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NEW JERSEY, COMMISSION TO INVESTIGATE TUBERCULOSIS IN CATTLE

Report made to State Board
of Agriculture, January 16, 1894

Class SF 82

Book N 6

STATE OF NEW JERSEY.

REPORT OF COMMISSION

TO

INVESTIGATE THE EXISTENCE

OF

Tuberculosis in Cattle.

MADE TO STATE BOARD OF AGRICULTURE,
JANUARY 16th, 1895,

Acting under Law passed May 22d, 1894.

TRENTON, N. J. :

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REPORT OF THE COMMISSION TO INVESTIGATE THE
EXISTENCE OF TUBERCULOSIS, ACTING UNDER
LAW PASSED MAY 22, 1894.

First. As to the appointment of the Commission.

The President of the State Board, Hon. Edward Burrough, appointed as members of the Commission Messrs. Isaac W. Nicholson, Camden county; Chas. Howell Cook, Somerset; H. V. M. Dennis, Monmouth; Dr. Jos. B. Ward, Essex, and Dr. Wm. C. Parry, Burlington, with the President and Secretary of the State Board, who are made members of the Commission by the act.

The Commission were called together in the office of the State Board of Agriculture, July 24th, and organized by electing Edward Burrough, President; Chas. Howell Cook, Vice President and Treasurer; Franklin Dye, Secretary.

Second. The Commission first proceeded to outline a course of action under the law within the limitations prescribed therein.

Under the rules adopted they decided to procure all available information on the question of tuberculosis in animals and results of the tests made to discover its existence, by the use of Koch's lymph, up to the present time. The Secretary was directed to open correspondence with other similar Boards and Commissions, with Experiment Stations and the United States Bureau of Animal Industry at Washington, to secure all available reliable literature bearing on the question. Some extracts from this literature will be published with this report.

For the scientific work of the Commission, the State Biologist, Prof. Julius Nelson, of the State Agricultural College, was employed, and his report of analyses made, cattle examined, &c., will accompany this report.

The Commission also decided to employ competent veterinarians in different parts of the State, as occasion might require, to make physi-

cal examinations and assist in the autopsies of cattle condemned to be slaughtered.

The Commission acknowledge the efficient aid of the State Dairy Commissioner in co-operating with them in the work undertaken. A number of herds were brought to the attention of the Commission, at their request, by the State Dairy Commissioner, as follows :

1. Where sanitary and feeding conditions are positively bad.
2. Where sanitary and feeding conditions are good, but where close inbreeding has been practiced on pure-bred animals.
3. Natives where natural conditions are observed both in reference to feeding and shelter.

A number have since been added by the Commissioner and by the State Board of Health, and some requests have come from farmers and dairymen to have their herds examined and tested. Not all of these applications have as yet received attention. Below we cite a number of sample cases examined by the Commission and showing the conditions which were found to exist.

The first herd subjected to the lymph test was that of the State Hospital at Trenton, consisting of forty-eight cows and one bull. Here the Commission secured the consent of the Managers of the State Hospitals before doing anything. As this is a State institution, this course was thought to be the best for obvious reasons. The herd was chosen as a starting point, first, because it belonged to the State ; second, because from all appearances it was a typically well-kept herd. The management throughout was exceptionally good. The buildings, according to recent demands, were all that could be desired, the entire business being under the efficient superintendence of Col. W. H. Earley. The herd was separated into three divisions for injection, so as not to interfere with the milk-supply any more than it was possible to avoid. Of the total number (forty-nine) injected, twenty-eight responded to the test by giving the required rise of temperature. Of this number twenty-seven have been slaughtered. Of those slaughtered all but one gave clear evidence of tuberculous trouble, some of them in an aggravated form, others in a much less advanced stage. Of this herd it should be said it was made up of grades of most of the prevailing breeds, and a number of them over six years old, many of which had been purchased from others. The next herd examined, and believed to be tuberculous, was near Plainfield.

The conditions surrounding this herd were not of the best. It consisted of nineteen cows and one bull, the latter having actinomycosis (or lump jaw) in an advanced stage. The whole herd was injected. There were two responses. The bull and the balance of the herd gave no response. Of those not responding one was slaughtered on suspicion of being diseased, and the autopsy proved the judgment of the veterinarians to be correct. The condition of all those slaughtered in this herd was such as to justify the course pursued. Again, in Morris county, six cows, greatly reduced in flesh owing to scanty feeding, were believed by the local veterinarian to be tuberculous, as one of the herd had died from the disease in the early spring. The cows were injected, and gave no reaction suggestive of tuberculosis. But they were slaughtered for the purpose of investigation. The autopsies to the unaided eye gave no evidence of the disease.

Another herd of ten, chiefly Jerseys, near Linwood, was injected at the request of the owner. These cows were fairly well cared for and fed. Not one gave a suspicious response to the lymph test.

Another herd of twenty-nine cows, near Lebanon, Hunterdon county, was examined both at the request of the owner and of the Dairy Commissioner. The investigations in this herd are not yet completed.

Again, by request of the State Board of Health, ten cows in Montclair were examined, the Montclair Board of Health fearing that a child in the vicinity had contracted "tubercular meningitis" from the use of the milk supplied by this dairy. The herd was injected and one case only gave suspicious reaction. It was slaughtered and the autopsy showed unmistakable evidence of tuberculosis.

Another herd of twelve cows, near Stoutsburg, was examined and injected at the request of the owner. Work in this herd is not completed at this date.

A herd of about forty cows, near Morristown, was tested early last spring by the owner, and some twenty-seven were condemned and slaughtered, all of which were tuberculous in some degree. The owner has since applied to this Commission to have his herd, numbering twenty-eight, re-tested. This was recently done and three only gave the required reaction and they were slaughtered and all were found to be tuberculous. The owner claims he had no trouble from tuberculosis until it was introduced by purchased cows.

MILK AS FOOD.

We realize that milk is a complete human food, and nature's most perfect *natural liquid food*, and we therefore believe every reasonable precaution should be taken in reference to its production, handling and sale, so that no point shall be left unguarded that may jeopardize its purity and healthfulness. To this end not only should the cow be healthy, but she should be kept in healthful conditions, and those who handle the milk should be scrupulously clean and careful. So all milk receptacles and utensils should be frequently and thoroughly cleansed. No milk, either by producer or *consumer*, should be left exposed in an atmosphere vitiated by any contagious disease, as it is a well-known fact that typhoid, scarlet fever and diphtheria have been communicated by the absorbent qualities of the milk.

THE COMMISSION.

It is the judgment of the Commission that this method of supervision should be continued on the same careful and conservative lines as now begun, obtaining all possible information and making careful, legitimate experiments in order to protect our State from assaults of radical measures affecting our dairies and dairy products.

POWERS INCREASED.

In this connection we suggest that the powers for dairy inspection be largely increased, so that stated physical examinations of all herds supplying our towns and cities with milk shall be made by competent veterinarians, and all cattle found to be diseased shall be slaughtered, particularly such as are found to have diseased udders. Such periodical investigations should also cover the sanitary arrangements of stables, character of food and other matters of importance connected with the healthfulness of both the cows and their products. On this point the late Dr. Ezra M. Hunt said in his report to this Board, page 236, 1893-94: "In regard to milk there is also much difference of opinion as to the risk unless the udder of the cow has become affected. There is, however, a growing belief that no cow affected

with tuberculosis in any form should be in a dairy, and that people should, by proper inspection, be assured of safety from any risk in the use of milk."

CERTIFICATES OF EXAMINATION.

In connection with such examination, a certificate, stating that such herd has been subjected to the required legal examination, should be furnished the owner, both for his protection and for the satisfaction of the consumers of milk.

This inspection is also of the greatest importance from the producers' standpoint. It must be remembered that the existence of the disease in a member of the herd may, it is claimed, sooner or later inoculate the whole number. The immediate removal of such animals, while a temporary loss, will surely result in a gain in the end, compensation being made, as now, by the State.

As to the existence of the tubercle bacilli in milk in every case of tuberculous cows, the investigations on this point by scientists are not conclusive, but enough is demonstrated to show there is danger from using milk of cows having diseased udders. That there are numerous other sources, however, by which this disease may be communicated to the human family is admitted by all who have carefully investigated the general question, and the part such possible contributing agents may play as to the origin of any given case of human tuberculosis should be most carefully investigated, especially when there is reasonable ground for suspicion. The cow should not be charged with the sins of others—enough that she be condemned for her own. Another matter which should not be overlooked is the probable communication of the disease to the bovine from the human. We believe no consumptive person, with the disease advanced, should have charge of dairy cows or take part in the handling of milk that is for others' use. If, as asserted by science, this death-dealing germ is expectorated by persons as well as animals, there is cause for more care against possible spread of the disease, which Dr. D. E. Salmon says is "the most widespread and destructive plague that affects man or domesticated animals."

SCIENTIFIC INVESTIGATIONS.

The scientific, microscopic and biological investigations of animals slaughtered by this Commission are being made, as previously stated, by Prof. Julius Nelson, the Biologist of our State Experiment Station. Such investigations are necessarily slow and tedious. When these are completed they will be published with this report. Whether they will add anything new to the investigations already made by him and so many others on the scientific side of this important question, remains to be seen. Certain it is that scientists are not yet agreed on all the questions connected with this whole subject, but further research will no doubt in time demonstrate more clearly those points which are now in debate.

(Signed) D. D. DENISE, President, Freehold P. O.
CHAS. HOWELL COOK, Vice President, Trenton P. O.
FRANKLIN DYE, Secretary, Trenton P. O.
WILLIAM C. PARRY, M.D., Hainesport P. O.
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