Alternative ways sought of achieving Canada's commercial broadcasting aims

Other means of obtaining the objectives of the Canadian broadcasting system will be considered when United States and Canadian officials meet again to discuss the Canada Radio-Television Commission's policy of deleting commercial advertizing on TV programs originating in the U.S. and shown in Canada.

The following excerpts are from a joint communiqué *issued after a meeting of representatives of both countries on January 13.*

Representatives of the Governments of Canada and the United States met January 13 in Ottawa at the request of the United States State Department, to consider the views of the United States Government concerning the deletion from Canadian cable television transmissions of commercial messages originating from United States broadcasting sources, as required by the Canadian Radio-Television Commission.

The implications of this requirement were discussed by Canadian officials in the context of the economic activities in Canada of U.S.A. border stations. In addition, mutual regulatory activities and policies as they affect transborder broadcasting and cable issues were comprehensively discussed.

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It was agreed that further meetings would take place in the near future between appropriate Canadian and U.S.A. officials to consider alternative means for achieving the objectives of the Canadian broadcasting system. Obviously officials in their talks would continue to be guided by the policies of their respective Governments.

Breakthrough in animal breeding – calf sex known months before birth

Agriculture Canada veterinarians who have been carrying out research on embryo transfers in cattle have scored another first in animal breeding.

Researchers now can determine the sex of a two-week-old calf embryo taken from its mother's uterus. Embryos of known sex can then be transferred to recipient cows, which carry them to full term. The development has important implications for future use of embryo transfers in multiplying stocks of genetically superior cattle. The sex of calves born from transfers can be chosen at will.

The proof of this most recent milestone in cattle breeding made its appearance on Christmas Day, when a 70-pound heifer calf was born at the federal department's Animal Diseases Research Institute in Ottawa. Researchers had known its sex since 14 days after it was conceived on March 20, 1975.

Transfer is used to rapidly multiply superior stock. Instead of a pedigreed mother bearing one or occasionally twin calves, several of her fertilized eggs are transferred into surrogate mothers.

First, the purebred cow is treated with a hormone to make her superovulate. Instead of one or two eggs being released, as many as 30 may be produced, most of which can be fertilized by artificial insemination.

The quality of the recipient is of no importance as the genetic constitution of the embryo is not affected by the uterine environment in which the resulting pregnancy is completed. However, about half the calves produced are bulls and in the case of dairy-cattle breeding, heifers are much more in demand for milk production.

Now the Agriculture Canada veterinary research team – Keith Betteridge, Bob Eaglesome, Douglas Hare, Douglas Mitchell and Geoff Randall – has developed a method for pre-determining the sex of these calves. They can choose to produce heifers or bulls at will.

It is the first time such a technique has been reported. It involves taking a biopsy from the embryo to determine its sex by chromosomal analysis. The only other report of embryo sexing from Cambridge, England, is one in which rabbits were used.

"During the past year, using developed surgical transfer techniques, we first found it possible to successfully transfer unsexed embryos as late as 16 days after the onset of the donor's heat cycle," say the researchers. This delay in removing the embryos from the donor's uterus allows them to develop from their early, small, spherical shape to a larger, more elongated form which can vary in length from about one to 35 mm.

While the other members of the team carry out the embryo removal and transfer, Dr. Hare, a cytogeneticist, cuts a small portion from the end of the embryo. The cells contained in the tiny tissue slice are used for sex-chromosome determinations.

For the next three hours, in which the removed tissue is processed and the sex of the embryo determined, the embryo is incubated in a tissue culture medium.

After the chromosome examination is complete, embryos of the desired sex can be transferred to the recipient cows. Should pregnancy follow, the sex of the developing calf is known.

The heifer calf born on Christmas Day confirmed the accuracy of the sexing technique.

In experiments to date, a total of 22 embryos – 10 male and 12 female – have been sexed and transferred, with 10 pregnancies resulting.

"This development means we can produce genetically superior bulls or heifers at will," say the scientists, who will describe details of their procedure at the International Congress on Animal Reproduction and Artificial Insemination in Poland next July.

Continued participation in UNFICYP

Canadian participation in the United Nations Peacekeeping Force in Cyprus (UNFICYP) is to continue for a further six months to June 15 in response to a request from the UN Secretary-General.

The period of further Canadian participation approved by the Government coincides with the mandate renewal period recently agreed to by the Security Council for UNFICYP. Secretary of State for External Affairs Allan MacEachen noted that UNFICYP was contributing significantly to an atmosphere of restraint on the island which, it is hoped, will assist progress towards a negotiated settlement of the Cyprus issue. Canada, at present, contributes 515 personnel to UNFICYP.