

**DOMESTIC DAIRY SEMEN SALES (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
HOLSTEIN	11,549,127	11,843,289	-2.48%
JERSEY	619,420	586,531	5.61%
BROWN SWISS	102,243	115,357	-11.37%
GUERNSEY	71,268	82,326	-13.43%
AYRSHIRE	34,887	35,963	-2.99%
MILKING SHORTHORN	12,296	13,673	-10.07%
OTHER DAIRY	0	0	0.00%
TOTAL	<u>12,389,241</u>	<u>12,677,139</u>	<u>-2.27%</u>

**CUSTOM FROZEN DAIRY SEMEN (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
HOLSTEIN	534,852	549,149	-2.60%
BROWN SWISS	71,920	58,273	23.42%
JERSEY	15,624	14,658	6.59%
AYRSHIRE	10,442	7,483	39.54%
MILKING SHORTHORN	2,767	7,264	-61.91%
GUERNSEY	1,615	1,583	2.02%
OTHER DAIRY	0	0	0.00%
TOTAL	<u>637,220</u>	<u>638,410</u>	<u>-0.19%</u>

**DAIRY SEMEN EXPORT SALES (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
HOLSTEIN	7,895,165	7,421,543	6.38%
JERSEY	522,825	391,182	33.65%
BROWN SWISS	281,026	297,569	-5.56%
GUERNSEY	22,048	18,243	20.86%
AYRSHIRE	33,195	14,579	127.69%
OTHER DAIRY	2,500	920	171.74%
TOTAL	<u>8,756,759</u>	<u>8,144,036</u>	<u>7.52%</u>

**DAIRY SEMEN EXPORT SALES (2)**  
UNITS OF SEMEN

REGION	1997	1996	%+/-
SOUTH AMERICA	3,320,741	2,747,806	20.85%
EUROPEAN UNION	1,890,241	2,132,783	-11.37%
NORTH AMERICA	1,197,020	1,021,564	17.18%
OCEANIA	691,294	571,603	20.94%
EASTERN EUROPE	419,256	369,072	13.60%
ASIA	412,389	496,644	-16.96%
AFRICA	302,747	218,698	38.43%
MIDDLE EAST	269,790	325,437	-17.10%
CENTRAL AMERICA	128,927	128,203	0.56%
OTHER WESTERN EUROPE	80,086	140,796	-43.12%
CARRIBEAN	32,334	24,140	33.94%
TOTAL	<u>8,744,825</u>	<u>8,176,746</u>	<u>6.95%</u>

**DAIRY SEMEN EXPORT SALES (2)**  
DOLLAR VALUE

REGION	1997	1996	%+/-
EUROPEAN UNION	\$24,440,696	\$25,222,271	-3.10%
SOUTH AMERICA	12,526,079	10,071,143	24.38%
NORTH AMERICA	7,298,988	5,434,232	34.31%
OCEANIA	4,457,368	3,768,765	18.27%
ASIA	3,368,094	3,666,396	-8.14%
EASTERN EUROPE	2,982,128	3,109,541	-4.10%
AFRICA	2,338,257	1,922,114	21.65%
MIDDLE EAST	1,791,171	1,960,993	-8.66%
OTHER WESTERN EUROPE	798,869	1,223,930	-34.73%
CENTRAL AMERICA	608,369	570,667	6.61%
CARRIBEAN	152,500	112,825	35.17%
TOTAL	<u>\$60,762,519</u>	<u>\$57,062,877</u>	<u>6.48%</u>

**DOMESTIC BEEF SEMEN SALES (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
ANGUS	598,690	556,780	7.53%
SIMMENTAL	86,343	101,577	-15.00%
POLLED HEREFORD	56,489	67,556	-16.38%
RED ANGUS	65,720	52,418	25.38%
BRAHMAN	22,454	26,594	-15.57%
CHAROLAIS	19,549	18,490	5.73%
LIMOUSIN	16,969	19,581	-13.34%
GELBVIEWH	13,850	15,004	-7.69%
HEREFORD	7,320	5,988	22.24%
MAINE ANJOU	5,917	7,427	-20.33%
CHIANINA	2,526	5,344	-52.73%
SCOTCH SHORTHORN	2,210	1,890	16.93%
NELLORE	0	3,540	-100.00%
GYR	1,840	1,355	35.79%
SHORTHORN	1,723	2,533	-31.98%
PIEDMONTESE	1,408	2,242	-37.20%
OTHER BEEF (a)	15,447	14,905	3.64%
TOTAL	<u>918,455</u>	<u>903,224</u>	<u>1.69%</u>

(a) Other Beef includes: Blonde D'Aquit., Beefmaster, Belgian Blue, Braford, Brahman (Red), Brahmental-Simbrah, Brahmousin, Brangus, Brangus (Red), Braunvieh, ChiAngus, Chi-Maine, Devon, Devon (South), Dexter, Dutch Belted, Galloway, Longhorn, Murray Grey, Nellore, Normande, Pinzgauer, Romagnola, Sale Santa Gertrudis, Scotch Highland, Senapol, Tarentaise, Wagyu, White Park and Misc. Beef.

**BEEF SEMEN EXPORT SALES (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
RED ANGUS	298,710	115,598	158.40%
ANGUS	210,527	103,886	102.65%
SIMMENTAL	107,780	64,180	67.93%
POLLED HEREFORD	73,146	45,446	60.95%
LIMOUSIN	48,192	11,760	309.80%
BRAHMAN	33,175	45,533	-27.14%
CHAROLAIS	32,005	19,948	60.44%
BELGIAN BLUE	14,620	4,210	247.27%
BRAHMAN (RED)	12,253	3,372	263.37%
HEREFORD	7,930	2,780	185.25%
GELBVIEH	6,398	5,288	20.99%
BRAHMENTAL-SIMBRAH	3,620	250	1348.00%
GYR	3,300	3,050	8.20%
OTHER BEEF (b)	17,650	13,129	34.44%
TOTAL	869,306	438,430	98.28%

(b) Other Beef includes: Blonde D'Aquit., Beefmaster, Braford, Brangus, Brangus (Red) Braunvieh, ChiAngus, Chianina, Chi-Maine, Dexter, Longhorn, Maine-Anjou, Marchigia Murray Grey, Nellore, Piedmont, Pinzgauer, Salers, Santa Gertrudis, Senapol, Shorthor Shorthorn (Scotch) and Misc. Beef.

**CUSTOM FROZEN BEEF SEMEN (1)**  
UNITS OF SEMEN

BREED	1997	1996	%+/-
ANGUS	677,420	599,730	12.95%
LIMOUSIN	108,263	106,669	1.49%
RED ANGUS	96,531	78,165	23.50%
MAINE ANJOU	96,012	98,148	-2.18%
HEREFORD	86,217	75,761	13.80%
SIMMENTAL	83,939	78,575	6.83%
WAGYU	73,444	81,498	-9.88%
BRAHMAN	70,511	29,348	140.26%
GELBVIEWH	64,644	51,046	26.64%
CHAROLAIS	64,545	44,936	43.64%
BRANGUS	63,529	51,617	23.08%
BEEFMASTER	60,351	64,504	-6.44%
POLLED HEREFORD	45,497	47,278	-3.77%
SHORTHORN (SCOTCH)	30,498	17,924	70.15%
BRAUNVIEWH	28,823	46,640	-38.20%
SALERS	27,846	22,648	22.95%
CHI-ANGUS	20,680	17,076	21.11%
SENAPOL	20,054	527	3705.31%
CHI-MAINE	19,077	23,349	-18.30%
SHORTHORN	18,362	13,907	32.03%
RED BRANGUS	15,536	18,560	-16.29%
TEXAS LONGHORN	13,778	13,587	1.41%
SANTA GERTRUDIS	13,001	10,798	20.40%
BRAHMENTAL/SIMBRAH	12,545	9,308	34.78%
SOUTH DEVON	9,492	9,576	-0.88%
CHIANINA	8,865	7,252	22.24%
TARENDAISE	7,648	3,069	149.20%
ROMAGNOLA	7,082	3,218	120.07%
OTHER BEEF (c)	123,123	137,426	-10.41%
TOTAL	1,967,313	1,762,140	11.64%

(c) Other Beef includes: Amerifax, Blonde D'Aquit., Beef Friesian, Belgian Blue, Belted Galloway, Braford, Brahmousin, British White, Buelingo, Corriente, Galloway, Gelbray, Marchigiana, Murray Grey, Normande, Piedmontese, Pinzgauer, Red Poll, Scotch Highland, White Park, Yak and Misc. Beef.

**BEEF SEMEN EXPORT SALES (2)**  
UNITS OF SEMEN

REGION	1997	1996	%+/-
SOUTH AMERICA	709,227	307,725	130.47%
NORTH AMERICA	72,219	60,227	19.91%
OCEANIA	29,572	23,014	28.50%
CENTRAL AMERICA	22,359	25,080	-10.85%
EASTERN EUROPE	11,822	10,400	13.67%
MIDDLE EAST	7,250	8,991	-19.36%
AFRICA	6,616	5,478	20.77%
EUROPEAN UNION	5,135	3,268	57.13%
CARRIBEAN	3,210	3,350	-4.18%
ASIA	2,260	3,320	-31.93%
OTHER WESTERN EUROPE	600	1,310	-54.20%
TOTAL	<u>870,270</u>	<u>452,163</u>	<u>92.47%</u>

**BEEF SEMEN EXPORT SALES (2)**  
DOLLAR VALUE

REGION	1997	1996	%+/-
SOUTH AMERICA	\$1,441,576	\$779,758	84.87%
NORTH AMERICA	460,061	344,856	33.41%
OCEANIA	311,892	208,078	49.89%
CENTRAL AMERICA	81,979	96,675	-15.20%
AFRICA	73,367	63,873	14.86%
EASTERN EUROPE	55,825	47,382	17.82%
EUROPEAN UNION	29,175	17,120	70.41%
MIDDLE EAST	15,412	19,584	-21.30%
CARIBBEAN	15,125	11,991	26.14%
OTHER WESTERN EUROPE	10,000	16,600	-39.76%
ASIA	7,510	16,927	-55.63%
TOTAL	<u>\$2,484,412</u>	<u>\$1,589,317</u>	<u>56.32%</u>

(1) BASED ON QUARTERLY REPORTS OF SEMEN SOLD AND CUSTOM FROZEN

(2) BASED ON QUARTERLY SURVEY OF SEMEN SOLD FOR EXPORT