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## **Korea - Republic of**

### **Livestock and Products Semi-annual**

### **Semi-annual Livestock and Products Report**

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**Report Highlights:**

In 2015, consumption of domestic beef declined while imports of more competitively priced beef imports increased. A shortage in domestic beef production in 2016 is expected to provide an opportunity for increased beef imports.

Domestic pork production increased in 2015 and is projected to increase further in 2016. Likewise, pork consumption grew over 9 percent and is expected to continue in 2016. Pork imports increased as EU countries continued to supply pork they were not able to sell to Russia. In 2016, imports are expected to drop slightly but still remain at a high level.

**Commodities:**  
Animal Numbers, Cattle

**Production:**

Total Korean beef cattle inventory continues to drop gradually as many farmers with small-sized operations, consisting mostly of breeding farms, give up raising cattle. The total number of farm households dropped 9.1 percent (9,477 households) in 2015, due to the retirement of many aged farmers and government direct payments to marginal income farmers as an incentive to quit farming. Also, despite the current high cattle prices, farmers are very hesitant to expand their herd size given uncertainty of cattle prices in 3-4 years, when calves being bred now will be old enough for slaughter. The following factors reflect this uncertainty: 1) Hanwoo semen sales were the same in 2015 compared with the 2014 level; and 2) The percent of cows slaughtered dropped slightly from 48.9 percent in 2014 to 48.7 percent in 2015. These factors reflect the fact that farmers will hold onto their cattle herd to replenish stocks until they become more confident of a future increase in live cattle prices. A gloomy economic forecast for the near future has resulted in the comparatively more expensive Hanwoo beef being less competitive against imported beef. It will take two to three years before the total cattle inventory can begin to climb upwards due to the uncertainty of Hanwoo cattle prices, hesitancy to increase herd size, low beef-cow beginning stocks, and the 10-month time lag for increased semen sales to be reflected in calf production numbers. The ratio of farmers' intentions to maintain the current herd size in 2015 was much higher than the past 2013-2014 period, supporting the fact that farmers are currently in a wait-and-see mode.

Calf crop numbers in 2015 have been increased to reflect increased semen sales in 2014 of 7.4 percent over the 2013 sales level. The slight increase in semen sales in 2015 has been reflected in 2016 calf crop numbers. Dairy cow numbers are gradually dropping as farmers liquidate low-performing dairy cows due to the oversupply in milk production in Korea. As the birth rate of Korea continues to drop to 1.24 children per married couple in 2015, milk consumption has also dropped, creating an oversupply of milk production.

**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

Source: KREI

### Hanwoo Semen Sales

(Unit: 000 straws)

Month	2011 1/	2012	2013	2014	2015	Change 2/
Jan	0	105	102	121	120	99.2
Feb	0	113	98	108	115	106.5
Mar	282	169	133	129	136	105.4
Apr	211	175	150	151	148	98.0
May	249	179	166	159	138	86.8
Jun	276	217	184	188	222	118.1
Jul	256	238	216	206	229	111.2
Aug	225	200	157	197	162	82.2
Sep	197	156	162	190	202	106.3
Oct	177	139	153	163	162	99.4
Nov	137	113	125	152	153	100.7
Dec	105	111	131	145	140	96.6
<b>Total</b>	<b>2,115</b>	<b>1,915</b>	<b>1,777</b>	<b>1,909</b>	<b>1,927</b>	<b>100.9</b>

Source: GS&J and KREI

Note:

1/ The jump in semen sales in March 2011 is due to a rush to inseminate cows after being banned from moving animal related products, due to the FMD outbreak in Nov. 2010.

2/ The change is a comparison of 2015 sales over the same month in 2014.

### Monthly Cattle Slaughter Trend

Year	Month	Cow		Bulls/steers		Total	
		Heads	Percent of total	Heads	Percent of total	Sub-total	Percent of annual
2013	Jan	70,327	52.96	62,454	47.04	132,781	12.39
	Feb	40,453	58.49	28,713	41.51	69,166	6.46
	Mar	37,233	53.54	32,308	46.46	69,541	6.49
	Apr	44,242	53.49	38,476	46.51	82,718	7.72
	May	45,534	55.17	36,998	44.83	82,532	7.70
	Jun	37,098	53.16	32,693	46.84	69,791	6.51
	Jul	46,680	55.14	37,981	44.86	84,661	7.90
	Aug	51,245	51.31	48,638	48.69	99,883	9.32
	Sep	59,667	54.97	48,871	45.03	108,538	10.13
	Oct	44,282	49.54	45,103	50.46	89,385	8.34
	Nov	41,297	49.98	41,322	50.02	82,619	7.71
	Dec	47,063	47.20	52,649	52.80	99,712	9.31
	<b>Total</b>	<b>565,121</b>	<b>52.75</b>	<b>506,206</b>	<b>47.25</b>	<b>1,071,327</b>	<b>100.00</b>
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>

Source: Quarantine Inspection Agency

According to data released by the Korea Institute of Animal Products Quality Evaluation, farmers made a profit on over 92 percent of all cattle slaughtered in 2014 and 2015. This trend is expected to continue in 2016 due to high carcass prices coming from lower slaughter numbers; but, as the cattle supply rises in two to three years, farmers producing lower grade (Grade 2 and lower) are at risk of losing money again. The major factors attributed to this increased profit rate are a higher live cattle price and increased consumer demand for leaner cuts.

#### **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
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

a/ Estimate

Source: KREI and Korea Institute of Animal Products Quality Evaluation

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

Month	Calf						Cow			Steer		
	Female			Male								
	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Jan	787	1278	1664	1552	1968	1997	3533	4135	4571	4216	4228	4290
Feb	869	1584	1490	1588	1903	2066	3518	4233	4571	4121	4180	4020
Mar	707	1067	1769	1500	1828	2251	3492	4130	4802	3905	4091	4468
Apr	656	1236	1934	1660	2100	2582	3393	4112	4682	3680	4047	4163
May	852	1189	2156	1763	2472	2633	3203	4082	4700	3582	3932	4088
Jun	883	1269	2199	1707	2527	2870	3190	4186	4748	3539	4107	4325
Jul	817	1526	2423	1643	2687	2902	3202	4430	5107	3508	4216	4880
Aug	769	1648	2461	1779	2642	3139	3379	4371	5543	3698	4105	5217
Sep	935	1626	2500	1995	2678	3359	3529	4542	5599	3853	4194	5459
Oct	1022	1731	2526	1807	2329	3120	3772	4651	5882	4190	4289	5696
Nov	1189	1454	2182	1874	2260	2731	4116	4519	5810	4407	4277	5704
Dec	1212	1442	2227	1879	2151	2896	4151	4581	5842	4378	4564	5799

Source: National Agricultural Cooperative Federation

Exchange rate US\$1 = 1,239 won (As of February 29, 2016)

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

Animal Numbers, Cattle	2014		2015		2016	
	Jan 2014		Jan 2015		Jan 2016	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Market Begin Year						
Korea, Republic of						
<b>Total Cattle Beg. Stks</b>	3342	3342	3190	3190	3058	3088
<b>Dairy Cows Beg. Stocks</b>	304	304	305	305	305	293
<b>Beef Cows Beg. Stocks</b>	1166	1166	1123	1123	1100	1099
<b>Production (Calf Crop)</b>	900	900	865	914	860	917
<b>Total Imports</b>	0	0	0	0	0	0
<b>Total Supply</b>	4242	4242	4055	4104	3918	4005
<b>Total Exports</b>	0	0	0	0	0	0
<b>Cow Slaughter</b>	509	509	476	490	450	467
<b>Calf Slaughter</b>	0	0	0	0	0	0
<b>Other Slaughter</b>	533	533	511	516	510	490
<b>Total Slaughter</b>	1042	1042	987	1006	960	957
<b>Loss</b>	10	10	10	10	10	10
<b>Ending Inventories</b>	3190	3190	3058	3088	2948	3038
<b>Total Distribution</b>	4242	4242	4055	4104	3918	4005
(1000 HEAD)						

## Commodities:

Meat, Beef and Veal

## Production:

In 2014 a lower cattle inventory led to a lower slaughter number and resulted in a drop in beef production. Since August 2014, farmers have begun to inseminate more cows to increase their inventory and have begun to hold onto their cow stocks, but it will take two to three years to impact total herd size, given gestation time and the time it takes to raise calves for slaughter. Consequently, beef production is expected to continue to drop in 2016. The number of cattle over 1-year old in December 2015 was 1,890,000 head, compared to 1,975,000 head in December 2014. The decrease in the number of cattle in this age group will result in a lower number of cattle put up for slaughter in 2016.

## Consumption:

High domestic Hanwoo beef prices in 2015 coupled with low production resulted in reduced consumption of domestic beef. Increased beef imports made up for the shortage in domestic beef supply. The outlook for beef consumption in 2016 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; 3) less meat will be consumed due to health concerns; and, 4) the economy will remain sluggish in conjunction with the worldwide economic downturn. The Korea Institute of Finance is projecting that the unemployment rate for the first half of 2016 will increase to 3.7 percent from 3.6 percent in 2015. Additionally, a dampening of real estate prices and increase in household loans are preventing consumption from picking up in 2016.

## Reason why consumers reduced beef consumption

Unit: Percent

Reason	Percent
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Reduced meat consumption for health reasons	36.5
High beef prices	33.7
Reduction in income due to sluggish economy	11.6
Concern over livestock diseases	7.6
Concern over false labeling	4.8
Other	5.6
Total	100.0

Source: KREI

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 was 1.33 times higher than U.S. beef prices in 2015, compared to 1.27 times in 2014. Based on the USDA-ERS projection that U.S. live steer prices will drop from an average of \$3.27/kilogram in 2015 to \$2.91~\$3.13 per kilogram in 2016, the price competitiveness of U.S. beef is projected to increase in 2016, 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	2013	2014	2015	Change in price		Price ratio over U.S. chilled beef		
					2014 over 2013	2015 over 2014	2013	2014	2015
Korean Hanwoo	Grade 1	3109	3360	3739	1.08	1.11	1.33	1.27	1.33
	Grade 3	2154	2262	2522	1.05	1.11	0.92	0.85	0.90
U.S. Beef	Chilled	2334	2654	2812	1.14	1.06	1.00	1.00	1.00
	Frozen	1487	1576	1722	1.06	1.09	0.64	0.59	0.61
Australian Beef	Chilled	1903	2125	2206	1.12	1.04	0.82	0.80	0.78
	Frozen	1249	1322	1452	1.06	1.10	0.52	0.50	0.52
Korean Pork		1609	1929	2010	1.20	1.04	0.69	0.73	0.71

Source: National Agricultural Cooperative Federation

Exchange rate US\$1 = 1,239 won (As of February 29, 2016)

It is interesting to see that the consumer purchase intentions, which indicate a willingness to pay a premium for Hanwoo beef tenderloins, were actually much higher than the actual price difference in Bulgogi cut beef. However, as can be seen from the following table, consumers are less willing to pay a premium for Hanwoo beef over imported beef. This, in conjunction with the gradual increase in market share for U.S. beef imports, is promising for the future of U.S. beef consumption.

**Trend in consumers purchase intentions to pay for Hanwoo tenderloins over imported tenderloin**

Description	Tenderloins			
	2013	2014	2015	2016

Hanwoo/U.S. beef	3.07	2.86	2.82	2.73
Hanwoo/Australian beef	2.67	2.53	2.35	2.33
Australian beef/U.S. beef	1.15	1.13	1.20	1.17

Source: KREI



**Retail Prices for Beef Short Ribs (2013 – 2015)**

Unit: Won per 100 gram

Year	Month	Domestic Hanwoo (chilled)		U.S. A.		Australia	
		#1 Grade	#3 Grade	Chilled	Frozen	Chilled	Frozen
2013	January	4,245	2,400	2,780	1,760	1,850	1,448
	February	4,189	2,400	2,780	1,787	2,208	1,493
	March	4,149	2,400	-	1,810	1,915	1,513
	April	4,054	2,400	-	1,871	1,911	1,533
	May	4,116	2,400	-	1,891	1,819	1,518
	June	4,077	2,400	-	1,911	1,829	1,520
	July	4,114	2,400	-	1,996	1,969	1,539
	August	4,146	2,400	-	2,017	1,928	1,574
	September	4,245	2,400	-	2,125	2,165	1,608
	October	4,161	2,486	-	2,213	2,126	1,660
	November	4,330	2,700	-	2,260	2,048	1,643
	December	4,322	2,700	-	2,299	2,036	1,654
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

Source: National Agricultural Cooperative Federation

Exchange rate US\$1 = 1,239 won (As of February 29, 2016)

**Trade:**

The shortage in domestic beef production is expected to provide an opportunity for increased beef imports in 2016. Also, the increased price competitiveness of imported beef, coupled with lower duties coming from Free Trade Agreements with major beef trading nations, will further enhance the competitiveness of imported beef in 2016. The consumer confidence level in U.S. beef has been stable, as is indicated by the market share of U.S. beef, which has remained at 36 percent since 2014. 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 of U.S. beef. It is also aggressively introducing new cuts for BBQ use to increase the market size for U.S. beef. 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.

### Price competitiveness of U.S. Beef Against Australian Beef

Category	Country	Unit	2015	2016	2017	2020	2025
Exchange rate		Won / US dollar	1,130	1,159	1,160	1,168	1,178
Import price	U.S.A.	U.S. dollar / Kg.	7.19	7.06	6.93	6.96	7.78
	Australia		5.83	5.73	5.62	5.65	6.31
Import duty	U.S.A.	Percent	29.3	26.6	24.0	16.0	2.7
	Australia		34.7	32.0	29.3	21.3	8.0
Purchase price by wholesaler	U.S.A.	Won / Kg.	11,313	11,193	10,765	10,250	10,325
	Australia		9,527	9,432	9,079	8,665	8,771

Source: KREI

### Korea: Beef Imports

(Thousand dollars and metric tons)

Country	Annual 2013		Annual 2014		Annual 2015	
	Value	Volume	Value	Volume	Value	Volume
Australia	758,386	147,198	847,850	152,427	974,429	167,788
United States	529,351	92,158	706,371	101,774	749,003	106,492
New Zealand	96,010	25,343	102,705	22,100	78,780	18,230
Mexico	669	232	515	198	314	144
Canada	9,748	2,147	13,140	2,302	7,562	1,305
Others	2,566	660	4,885	1,109	8,157	1,741
<b>Total</b>	<b>1,396,730</b>	<b>267,738</b>	<b>1,675,466</b>	<b>279,910</b>	<b>1,818,245</b>	<b>295,700</b>

Source: KITA

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 5 <sup>th</sup> year of phase out)	Duty phased out in 15 years plus Agricultural Safeguard (Already in 3 <sup>rd</sup> year of phase out)	Duty phased out in 15 years plus Agricultural Safeguard (In its 2nd year of phase out)
	Base duty	40%	40%	40%
	Applied duty in 2015	26.6%	32.0%	34.6%

**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	
Apr	1,117.11	1,086.84	1,135.55	1,121.83	1,044.55	1,088.66	
May	1,163.11	1,083.54	1,154.27	1,110.67	1,024.99	1,091.27	
Jun	1,212.33	1,081.27	1,165.51	1,135.21	1,019.36	1,112.20	
Jul	1,207.30	1,059.50	1,143.36	1,127.23	1,019.93	1,143.22	
Aug	1,179.92	1,073.17	1,131.69	1,116.98	1,025.36	1,179.10	
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	2014		2015		2016	
	Jan 2014		Jan 2015		Jan 2016	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Slaughter (Reference)</b>	1042	1042	987	1006	960	957
<b>Beginning Stocks</b>	80	80	59	50	21	13
<b>Production</b>	335	335	317	323	310	308
<b>Total Imports</b>	392	392	400	414	454	456
<b>Total Supply</b>	807	807	776	787	785	777
<b>Total Exports</b>	3	0	5	0	5	0
<b>Human Dom. Consumption</b>	745	757	750	774	755	767
<b>Other Use, Losses</b>	0	0	0	0	0	0
<b>Total Dom. Consumption</b>	745	757	750	774	755	767
<b>Ending Stocks</b>	59	50	21	13	25	10
<b>Total Distribution</b>	807	807	776	787	785	777

(1000 HEAD) ,(1000 MT CWE)

**Commodities:**

Animal Numbers, Swine

## Production:

The effect from reducing sow numbers that began in the second half of 2013 has allowed for swine carcass prices to increase in 2014 and into 2015. A PED outbreak during the first half of 2014 coupled with a Foot and Mouth Disease (FMD) outbreak in December of 2014 that continued until May 2015 has resulted in the culling of around 170,000 head of swine under the FMD eradication program. Farmers have increased the size of their swine herds in 2015 to enjoy the high swine carcass prices. According to the Korea Animal Improvement Association, a total of 178,400 head of candidate sows were purchased by swine farms in 2015, a 20.2 percent increase over the level in 2014. These efforts to expand herd size have resulted in an increase of 95,000 head for swine less than 6-months of age in December 2015, compared with the same period in December 2014. This increase in young swine numbers, along with an increase in sow numbers of 21,000 head during the same period, will result in an increase in total herd size in 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 2016, which has already begun to drop from December 2015.

Korea has already had two cases of FMD in swine farms since coming into 2016. Although, it is not spreading massively due to the vaccination program and Korea's eradication program, it remains to be seen how much the FMD outbreak will have an impact on total herd size in 2016.

The following table reflects the intention of farmers to gradually increase their herd size in 2016, using March, 2015 as the base month.

### Farmer's Intention for Future Herd Size

Description	Sow numbers		Total herd size	
	March	June	March	June
2016 (A)	103.6	104.1	105.5	106.3
2015 (B)	100.0	101.1	100.0	101.8
Change (A)/(B)	3.6	3.0	5.5	4.4

Source: KREI

### Number of Sows and Swine by Age (Thousand heads)

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

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/ The 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
	Jan	1,484,824	787,283	697,541

2013	Feb	1,255,499	665,199	590,300
	Mar	1,370,818	722,826	647,992
	Apr	1,605,656	727,386	878,270
	May	1,340,713	708,506	632,207
	Jun	1,132,980	599,761	533,219
	Jul	1,259,886	665,878	594,008
	Aug	1,242,801	668,091	574,710
	Sep	1,212,485	648,494	563,991
	Oct	1,570,333	832,306	738,027
	Nov	1,463,834	739,722	724,112
	Dec	1,419,339	704,042	715,297
	<b>Total</b>	<b>16,359,168</b>	<b>8,469,494</b>	<b>7,889,674</b>
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>

Source: NACF

### Swine Carcass Prices

Month \ Year	2010	2011	2012	2013	2014	2015
	Won per kilogram					
January	3859	6342	4725	3032	3629	4635
February	3920	6372	4451	3044	3994	4756
March	3989	6565	4401	3061	4959	4900
April	4325	5786	4309	3778	4991	5233
May	4272	7200	4873	3857	5301	6145
June	4647	7675	4971	4679	6173	6016
July	4663	6572	4600	4369	5524	6062
August	4802	6322	4356	4577	5571	5895
September	4535	5384	3561	4228	5269	5187
October	3817	4495	2992	3272	4922	4337
November	3963	5619	3814	4110	5787	5062
December	4344	6336	3485	4078	5232	4788

Source: NACF

Exchange rate US\$1 = 1,239 won (As of February 29, 2016)

### Production, Supply and Demand Data Statistics:

Animal Numbers, Swine Market Begin Year	2014		2015		2016	
	Jan 2014		Jan 2015		Jan 2016	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Korea, Republic of						
<b>Total Beginning Stocks</b>	9912	9912	10090	10090	10200	10187
<b>Sow Beginning Stocks</b>	895	895	937	937	950	958
<b>Production (Pig Crop)</b>	16812	16812	17100	17600	17350	17995
<b>Total Imports</b>	2	2	2	2	2	2
<b>Total Supply</b>	26726	26726	27192	27692	27552	28184
<b>Total Exports</b>	0	0	0	0	0	0
<b>Sow Slaughter</b>	0	0	0	0	0	0
<b>Other Slaughter</b>	15686	15686	16000	15907	16250	16200
<b>Total Slaughter</b>	15686	15686	16000	15907	16250	16200
<b>Loss</b>	950	950	992	1598	1002	1484
<b>Ending Inventories</b>	10090	10090	10200	10187	10300	10500
<b>Total Distribution</b>	26726	26726	27192	27692	27552	28184
(1000 HEAD)						

### Commodities:

Meat, Swine

### Production:

As total swine inventory continues to rise in 2015 and into 2016, total swine slaughter has increased 1.4 percent in 2015 over the previous year's level. As a result, pork production in 2015 also increased by 17,000 MT over the 2014 level. Pork production is projected to increase further in 2016 due to increased swine inventory. However, as swine carcass prices have begun to come down as of December 2015 due to increased supply as well as lower consumption in restaurants due to the economic slowdown, it remains to be seen if farmers will continue to increase the pork supply throughout 2016.

### **Consumption:**

Pork consumption in 2015 increased by over 9 percent due to higher domestic production and increased price competitiveness over Hanwoo beef and imported beef. The ratio of Korean pork prices over chilled U.S. beef prices dropped from 0.73 in 2014 to 0.71 in 2015. During the same period, Korean Hanwoo beef prices jumped from 1.27 times to 1.33 times over Korean pork. Price competitiveness over both domestic and imported beef, coupled with increased supply, allowed for pork consumption to go up over 9 percent in 2015. This increase trend in pork consumption is expected to continue in 2016, as beef supply becomes tighter and the overall economic environment declines, which will induce consumers to seek a lower priced protein source.

As can be seen from the following table, Korean consumers are turning more and more towards imported pork as a substitute for domestic pork. Whereas preferences for substituting domestic pork for domestic meats (chicken, Hanwoo beef and duck meat) have all declined, consumers have increased their preference for imported beef and pork.

### **Consumers' Preference for Pork Substitute Meat**

Domestic Pork			Imported Pork		
Type of substitute meat	Percent		Type of substitute meat	Percent	
	2014	2015		2014	2015
Chicken	28.2	24.0	Domestic pork	29.0	30.5
Hanwoo beef	25.1	22.8	Chicken	23.9	21.0
Duck meat	20.5	17.4	Hanwoo beef	19.3	15.6
Imported beef	14.0	16.8	Duck meat	14.8	14.1
Imported pork	9.7	13.1	Imported beef	11.4	13.7
Others	2.5	6.0	Others	1.5	5.0

Source: KREI

### **Trade:**

Pork imports increased in 2015 despite a slight increase in domestic production as EU countries continued to supply pork they were not able to sell to Russia. Imports from major EU countries, such as Germany, Spain and Denmark have increased over 42 percent in 2015 over the 2014 level. As domestic pork production increases in 2016, imports are expected to drop slightly but still remain at a high level as the EU will continue to push their oversupply of pork into Korea. Although the most popular pork



cut in Korea is pork belly, the supply for this cut in the United States is tight and prices are high. Therefore, USMEF will put effort into marketing in order to increase pork imports for processing use 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, such as sausages, etc. The following table shows that U.S. pork prices will be more 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 2013		Annual 2014		Annual 2015	
	Value	Volume	Value	Volume	Value	Volume
United States	289,880	103,899	372,590	111,706	428,269	139,753
Canada	72,839	39,676	77,144	34,854	86,332	41,083
Chile	101,751	30,367	93,293	25,169	122,832	31,560
Austria	37,999	10,632	60,639	16,739	61,313	19,301

France	29,796	7,262	43,853	10,529	37,679	9,464
Netherlands	37,133	9,191	40,118	10,027	49,011	14,854
Spain	42,267	18,446	113,247	38,136	164,729	62,966
Belgium	28,815	8,213	37,668	10,562	36,483	11,645
Germany	112,928	32,338	217,147	65,512	231,934	80,816
Denmark	29,394	11,564	30,735	11,843	59,127	20,761
Hungary	8,691	3,216	18,471	6,089	14,450	4,297
Poland	28,480	9,818	18,680	5,826	74	22
Mexico	19,651	7,067	34,356	8,880	34,087	10,158
Others	15,319	6,908	35,910	13,011	34,780	14,047
<b>Total</b>	<b>854,943</b>	<b>298,597</b>	<b>1,193,851</b>	<b>368,883</b>	<b>1,361,100</b>	<b>460,727</b>

Source: KITA

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	2014		2015		2016	
	Jan 2014		Jan 2015		Jan 2016	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Market Begin Year						
Korea, Republic of						
<b>Slaughter (Reference)</b>	15686	15686	16000	15907	16250	16200
<b>Beginning Stocks</b>	100	100	41	118	29	118
<b>Production</b>	1200	1200	1210	1217	1230	1240
<b>Total Imports</b>	480	480	600	599	625	590
<b>Total Supply</b>	1780	1780	1851	1934	1884	1948
<b>Total Exports</b>	2	1	2	1	2	1
<b>Human Dom. Consumption</b>	1737	1661	1820	1815	1857	1852
<b>Other Use, Losses</b>	0	0	0	0	0	0
<b>Total Dom. Consumption</b>	1737	1661	1820	1815	1857	1852
<b>Ending Stocks</b>	41	118	29	118	25	95
<b>Total Distribution</b>	1780	1780	1851	1934	1884	1948

(1000 HEAD) ,(1000 MT CWE)