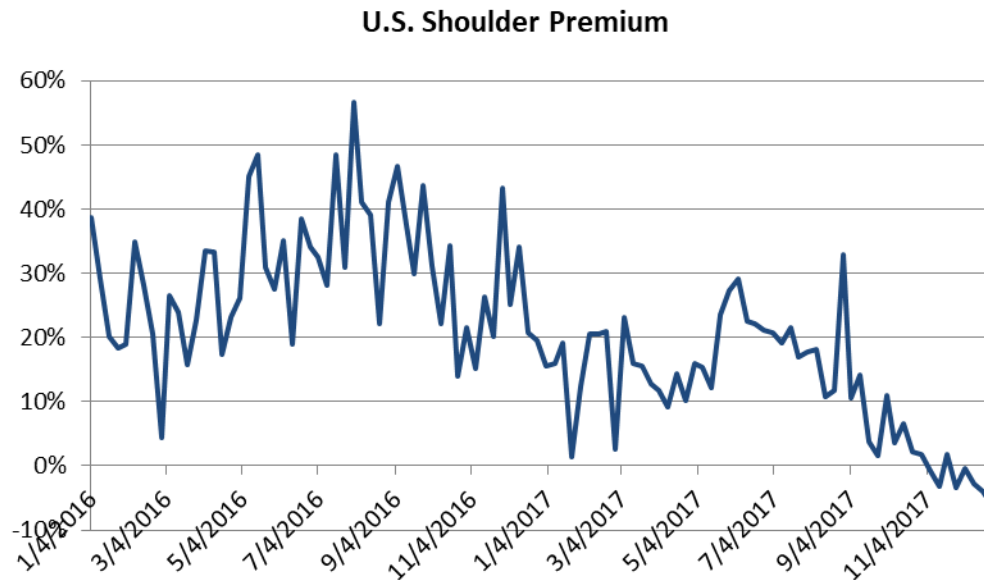
# U.S. Shoulder Historically holds Premium Relative to AU Shoulder, but Lost Ground in 2017



- U.S. shoulder, square-cut, averaged \$312.88/cwt. in 2017, up 9% annually;
- AU shoulder averaged \$279.85/cwt., up 26%.



# U.S. and AUS shoulder margin narrowed in late 2017, then U.S. lost its premium



# XII. Exchange Rates

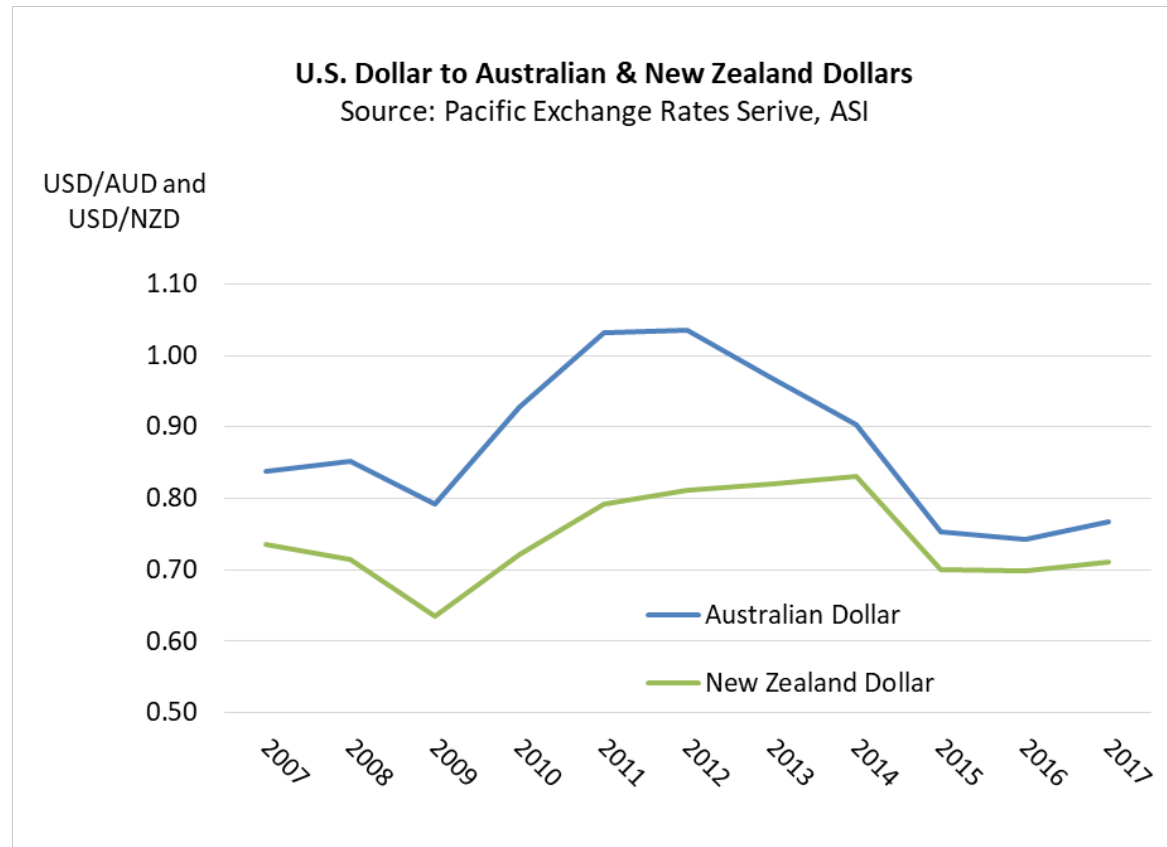


# Australian Dollar Stronger against US\$ in 2017

-- In 2017 the Australian/U.S. rate gained 3% to 0.77 (1 AUD = 77 US cents).

-- In 2017 the NZ/U.S. rate increased 2% to 0.71

# Relatively Weaker U.S. Dollar Boosts Export Competitiveness; Erodes Import Competitiveness



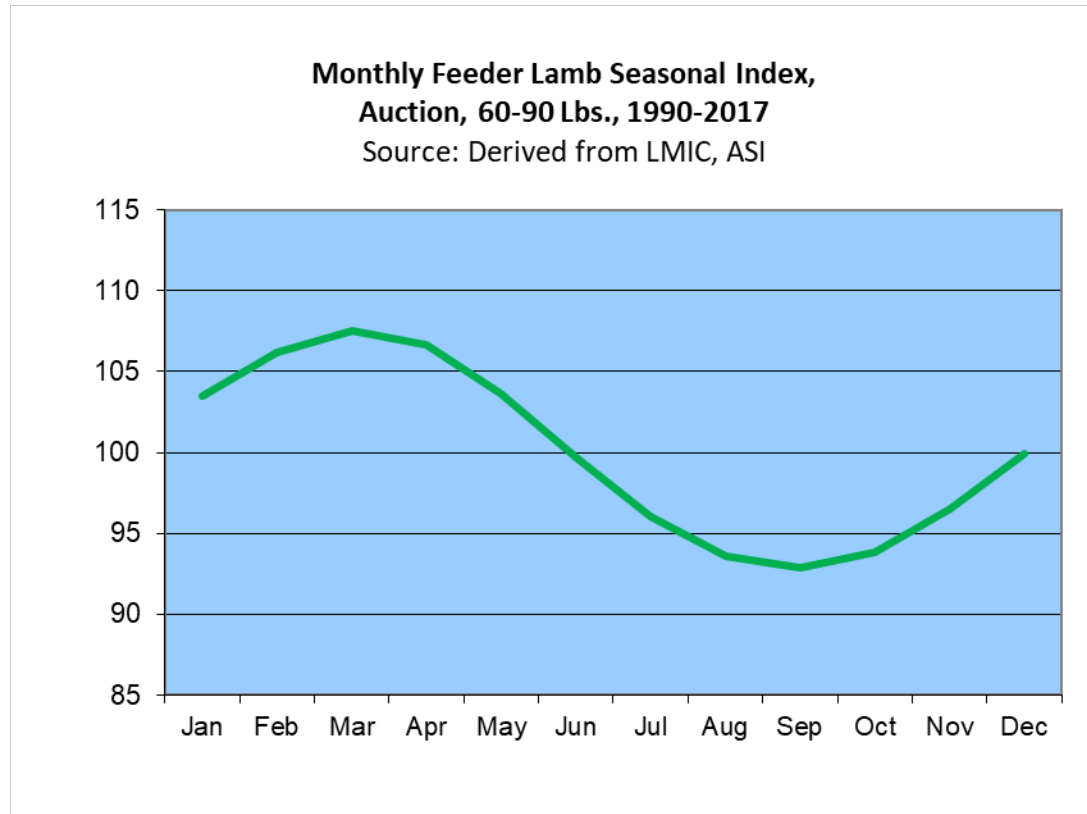
# XIII. Price Projections and Outlook



# 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.

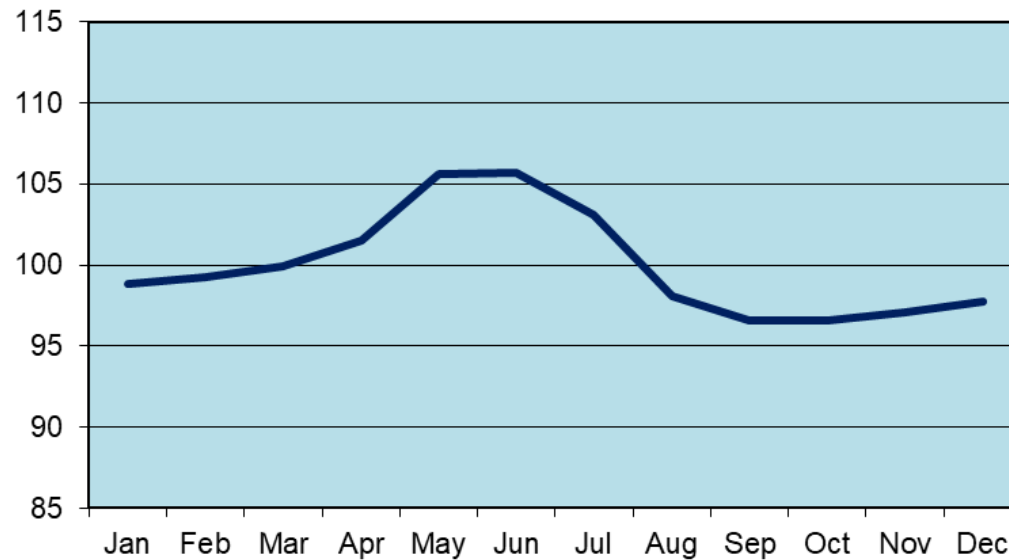
Feeder lamb prices at auction highly seasonal with annual highs in the second quarter; annual lows in the third quarter



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

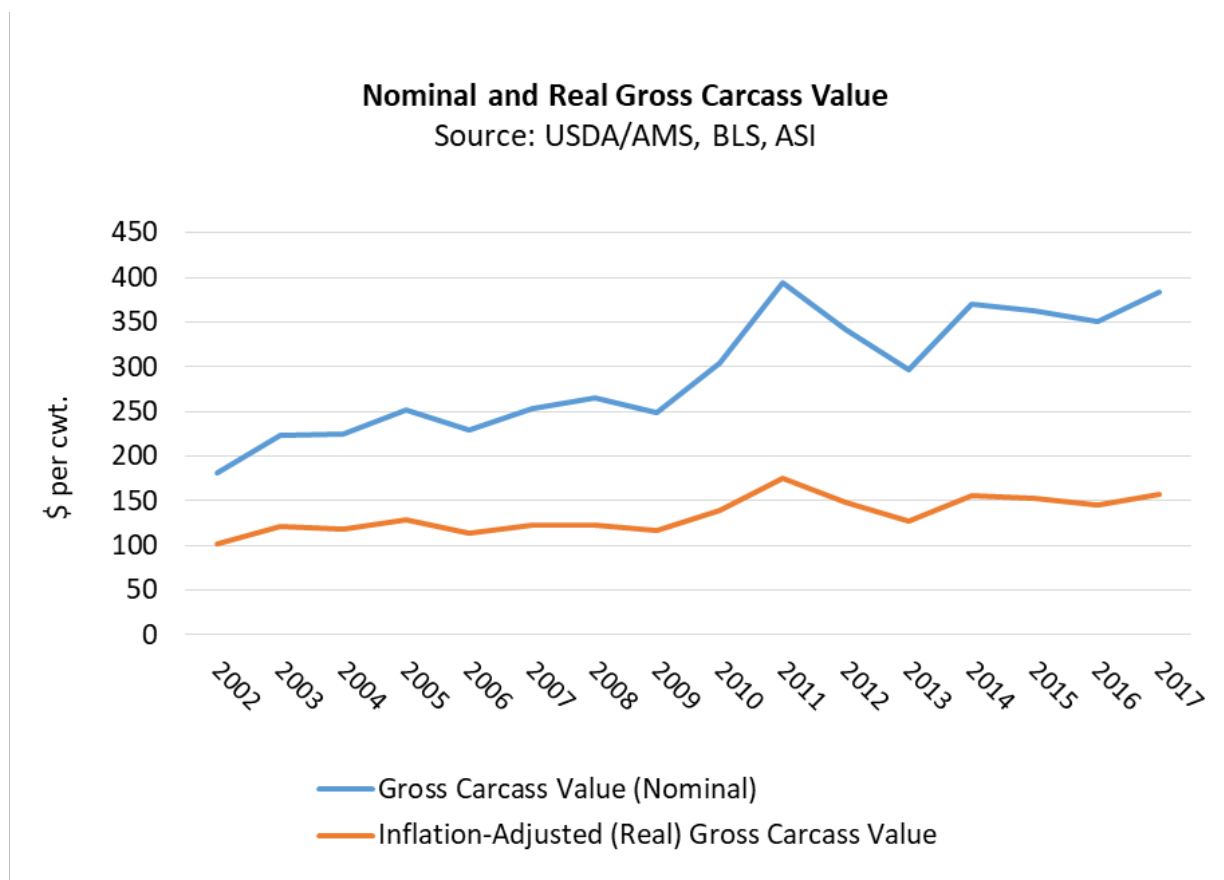
Seasonal Index for Live  
Slaughter Lambs at Auction,  
2000-2017

Source: Derived from USDA/AMS, ASI





Higher inflation-adjusted wholesale lamb prices reveal supply-side productivity gains and/or demand growth, both which bode well for future growth prospects



# Livestock Market Information Center (LMIC) 2018 Forecasts:

- In early March, LMIC issued 2018 forecasts:
  - domestic production could be about even with 2017,
  - imports could be down 3%, and
  - total available supplies could contract by 6%
- Lamb and mutton exports could be up 5% year-on-year
- LMIC reported that per capita consumption could fall by one-quarter percent in 2018 to 1.1 lbs. per person.

# Price Forecasts

- The sharp contraction in available lamb and mutton supplies could support lamb prices.
- LMIC forecasted slaughter lamb prices on a carcass basis could see \$296-\$301 per cwt. in 2018, down 1.4% year-on-year.
- Feeder lamb prices could average \$195 to \$201 per cwt., 3% higher annually.

# Thank ewe!



ASI

