

DOMESTIC DAIRY SEMEN SALES (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-------------------|-------------------|-------------------|--------------|
| HOLSTEIN | 11,932,258 | 11,314,928 | 5.46% |
| JERSEY | 576,637 | 545,051 | 5.80% |
| GUERNSEY | 208,209 | 207,362 | 0.41% |
| BROWN SWISS | 138,539 | 127,290 | 8.84% |
| AYRSHIRE | 56,010 | 58,825 | -4.79% |
| MILKING SHORTHORN | 17,780 | 16,149 | 10.10% |
| OTHER DAIRY | 251 | 225 | 11.56% |
| TOTAL | 12,929,684 | 12,269,830 | 5.38% |

CUSTOM FROZEN DAIRY SEMEN (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-------------------|----------------|----------------|---------------|
| HOLSTEIN | 635,491 | 527,008 | 20.58% |
| JERSEY | 30,078 | 21,952 | 37.02% |
| GUERNSEY | 12,298 | 6,892 | 78.44% |
| BROWN SWISS | 51,993 | 54,374 | -4.38% |
| AYRSHIRE | 1,032 | 1,641 | -37.11% |
| MILKING SHORTHORN | 4,422 | 1,295 | 241.47% |
| OTHER DAIRY | 0 | 0 | 0.00% |
| TOTAL | 735,314 | 613,162 | 19.92% |

DAIRY SEMEN EXPORT SALES (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-------------|------------------|------------------|---------------|
| HOLSTEIN | 3,193,547 | 2,941,783 | 8.56% |
| BROWN SWISS | 353,344 | 307,934 | 14.75% |
| JERSEY | 112,732 | 74,218 | 51.89% |
| GUERNSEY | 18,081 | 8,542 | 111.67% |
| OTHER DAIRY | 2,406 | 5,591 | -56.97% |
| | 3,680,110 | 3,338,068 | 10.25% |

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DAIRY SEMEN EXPORT SALES (2)
UNITS OF SEMEN

| REGION | 1987 | 1986 | %+/- |
|----------------------|-----------|-----------|---------|
| EUROPEAN COMMUNITY | 1,288,747 | 1,068,863 | 20.57% |
| OTHER WESTERN EUROPE | 113,191 | 57,136 | 98.11% |
| EASTERN EUROPE | 170,888 | 229,881 | -25.66% |
| SOUTH AMERICA | 1,069,404 | 1,082,477 | -1.21% |
| NORTH AMERICA | 540,565 | 496,357 | 8.91% |
| MIDDLE EAST | 209,205 | 121,025 | 72.86% |
| OTHER ASIA | 232,685 | 149,588 | 55.55% |
| CENTRAL AMERICA | 95,355 | 116,461 | -18.12% |
| CARRIBEAN | 14,165 | 7,398 | 91.47% |
| AFRICA | 54,855 | 32,008 | 71.38% |
| OCEANIA | 49,514 | 14,118 | 0.00% |
| TOTAL | 3,838,574 | 3,375,312 | 13.73% |

DAIRY SEMEN EXPORT SALES (2)
DOLLAR VALUE

| REGION | 1987 | 1986 | %+/- |
|----------------------|--------------|--------------|---------|
| EUROPEAN COMMUNITY | \$14,672,359 | \$11,208,649 | 30.90% |
| OTHER WESTERN EUROPE | 1,385,848 | 535,048 | 159.01% |
| EASTERN EUROPE | 1,743,015 | 1,636,130 | 6.53% |
| SOUTH AMERICA | 4,932,941 | 4,787,651 | 3.03% |
| NORTH AMERICA | 3,032,389 | 2,852,429 | 6.31% |
| MIDDLE EAST | 1,657,491 | 918,691 | 80.42% |
| OTHER ASIA | 1,906,175 | 1,077,882 | 76.84% |
| CENTRAL AMERICA | 349,003 | 430,271 | -18.89% |
| CARRIBEAN | 27,586 | 18,203 | 51.55% |
| AFRICA | 468,301 | 347,559 | 34.74% |
| OCEANIA | 396,819 | 170,842 | 0.00% |
| TOTAL | \$30,571,927 | \$23,983,355 | 27.47% |

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DOMESTIC BEEF SEMEN SALES (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-----------------|----------------|----------------|--------------|
| ANGUS | 300,351 | 291,880 | 2.90% |
| SIMMENTAL | 116,879 | 109,450 | 6.79% |
| POLLED HEREFORD | 110,917 | 118,671 | -6.53% |
| LIMOUSIN | 14,209 | 12,719 | 11.71% |
| CHIANINA | 12,259 | 15,281 | -19.78% |
| BRAHMAN | 41,552 | 44,664 | -6.97% |
| CHAROLAIS | 17,699 | 15,288 | 15.77% |
| RED ANGUS | 19,629 | 9,942 | 97.44% |
| HEREFORD | 13,539 | 15,578 | -13.09% |
| BRANGUS | 4,955 | 5,644 | -12.21% |
| GELBVIEH | 16,544 | 15,694 | 5.42% |
| SALERS | 13,608 | 14,354 | -5.20% |
| OTHER BEEF | 27,486 | 25,460 | 7.96% |
| TOTAL | 709,627 | 694,625 | 2.16% |

BEEF SEMEN EXPORT SALES (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-----------------|----------------|----------------|---------------|
| BRAHMAN | 31,749 | 30,788 | 3.12% |
| RED BRAHMAN | 6,040 | 7,560 | --- |
| SIMMENTAL | 38,879 | 32,068 | 21.24% |
| BRANGUS | 955 | 2,073 | -53.93% |
| POLLED HEREFORD | 26,054 | 15,936 | 63.49% |
| ANGUS | 22,799 | 18,865 | 20.85% |
| RED ANGUS | 7,280 | 4,348 | 67.43% |
| CHAROLAIS | 11,874 | 6,371 | 86.38% |
| SANTA GERTRUDIS | 510 | 2,566 | -80.12% |
| CHIANINA | 836 | 1,220 | -31.48% |
| HEREFORD | 5,495 | 3,385 | 62.33% |
| LIMOUSIN | 2,928 | 8,734 | -66.48% |
| OTHER BEEF | 6,483 | 9,728 | -33.36% |
| | 161,882 | 143,642 | 12.70% |

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CUSTOM FROZEN BEEF SEMEN (1)
UNITS OF SEMEN

| BREED | 1987 | 1986 | %+/- |
|-----------------|---------|---------|---------|
| ----- | ----- | ----- | ----- |
| ANGUS | 111,250 | 127,468 | -12.72% |
| CHIANINA | 49,461 | 35,400 | 39.72% |
| SIMMENTAL | 58,292 | 91,222 | -36.10% |
| POLLED HEREFORD | 28,179 | 62,835 | -55.15% |
| LIMOUSIN | 35,300 | 67,232 | -47.50% |
| CHAROLAIS | 52,420 | 44,033 | 19.05% |
| HEREFORD | 62,521 | 61,977 | 0.88% |
| BRANGUS | 22,095 | 37,931 | -41.75% |
| GELBVIEH | 31,252 | 16,834 | 85.65% |
| SALERS | 43,195 | 41,198 | 4.85% |
| BEEFMASTER | 23,608 | 66,030 | -64.25% |
| SANTA GERTRUDIS | 16,874 | 57,244 | -70.52% |
| BRAHMAN | 41,556 | 32,141 | 29.29% |
| OTHER BEEF | 153,108 | 182,033 | -15.89% |
| | ----- | ----- | ----- |
| TOTAL | 729,111 | 923,578 | -21.06% |
| | ----- | ----- | ----- |

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BEEF SEMEN EXPORT SALES (2)
UNITS OF SEMEN

| REGION | 1987 | 1986 | %+/- |
|----------------------|---------|---------|----------|
| SOUTH AMERICA | 97,154 | 79,343 | 22.45% |
| NORTH AMERICA | 32,735 | 26,593 | 23.10% |
| CENTRAL AMERICA | 11,980 | 7,062 | 69.64% |
| AFRICA | 1,193 | 3,031 | -60.64% |
| OTHER ASIA | 6,102 | 30,490 | -79.99% |
| MIDDLE EAST | 0 | 1,655 | -100.00% |
| EUROPEAN COMMUNITY | 4,535 | 882 | 414.17% |
| EASTERN EUROPE | 0 | 300 | 0.00% |
| OTHER WESTERN EUROPE | 880 | 200 | 340.00% |
| CARRIBEAN | 3,565 | 3,673 | -2.94% |
| OCEANIA | 4,865 | 2,803 | 0.00% |
| TOTAL | 163,009 | 156,032 | 4.47% |

BEEF SEMEN EXPORT SALES (2)
DOLLAR VALUE

| REGION | 1987 | 1986 | %+/- |
|----------------------|-----------|-----------|----------|
| SOUTH AMERICA | \$421,176 | \$409,245 | 2.92% |
| NORTH AMERICA | 256,264 | 228,995 | 11.91% |
| CENTRAL AMERICA | 61,069 | 68,830 | -11.28% |
| CARIBBEAN | 14,782 | 12,244 | 20.73% |
| AFRICA | 19,205 | 36,044 | -46.72% |
| OTHER ASIA | 32,060 | 119,346 | -73.14% |
| MIDDLE EAST | 0 | 11,957 | -100.00% |
| EUROPEAN COMMUNITY | 54,133 | 9,115 | 493.89% |
| OTHER WESTERN EUROPE | 4,000 | 783 | 410.86% |
| EASTERN EUROPE | 0 | 3,015 | 0.00% |
| OCEANIA | 30,291 | 17,158 | 0.00% |
| TOTAL | \$892,980 | \$916,732 | -2.59% |

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

(2) BASED ON SURVEY OF SEMEN SOLD FOR EXPORT