

Bovine Tuberculosis Control In New York State

DR. E. V. MOORE*

THE campaign against bovine tuberculosis is not over. In military campaigns, when the conquering nation has the strength of the enemy greatly reduced, the war is over. In disease-control work this is not true. The small percentage of cattle left which harbor the infection can re-create the disease extensively in a very short time. Many livestock owners have entered the dairy industry since bovine tuberculosis has been brought under control. These men do not remember the old days when bovine tuberculosis was the No. 1 enemy of our dairy herds.

Thirty years ago bovine tuberculosis was the cause of the greatest economic loss, both actual and potential, to New York state dairy men. The history of veterinary medicine tells us that there are few if any cattle diseases that are more ancient in origin, that have spread over a larger portion of the earth's surface, that are more chronic in nature or more insidious in their dissemination, than bovine tuberculosis. Since 1882, when Robert Koch, a German bacteriologist, discovered the microorganism which causes tuberculosis, the livestock industry has been planning some way to control this disease.

Plan Initiated In 1918

In 1918, a joint federal-state plan was inaugurated to eradicate bovine tuberculosis from the entire United States by the test-and-slaughter plan, with indemnity payments to the owners for reactors. Many then believed that this would be im-

possible. No other country had ever attempted such a wholesale disease-eradication program. In New York state such an eradication campaign seemed particularly hazardous because of New York's large cattle population and its high percentage of infection. A great many responsible people, including breeders, were against the procedure.

It took 30 years and more than \$60,000,000 of New York state's money, as well as the millions spent by the federal government and the counties of the state, to reduce the average infection in the state from 26.6 percent to less than one-quarter of 1 percent. The decrease in the number of reactors and the lowering of the percentage of infection have created the impression that tuberculosis is eradicated, and that our Bureau of Animal Industry has been relieved of most of its work in connection with this disease. That is far from the facts. Bovine tuberculosis is still a threat to our dairy herds. The conservation of these tuberculosis-free herds is just as important as their creation, and they must be tested regularly to prevent reinfection.

Almost a million reactors to the tuberculin test have been removed from New York state. One-fourth of all the reactors in the United States came from New York state. The number of reactors removed from New York exceeds by 150,000 the present combined cattle population of Vermont, Connecticut, Massachusetts, and New Jersey. During the fiscal year ending April 1, 1947, throughout the state we tested 51,917

* Assistant Commissioner of New York State Department of Agriculture and Markets.

herds, comprising 1,186,232 cattle, of which 1,835, or .15 of one percent, reacted.

It probably will take longer to eliminate the last hundred reactors from our herds than the first million. The campaign to remove the last hundred reactors will not be so conspicuous as was the earlier one but it will be a great service to the livestock industry. Until the last reactor is removed, we must constantly check our herds to see that they are not reinfected. If they were neglected, the disease would re-establish itself in a very few years and all the efforts to control the No. 1 enemy of the dairy industry would be lost. Until the disease is completely eradicated, it is necessary to retest our herds periodically. The small amount of money that it now costs annually to suppress this disease or keep it under control is a low insurance premium on the \$60,000,000 that New York state has invested in these herds.

At the present time we are concentrating on the herds where infection is known to exist, rather than testing all the cattle in the state every year. But even in the areas that are practically clean, we are retesting the cattle on a 3-year basis to be sure that the disease does not reappear and get well under way before it is discovered.

Reactors Without Lesions

Tuberculosis reactors showing no visible lesions on postmortem are a constant problem in our Bureau of Animal Industry. There are several hundred lymph glands in the carcass of a cow, but only a few of the larger glands filter the lymph from the muscles used for human food. An animal showing no visible lesions on postmortem may have lesions of tuberculosis in some small lymph glands that do not drain the muscles used for human consumption. Bovine tuberculosis is a lymph-gland disease and no doubt lesions could be found in many of these carcasses if all the glands were examined. This would mutilate the carcass to such an extent, however, that the meat could not be used for food.

Our reactors are killed under fed-

eral meat inspection, but this inspection serves only to determine whether the meat is safe for human consumption and should not be interpreted as an index to whether the animal is infected with tuberculosis.

I am appreciative of the fact that an owner may feel that he has suffered unnecessary financial loss and inconvenience when reactors that do not show visible lesions are removed from his herd. However, in my field work I always told an owner that an animal which did not actually react, but was suspicious to the test was a dangerous animal and that, while she might not show visible lesions, she was a great potential danger to the herd, and that the safest and most economical thing to do was to remove her immediately in order to protect the rest of the herd. For example, last year a good herd, which had been accredited for several years, comprising 143 animals, revealed 15 suspicious reactors, but the owner was not satisfied that they should be killed. We convinced him that these 15 animals should be slaughtered, and about half of them showed lesions. Sixty days later, on retest of the entire herd, 77 animals reacted, 68 of which showed localized lesions, one showed generalized lesions, one showed skin lesions, and 7 showed no visible lesions.

I can understand how some owners may feel about losing animals which do not show visible lesions, but I am sure that if we are to eradicate bovine tuberculosis from this state our procedure is sound.

The war against bovine tuberculosis is not over. I am very appreciative of the good work that has been done by all the agencies involved. The livestock owners, the farm organizations, the county boards of supervisors, the State and Federal Bureaus of Animal Industry, the State Legislature, and the veterinarians of the state, have rendered a valuable service to the livestock industry as well as demonstrating to the world that bovine tuberculosis can be controlled. I hope that these agencies will all work together with more interest and enthusiasm than ever in order to remove the last tuberculosis reactor from New York state.