

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## **Korea - Republic of**

### **Livestock and Products Annual**

#### **Annual 2016**

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**Report Highlights:**

Despite high domestic cattle and beef prices, Post forecasts Korea's cattle calf crop to see its third consecutive yearly decline in 2017. Recent concern over high-end beef demand due to a new anti-graft law that restricts gift-giving has discouraged cattle producers from continuing their previous expansion trend. Slaughter and beef production are also forecast to decline with imports increasing to fill the gap. Korea's swine herd will continue to grow as farmers take advantage of firm prices, at least in the medium term, and consumers take advantage of the relatively cheaper protein. Given this demand situation compared to domestic capacity, slightly higher imports are still expected.

This report replaces [KS1633](#). The analysis and PS&D remain the same.

**Commodities:**

Animal Numbers, Cattle

**Production:**

Post forecasts that producer uncertainty over future cattle prices will continue to drive down herd size and calf production. While this downward trend seemed to temporarily halt from April to June 2016, when herd size increased six percent, the downward trend is expected to reestablish itself for the rest of the year and into 2017. Three factors play into this Post forecast. First, semen sales fell four percent in the first seven months of this year compared to the same time period in 2015. Virtually all Hanwoo calves are produced via artificial insemination (AI). Second, the percentage of cow slaughter rose from 49 percent in 2015 to 51 percent, year to date. Finally, the trend of elderly farmer retirements has continued, translating into an eight percent decline in the number of farms raising under 50 head by June 2016, compared to the same period last year. Post estimates that a majority of feeder calves come from farms of this size. In an effort to boost efficiency in the sector, a government program directs incentives towards this category of farmers to encourage their retirement from the industry.

A major cause of producers' price uncertainty relates to the new anti-graft law that went into effect on September 28, 2016. The impact of the anti-graft law on Hanwoo beef prices and consumption will be discussed further in the beef section. The potential for reduced demand has dampened farmers' enthusiasm to increase their herd size. Despite current high cattle prices, farmers are very hesitant to expand their herd size given uncertainty of cattle prices as the law has only recently gone into effect.

Post sees Korea's calf crop in 2017 to be the third straight year of declines. As explained above, our 2017 forecast reflects decreased beef cow numbers and low semen sales during the March – July 2016 period. Dairy cow numbers have been gradually dropping as farmers liquidate low-performing dairy cows due to the oversupply in milk production in Korea. As the human birth rate of Korea, already one of the lowest in the OECD, continues to fall (hitting 1.24 children per married couple in 2015), milk consumption will also fall, exacerbating the oversupply situation.

**Korea: Farmers' Intention for Cattle Herd Size**

Year	Month	Farmers' Plan		
		Maintain same level	Will Increase herd size	Will reduce herd size
2013	March	96.8	1.4	1.8
	June	95.2	1.1	3.7
	September	90.4	0.5	9.1
	December	94.5	1.0	4.5
2014	March	95.3	1.1	3.6
	June	92.7	2.2	5.1
	September	92.1	1.3	6.6
	December	92.1	1.5	6.4
2015	March	95.8	1.2	3.0
	June	97.4	0.3	2.3
	September	97.0	1.5	1.5
	December	98.3	0.3	1.3
2016	March	96.5	1.5	2.0
	June	92.3	5.2	2.5
	September	94.6	3.5	1.9

Source: KREI

**Hanwoo Semen Sales (Unit: 1,000 straws)**

Month	2012	2013	2014	2015	2016	Change 1/
Jan	105	102	121	120	123	102.5
Feb	113	98	108	115	99	86.1
Mar	169	133	129	136	149	109.6
Apr	175	150	151	148	145	98.0
May	179	166	159	138	141	102.2
Jun	217	184	188	222	204	91.9
Jul	238	216	206	229	199	86.9
Aug	200	157	197	162		
Sep	156	162	190	202		
Oct	139	153	163	162		
Nov	113	125	152	153		
Dec	111	131	145	140		
<b>Total</b>	<b>1,915</b>	<b>1,777</b>	<b>1,909</b>	<b>1,927</b>	<b>1,060</b>	

Source: GS&J and KREI

Note:

1/ The change is a comparison of 2016 sales over the same month in 2015.

### Monthly Cattle Slaughter Trend

Year	Month	Cow		Bulls/steers		Total	
		Head	Percent of total	Head	Percent of total	Sub-total	Percent of annual
2014	Jan	63,427	48.63	66,989	51.37	130,416	12.52
	Feb	29,989	48.73	31,558	51.27	61,547	5.91
	Mar	38,731	49.00	40,313	51.00	79,044	7.59
	Apr	44,280	49.71	44,794	50.29	89,074	8.55
	May	39,458	52.25	36,056	47.75	75,514	7.25
	Jun	36,640	51.58	34,400	48.42	71,040	6.82
	Jul	42,694	50.13	42,479	49.87	85,173	8.18
	Aug	59,438	48.09	64,159	51.91	123,597	11.86
	Sep	36,691	49.74	37,071	50.26	73,762	7.08
	Oct	40,200	47.51	44,422	52.49	84,622	8.12
	Nov	34,605	47.21	38,696	52.79	73,301	7.04
	Dec	43,321	45.71	51,444	54.29	94,765	9.10
	<b>Total</b>	<b>509,474</b>	<b>48.90</b>	<b>532,381</b>	<b>51.10</b>	<b>1,041,855</b>	<b>100.00</b>
2015	Jan	48,953	44.30	61,549	55.70	110,502	10.99
	Feb	40,504	46.32	46,942	53.68	87,446	8.70
	Mar	36,937	45.86	43,608	54.14	80,545	8.01
	Apr	41,380	47.88	45,040	52.12	86,420	8.59
	May	36,557	50.79	35,414	49.21	71,971	7.16
	Jun	40,798	51.67	38,157	48.33	78,955	7.85
	Jul	42,126	53.65	36,395	46.35	78,521	7.81
	Aug	42,783	50.64	41,703	49.36	84,486	8.40
	Sep	54,696	51.19	52,144	48.81	106,840	10.62
	Oct	33,476	47.97	36,305	52.03	69,781	6.94
	Nov	32,370	47.65	35,559	52.35	67,929	6.76
	Dec	39,155	47.64	43,035	52.36	82,190	8.17
	<b>Total</b>	<b>489,735</b>	<b>48.70</b>	<b>515,821</b>	<b>51.30</b>	<b>1,005,586</b>	<b>100.00</b>
2016	Jan	55,137	46.4	63,641	53.6	118,778	N/A
	Feb	26,317	53.3	23,046	46.7	49,363	N/A
	Mar	33,887	51.0	32,503	49.0	66,390	N/A
	Apr	34,406	51.8	31,980	48.2	66,386	N/A
	May	33,947	52.9	30,228	47.1	64,175	N/A
	Jun	32,134	52.9	28,641	47.1	60,775	N/A
		<b>Total</b>	<b>215,828</b>	<b>50.7</b>	<b>210,039</b>	<b>49.3</b>	<b>425,867</b>

Source: Quarantine Inspection Agency

According to data released by the Korea Institute of Animal Products Quality Evaluation, farmers made a profit on all cattle slaughtered in July 2016. The major factors attributed to this increased profit rate are higher live cattle prices and increased consumer demand for leaner cuts. This trend is expected to

continue into 2017 due to high carcass prices coming from lower slaughter numbers. But, as Hanwoo beef consumption decreases due to high prices and the impact of the anti-graft law, farmers producing lower grade cattle (Grade 2 and lower) are at risk of losing money.

**Farm Income per Head of Beef Cattle (estimate based on 600 Kg. cattle)**

Description			Carcass Grade				
			1++	1+	1	2	3
Income	Thousand won	2011	1,420	672	169	-830	-1,764
		2012 a/	1,339	683	108	-998	-1,941
		2013 a/	1,553	750	194	-676	-1,444
		2014 a/	1,906	1,247	776	102	-466
		2015 a/	2,221	1,640	1,197	466	-162
		2016 b/	3,301	2,521	2,008	1,141	161
Ratio of carcass in each grade	Percent	2011	9.2	22.6	30.6	25.5	11.6
		2012	8.1	17.8	25.5	26.7	22.0
		2013	9.2	21.0	31.0	27.1	11.2
		2014	9.5	22.8	32.7	25.2	9.5
		2015	10.0	26.4	31.4	24.0	8.0
		2016 c/	9.2	30.3	29.3	23.2	7.7

a/ Estimate

b/ Based on average price in July 2016.

c/ Based on carcass graded in July 2016.

Source: KREI and Korea Institute of Animal Products Quality Evaluation

**Korea: Live Hanwoo Beef Cattle Prices (Thousand won / head)**

Month	Calf	Cow	Steer
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	Female			Male								
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
Jan	1278	1664	2611	1968	1997	3106	4135	4571	5775	4228	4290	5741
Feb	1584	1490	2676	1903	2066	3198	4233	4571	5769	4180	4020	5559
Mar	1067	1769	2364	1828	2251	3281	4130	4802	5839	4091	4468	5642
Apr	1236	1934	2603	2100	2582	3561	4112	4682	5859	4047	4163	5808
May	1189	2156	2812	2472	2633	3735	4082	4700	5915	3932	4088	5623
Jun	1269	2199	2930	2527	2870	3907	4186	4748	5972	4107	4325	5653
Jul	1526	2423	2923	2687	2902	4008	4430	5107	5996	4216	4880	5715
Aug	1648	2461		2642	3139		4371	5543		4105	5217	
Sep	1626	2500		2678	3359		4542	5599		4194	5459	
Oct	1731	2526		2329	3120		4651	5882		4289	5696	
Nov	1454	2182		2260	2731		4519	5810		4277	5704	
Dec	1442	2227		2151	2896		4581	5842		4564	5799	

Source: National Agricultural Cooperative Federation  
Exchange rate US\$1 = 1,105 won (As of September 5, 2016)

### Production, Supply and Demand Data Statistics:

Animal Numbers, Cattle Market Begin Year Korea, Republic of	2015		2016		2017	
	Jan-15		Jan-16		Jan-17	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Total Cattle Beg. Stks</b>	3190	3190	3088	3088	0	3106
<b>Dairy Cows Beg. Stocks</b>	305	305	293	293	0	294
<b>Beef Cows Beg. Stocks</b>	1123	1123	1099	1099	0	1050
<b>Production (Calf Crop)</b>	914	914	917	890	0	850
<b>Total Imports</b>	0	0	0	0	0	0
<b>Total Supply</b>	4104	4104	4005	3978	0	3956
<b>Total Exports</b>	0	0	0	0	0	0
<b>Cow Slaughter</b>	490	490	467	437	0	425
<b>Calf Slaughter</b>	0	0	0	0	0	0
<b>Other Slaughter</b>	516	516	490	425	0	420
<b>Total Slaughter</b>	1006	1006	957	862	0	845
<b>Loss</b>	10	10	10	10	0	10
<b>Ending Inventories</b>	3088	3088	3038	3106	0	3101
<b>Total Distribution</b>	4104	4104	4005	3978	0	3956

(1000 HEAD)

### Commodities:

Meat, Beef and Veal

## Production:

Post forecasts beef production to continue to drop in 2017. Lower cattle inventory is resulting in lower slaughter numbers, leading to a drop in beef production. The anti-graft law is causing farmers to reconsider plans to increase their herd size, as they fear that Hanwoo beef wholesale prices will drop due to the prohibition on providing gifts worth over 50,000 won (about US\$50) to public servants and other prominent people in the public spotlight. More information on the anti-graft law is discussed in the next section. Total slaughter during the first half of 2016 was 425,867 head, which is 83 percent of the level during the same period in 2015 and 87 percent of the level during the second half of 2015. The number of cattle under two years old in June 2016 was 1.6 million head, compared to 1.5 million head in December 2015. In addition, this cattle cohort increased 11 percent in the three months from March to June 2016. Although on the upswing, this growth will not be sufficient to compensate for the declining trend in total slaughter numbers in 2016 and into 2017, as the sale of semen has not increased sufficiently to enable an increase in total herd size. GS&J, a research institute, estimated that the number of cattle put up for slaughter will continue to go down until 2018, or even up to 2019.

## Consumption:

High domestic Hanwoo beef prices in 2016 coupled with low production resulted in reduced consumption of domestic beef. Increased beef imports with higher price-competitiveness against Hanwoo beef made up for the shortage in domestic beef supply. The outlook for beef consumption for the rest of 2016 and into 2017 is not bright due to the following: 1) the Hanwoo beef supply will continue to drop in accordance with the low Hanwoo cattle inventory; 2) Hanwoo prices will be higher as a result of the short supply; and 3) less meat will be consumed due to the anti-graft law. The anti-graft law, which went into effect on September 28, 2016, sets limits for receiving meals at 30,000 won and gifts at 50,000 won. Maximum monetary donations for funerals and weddings are set at 100,000 won. The Ministry of Agriculture, Food and Rural Affairs (MAFRA) conducted a survey on gift prices. None of the Hanwoo gift prices were under 50,000 won, which means that Hanwoo beef, one of the most popular gift items, will be directly impacted by the law. The following table shows the range of gift prices that consumers purchase to provide to contacts and family members.

**Range of gift prices (Unit: Percent)**

Product	Under 50,000 won	50,000-100,000 won	Over 100,000 won
Hanwoo beef	0	100.0	93.0
Ginseng products	8.3	91.7	72.8

Apples	50.0	50.0	2.0
Pears	50.0	50.0	2.0
Flowers	68.8	31.2	3.7
Forestry Products	44.0	56.0	20.0

MAFRA survey data

Although the anti-graft law only applies when the recipient or spouse is a public official, member of the press, teacher, etc., and does not apply to gifts for family members, the number of people affected by the measure is estimated at nearly four million. Consequently, demand for Hanwoo beef gift baskets is expected by MAFRA/KREI to drop by 30 percent.

On the other hand, the shortage of Hanwoo beef supplies will enhance the price-competitiveness of imported U.S. beef. The average Hanwoo beef price jumped to 1.78 times higher than U.S. beef prices in 2016, compared to 1.33 times in 2015. The price gap of U.S. beef against Australian beef and Korea pork prices also shrunk, making U.S. beef prices more price competitive. Based on the USDA-ERS projection that U.S. live steer prices will drop from an average of \$3.27/kilogram in 2015, to \$2.76 per kilogram in 2016, and further to \$2.60 per kilogram in 2017, the price-competitiveness of U.S. beef is projected to increase in 2016 and onwards to 2017, encouraging increased consumption of U.S. beef.

**Comparison of Average Retail Price for Bulgogi Cut Beef and Korean Pork (Won per 100 gram)**

Origin	Quality	2014	2015	2016 1/	Change in price	Price ratio over U.S. chilled beef
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					2015 over 2014	2016 over 2015	2014	2015	2016
Korean Hanwoo	Grade 1	3360	3739	4518	1.11	1.21	1.27	1.33	1.78
	Grade 3	2262	2522	2990	1.11	1.19	0.85	0.90	1.17
U.S. Beef	Chilled	2654	2812	2545	1.06	0.91	1.00	1.00	1.00
	Frozen	1576	1722	1757	1.09	1.02	0.59	0.61	0.69
Australian Beef	Chilled	2125	2206	2229	1.04	1.01	0.80	0.78	0.88
	Frozen	1322	1452	1498	1.10	1.03	0.50	0.52	0.59
Korean Pork		1929	2010	1960	1.04	0.98	0.73	0.71	0.77

Source: National Agricultural Cooperative Federation

1/ Average price for the period January – July 2016.

Exchange rate US\$1 = 1,105 won (As of September 5, 2016)

**Retail Prices for Beef Short Ribs (2014 – 2016)**

Unit: Won per 100 gram

Year	Month	Domestic Hanwoo (chilled)	U.S. A.	Australia
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		#1 Grade	#3 Grade	Chilled	Frozen	Chilled	Frozen
2014	January	4,469	2,700	-	2,340	2,348	1,719
	February	4,471	2,700	-	2,338	2,553	1,759
	March	4,557	2,700	-	2,367	2,405	1,763
	April	4,470	2,700	-	2,254	2,145	1,740
	May	4,403	2,700	-	2,248	2,229	1,739
	June	4,399	2,700	-	2,260	2,313	1,738
	July	4,394	2,700	-	2,260	2,391	1,734
	August	4,454	2,700	-	2,296	2,377	1,734
	September	4,518	2,700	-	2,279	2,292	1,748
	October	4,467	2,700	-	2,338	2,389	1,802
	November	4,456	2,700	-	2,355	2,285	1,846
	December	4,405	2,700	-	2,353	2,498	1,846
2015	January	4,463	2,700	-	2,352	2,313	1,839
	February	4,531	2,700	-	2,363	2,446	1,841
	March	4,487	2,700	-	2,352	2,425	1,824
	April	4,541	2,700	-	2,333	2,218	1,825
	May	4,518	-	-	2,335	2,119	1,832
	June	4,495	-	-	2,335	1,925	1,821
	July	4,541	-	-	2,347	1,977	1,819
	August	4,670	-	1,990	2,323	2,039	1,814
	September	4,898	-	2,400	2,296	2,077	1,819
	October	4,929	-	-	2,275	2,168	1,816
	November	4,941	-	-	2,249	2,166	1,800
	December	4,956	-	-	2,254	2,169	1,800
2016	January	4,991	-	1,518	2,251	2,308	1,800
	February	5,091	-	2,389	2,249	2,448	1,800
	March	4,974	-	1,786	2,249	2,309	1,800
	April	4,957	-	2,003	2,249	1,965	1,797
	May	4,930	-	1,795	2,249	2,220	1,796
	June	4,976	-	1,918	2,257	2,257	1,823
	July	4,988	-	1,781	2,264	2,137	1,850

Source: National Agricultural Cooperative Federation  
Exchange rate US\$1 = 1,105 won (As of September 5, 2016)

### Trade:

The shortage in domestic beef is expected to provide an opportunity for increased beef imports in 2016 and 2017. Also, the increased price competitiveness of U.S. beef, coupled with lower duties coming from the KORUS Free Trade Agreement, will further enhance the competitiveness of U.S. beef in 2016 and 2017. Consequently, Post is revising upward its 2016 beef import estimate and forecasting 2017 imports marginally above this year's estimate. The consumer confidence level in U.S. beef has slowly but gradually increased, as is indicated by the market share of U.S. beef, which has gone up to 39 percent in 2016, compared to a market share of 36 percent in 2014 and 2015.

USMEF is now focusing its efforts on expanding the use of U.S. beef beyond grilled use to soup use in order to further increase the market share. It is also aggressively introducing new cuts for BBQ use to

increase the market size for U.S. beef. There were 24 restaurants participating in the 2016 BBQ week sponsored by USMEF, an increase of three-fold over last year. One of the largest discount stores in Korea has begun to replace Australian beef with U.S. beef, reflecting the increase in consumer confidence in U.S. beef, as well as the shortage in Australian beef caused by drought. USMEF is also introducing Angus steak cuts on TV shopping channels to increase the variety of beef sold through home shopping channels. The specific cuts that USMEF is currently promoting on TV shopping channels are chuck eye roll steak and chuck short ribs. It remains to be seen if the exchange rate of the Korean won against the U.S. dollar will depreciate further, as this would have a dampening effect on U.S. beef demand.

**Korea: Beef Imports** (Thousand dollars and metric tons)

Country	Annual 2014		Annual 2015		Jan. – Jul. 2015	
	Value	Volume	Value	Volume	Value	Volume
Australia	847,850	152,427	974,429	167,788	603,363	110,297
United States	706,371	101,774	749,003	106,492	525,142	83,115
New Zealand	102,705	22,100	78,780	18,230	57,410	14,442
Mexico	515	198	314	144	798	236
Canada	13,140	2,302	7,562	1,305	8,570	1,948
Uruguay	2,062	415	5,534	1,046	4,129	809
Chile	2,486	608	2,491	641	1,573	390
Others	337	86	132	54	200	47
<b>Total</b>	<b>1,675,466</b>	<b>279,910</b>	<b>1,818,245</b>	<b>295,700</b>	<b>1,201,185</b>	<b>211,284</b>

Source: GTA

Product equivalent basis

Includes HS 0201 (fresh/chilled), HS 0202 (frozen), HS 021020 and 160250 (processed beef products)

**Comparison of Beef Import Duties Among Free Trade Agreements**

Commodity		KORUS FTA	Korea – Australia FTA	Korea – Canada FTA
Beef	Content of Free Trade Agreement	Duty phased out in 15 years plus Agricultural Safeguard (Already in	Duty phased out in 15 years plus Agricultural Safeguard (Already in	Duty phased out in 15 years plus Agricultural Safeguard (In its 2nd

		5 <sup>th</sup> year of phase out)	3 <sup>rd</sup> year of phase out)	year of phase out)
	Base duty	40%	40%	40%
	Applied duty in 2016	26.6%	32.0%	34.6%
	Applicable duty in 2017	24.0%	29.3%	32.0%

**Exchange rate of U.S. Dollar Against Korean Won (Unit: Won per one U.S. dollar)**

Month	Year						
	2010	2011	2012	2013	2014	2015	2016
Jan	1,138.82	1,120.07	1,145.85	1,065.35	1,064.75	1,088.86	1,201.67
Feb	1,157.08	1,118.14	1,123.35	1,086.68	1,071.30	1,098.40	1,217.35
Mar	1,137.64	1,122.45	1,125.90	1,102.20	1,070.89	1,112.57	1,184.64
Apr	1,117.11	1,086.84	1,135.55	1,121.83	1,044.55	1,088.66	1,147.43
May	1,163.11	1,083.54	1,154.27	1,110.67	1,024.99	1,091.27	1,174.15
Jun	1,212.33	1,081.27	1,165.51	1,135.21	1,019.36	1,112.20	1,167.69
Jul	1,207.30	1,059.50	1,143.36	1,127.23	1,019.93	1,143.22	1,143.49
Aug	1,179.92	1,073.17	1,131.69	1,116.98	1,025.36	1,179.10	1,111.41
Sep	1,167.01	1,118.61	1,124.78	1,087.35	1,033.24	1,184.76	
Oct	1,123.45	1,155.45	1,106.93	1,066.80	1,060.28	1,148.18	
Nov	1,126.20	1,132.31	1,087.52	1,062.82	1,095.10	1,151.97	
Dec	1,147.55	1,147.45	1,076.97	1,056.67	1,104.33	1,172.24	

Source: Bank of Korea

**Production, Supply and Demand Data Statistics:**

Meat, Beef and Veal Market Begin Year Korea, Republic of	2015		2016		2017	
	Jan-15		Jan-16		Jan-17	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Slaughter (Reference)	1006	1006	957	862	0	845
Beginning Stocks	50	50	13	13	0	13
Production	323	323	308	278	0	272
Total Imports	414	414	455	500	0	510
Total Supply	787	787	776	791	0	795
Total Exports	6	0	5	0	0	0
Human Dom. Consumption	768	774	761	778	0	782
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	768	774	761	778	0	782
Ending Stocks	13	13	10	13	0	13
Total Distribution	787	787	776	791	0	795
(1000 HEAD) ,(1000 MT CWE)						

**Commodities:**

Animal Numbers, Swine

**Production:**

The effect of the industry’s voluntary effort to reduce sow numbers that began in the second half of 2013 has allowed swine carcass prices to increase throughout 2014 and into 2016. As a result, sow numbers have continued to increase since 2010, marking the highest level in June 2016. High sow numbers are expected to continue into 2017 as demand for pork continues to increase due to high domestic beef prices. The amount of compound feed for swine that was sold during the first half of 2016 was 4.3 percent higher than the same period in 2015. The increased sale of swine feed was evenly spread across all ages, from piglets to porkers, and especially for sow feed, which jumped by 27.3 percent. The fact that there have not been any major swine disease outbreaks since May 2015 has also contributed to the increased inventory. Korea did have Foot and Mouth Diseases (FMD) in 19 swine farms since the start of 2016. However, it did not spread widely due to Korea’s effective vaccination and eradication programs.

Farmers increased the size of their swine herd in 2016, taking advantage of high swine carcass prices. Although there was some loss of sows during hot weather in 2016, pork demand was also down due to the hottest summer since 1994, which reduced BBQ demand. According to the Korea Animal Improvement Association, a total of 113,451 head of candidate sows were purchased by swine farms during the first seven months of 2016, compared to 98,543 head during the same period in 2015, a 15 percent increase. Among the candidate sows, 85,509 head were pure-bred and the remaining 27,942 head were hybrid. All told, Post forecasts Korea’s swine heard to be four percent larger by 2017, with a pig crop two percent over 2016. Given the 10-month lag between the time farmers begin to increase the size of their herd up to the point of slaughter, the increased inventory will have a dampening impact on swine carcass prices in 2017.

**Number of Sows and Swine by Age (Thousand head)**

Year	Month	Sow 1/	Number of swine by age				
			Under 2 month	2-4 month	4-6 month	6-8 month	Over 8 month

2010	Dec	976	2966	3020	2875	108	911
2011	Mar	732	2149	2079	2034	85	688
	Jun	793	2272	2217	2003	115	724
	Sep	835	2416	2340	2155	117	756
	Dec	903	2586	2457	2188	119	821
2012	Mar	950	2772	2698	2376	144	862
	Jun	969	2921	2940	2537	144	890
	Sep	962	3075	3077	2770	118	897
	Dec	962	3073	3076	2749	113	904
2013	Mar	973	3089	3109	2882	112	914
	Jun	952	3116	3161	2904	98	902
	Sep	897	3078	3196	2972	88	854
	Dec	895	2940	3130	2900	99	844
2014	Mar	910	2921	3000	2805	112	859
	Jun	925	2934	2980	2789	113	864
	Sep	925	3011	3102	2876	115	861
	Dec	937	3043	3108	2949	120	869
2015	Mar	940	3094	2992	2898	110	877
	Jun	948	3116	3085	2827	111	879
	Sep	943	3155	3191	2993	118	876
	Dec	958	3110	3128	2957	105	886
2016	Mar	968	3210	3183	2922	105	896
	Jun	981	3238	3124	2980	108	905

Source: Korea Statistic Administration

1/ Swine over eight months are sows and part of the swine herd that are 6-8 months old are sows.

2/ Sow numbers are based on the first day of each month and do not match with PS&D sow numbers, which are based on Dec, 31.

### Monthly Swine Slaughter

Year	Month	Slaughter number (heads)		
		Total	Gilt/Sows	Boar
2014	Jan	1,414,842	699,807	715,035
	Feb	1,337,191	660,793	676,398
	Mar	1,322,833	655,912	666,921
	Apr	1,380,395	686,169	694,226

	May	1,252,662	622,815	629,847
	Jun	1,133,590	563,502	570,088
	Jul	1,228,387	610,187	618,200
	Aug	1,253,412	622,084	631,328
	Sep	1,220,100	602,212	617,888
	Oct	1,422,951	700,942	722,009
	Nov	1,292,060	642,906	649,154
	Dec	1,428,039	731,003	697,036
	<b>Total</b>	<b>15,686,462</b>	<b>7,798,332</b>	<b>7,888,130</b>
2015	Jan	1,366,402	696,574	669,828
	Feb	1,165,598	593,112	572,486
	Mar	1,422,262	710,240	712,022
	Apr	1,372,147	691,010	681,137
	May	1,188,375	600,116	588,259
	Jun	1,225,876	628,910	596,966
	Jul	1,287,986	655,585	632,401
	Aug	1,173,489	600,566	572,923
	Sep	1,277,886	653,502	624,384
	Oct	1,508,440	763,126	745,314
	Nov	1,430,006	726,830	703,176
	Dec	1,488,131	752,455	735,676
	<b>Total</b>	<b>15,906,598</b>	<b>8,072,026</b>	<b>7,834,572</b>
2016	Jan	1,411,936	709,898	702,038
	Feb	1,299,040	656,112	642,928
	Mar	1,510,625	763,038	747,587
	Apr	1,353,123	687,036	666,087
	May	1,350,794	688,440	662,354
	Jun	1,246,641	637,255	609,386
	<b>Total</b>	<b>8,172,159</b>	<b>4,141,779</b>	<b>4,030,380</b>

Source: NACF

### Swine Carcass Prices

Month	Year	2011	2012	2013	2014	2015	2016
		Won per kilogram					
January		6342	4725	3032	3629	4635	4540
February		6372	4451	3044	3994	4756	4062
March		6565	4401	3061	4959	4900	4614

April	5786	4309	3778	4991	5233	4906
May	7200	4873	3857	5301	6145	5338
June	7675	4971	4679	6173	6016	6095
July	6572	4600	4369	5524	6062	5164
August	6322	4356	4577	5571	5895	
September	5384	3561	4228	5269	5187	
October	4495	2992	3272	4922	4337	
November	5619	3814	4110	5787	5062	
December	6336	3485	4078	5232	4788	

Source: NACF

Exchange rate US\$1 = 1,105 won (As of September 5, 2016)

### Production, Supply and Demand Data Statistics:

Animal Numbers, Swine Market Begin Year	2015		2016		2017	
	Jan-15		Jan-16		Jan-17	
Korea, Republic of	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Total Beginning Stocks	10090	10090	10187	10187	0	10600
Sow Beginning Stocks	937	937	958	958	0	980
Production (Pig Crop)	17600	17600	17995	18011	0	18400
Total Imports	2	2	2	2	0	2
Total Supply	27692	27692	28184	28200	0	29002
Total Exports	0	0	0	0	0	0
Sow Slaughter	0	0	0	0	0	0
Other Slaughter	15907	15907	16200	16100	0	16502
Total Slaughter	15907	15907	16200	16100	0	16502
Loss	1598	1598	1484	1500	0	1500
Ending Inventories	10187	10187	10500	10600	0	11000
Total Distribution	27692	27692	28184	28200	0	29002
(1000 HEAD)						

### Commodities:

Meat, Swine

### Production:

As total swine inventory continues to rise in 2016 and into 2017, total swine slaughter is projected to increase through 2017. Total 2016 slaughter is projected based on six months of actual slaughter and the number of hogs graded for slaughter in July 2016. The estimate shows growth compared to 2015 but comes in slightly under USDA's official projection. Pork production is projected to increase further in 2017, due to increased swine inventory that results in a slaughter forecast two percent above Post's

new 2016 estimate. Post's 2016 production estimate was revised down based on the revised slaughter number, though still one percent over the 2015 production level.

**Consumption:**

The increased price-competitiveness of Korean pork compared to Hanwoo beef and other protein, coupled with increased supply, is projected to increase pork consumption by over three percent in 2016. This trend is expected to continue in 2017, as the beef supply becomes tighter and the overall economic environment declines, which will induce consumers to seek lower-priced protein sources. Although the ratio of Korean pork prices over chilled U.S. beef prices increased from 0.71 in 2015 to 0.77 in 2016, it is still price competitive as its price has come down while all other meat prices, other than U.S. chilled beef, have gone up in 2016. During the same period, lower grade Korean Hanwoo beef prices jumped from 1.25 times to 1.53 times over Korean pork. The price of chilled Australian beef over Korean pork prices also increased from 1.10 times to 1.13 times during the same period.

**Trade:**

Post forecasts 2017 pork imports will edge higher, somewhat restrained by growing domestic production. Despite domestic production growth, imports will still be needed to fill the gap due to relative price-competitiveness in the protein complex, as highlighted above. Pork imports in 2016 are forecast to increase slightly based on the first seven months of import data despite the increase in domestic production, as the EU will continue to push their oversupply of pork into Korea. USMEF is trying to diversify the type of pork exported to Korea, such as Home Meal Replacement (HMR) items made of beef and pork. It will also promote pork imports for processing by providing technical support to Korean meat processing companies. This will allow Korean meat processors to use more U.S. pork in producing domestic processed meat products like sausages. The following table shows that U.S. pork prices will continue to be price-competitive against the EU pork price in 2016, largely due to lower FTA duties.

**Price competitiveness of U.S. Pork against EU Pork**

Category	Country	Unit	2015	2016	2020	2025
Exchange rate		Won / US dollar	1,130	1,159	1,168	1,178
Import price	U.S.A.	U.S. dollar / Kg.	3.08	3.03	3.16	3.44
	EU		2.86	2.81	2.94	3.20
	Other		2.25	2.15	2.21	2.41
Import duty	U.S.A.	Percent	5.0	0.0	0.0	0.0
	EU		14.0	11.0	2.0	0.0
	Other		20.8	16.8	3.7	3.7

Purchase price by wholesaler	U.S.A.	Won / Kg.	3,999	3,865	4,065	4,460
	EU		3,993	3,960	3,853	4,142
	Other		3,321	3,165	2,940	3,226

Source: KREI

### Korea: Pork Imports

Unit: Thousand dollars and Metric Tons

Country	Annual 2014		Annual 2015		Jan. – Jul. 2016	
	Value	Volume	Value	Volume	Value	Volume
United States	372,590	111,706	428,269	139,753	238,893	92,085
Canada	77,144	34,854	86,332	41,083	46,203	20,421
Chile	93,293	25,169	122,832	31,560	65,694	19,241
Austria	60,639	16,739	61,313	19,301	28,545	9,754
France	43,853	10,529	37,679	9,464	15,003	4,130
Netherlands	40,118	10,027	49,011	14,854	29,221	9,901
Spain	113,247	38,136	164,729	62,966	96,670	40,797
Belgium	37,668	10,562	36,483	11,645	23,339	7,926
Germany	217,147	65,512	231,934	80,816	126,402	48,047
Denmark	30,735	11,843	59,127	20,761	23,514	9,542
Hungary	18,471	6,089	14,450	4,297	6,903	2,187
Poland	18,680	5,826	74	22	0	0
Mexico	34,356	8,880	34,087	10,158	23,430	7,048
Others	35,910	13,011	34,780	14,047	14,588	6,892
Total	1,193,851	368,883	1,361,100	460,727	738,405	277,971

Source: GTA

Product Weight Equivalent basis

Includes: HS 020311, 020312, 020319 (fresh/chilled), HS 020321, 020322, 020329 (frozen), 021011, 021012, 021019, 160241, 160242, and 160249 (processed pork products)

### Production, Supply and Demand Data Statistics:

Meat, Swine Market Begin Year Korea, Republic of	2015		2016		2017	
	Jan-15		Jan-16		Jan-17	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Slaughter (Reference)	15907	15907	16200	16100	0	16502
Beginning Stocks	118	118	118	118	0	96
Production	1217	1217	1240	1232	0	1263
Total Imports	599	599	610	620	0	640
Total Supply	1934	1934	1968	1970	0	1999

<b>Total Exports</b>	3	1	3	1	0	2
<b>Human Dom. Consumption</b>	1813	1815	1870	1873	0	1900
<b>Other Use, Losses</b>	0	0	0	0	0	0
<b>Total Dom. Consumption</b>	1813	1815	1870	1873	0	1900
<b>Ending Stocks</b>	118	118	95	96	0	97
<b>Total Distribution</b>	1934	1934	1968	1970	0	1999
(1000 HEAD) ,(1000 MT CWE)						