

DOMESTIC DAIRY SEMEN SALES (1)

UNITS OF SEMEN

BREED	2017	2016	%+/-
HOLSTEIN	19,196,821	18,930,168	1.41%
JERSEY	3,435,468	2,947,587	16.55%
HOLSTEIN-RED CARRIER	185,539	185,650	-0.06%
R&W/RED HOLSTEIN	158,170	183,308	-13.71%
BROWN SWISS	109,562	109,660	-0.09%
AYRSHIRE	32,639	39,569	-17.51%
GUERNSEY	27,134	29,326	-7.47%
MILKING SHORTHORN	22,298	27,112	-17.76%
OTHER DAIRY	28,782	21,218	35.65%
TOTAL	<u>23,196,413</u>	<u>22,473,598</u>	<u>3.22%</u>

DAIRY SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2017	2016	%+/-
HOLSTEIN	140,317	15,611	798.83%
NORWEGIAN RED	96,922	116,204	-16.59%
MONTBELIARDE	37,653	37,177	1.28%
SWEDISH RED	25,961	30,802	-15.72%
JERSEY	828	1,857	-55.41%
OTHER DAIRY	26	5,425	-99.52%
TOTAL	<u>301,707</u>	<u>207,076</u>	<u>45.70%</u>

CUSTOM FROZEN DAIRY SEMEN (1)

UNITS OF SEMEN

BREED	2017	2016	%+/-
HOLSTEIN	2,090,787	1,543,999	35.41%
JERSEY	268,298	125,053	114.55%
BROWN SWISS	227,668	117,956	93.01%
HOLSTEIN-RED CARRIER	118,570	8,897	1232.70%
AYRSHIRE	12,031	22,423	-46.35%
GUERNSEY	8,982	9,852	-8.83%
MILKING SHORTHORN	6,109	2,304	165.15%
SWEDISH RED	6,105	9,163	0.00%
OTHER DAIRY	9,383	14,062	-33.27%
TOTAL	<u>2,747,933</u>	<u>1,853,709</u>	<u>48.24%</u>

DAIRY SEMEN EXPORT SALES (1)

UNITS OF SEMEN

BREED	2017	2016	%+/-
HOLSTEIN	20,065,808	17,450,765	14.99%
JERSEY	1,401,820	1,000,561	40.10%
BROWN SWISS	214,341	213,167	0.55%
R&W/RED HOLSTEIN	220,269	211,624	4.09%
HOLSTEIN-RED CARRIER	64,976	56,145	15.73%
AYRSHIRE	45,300	57,883	-21.74%
MONTBELIARDE	20,571	150	13614.00%
GUERNSEY	6,632	9,780	-32.19%
MILKING SHORTHORN	3,978	2,461	61.64%
OTHER DAIRY	3,540	1,395	153.76%
TOTAL	22,047,235	19,003,931	16.01%

DAIRY SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	2017	2016	%+/-
WORLD TOTAL	22,174,296	19,069,079	16.28%

DAIRY SEMEN EXPORT SALES (2)

DOLLAR VALUE

	2017	2016	%+/-
WORLD TOTAL	\$163,017,873	\$142,600,464	14.32%

DOMESTIC BEEF SEMEN SALES (1)
UNITS OF SEMEN

BREED	2017	2016	%+/-
ANGUS	1,648,789	1,596,136	3.30%
SIMMENTAL	316,896	271,610	16.67%
LIMOUSIN	203,881	217,868	-6.42%
RED ANGUS	139,238	142,588	-2.35%
POLLED HEREFORD	78,313	82,988	-5.63%
GELBVIEH	38,023	40,761	-6.72%
HEREFORD	29,453	30,652	-3.91%
CHAROLAIS	23,167	14,609	58.58%
WAGYU	22,635	6,968	224.84%
MAINE ANJOU	7,908	9,673	-18.25%
BRAHMAN	7,319	9,152	-20.03%
CHIANINA	3,786	4,149	-8.75%
SHORTHORN	3,141	2,997	4.80%
BRANGUS	2,137	2,259	-5.40%
CHI-MAINE	1,479	1,508	-1.92%
GYR	1,374	3,047	-54.91%
OTHER BEEF (a)	12,534	15,951	-21.42%
TOTAL	<u>2,540,073</u>	<u>2,452,916</u>	<u>3.55%</u>

(a) Other Beef includes: Aberdeen, American Bucking Bull, Beefmaster, Belgian Blue, Belted Galloway, Black Hereford, Braford, Brahman (Red), Brangus (Red), Braunvieh, ChiAngus, Crossbreed, Devon, Dexter, Dutch Belted, Galloway, Guzerat, Murray Grey, Nellore, Normande, 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	2017	2016	%+/-
RED DANE	998	1,224	-18.46%
SIMMENTAL-FLECKVIEH	135	489	-72.39%
PIEDMONTESE	355	309	14.89%
TEXAS LONGHORN	25	0	0.00%
OTHER BEEF (b)	0	361	-100.00%
TOTAL	<u>1,513</u>	<u>2,383</u>	<u>-36.51%</u>

(b) Other Beef includes: Beef Friesian, Crossbreed, Normande, and Red Angus.

BEEF SEMEN EXPORT SALES (1)

UNITS OF SEMEN

<u>BREED</u>	<u>2017</u>	<u>2016</u>	<u>%+/-</u>
ANGUS	2,805,569	3,023,506	-7.21%
RED ANGUS	302,106	338,772	-10.82%
SIMMENTAL	91,378	108,725	-15.95%
POLLED HEREFORD	87,869	89,855	-2.21%
BRANGUS	78,766	107,639	-26.82%
CHAROLAIS	56,487	30,844	83.14%
BRAHMAN (RED)	26,184	26,890	-2.63%
BRAHMAN	26,040	38,070	-31.60%
BRANGUS (RED)	20,093	40,863	-50.83%
WAGYU	13,385	11,419	17.22%
GYR	11,514	4,784	140.68%
LIMOUSIN	8,936	11,377	-21.46%
HORNED HEREFORD	3,147	2,218	41.88%
OTHER BEEF (c)	7,476	1,799	315.56%
TOTAL	<u>3,538,950</u>	<u>3,836,761</u>	<u>-7.76%</u>

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

BEEF SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	<u>2017</u>	<u>2016</u>	<u>%+/-</u>
WORLD TOTAL	<u>3,546,767</u>	<u>3,873,958</u>	<u>-8.45%</u>

BEEF SEMEN EXPORT SALES (2)

DOLLAR VALUE

	<u>2017</u>	<u>2016</u>	<u>%+/-</u>
WORLD TOTAL	<u>\$12,327,282</u>	<u>\$13,344,636</u>	<u>-7.62%</u>

CUSTOM FROZEN BEEF SEMEN (1)

UNITS OF SEMEN

BREED	2017	2016	%+/-
ANGUS	1,232,393	1,584,793	-22.24%
SIMMENTAL	220,490	221,447	-0.43%
RED ANGUS	152,172	173,689	-12.39%
WAGYU	94,313	69,307	36.08%
POLLED HEREFORD	84,398	101,048	-16.48%
CHAROLAIS	76,452	88,777	-13.88%
LIMOUSIN	75,975	216,697	-64.94%
BRAHMAN	68,425	50,076	36.64%
HEREFORD	66,211	59,777	10.76%
BEEFMASTER	61,166	59,799	2.29%
GELBVIEWH	41,769	57,633	-27.53%
SHORTHORN	35,256	21,093	67.15%
BRANGUS	34,851	35,717	-2.42%
MAINE ANJOU	34,071	53,896	-36.78%
DUTCH BELTED	26,625	22,020	20.91%
CHIANINA	19,609	18,197	7.76%
AMERICAN BUCKING BULL	18,575	19,773	-6.06%
ABERDEEN	17,458	16,804	3.89%
TEXAS LONGHORN	16,681	16,715	-0.20%
CHI-MAINE	15,760	17,265	-8.72%
BRAHMAN (RED)	15,367	11,918	28.94%
SANTA GERTRUDIS	11,167	5,519	102.34%
IRISH BLACK	9,847	7,667	28.43%
SIMBRAH	7,600	9,575	-20.63%
SHORTHORN (SCOTCH)	6,638	7,275	-8.76%
BRAUNVIEWH	5,534	2,339	136.60%
RED BRANGUS	4,510	2,374	89.97%
SOUTH DEVON	4,352	4,317	0.81%
SALERS	4,218	4,212	0.14%
MASHONA	3,805	3,955	-3.79%
BLACK HEREFORD	3,741	5,253	-28.78%
BELGIAN BLUE	3,473	470	638.94%
DEVON	2,569	2,132	20.50%
GYR	2,481	0	0.00%
RED POLL	2,439	250	875.60%
DEXTER	2,253	0	0.00%
OTHER BEEF (d)	215,740	211,542	1.98%
TOTAL	<u>2,698,384</u>	<u>3,183,321</u>	<u>-15.23%</u>

(d) Other Beef includes: American Breed, Amerifax, Ankole Watusi, Barzona, Beefalo, Belgian Blue, Belted Galloway, Bonsmara, Braford, Brahmousin, British White, Chi-Angus, Corriente, Crossbreed, Devon, Dexter, Hays Converter, Indu-Brazil, Marchigiana, Murray Grey, Nellore, Normande, Piedmont, Pinzgauer, Red Poll, Romagnoia, Salers, Scotch Highland, Senapol, Tarentaise, 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