

DOMESTIC DAIRY SEMEN SALES (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
HOLSTEIN	14,909,469	15,905,670	-6.26%
JERSEY	2,835,675	2,994,244	-5.30%
R&W/RED HOLSTEIN	261,598	288,239	-9.24%
HOLSTEIN-RED CARRIER	163,652	143,235	14.25%
BROWN SWISS	102,143	82,277	24.15%
AYRSHIRE	29,063	26,871	8.16%
GUERNSEY	22,690	26,604	-14.71%
MILKING SHORTHORN	14,202	13,463	5.49%
OTHER DAIRY	45,989	17,106	168.85%
TOTAL	<u>18,384,481</u>	<u>19,497,709</u>	<u>-5.71%</u>

DAIRY SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
HOLSTEIN	118,925	119,031	-0.09%
NORWEGIAN RED	76,644	63,473	20.75%
MONTBELIARDE	32,317	31,898	1.31%
JERSEY	29,038	30,963	-6.22%
FLECKVIEH	19,540	17,799	0.00%
SWEDISH RED	12,547	11,376	10.29%
OTHER DAIRY	17,523	14,645	19.65%
TOTAL	<u>306,534</u>	<u>289,185</u>	<u>6.00%</u>

CUSTOM FROZEN DAIRY SEMEN (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
HOLSTEIN	1,412,404	1,256,884	12.37%
JERSEY	106,560	79,757	33.61%
BROWN SWISS	68,261	50,924	34.04%
GUERNSEY	22,248	19,903	11.78%
HOLSTEIN-RED CARRIER	18,360	50,809	-63.86%
FLECKVIEH	7,345	8,231	-10.76%
MILKING SHORTHORN	6,086	1,575	286.41%
R&W/RED HOLSTEIN	4,763	17,987	-73.52%
SWEDISH RED	4,745	9,819	-51.68%
MONTBELIARDE	3,666	0	0.00%
AYRSHIRE	1,839	3,329	-44.76%
OTHER DAIRY	1,042	2,442	-57.33%
TOTAL	<u>1,657,319</u>	<u>1,501,660</u>	<u>10.37%</u>

DAIRY SEMEN EXPORT SALES (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
HOLSTEIN	26,309,404	23,174,565	13.53%
JERSEY	1,903,152	1,325,373	43.59%
R&W/RED HOLSTEIN	545,557	523,243	4.26%
BROWN SWISS	255,944	186,136	37.50%
HOLSTEIN-RED CARRIER	195,284	223,048	-12.45%
AYRSHIRE	87,145	77,233	12.83%
GUERNSEY	8,571	8,195	4.59%
MONTBELIARDE	2,907	10,153	-71.37%
MILKING SHORTHORN	2,573	1,561	64.83%
OTHER DAIRY	7,256	5,586	29.90%
TOTAL	<u>29,317,793</u>	<u>25,535,093</u>	<u>14.81%</u>

DAIRY SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	2020	2019	%+/-
WORLD TOTAL	<u>30,217,446</u>	<u>26,499,994</u>	<u>14.03%</u>

DAIRY SEMEN EXPORT SALES (2)

DOLLAR VALUE

	2020	2019	%+/-
WORLD TOTAL	<u>\$232,242,030</u>	<u>\$203,586,082</u>	<u>14.08%</u>

DOMESTIC BEEF SEMEN SALES (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
ANGUS	3,696,283	3,171,338	16.55%
SIMMENTAL	1,150,684	773,200	48.82%
LIMOUSIN	664,944	783,344	-15.11%
CHAROLAIS	381,103	222,077	71.61%
RED ANGUS	127,903	144,924	-11.74%
POLLED HEREFORD	89,489	106,671	-16.11%
WAGYU	69,343	33,939	104.32%
HEREFORD	13,297	14,483	-8.19%
GELBVIEH	9,612	7,908	21.55%
BRANGUS	7,320	4,515	62.13%
BRAHMAN	6,408	6,045	6.00%
MAINE ANJOU	5,105	5,949	-14.19%
GYR	3,812	2,569	48.38%
SHORTHORN	3,436	1,964	74.95%
BRAHMAN (RED)	2,917	2,023	44.19%
SENAPOL	2,550	760	235.53%
CHI-MAINE	2,205	813	171.22%
CHIANINA	1,554	2,234	-30.44%
OTHER BEEF (a)	962,447	544,510	76.75%
TOTAL	<u>7,200,412</u>	<u>5,829,266</u>	<u>23.52%</u>

(a) Other Beef includes: American Akaushi, American Breed, Beefmaster, Belgian Blue, Black Hereford, Blonde D'Aquitane, Braford, Brangus (Red), Braunvieh, Crossbreed, Dexter, Dutch Belted, Galloway, Guzerat, Lowline, Murray Grey, Nellore, Normande, Piedmontese, Salers, Scotch Highland, Scotch Shorthorn, Texas Longhorn, White Park and Misc. Beef.

BEEF SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
PIEDMONTESE	521	499	4.41%
RED DANE	93	132	-29.55%
OTHER BEEF (b)	110	970	-88.66%
TOTAL	<u>724</u>	<u>1,601</u>	<u>-54.78%</u>

(b) Other Beef includes: Angus, Braford, Braunvieh, Limousin, Sussex and Texas Longhorn.

BEEF SEMEN EXPORT SALES (1)

UNITS OF SEMEN

<u>BREED</u>	<u>2020</u>	<u>2019</u>	<u>%+/-</u>
ANGUS	6,101,884	4,597,267	32.73%
RED ANGUS	249,050	236,635	5.25%
BRANGUS	131,081	108,068	21.29%
SIMMENTAL	116,646	88,945	31.14%
POLLED HEREFORD	95,587	89,943	6.28%
CHAROLAIS	40,050	41,558	-3.63%
BRAHMAN (RED)	29,196	32,810	-11.01%
GYR	27,499	16,087	70.94%
BRAHMAN	23,862	15,437	54.58%
LIMOUSIN	17,368	10,425	66.60%
WAGYU	16,133	27,097	-40.46%
SENAPOL	9,144	2,520	262.86%
BRANGUS (RED)	6,978	16,458	-57.60%
OTHER BEEF (c)	256,042	50,240	409.64%
TOTAL	<u>7,120,520</u>	<u>5,333,490</u>	<u>33.51%</u>

(c) Other Beef includes: American Akaushi, American Breed, Beefmaster, Belgian Blue, Braunvieh, Chianina, Crossbreed, Gelbvieh, Guzerat, Horned Hereford, Lowline, Scotch Highland, Polled Shorthorn and Misc. Beef

BEEF SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	<u>2020</u>	<u>2019</u>	<u>%+/-</u>
WORLD TOTAL	<u>7,756,986</u>	<u>5,771,728</u>	<u>34.40%</u>

BEEF SEMEN EXPORT SALES (2)

DOLLAR VALUE

	<u>2020</u>	<u>2019</u>	<u>%+/-</u>
WORLD TOTAL	<u>\$20,168,770</u>	<u>\$16,228,611</u>	<u>24.28%</u>

CUSTOM FROZEN BEEF SEMEN (1)

UNITS OF SEMEN

BREED	2020	2019	%+/-
ANGUS	2,203,572	1,239,893	77.72%
SIMMENTAL	885,291	639,203	38.50%
LIMOUSIN	362,749	23,837	1421.79%
CHAROLAIS	302,018	142,570	111.84%
WAGYU	208,774	160,938	29.72%
RED ANGUS	89,731	83,767	7.12%
BRANGUS	74,928	71,131	5.34%
POLLED HEREFORD	73,276	68,751	6.58%
BEEFMASTER	69,884	115,808	-39.66%
BRAHMAN	57,108	50,098	13.99%
GELBVIEWH	56,126	43,576	28.80%
MAINE ANJOU	35,318	17,086	106.71%
CHI-MAINE	34,996	19,061	83.60%
DUTCH BELTED	32,467	8,414	285.87%
HEREFORD	31,684	46,557	-31.95%
AMERICAN AKAUSHI	27,758	3,142	0.00%
CHIANINA	26,008	14,025	85.44%
BELGIAN BLUE	25,384	18,831	34.80%
BLACK HEREFORD	24,505	5,411	352.87%
SHORTHORN	24,351	21,366	13.97%
BRAHMAN (RED)	23,951	18,524	29.30%
AMERICAN BUCKING BULL	22,352	14,797	51.06%
SANTA GERTRUDIS	21,187	29,156	-27.33%
RED BRANGUS	14,443	20,770	-30.46%
SHORTHORN (SCOTCH)	9,611	8,879	8.24%
TEXAS LONGHORN	9,376	7,905	18.61%
SALERS	8,400	5,409	55.30%
MASHONA	7,824	666	1074.77%
PIEDMONTESE	6,625	1,389	0.00%
SIMBRAH	4,768	3,971	20.07%
SOUTH DEVON	4,569	2,456	86.03%
SCOTCH HIGHLAND	4,061	2,019	101.14%
ABERDEEN	4,016	5,238	-23.33%
BRITISH WHITE	2,625	4,463	-41.18%
OTHER BEEF (d)	197,341	202,262	-2.43%
TOTAL	<u>4,987,077</u>	<u>3,121,369</u>	<u>59.77%</u>

(d) Other Beef includes: American Breed, Ankole Watusi, Beefalo, Belted Galloway, Bonsmara, Braford, Braunvieh, Chi-Angus, Crossbreed, Devon, Dexter, Galloway, Indu-Brazil, Irish Black, Murray Grey, Normande, Romagnola, Senapol, Scotch Highland, Sussex, 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