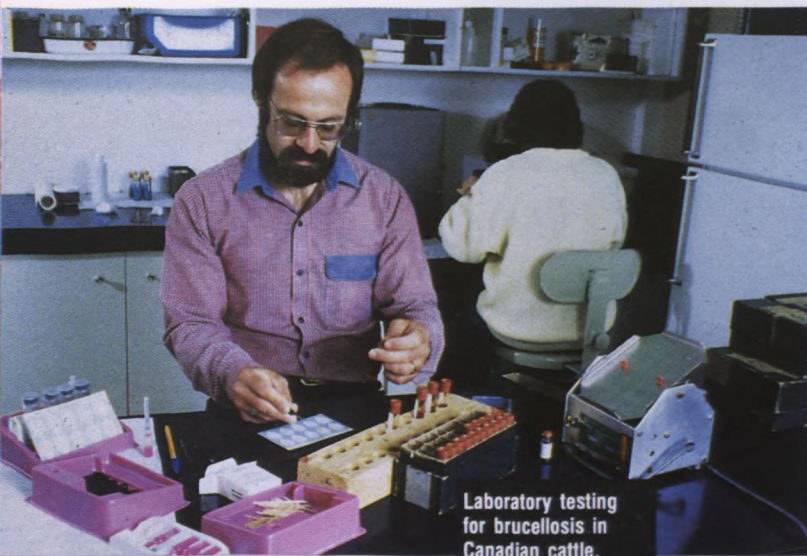


## Canadian Cattle:

### A Breed Apart



A single superior cell can be physically cut to produce two offspring, thus improving the rate of genetic progress. This technique, along with artificial insemination, holds great promise for the future of livestock production. (Photo courtesy of Animal Research Centre, Agriculture Canada)



Laboratory testing for brucellosis in Canadian cattle. Canada officially became free of bovine brucellosis in 1985. (Photo courtesy of Communications Branch, Agriculture Canada)

Canadian cattle have long been recognized for their superior genetic traits. These traits have not only benefited the Canadian dairy and beef industries, but have been instrumental in developing those industries throughout the world.

Each year, Canada exports approximately 36 000 dairy cattle, 10 000 beef cattle for breeding, and 1.5 million doses of frozen bull semen, to more than 65 countries. Through breeding programs and genetic selection, Canada has developed cattle bloodlines that are highly sought as a means of increasing dairy production and beef quality.

Canadian dairy cattle, 95 per cent of which are Holsteins, are the world's most efficient milk producers according to the Holstein Association of Canada. These Holsteins have the strength and constitution to produce large quantities of milk year after year. Domestic beef cattle, meanwhile, are valued for their high yield of beef. This beef is also noted for its low fat and flavour retention.

To maintain this impressive reputation, Canadian dairy and beef cattle undergo the most sophisticated methods of sire

selection and performance testing. Almost half of Canada's 1.7 million dairy cows are enrolled in programs that record milk production. All dairy cattle are required to meet the rigid standards of the Canadian Milk Recording Board, a group composed of representatives from government, milk producers, breed associations, and the artificial insemination industry.

Purebred beef cattle undergo equally stringent testing. Under the Canadian Livestock Pedigree Act, all cattle are registered in their breed association's official herd book. These records provide a complete and accurate identification and pedigree of each animal. The federal Department of Agriculture annually tests and analyzes 160 000 animals for economically important genetic traits, such as calving ease, growth, and reproductive ability.

Bulls that are being considered for artificial insemination service are selected from the offspring of superior cows. The national sire evaluation program identifies those bulls that have the highest capacity for transmitting desirable traits. More than 10 000 bulls are tested in over 100 test stations