

DOMESTIC DAIRY SEMEN SALES (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
HOLSTEIN	11,574,275	11,549,127	0.22%
JERSEY	673,544	619,420	8.74%
BROWN SWISS	106,950	102,243	4.60%
GUERNSEY	65,411	71,268	-8.22%
AYRSHIRE	35,321	34,887	1.24%
MILKING SHORTHORN	13,090	12,296	6.46%
OTHER DAIRY	0	0	0.00%
TOTAL	<u>12,468,591</u>	<u>12,389,241</u>	<u>0.64%</u>

CUSTOM FROZEN DAIRY SEMEN (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
HOLSTEIN	545,006	534,852	1.90%
BROWN SWISS	55,893	71,920	-22.28%
JERSEY	31,086	15,624	98.96%
AYRSHIRE	6,137	10,442	-41.23%
MILKING SHORTHORN	3,723	2,767	34.55%
GUERNSEY	770	1,615	-52.32%
OTHER DAIRY	0	0	0.00%
TOTAL	<u>642,615</u>	<u>637,220</u>	<u>0.85%</u>

DAIRY SEMEN EXPORT SALES (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
HOLSTEIN	7,875,297	7,895,165	-0.25%
JERSEY	521,499	522,825	-0.25%
BROWN SWISS	333,546	281,026	18.69%
AYRSHIRE	35,510	33,195	6.97%
GUERNSEY	20,767	22,048	-5.81%
MILKING SHORTHORN	3,081	2,500	23.24%
TOTAL	<u>8,789,700</u>	<u>8,756,759</u>	<u>0.38%</u>

DAIRY SEMEN EXPORT SALES (2)
UNITS OF SEMEN

REGION	1998	1997	%+/-
SOUTH AMERICA	3,132,402	3,320,741	-5.67%
EUROPEAN UNION	2,104,421	1,890,241	11.33%
NORTH AMERICA	1,215,762	1,197,020	1.57%
OCEANIA	557,291	691,294	-19.38%
MIDDLE EAST	375,926	269,790	39.34%
EASTERN EUROPE	345,345	419,256	-17.63%
ASIA	330,565	412,389	-19.84%
AFRICA	310,369	302,747	2.52%
OTHER WESTERN EUROPE	161,409	80,086	101.54%
CENTRAL AMERICA	144,070	128,927	11.75%
CARRIBEAN	33,417	32,334	3.35%
TOTAL	<u>8,710,977</u>	<u>8,744,825</u>	<u>-0.39%</u>

DAIRY SEMEN EXPORT SALES (2)
DOLLAR VALUE

REGION	1998	1997	%+/-
EUROPEAN UNION	\$23,215,292	\$24,440,696	-5.01%
SOUTH AMERICA	10,193,524	12,526,079	-18.62%
NORTH AMERICA	7,118,388	7,298,988	-2.47%
OCEANIA	3,510,080	4,457,368	-21.25%
ASIA	2,939,033	3,368,094	-12.74%
EASTERN EUROPE	2,257,576	2,982,128	-24.30%
MIDDLE EAST	2,211,145	1,791,171	23.45%
AFRICA	2,108,409	2,338,257	-9.83%
OTHER WESTERN EUROPE	1,276,499	798,869	59.79%
CENTRAL AMERICA	695,237	608,369	14.28%
CARRIBEAN	150,387	152,500	-1.39%
TOTAL	<u>\$55,675,570</u>	<u>\$60,762,519</u>	<u>-8.37%</u>

DOMESTIC BEEF SEMEN SALES (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
ANGUS	598,260	598,690	-0.07%
SIMMENTAL	83,352	86,343	-3.46%
RED ANGUS	69,259	65,720	5.38%
POLLED HEREFORD	52,284	56,489	-7.44%
BRAHMAN	23,524	22,454	4.77%
CHAROLAIS	17,063	19,549	-12.72%
LIMOUSIN	15,114	16,969	-10.93%
GELBVIEW	11,357	13,850	-18.00%
HEREFORD	4,969	7,320	-32.12%
MAINE ANJOU	3,685	5,917	-37.72%
BRAHMAN (RED)	2,895	471	514.65%
SCOTCH SHORTHORN	1,970	2,210	-10.86%
CHIANINA	1,944	2,526	-23.04%
SHORTHORN	1,814	1,723	5.28%
BRANGUS	1,638	1,142	43.43%
CHI-MAINE	1,638	648	152.78%
GYR	1,538	1,840	-16.41%
PIEDMONTESE	1,515	1,408	7.60%
OTHER BEEF (a)	13,104	13,186	-0.62%
TOTAL	906,923	918,455	-1.26%

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

BEEF SEMEN EXPORT SALES (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
RED ANGUS	361,165	298,710	20.91%
ANGUS	161,398	210,527	-23.34%
SIMMENTAL	98,251	107,780	-8.84%
POLLED HEREFORD	76,579	73,146	4.69%
BRAHMAN	40,743	33,175	22.81%
LIMOUSIN	36,242	48,192	-24.80%
CHAROLAIS	17,377	32,005	-45.71%
BELGIAN BLUE	10,840	14,620	-25.85%
GYR	7,155	3,300	116.82%
BRANGUS (RED)	5,470	2,990	82.94%
GELBVIEWH	5,045	6,398	-21.15%
BRAFORD	4,370	60	7183.33%
BRAUNVIEWH	4,179	1,030	305.73%
BRAHMAN (RED)	4,036	12,253	-67.06%
HEREFORD	3,945	7,930	-50.25%
OTHER BEEF (b)	11,882	17,190	-30.88%
TOTAL	<u>848,677</u>	<u>869,306</u>	<u>-2.37%</u>

(b) Other Beef includes: Blonde D'Aquit., Beefmaster, Brahmental-Simbrah, Brahmousin, Brangus, ChiAngus, Chianina, Chi-Maine, Dexter, Galloway, Indu-Brazil, Longhorn, Maine-Anjou, Marchigiana, Murray Grey, Nellore, Piedmont, Pinzgauer, Romagnola, Salers, Santa Gertrudis, Senapol, Shorthorn, Shorthorn (Scotch), Tarentaise, Wagyu and Misc. Beef.

CUSTOM FROZEN BEEF SEMEN (1)
UNITS OF SEMEN

BREED	1998	1997	%+/-
ANGUS	642,759	677,420	-5.12%
RED ANGUS	228,540	96,531	136.75%
MAINE ANJOU	98,598	96,012	2.69%
LIMOUSIN	96,301	108,263	-11.05%
BEEFMASTER	90,268	60,351	49.57%
SIMMENTAL	81,820	83,939	-2.52%
BRAHMAN	80,209	70,511	13.75%
WAGYU	75,030	73,444	2.16%
POLLED HEREFORD	63,316	45,497	39.17%
HEREFORD	62,014	86,217	-28.07%
BRANGUS	59,449	63,529	-6.42%
CHAROLAIS	55,459	64,545	-14.08%
GELBIEH	46,228	64,644	-28.49%
SHORTHORN (SCOTCH)	42,505	30,498	39.37%
SENAPOL	29,795	20,054	48.57%
BRAUNVIEH	26,471	28,823	-8.16%
BRAHMENTAL/SIMBRAH	25,973	12,545	107.04%
CHI-MAINE	21,208	19,077	11.17%
RED BRANGUS	19,724	15,536	26.96%
SALERS	16,727	27,846	-39.93%
CHI-ANGUS	16,387	20,680	-20.76%
SOUTH DEVON	14,524	9,492	53.01%
SHORTHORN	13,475	18,362	-26.61%
BELGIAN BLUE	9,554	2,574	271.17%
SANTA GERTRUDIS	8,068	13,001	-37.94%
TEXAS LONGHORN	7,720	13,778	-43.97%
INDU-BRAZIL	7,242	0	0.00%
SCOTCH HIGHLAND	5,475	1,689	224.16%
MARCHIGIANA	5,420	3,568	51.91%
CHIANINA	5,126	8,865	-42.18%
OTHER BEEF (c)	208,461	130,022	60.33%
TOTAL	<u>2,163,846</u>	<u>1,967,313</u>	<u>9.99%</u>

(c) Other Beef includes: Amerifax, Barzona, Blonde D'Aquit., Beefalo, Beef Friesian, Belted Galloway, Braford, Brahman (Red), Brahmousin, Braler, British White, Buelingo, Corriente, Dexter, Dutch Belted, Galloway, Murray Grey, Nellore, Normande, Piedmontese, Pinzgauer, Red Poll, Romagnola, Scotch Highland, Tarentaise, White Park, Yak and Misc. Beef.

BEEF SEMEN EXPORT SALES (2)
UNITS OF SEMEN

<u>REGION</u>	<u>1998</u>	<u>1997</u>	<u>%+/-</u>
SOUTH AMERICA	695,552	709,227	-1.93%
NORTH AMERICA	71,079	72,219	-1.58%
OCEANIA	26,707	29,572	-9.69%
CENTRAL AMERICA	22,940	22,359	2.60%
MIDDLE EAST	6,740	7,250	-7.03%
CARRIBEAN	6,165	3,210	92.06%
EASTERN EUROPE	5,990	11,822	-49.33%
AFRICA	5,880	6,616	-11.12%
EUROPEAN UNION	3,498	5,135	-31.88%
ASIA	2,324	2,260	2.83%
OTHER WESTERN EUROPE	480	600	-20.00%
TOTAL	<u>847,355</u>	<u>870,270</u>	<u>-2.63%</u>

BEEF SEMEN EXPORT SALES (2)
DOLLAR VALUE

<u>REGION</u>	<u>1998</u>	<u>1997</u>	<u>%+/-</u>
SOUTH AMERICA	\$1,415,188	\$1,441,576	-1.83%
NORTH AMERICA	394,428	460,061	-14.27%
OCEANIA	245,909	311,892	-21.16%
CENTRAL AMERICA	81,671	81,979	-0.38%
AFRICA	65,693	73,367	-10.46%
CARIBBEAN	25,815	15,125	70.68%
EASTERN EUROPE	18,041	55,825	-67.68%
MIDDLE EAST	16,565	15,412	7.48%
EUROPEAN UNION	15,793	29,175	-45.87%
OTHER WESTERN EUROPE	6,900	10,000	-31.00%
ASIA	5,723	7,510	-23.79%
TOTAL	<u>\$2,291,726</u>	<u>\$2,501,922</u>	<u>-8.40%</u>

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

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