

CALF BORN OF EMBRYO TRANSPLANT

A calf born nine months after its embryo had been transplanted into the womb of a "foster mother", is believed to be the first birth in Canada resulting from the transfer of a fertilized egg from one cow to another.

A surgical team headed by Drs. Keith Betteridge and Douglas Mitchell, veterinary-research scientists at the Animal Diseases Research Institute, performed the transplant last August. A 16-cell fertilized egg was removed surgically from the donor cow — a Holstein — and placed in the uterus of the foster mother, also a Holstein. The sire is an Aberdeen-Angus bull.

The birth, which took place on a Department of Agriculture farm near Ottawa, marked a successful step in the development of a research tool that could be used in several phases of cattle breeding.

Although the ovaries of a cow contain 50,000 to 100,000 eggs, she normally produces only about ten calves in her lifetime. By using transfers, genetically superior cows could produce many more calves, which would be carried through pregnancy by substitute mothers. Such calves would not be affected by the inferior genetic make-up of "host" mothers.

The scientists cautioned however, that a number of problems still remained before the procedure became routine.

"At least three main hurdles exist," they stated: "First, hormonal methods of superovulating donor cows can still produce unpredictable results. A more consistent method must be found to produce about ten eggs at one time. "Secondly, we need to have the estrous cycles of the donor and recipients synchronized so that all ovulate at the same time. This is essential to the continuing development of the fertilized egg in the host cows. "Improvements in methods of storing fertilized eggs after collection until they are transplanted might eventually overcome this difficulty."

CBC CHIEF TO UN

Congratulating Dr. George Davidson, President of the Canadian Broadcasting Corporation, on his recent appointment to the United Nations as Under Secretary-General for Administration and Management, the Secretary of State for External Affairs, Mr. Mitchell Sharp, noted that this post was one of the highest in the UN Secretariat ever occupied by a Canadian. Dr. Davidson's "distinguished career" in the Public Service would, Mr. Sharp stated, serve



Agriculture Minister H.A. Olson greets Tulip, the embryo-transplant calf, while the proud "foster mother" looks on.

"Finally," the scientists state, "the methods of embryo-transfer must be refined. Although, under ideal conditions, up to 90 percent success in establishing pregnancy in hosts may be achieved using present surgical techniques, such results require sophisticated facilities."

him well in his new job.

The Secretary-General of the United Nations had approached Dr. Davidson directly, after which the Canadian Government had been asked for their concurrence which, Mr. Sharp said, was given "with enthusiasm".

Dr. Davidson, CBC chief since 1968, was, from 1964, Secretary of the Treasury Board.

Replacing Dr. Davidson, effective August 1, will be Mr. Laurent A. Picard, 44 years old, who has been Vice-President of the CBC since 1968.