

DOMESTIC DAIRY SEMEN SALES (1)

UNITS OF SEMEN

BREED	2016	2015	%+/-
HOLSTEIN	18,930,168	19,883,218	-4.79%
JERSEY	2,947,587	3,050,136	-3.36%
HOLSTEIN-RED CARRIER	185,650	302,910	-38.71%
R&W/RED HOLSTEIN	183,308	240,740	-23.86%
BROWN SWISS	109,660	103,232	6.23%
AYRSHIRE	39,569	41,217	-4.00%
GUERNSEY	29,326	30,093	-2.55%
MILKING SHORTHORN	27,112	21,951	23.51%
OTHER DAIRY	21,218	13,403	58.31%
TOTAL	<u>22,473,598</u>	<u>23,686,900</u>	<u>-5.12%</u>

DAIRY SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2016	2015	%+/-
NORWEGIAN RED	116,204	100,616	15.49%
MONTBELIARDE	37,177	32,096	15.83%
SWEDISH RED	30,802	26,677	15.46%
HOLSTEIN	15,611	44,028	-64.54%
MILKING SHORTHORN	5,110	2,379	114.80%
JERSEY	1,857	3,764	-50.66%
HOLSTEIN-RED CARRIER	164	335	-51.04%
R&W/RED HOLSTEIN	141	764	-81.54%
OTHER DAIRY	10	132	-92.42%
TOTAL	<u>207,076</u>	<u>210,791</u>	<u>-1.76%</u>

CUSTOM FROZEN DAIRY SEMEN (1)

UNITS OF SEMEN

BREED	2016	2015	%+/-
HOLSTEIN	1,543,999	1,463,620	5.49%
JERSEY	125,053	193,771	-35.46%
BROWN SWISS	117,956	131,189	-10.09%
AYRSHIRE	22,423	19,359	15.83%
R&W/RED HOLSTEIN	12,183	2,489	389.47%
GUERNSEY	9,852	12,113	-18.67%
SWEDISH RED	9,163	0	0.00%
HOLSTEIN-RED CARRIER	8,897	236,296	-96.23%
MILKING SHORTHORN	2,304	6,187	-62.76%
OTHER DAIRY	1,879	13,020	-85.57%
TOTAL	<u>1,853,709</u>	<u>2,078,044</u>	<u>-10.80%</u>

DAIRY SEMEN EXPORT SALES (1)

UNITS OF SEMEN

BREED	2016	2015	%+/-
HOLSTEIN	17,450,765	16,862,583	3.49%
JERSEY	1,000,561	1,196,773	-16.40%
BROWN SWISS	213,167	210,172	1.43%
R&W/RED HOLSTEIN	211,624	257,213	-17.72%
AYRSHIRE	57,883	55,076	5.10%
HOLSTEIN-RED CARRIER	56,145	112,024	-49.88%
GUERNSEY	9,780	9,188	6.44%
MILKING SHORTHORN	2,461	3,190	-22.85%
OTHER DAIRY	1,545	662	133.38%
TOTAL	<u>19,003,931</u>	<u>18,706,881</u>	<u>1.59%</u>

DAIRY SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	2016	2015	%+/-
WORLD TOTAL	<u>19,069,079</u>	<u>18,919,791</u>	<u>0.79%</u>

DAIRY SEMEN EXPORT SALES (2)

DOLLAR VALUE

	2016	2015	%+/-
WORLD TOTAL	<u>\$142,600,464</u>	<u>\$157,173,466</u>	<u>-9.27%</u>

DOMESTIC BEEF SEMEN SALES (1)
UNITS OF SEMEN

BREED	2016	2015	%+/-
ANGUS	1,596,136	1,722,590	-7.34%
SIMMENTAL	271,610	261,300	3.95%
LIMOUSIN	217,868	296,753	-26.58%
RED ANGUS	142,588	147,429	-3.28%
POLLED HEREFORD	82,988	90,271	-8.07%
GELBVIEWH	40,761	29,625	37.59%
HEREFORD	30,652	34,143	-10.22%
CHAROLAIS	14,609	14,850	-1.62%
MAINE ANJOU	9,673	12,388	-21.92%
BRAHMAN	9,152	5,191	76.31%
WAGYU	6,968	5,882	18.46%
CHIANINA	4,149	4,614	-10.08%
GYR	3,047	1,089	179.80%
SHORTHORN	2,997	3,793	-20.99%
BRANGUS (RED)	2,438	590	313.22%
BRANGUS	2,259	6,151	-63.27%
CHI-MAINE	1,508	439	243.51%
RED BRAHMAN	1,285	1,833	-29.90%
OTHER BEEF (a)	12,228	24,741	-50.58%
TOTAL	<u>2,452,916</u>	<u>2,663,672</u>	<u>-7.91%</u>

(a) Other Beef includes: Beefmaster, Belgian Blue, Belted Galloway, Black Hereford, Blonde D'Aquit., Braford, Brahmousin, Braunvieh, ChiAngus, Crossbreed, Devon, Dexter Dutch Belted, Galloway, Guzerat, Lowline (Loala), Murray Grey, Nellore, Normande, Parthenaise, Piedmontese, Pinzgauer, Salers, Santa Gertrudis, Scotch Highland, Scotch Shorthorn, Senapol, South Devon, Texas Longhorn, White Park, and Misc. Beef.

BEEF SEMEN IMPORT SALES (1)
UNITS OF SEMEN

BREED	2016	2015	%+/-
RED DANE	1,224	2,712	-54.87%
SIMMENTAL-FLECKVIEH	489	442	10.63%
ANGUS (RED)	322	0	0.00%
PIEDMONTESE	309	400	-22.75%
NORMANDE	30	105	-71.43%
OTHER BEEF (b)	9	176	-94.89%
TOTAL	<u>2,383</u>	<u>3,835</u>	<u>-37.86%</u>

(b) Other Beef includes: Angus, Beef Friesian, Polled Hereford, Limousin, and Texas Longhorn.

BEEF SEMEN EXPORT SALES (1)

UNITS OF SEMEN

<u>BREED</u>	<u>2016</u>	<u>2015</u>	<u>%+/-</u>
ANGUS	3,023,506	3,098,797	-2.43%
RED ANGUS	338,772	301,652	12.31%
SIMMENTAL	108,725	102,252	6.33%
BRANGUS	107,639	82,146	31.03%
POLLED HEREFORD	89,855	80,402	11.76%
BRANGUS (RED)	40,863	21,580	89.36%
BRAHMAN	38,070	58,009	-34.37%
CHAROLAIS	30,844	28,444	8.44%
BRAHMAN (RED)	26,890	41,382	-35.02%
WAGYU	11,419	1,846	518.58%
LIMOUSIN	11,377	6,964	63.37%
GYR	4,784	6,819	-29.84%
HORNED HEREFORD	2,218	3,391	-34.59%
OTHER BEEF (c)	1,799	2,003	-10.18%
TOTAL	<u>3,836,761</u>	<u>3,835,687</u>	<u>0.03%</u>

(c) Other Beef includes: Beefmaster, Belgian Blue, Chianina, Chi-Maine, Crossbreed, Galloway, Gelbvieh, Maine-Anjou, Normande, Polled Shorthorn, Scotch Highland, Senapol, and Misc. Beef.

BEEF SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	<u>2016</u>	<u>2015</u>	<u>%+/-</u>
WORLD TOTAL	<u>3,873,958</u>	<u>3,829,205</u>	<u>1.17%</u>

BEEF SEMEN EXPORT SALES (2)

DOLLAR VALUE

	<u>2016</u>	<u>2015</u>	<u>%+/-</u>
WORLD TOTAL	<u>\$13,344,636</u>	<u>\$13,229,448</u>	<u>0.87%</u>

CUSTOM FROZEN BEEF SEMEN (1)

UNITS OF SEMEN

BREED	2016	2015	%+/-
ANGUS	1,584,793	1,368,162	15.83%
SIMMENTAL	221,447	188,836	17.27%
LIMOUSIN	216,697	186,346	16.29%
RED ANGUS	173,689	161,432	7.59%
POLLED HEREFORD	101,048	104,038	-2.87%
CHAROLAIS	88,777	96,348	-7.86%
WAGYU	69,307	83,672	-17.17%
BEEFMASTER	59,799	60,942	-1.88%
HEREFORD	59,777	68,385	-12.59%
GELBVIEWH	57,633	55,308	4.20%
MAINE ANJOU	53,896	71,149	-24.25%
BRAHMAN	50,076	42,906	16.71%
BRANGUS	35,717	33,620	6.24%
DUTCH BELTED	22,020	52,465	-58.03%
SHORTHORN	21,093	31,097	-32.17%
AMERICAN BUCKING BULL	19,773	26,983	-26.72%
CHIANINA	18,197	17,611	3.33%
CHI-MAINE	17,265	20,313	-15.01%
LOWLINE (LOALA)	16,804	16,019	4.90%
TEXAS LONGHORN	16,715	16,935	-1.30%
BRAHMAN (RED)	11,918	2,146	455.36%
SIMBRAH	9,575	9,038	5.94%
AMERIFAX	7,731	7,347	5.23%
IRISH BLACK	7,667	3,039	152.29%
SHORTHORN (SCOTCH)	7,275	8,554	-14.95%
SANTA GERTRUDIS	5,519	9,054	-39.04%
PIEDMONT	5,299	3,025	75.17%
BLACK HEREFORD	5,253	3,821	37.48%
BRITISH WHITE	4,468	1,383	223.07%
SOUTH DEVON	4,317	7,461	-42.14%
SALERS	4,212	5,958	-29.31%
MASHONA	3,955	120	3195.83%
MURRAY GREY	3,254	2,828	15.06%
CHI-ANGUS	2,768	1,600	73.00%
SCOTCH HIGHLAND	2,583	521	395.78%
RED BRANGUS	2,374	3,808	-37.66%
BRAUNVIEWH	2,339	4,980	-53.03%
OTHER BEEF (d)	188,291	274,419	-31.39%
TOTAL	<u>3,183,321</u>	<u>3,051,669</u>	<u>4.31%</u>

(d) Other Beef includes: American Breed, Ankole Watusi, Beefalo, Belgian Blue, Belted Galloway Braford, Brahmousin, British White, Corriente, Crossbreed, Devon, Dexter, Galloway, Hays Converter, Indu-Brazil, Pinzgauer, Red Poll, Romagnola, Senapol, Tuli, White Park and Misc. Beef.

(1) Based on Quarterly Reports of Semen Sold and Custom Frozen

(2) Based on Quarterly Survey of Semen Sold for Export