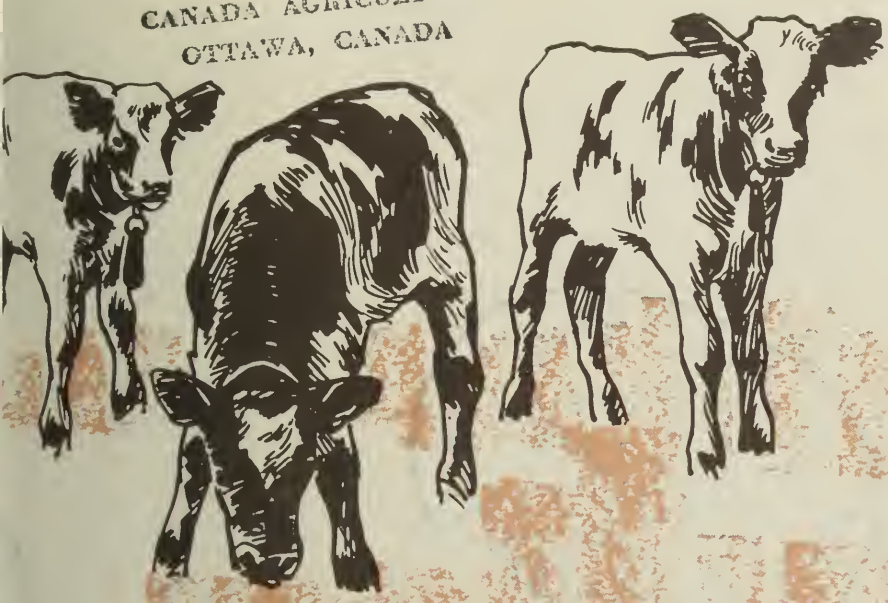

brucellosis vaccination of calves

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Agriculture Canada

WHAT IS BRUCELLOSIS?

Brucellosis is a contagious disease caused by bacteria of the Brucella group. It affects cattle, swine, goats, and man. In cattle, the disease is commonly known as Bang's disease or contagious abortion. In man, it is called undulant fever.

What is brucellosis calfhood vaccination?

Brucellosis vaccination is the injection of Strain 19 Brucella vaccine into young female calves, to produce immunity against brucellosis infection. In other words, calves are given a small amount of modified, live brucella germs in order to stimulate the production of antibodies that will provide a degree of protection, if the animals should be exposed to the disease.

At what age should calves be vaccinated?

The official age for calfhood vaccination is from three to nine months but the Health of Animals Branch recommends that calves be vaccinated between three and six months of age.

Why is early vaccination recommended?

The introduction of vaccine into the body of a calf stimulates the production of antibodies which, in turn, produce an agglutination titer (blood reaction). An animal with a high agglutination titer is classed as "POSITIVE".

If vaccination is done early (3 to 6 months), the titer generally disappears before the calf reaches sexual maturity. On the other hand, if vaccination is done late (after 6 months of age), the titer sometimes persists beyond sexual maturity and even throughout the animal's adult years.

Does early vaccination provide the same degree of immunity as late vaccination?

Yes. Recent field experiments have shown that early vaccination produces a degree of immunity equal to that produced by late vaccination.

Does brucellosis calfhood vaccination provide 100 percent protection against brucellosis infection?

No. However, 60 to 70 percent of vaccinated animals have complete protection against brucellosis and the rest have partial protection.

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Will vaccination eradicate brucellosis?

No. Vaccination plays a useful role in controlling the spread of the disease. In the early stages of brucellosis control in Canada, vaccination reduced the level of infection to a point where it was possible to proceed with a test-and-slaughter program to eradicate the disease and establish areas free from brucellosis. As we are now reaching the final stages of brucellosis eradication, there is less need for a vaccination program.

Should an owner continue a vaccination program in his herd?

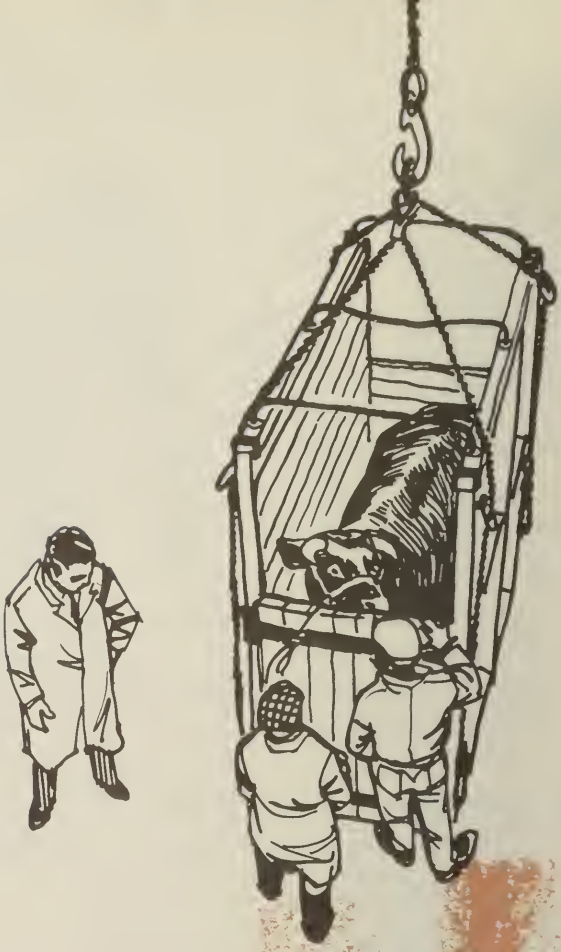
The Health of Animals Branch considers that it is no longer necessary to carry out a vaccination program except where the incidence of brucellosis in a herd or an area warrants it.

What safeguards are taken to ensure that an area remains free of brucellosis infection?

The Health of Animals Branch conducts two screening programs:
Brucellosis Milk Ring Tests — Milk and cream samples collected at dairies and creameries are tested for brucellosis.
Market Cattle Testing — Cattle are identified with special back tags and are blood-tested at markets and slaughtering plants. If infection is uncovered by either of the above screening programs, the entire herd is blood-tested and the source of infection is thoroughly investigated. Herds not covered by one of these plans are periodically blood-tested for brucellosis.
The above tests provide adequate assurance that sources of infection introduced into a herd will be uncovered early, thus preventing the infection from spreading within the herd or to other herds.

Will heifers and cows that are not vaccinated be eligible for export?

Yes. The Common Market countries of Europe have discontinued vaccination and are requesting non-vaccinated animals.
The United States Department of Agriculture is de-emphasizing vaccination. Many States now require that an animal be negative to a brucellosis test when 18 months of age or over. In many cases, this is a difficult requirement to meet in a vaccinated animal.



FACTS TO REMEMBER

Field experience has clearly indicated that brucellosis can be eradicated.

Vaccination will control but not eradicate brucellosis.

Vaccination will not provide 100 percent protection for your herd.

Late vaccination can cause animals to be classed as reactors to the brucellosis test.

You may be jeopardizing the future eligibility of your animals for export by having them vaccinated.

Vaccination is not considered necessary in Brucellosis Free Areas.

If you vaccinate — vaccinate as soon as possible after three months of age.

REGIONAL VETERINARIAN BRANCH OFFICES

Health of Animals Branch

British Columbia	Room 801 1001 West Pender Street Vancouver, British Columbia V6E 2M7
Alberta	604 Public Building Calgary, Alberta T2G 0K9
Saskatchewan	828 Motherwell Building Rose and Victoria Streets Regina, Saskatchewan S4P 3R4
Manitoba	613 Federal Building 269 Main Street Winnipeg, Manitoba R3C 1B2
Ontario	909 Jane Street, Toronto, Ont. (mail) P.O. Box 334 Weston, Ontario M9N 3M7
Quebec	1441 St. Urbain Street Room 312 Montreal, Quebec H2X 2M9
Atlantic Provinces	Terminal Plaza Building, 5th floor 1222 Main Street (mail) P.O. Box 338 Moncton, New Brunswick

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INFORMATION DIVISION
CANADA DEPARTMENT OF AGRICULTURE
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