## HAYS CONVERTER

## THE ORIGIN OF HAYS CONVERTERS

The HAYS CONVERTER is the first beef breed recognized as a pure breed registerable under the provisions of the Canada Livestock Pedigree Act and developed by a Canadian Livestock producer. Since the concept was first developed by the late Senator Harry Hays of Calgary his objective has been to produce superior animals with the selection based only on performance not appearance or fads.

Senator Hays considered the idea for a new beef breed for a long time. Besides wanting to develop a leaner breed of cow, he wanted one that gained weight as efficiently as possible. He aimed at developing an animal that would reach the preferred market weight at the earliest possible age.

The market demanded a steer in the range of 1100 pounds. His goal, for maximum economic benefit, was to breed a beef animal that would reach this desirable market weight during its first year of life - when it could most efficiently convert feed to meat. Senator Hays set out to develop beef cattle that would be measured only on their performance as converters of feed to saleable meat - a cow with hardiness against Canadian winters, fast fleshing ability and calving ease, growthiness, large milk production for her calves and a trouble-free udder, high fertility, good feet and legs, and an excellent carcass.

From his experience as a dairy farmer, Senator Hays knew that a calf needed plenty of milk from its mother to ensure maximum growth. Yet farm experience had shown him that the average beef cow does not produce a sustained supply of milk for her calf after the initial heavy flow at the beginning of lactation. Aware that it required about nine pounds of milk to produce one pound of meat in an average calf, he began the evolution of his new beef animal by mixing dairy and beef cattle.

Senator Hays started his evolutionary quest by carefully combining progeny from three outstanding animals, each from a different existing breed. Spring Farm Fond Hope was a Holstein bull weighing 3,120 pounds whose progeny were distinctive for their large size, rugged constitution and excellent strong feet. His daughters also had a high butterfat test, good udders and average milk production of approximately 12,000 lbs. Certified Meat Sire, Silver Prince 7P was a 2,640 pound Hereford bull noted for his ability to transmit size, length, bone and fleshing ability to his offspring. Jane of Vernon was a 1,600 pound Brown Swiss cow famous for having what was judged the world's most perfect udder - she never had her feet trimmed and her milk production held up until the end of lactation. Her progeny excelled in size, growth and had excellent feet and legs.

Senator Hays selected eight sons of dairy bull Fond Hope to mate in the autumn of 1957 with his neighbouring rancher J. Allen Baker's herd of large Hereford beef cows and arranged to buy all the calves produced. From them and successive generations, he would select only those bulls that weighed at least 1,100 pounds at one year of age; a bull's worth was also measured by the number of offspring that stayed in the herd over the following years. Cows, too, were initially selected for their growth performance. But once in the brood herd, their selection depended on their ability to both produce offspring and survive. Every one of them had to have a calf annually to remain in the herd; each one had to become pregnant from the bull's first service, and she had to have the calf unassisted in the open pasture; if she had any trouble with the birth, or with the nursing of her calf once safely born, or needed help in any other way - hoof trimming, for example, or milking out - her tail was bobbed to mark her, and she was shipped off to the slaughter-house come autumn.

The evolutionary law of survival of the fittest was followed ruthlessly. Senator Hays insisted that each cow produce a good supply of milk from the Holstein genes in her body - that they supply plenty of milk to the calves near the end of lactation when the calves need it most for growth. He especially admired the qualities of Jane of Vernon - in addition to having the most perfect udder, she never ever had her feet trimmed. He chose her primarily because she peaked in her milk production in her eighth month.

Two years after the original matings of the sons of Fond Hope and the Hereford cows - the best females born from these matings (granddaughters of Fond Hope) were bred to Silver Prince. Five of the best bulls from these matings (sons of Silver Prince and great-grandsons of Fond Hope) were selected to mate with their mothers (Fond Hope's granddaughters produced by the original matings with Baker's Herefords). Having brought together the specially gifted progeny of Fond Hope and Silver Prince, Senator Hays next introduced the superior genetics of Jane of Vernon's offspring. He mated four of her great-grandsons with one hundred Hereford cows. The female progeny from these matings were then put into the breeding herd. Now that he had combined the genetic materials he wanted, the herd was closed to all other outside breeding influence. By 1969 his own breed of cows had been bred to his own breed of bulls regularly and exclusively for seven years, and his work on improving nature's genetics was producing the results he had anticipated.

## SUMMARY OF ORIGINAL BREEDING PROGRAM

Sons of Fond Hope - mated to Hereford cows

female offspring mated to Silver Prince 7P

selected males mated to Fond Hope X Hereford females

Jane of Vernon's great grandsons mated to Hereford cows

females of this mating put into the herd and the herd was closed to outside blood.

The animal he called the HAYS CONVERTER - most of them black with white faces, but some of them red with white faces - was proving to be the fastest gaining beef breed in North America. The HAYS CONVERTER steers had reached the preferred market weight of 1,000 to 1,100 pounds by the time they were thirteen or fourteen months old, whereas Herefords on the Hays ranch would not reach that weight until they were eighteen or nineteen months old.

The average HAYS CONVERTER brood cow's mature weight was 1,500 pounds, compared to 1,300 pounds for the Herefords on his ranch. He got double the milk production with his HAYS CONVERTER cows and this production peaked two months after calving, instead of right at

calving. Nine pounds of milk will give a pound of meat, so a cow that will give 1,000 pounds more milk will give you over 100 pounds more calf, and he ended up with a big husky calf in the fall. No matter how well other breeds convert after that; they can never catch up.

In recent years all potential replacement animals have been officially Record of Performance tested and only the best retained. In order to ensure as rapid as possible progress, the generation interval has been kept short through the A.I. use of yearling bulls, just off test, on yearling females.

In 1974 a committee appointed by the Canadian Department of Agriculture inspected the herd. This committee reviewed the breeding program inspected and nominated "foundation" animals and in December 1975 the first purebred Certificates of Registration were issued for HAYS CONVERTERS.

## SINCE 1957 - A RUTHLESS SELECTION PROGRAM

Selection has always been based only on performance. Selection standards include:

- \*\* All females must calve as two year olds between 23 and 25 months of age.
- \*\* Cows that had calving difficulty, foot or udder problems are culled along with any that do not wean a calf.
- \*\* All bulls used for A.I. must have a minimum adjusted 365 day weight of 1,100 pounds.

Results of this rigid breeding and selection process are:

- \*\* Cattle that are large, rugged, well fleshed and long bodied, have strong legs and good feet.
- \*\* Cows that winter on the range with a minimum of supplemental feeding.
- \*\* Two year old heifers that wean calves weighing 500 to 600 pounds.
- \*\* Cows that do not have to be milked out but provide the extra milk needed for heavy weaning calves.
- \*\* Cows with excellent udders whose milk production peaks when the calf can use it and lasts until weaning.
- \*\* Cows that do not need to have their feet trimmed.
- \*\* Calves that wean at between 500 and 650 pounds.
- \*\* Steers that finish at about 1,100 pounds at 12 to 14 months of age under normal feed lot conditions.
- \*\* Animals with a high degree of performance uniformity.
- \*\* Steers that grade A1, are not wasty and have a good fat to lean ratio.
- \*\* Cows with a high level of fertility with a high pregnancy rate after a two-cycle exposure or A.I.
- \*\* Cattle that are easy to manage under either range or farm conditions.
- \*\* HAYS CONVERTER females, whether purebred or grade, have excellent maternal characteristics and raise outstanding calves irrespective of the breed of sire to which they are mated.
- \*\* HAYS CONVERTER bulls produce calves with weaning weights well above average whether purebred or crossed with any other breed.

The Canadian Hays Converter Association and its by-laws were officially approved by Canada Agriculture in 1976. The by-laws, among other things, require that performance records at 200 days and 365 days of age form part of the Registration Certificate. The by-laws also provide for

a grading-up and recordation procedure that permits registration status for females through the use of registered HAYS CONVERTER bulls for a minimum of three generations.

HAYS CONVERTER semen is always available. Semen can be ordered through Eastern Breeders, Kemptville, Ontario B Genex Hawkeye West, Billings, Montana - Western Breeders, Balzac, Alberta

or Hays Ranches, Calgary, Alberta.

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