

DOMESTIC DAIRY SEMEN SALES (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
HOLSTEIN	13,611,785	14,909,469	-8.70%
JERSEY	2,690,548	2,835,675	-5.12%
R&W/RED HOLSTEIN	253,451	261,598	-3.11%
HOLSTEIN-RED CARRIER	159,462	163,652	-2.56%
BROWN SWISS	71,359	102,143	-30.14%
AYRSHIRE	28,301	29,063	-2.62%
GUERNSEY	19,428	22,690	-14.38%
MILKING SHORTHORN	11,813	14,202	-16.82%
OTHER DAIRY	138,294	45,989	200.71%
TOTAL	<u>16,984,441</u>	<u>18,384,481</u>	<u>-7.62%</u>

DAIRY SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
HOLSTEIN	156,629	118,925	31.70%
NORWEGIAN RED	35,479	76,644	-53.71%
MONTBELIARDE	24,759	32,317	-23.39%
JERSEY	23,550	29,038	-18.90%
FLECKVIEH	20,133	19,540	0.00%
HOLSTEIN RED CARRIER	14,129	3,674	284.57%
OTHER DAIRY	22,253	26,396	-15.70%
TOTAL	<u>296,932</u>	<u>306,534</u>	<u>-3.13%</u>

CUSTOM FROZEN DAIRY SEMEN (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
HOLSTEIN	1,369,255	1,412,404	-3.06%
JERSEY	84,618	106,560	-20.59%
BROWN SWISS	46,890	68,261	-31.31%
GUERNSEY	24,983	22,248	12.29%
SWEDISH RED	9,725	4,745	104.95%
R&W/RED HOLSTEIN	6,704	4,763	40.75%
FLECKVIEH	5,857	7,345	-20.26%
AYRSHIRE	3,985	1,839	116.69%
MILKING SHORTHORN	3,721	6,086	-38.86%
AMERICAN LINEBACK	3,088	702	339.89%
MONTBELIARDE	2,152	3,666	-41.30%
OTHER DAIRY	1,143	18,700	-93.89%
TOTAL	<u>1,562,121</u>	<u>1,657,319</u>	<u>-5.74%</u>

DAIRY SEMEN EXPORT SALES (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
HOLSTEIN	27,990,043	26,309,404	6.39%
JERSEY	1,675,340	1,903,152	-11.97%
R&W/RED HOLSTEIN	490,100	545,557	-10.17%
BROWN SWISS	236,930	255,944	-7.43%
HOLSTEIN-RED CARRIER	186,770	195,284	-4.36%
AYRSHIRE	64,479	87,145	-26.01%
GUERNSEY	5,987	8,571	-30.15%
MILKING SHORTHORN	2,940	2,573	14.26%
MONTBELIARDE	2,032	2,907	-30.10%
OTHER DAIRY	31,692	7,256	336.77%
TOTAL	<u>30,686,313</u>	<u>29,317,793</u>	<u>4.67%</u>

DAIRY SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	2021	2020	%+/-
WORLD TOTAL	<u>31,501,343</u>	<u>30,217,446</u>	<u>4.25%</u>

DAIRY SEMEN EXPORT SALES (2)

DOLLAR VALUE

	2021	2020	%+/-
WORLD TOTAL	<u>\$266,005,702</u>	<u>\$232,242,030</u>	<u>14.54%</u>

DOMESTIC BEEF SEMEN SALES (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
ANGUS	4,600,655	3,696,283	24.47%
SIMMENTAL	1,178,912	1,150,684	2.45%
LIMOUSIN	653,508	664,944	-1.72%
CHAROLAIS	597,553	381,103	56.80%
RED ANGUS	125,628	127,903	-1.78%
WAGYU	108,613	69,343	56.63%
POLLED HEREFORD	90,340	89,489	0.95%
HEREFORD	9,170	13,297	-31.04%
HEREFORD (BLACK)	9,121	60	15101.67%
BRAHMAN	6,044	6,408	-5.68%
GELBVIEWH	3,701	9,612	-61.50%
AMERICAN AKAUSHI	3,455	297	1063.30%
BRANGUS	3,014	7,320	-58.83%
SHORTHORN	3,320	3,436	-3.38%
GYR	2,701	3,812	-29.14%
MAINE ANJOU	2,443	5,105	-52.14%
BRAHMAN (RED)	2,075	2,917	-28.87%
CHI-MAINE	1,613	2,205	-26.85%
OTHER BEEF (a)	1,283,784	966,194	32.87%
TOTAL	<u>8,685,650</u>	<u>7,200,412</u>	<u>20.63%</u>

(a) Other Beef includes: American Breed, Amerifax, Ankina, Barzona, Beefmaster, Belgian Blue, Belted Galloway, Blonde D'Aquitane, Braford, Brangus (Red), Braunvieh, Chianina, Crossbreed, Dexter, Dutch Belted, Galloway, Guzerat, Lowline (Loala), Murray Grey, Nellore, Normande, Piedmontese, Salers, Santa Gertrudis, Scotch Highland, Scotch Shorthorn, Senapol, Simbrah, Texas Longhorn, White Park and Misc. Beef.

BEEF SEMEN IMPORT SALES (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
CHAROLAIS	3,270	0	0.00%
PIEDMONTESE	360	521	-30.90%
BELGIAN BLUE	205	0	0.00%
TARENDAISE	185	0	0.00%
NORMANDE	160	0	0.00%
OTHER BEEF (b)	591	203	191.13%
TOTAL	<u>4,771</u>	<u>724</u>	<u>558.98%</u>

(b) Other Beef includes: Angus, Braford, Brangus (Red), Braunvieh, Crossbreed, Red Dane, Simmental, Sussex and Texas Longhorn.

BEEF SEMEN EXPORT SALES (1)

UNITS OF SEMEN

<u>BREED</u>	<u>2021</u>	<u>2020</u>	<u>%+/-</u>
ANGUS	6,601,967	6,101,884	8.20%
RED ANGUS	301,518	249,050	21.07%
SIMMENTAL	206,306	116,646	76.87%
BRANGUS	174,882	131,081	33.42%
CHAROLAIS	97,966	40,050	144.61%
POLLED HEREFORD	85,537	95,587	-10.51%
GYR	54,282	27,499	97.40%
BRAHMAN	37,066	23,862	55.33%
LIMOUSIN	36,278	17,368	108.88%
WAGYU	35,096	16,133	117.54%
BRAHMAN (RED)	30,567	29,196	4.70%
SENAPOL	17,968	9,144	96.50%
BRANGUS (RED)	12,433	6,978	78.17%
OTHER BEEF (c)	636,690	256,042	148.67%
TOTAL	<u>8,328,556</u>	<u>7,120,520</u>	<u>16.97%</u>

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

BEEF SEMEN EXPORT SALES (2)

UNITS OF SEMEN

	<u>2021</u>	<u>2020</u>	<u>%+/-</u>
WORLD TOTAL	<u>8,640,430</u>	<u>7,756,986</u>	<u>11.39%</u>

BEEF SEMEN EXPORT SALES (2)

DOLLAR VALUE

	<u>2021</u>	<u>2020</u>	<u>%+/-</u>
WORLD TOTAL	<u>\$27,062,144</u>	<u>\$20,168,770</u>	<u>34.18%</u>

CUSTOM FROZEN BEEF SEMEN (1)

UNITS OF SEMEN

BREED	2021	2020	%+/-
ANGUS	2,430,595	2,203,572	10.30%
SIMMENTAL	740,621	885,291	-16.34%
LIMOUSIN	632,165	362,749	74.27%
RED ANGUS	439,757	89,731	390.08%
WAGYU	310,072	208,774	48.52%
CHAROLAIS	293,111	302,018	-2.95%
POLLED HEREFORD	102,913	73,276	40.45%
BEEFMASTER	82,222	69,884	17.65%
BRANGUS	69,967	74,928	-6.62%
GELBVIEWH	61,815	56,126	10.14%
BRAHMAN	61,035	57,108	6.88%
MAINE-ANJOU	54,372	35,318	53.95%
AMERICAN AKAUSHI	48,758	27,758	0.00%
HEREFORD	45,433	31,684	43.39%
SHORTHORN	41,924	24,351	72.17%
BRAHMAN (RED)	35,378	23,951	47.71%
PIEDMONTESE	34,861	6,625	0.00%
SANTA GERTRUDIS	27,973	21,187	32.03%
CHIANINA	27,039	26,008	3.96%
BLACK HEREFORD	23,731	24,505	-3.16%
CHI-MAINE	17,285	34,996	-50.61%
TEXAS LONGHORN	16,342	9,376	74.30%
RED BRANGUS	13,813	14,443	-4.36%
AMERICAN BUCKING BULL	12,909	22,352	-42.25%
SIMBRAH	10,161	4,768	113.11%
SCOTCH HIGHLAND	7,587	4,061	86.83%
SALERS	6,565	8,400	-21.85%
BRAUNVIEWH	5,659	537	953.82%
BRITISH WHITE	4,747	2,625	80.84%
LOWLINE (LOALA)	4,055	4,016	0.97%
DEXTER	3,914	360	987.22%
MASHONA	3,479	7,824	-55.53%
MURRAY GREY	3,174	1,771	79.22%
AMERIFAX	2,938	0	0.00%
DUTCH BELTED	2,740	32,467	-91.56%
OTHER BEEF (d)	254,056	234,237	8.46%
TOTAL	<u>5,933,166</u>	<u>4,987,077</u>	<u>18.97%</u>

(d) Other Beef includes: Ankina, Beefalo, Belgian Blue, Belted Galloway, Bonsmara, Braford, Buelingo, Chi-Angus, Corriente, Crossbreed, Devon, Galloway, Indu-Brazil, Normande, Romagnola, Senapol, Scotch Highland, Scotch Shorthorn, South Devon, Sussex, Tarentaise, White Park, Yak and Misc. Beef.

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

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