

Management. Postgraduate Medicine. 4: (1947).

2. Johanson, Fredrick, and Erickson, Paul: Leprosy Current Status of Therapy. J.A.M.A. 144: 12 (1950).

3. Agrino, Henrique: A Study of the Psychology of Leprosy. Archives of the States of Mineiras,

Brazil. 8: 231 (1948).

4. Cochrane, R. C.: Practical Textbook of Leprosy. Oxford University Press. London, New York. (1947).

5. Cazenavette, L. L.: Mental Aspects of Leprosy. J.A.M.A. 89: 1496-1500 (1927).

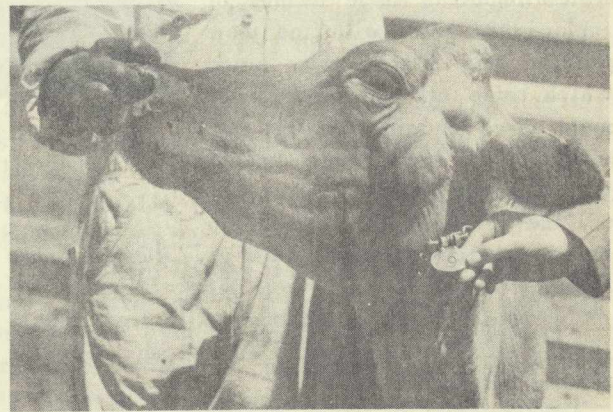
## BOVINE TUBERCULOSIS IN THE UNITED STATES

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Tuberculosis in cattle has continued to decline, except during World War II, since the inauguration of the Federal control program known as the Accredited Herd Plan of Bovine Tuberculosis Eradication in 1917. In 1917 it was officially estimated that 5 percent of the cattle of the Nation were infected with most of the animal infection concentrated in the Northeast and Midwest dairy States. In some of the older dairy sections, 50 to 100 percent of the cattle were infected. By 1934 the infection rate had dropped to 1.1 percent and by November 1940 all the counties of the United States had become modified accredited areas with less than one-half of 1 percent of the cattle reacting. It was estimated that less than 0.4 percent of the dairy cows and 0.05 percent of the beef cattle were infected in 1940.

The U. S. Department of Agriculture, Bureau of Animal Industry, reports that for the 12-month period ending June 30, 1950 there were more than 9,000,000 cattle tested of which 0.19 percent or 17,733 were reactors. This is practically the same percentage found during the past two years but lower than 1945 - 1947 when the rate rose to over 0.2 percent.

The Meat Inspection Division of the Bureau of Animal Industry reports all cases of animal tuberculosis to the Federal and State tuberculosis control officials. This enables these officials to locate centers of infection especially in those areas where little testing is being done. Even though only 25 percent of the cattle found to be tuberculous can be traced to the farm of origin, during the past year, according to reports of the Meat Inspection Division, State officials were



Animal which showed a positive reaction to a tuberculin test. Note tubercular lesion under left eye.

*Photo courtesy of  
Georgia Department of Agriculture.*

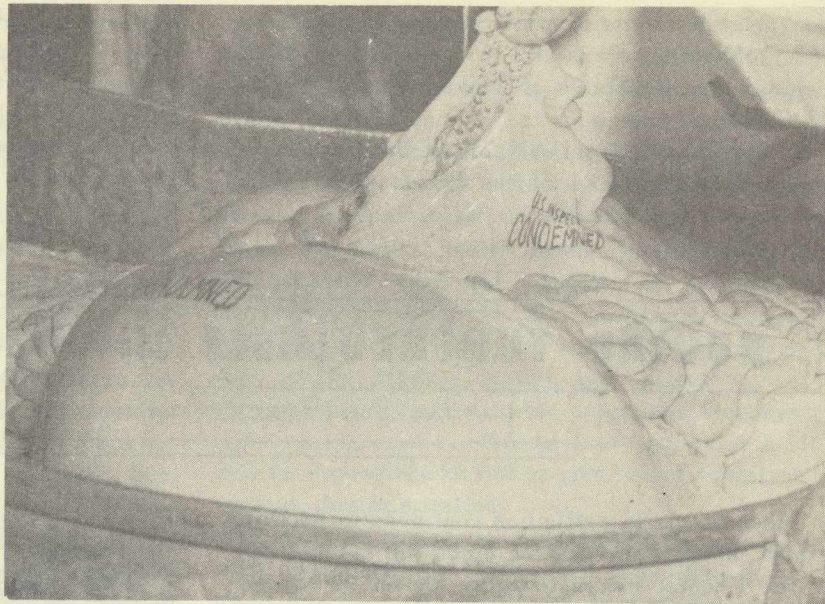
able to locate 300 additional tuberculin reactors on farms from which infected animals had gone to market. Most local health departments have cooperated by reporting cases of bovine tuberculosis when they are found in animals slaughtered under their supervision. All local health authorities should be concerned with this problem and the follow-up of infected cases. This is especially true in regard to milk producing herds. It is recommended that all local health departments report evidence of animal tuberculosis to the State health agency for transmittal to the State livestock sanitary board or State veterinarian.

Beginning January 1, 1951, the requirements of Accredited Herd Plan will prescribe that all animals except range animals be tested once every 6 years in order to be reaccredited as tubercu-

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losis free. In some cases it will also be necessary for the reactors to be less than 0.2 percent instead of 0.5 percent as was formerly required. The requirement for testing of all animals every 6 years is a big step toward eradication, but the 6-year testing period will not be acceptable to all health departments and officials charged with milk sanitation enforcement. Many communities will continue with their present policies of annual or biannual testing. Naturally, milk sheds which import a large number of replacement cows will find their reactor rate higher than areas which raise all of their replacement cows or which import few cows. Most health departments will find that an intelligent study of the previous records on bovine tuberculosis testing will give them valuable facts on which to base their future retesting requirements. Some communities will find annual testing still justified while others can wait 2 or 3 years between tests.

Tuberculosis in other domestic animals has also declined in the past 30 years but not as significantly as in cattle. The rate among the swine inspected at abattoirs under Federal supervision has declined from 15 percent to 10 percent. Most of the present infection in swine is attributed to the avian type of infection which is common in central United States. Occasionally bovine and human types of infection are found in swine, but the former has declined with the lowered incidence in cattle, and the human type has seldom been found except in hogs fed on raw garbage from sanatoriums. Fortunately, avian tuberculosis rarely if ever causes disease in man. It will cause disease in swine and will sensitize cattle to react to the tuberculin test. Among old poultry flocks, rates of infection will run very high, sometimes all the birds over 2 years of age being infected. Dogs, horses, cats, goats, and sheep are susceptible to tuberculosis but in the United States these animals are seldom reported as being infected.



Tubercular lesions in lymph gland of condemned meat.

*Photo courtesy of Georgia Department of Agriculture.*

The incidence of bovine tuberculosis is much higher in countries other than the United States except Sweden, Norway, and Finland. In Great Britain it is estimated that 15 percent of the cattle are reactors. In 1945, in British abattoirs, 32,822 cattle were found to have generalized tuberculosis and were condemned. On the Continent the tuberculosis rate in animals is even higher. In Germany it is stated that 35 percent of the cows are infected. The highest rate is reported in Poland and Eastern Europe. No real efforts have been made to carry on an eradication program on the Continent because of the alleged economic cost. Considerable time has been devoted to vaccine research without successful results except in herds where the infection rate is over 50 percent.

The United States is fortunate to have brought the disease under control and so close to eradication. The economic and public health losses in Europe, South America, and Asia provide a good yardstick to measure our good fortunes. The effort to eradicate this disease will require the cooperation of everyone who is concerned with the disease: boards of health, departments of agriculture, and livestock sanitary boards. Complacency will defeat the campaign. Alertness will be rewarded with success.