

Succeed."

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# EDITORIAL.

#### CEASE BREEDING TUBERCULOSIS.

At the recent Tuberculosis Congress held in Washington, D. C., a notable contribution, remarkable for the saneness, breadth of view and grasp of the subject which it betokened on the part of its author, was a paper on the Control of Bovine Tuberculosis, by Dr. J. G. Rutherford, V. S., Dominion Veterinary Director-General and Live-stock Commissioner, Ottawa. Judging from report, this deliverance, which we reproduce practically in full, excited considerable interest, and must have appealed to the common sense of the more practical element of the delegates present.

In his paper, which every stockman should make it a point to read, Dr. Rutherford quite thoroughly disposes of the idea of compulsory tuberculin-testing and slaughter of all reacting animals. The futility of this system as a means of eradicating bovine tuberculosis has been demonstrated in States and communities where the agitators have had their way, while the economic cost entailed by the compulsory slaughter of slightly affected animals in unfattened condition, and more particularly of valuable pure-breds, is enormous

The futility of the attempt at wholesale extermination results from a number of factors. In the first place there is a period of incubation of the disease ranging from eight to fifty days, depending somewhat upon the mode and degree of infection. This fact necessitates the retesting of herds to insure against the retention of animals which might have the germs incubating within them, and is a specially awkward snag to get around in event of the purchase of additional stock, involving as it would, test, isolation and re-test.

Considering the vagaries of tuberculin, especially on second, third and fourth tests, in the same herds, the necessity of thoroughly conscientious, wide-awake and experienced veterinarians to make reliable diagnosis of the disease, and the numerous ingenious methods adopted by owners, especially of pure-bred cattle, in order to defeat the test, the difficulties arising from the period of incubation are sufficient to exclude from the field of action this compulsory wholesale method of dealing with tuberculosis, except in small and circumscribed areas in which all, or at least a majority of the owners, are alive to the necessity of stamping out the disease, and willing to co-operate heartily with the authorities in bringing about that result. Against the policy of voluntary testing-that is, testing in response to the applications of owners-the Doctor claims most of the arguments against compulsory testing also apply, with the additional one that under this system results in ridding a country of the disease would be very slow and uncertain. "Even Prof. Bang admits that under the experience of repeated and often disappointing results, the patience and courage of Danish farmers not infrequently fail, and they become weary of well-doing and lapse into carelessness." So that after discussing the Bang system, which, nevertheless, has much to commend it, and also a plan proposed by Dr. Nivan, of Manchester, Eng., which aims at the eradication of the disease from certain farms, and then gradually extending the area of operations as the system found favor with stock owners, Dr. Rutherford inclines to favor a combination of systems, which, however, he admits is itself open to many of the objections he had previously urged against other "we are still groping, and in this as in other ply of wholesome food, and then tuberculosis may, systems. "Dogmatize as we may," he concludes, matters of a like nature, those who have delved perhaps, be successfully weeded out.

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deepest are the least sure of their ground." Meantime, the call is for a general campaign of education among cattle owners and the public. "Bovine" tuberculosis will be stamped out when individual owners realize that it pays much better to keep sound cattle than to lose money and feed- maintaining herds tainted with disease.'

In this campaign of education the first question to take up is ventilation. Human tuberculosis is now treated with marvellous success by the openair treatment, and in view of these facts, it is nothing short of disgraceful that we are yearly permitting thousands of animals to become infected, owing to the unsanitary conditions under which their owners insist on keeping them. As "The Farmer's Advocate" has long contended, "stockmen are breeding tuberculosis a great deal faster through neglect of ventilation than it would ever be possible to stamp it out by the promiscuous use of tuberculin and slaughter of diseased animals."

. . .

The paper then refers to the progress of an experiment being carried on at Ottawa for the last three years, with the herd of forty-three cattle (of which twenty-one were dairy cows) formerly kept at the Maritime Experimental Farm at Nappan, N. S. On test, twenty-eight of these had reacted to tuberculin, and the whole herd was brought to Ottawa and submitted to the open-air treatment, with the threefold object: first, of ascertaining the effect of open-air treatment upon the diseased cattle; secondly, to ascertain to what extent healthy cattle kept in contact with diseased cattle, under open-air conditions, are subject to infection; thirdly, to ascertain what proportion of healthy calves could be reared from diseased cows, kept without any precautions under open-air conditions. The cattle have had no shelter but sheds, and excepting a few of the weaker animals, have been fed nothing but hay during the three winters they have been under supervision.

Results to date have been, on the whole, encouraging. Only one original reactor has broken down from generalized tuberculosis, and another has been killed, owing to tuberculosis of the udder. Of the healthy animals kept in contact with them, feeding from the same sacks, grazing over the same ground, drinking from the same pool, not a single one has become affected, in spite of the fact that from time to time animals suffering from acute generalized tuberculosis have been introduced into the herd and allowed to mix freely with the original members. Of the calves dropped and reared by tuberculous cows, seventy-five per cent. have so far failed to react, while twentyfive per cent. reacted at ages varying from four months to a year. One calf died at six weeks old from generalized tuberculosis, this case being considered as probably congenital. Commenting on this result, Dr. Rutherford remarks that while it assists in proving that young animals can be and are most frequently affected through the digestive system, it also shows that in the case of adults infection through the air passages plays an important part. "Closer to nature" is the slogan of the ago; apply the advice to the keeping of cattle. Nature has furnished our animal friends with means of protection against ordinary climatic conditions, and most of the disease and affections to which they are subject have been caused and are continued by irrational artificial conditions imposed upon them. Away with the dark, stuffy, filthy stables, especially the cellarlike basement stables. Give us airier stables, more ventilation, more light, more outdoor exercise, with an ample sup-

#### PREPARE FOR ALFALFA.

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Alfalfa is yearly becoming more widely distributed on Canadian farms. Its benefit to the soil and its high place among the feeds provided for live stock, demand that it should be much more widely grown. Some may have tried it and been unsuccessful, but if every farmer would discuss the question with a neighbor who has had encouraging results, or study the methods as outlined in bulletins and articles in "The Farmer's Advocate," efforts directed along the lines advised should prove generally successful in 1909.

The main essentials are well-drained, thoroughly-prepared soil, with abundance of lime and the mineral elements of fertility, clean seed of strong vitality, and careful treatment the first season. A mellow, well-pulverized seed-bed is required for all such crops, so that the comparatively small seeds may be closely surrounded by soil particles. If strong seed is put into such soil at any time during spring or early summer, while there is a supply of moisture sufficient to cause the seed to germinate and to give the young plants a good start so that the deep-going roots have stretched to such depth that they derive nourishment from the deeper soil, nothing but the severest winter and early spring weather will result in failure. Prepare at least a small area this fall, preferably corn or root ground that was well enriched for the present season's crop, work up and pulverize next spring, and sow it at convenient season. Clip it in the summer when it is fit, but leave the growth of late summer and fall to serve as a surface protection and to hold the snow, and the result will, doubtless, in most cases, be such as to induce the sowing of an increased area the following season.

## DRAG BEFORE THE FREEZE - UP.

The split-log drag can be used to first-class advantage in autumn, in keeping the road surface smooth and neatly crowned, so as to shed rain water and thus preserve the subsoil in firm, dry condition. It cannot be too strongly impressed on everybody concerned that, as King says, bad roads in spring are largely the result of putting a lot of mud and water into cold storage in the fall. The moisture being acted upon by frost expands, and in expanding, disrupts the bond of the road, disintegrating its particles and converting the earthy bed into a condition better as a seed-bed for spring wheat than as a place to drive. At this season, therefore, particular attention should be given to providing clean channels and open outlets for the ditches at the sides of the road, as well as a smooth, even-graded surface on the driveway itself. Now is the time to insure reasonably good roads next spring. Not only should the roads be dragged after every rain of consequence, but special effort should be made to get over them just before they are liable to be frozen up for the winter. Last fall several of our road-draggers succeeded in catching their roads at this critical juncture, smoothing them off just before they froze up for good. The result was beautiful wheeling over driveways as smooth as racecourses, and when sleighing came it was not marred by big lumps of clay protruding through the beaten sleigh tracks. In short, the result was good road-bottoms all winter long and a decided benefit the following spring. Watch your road this fall and try to drag it at this important stage. Supposing the freeze-up does disappoint by hanging off longer than expected, keep on dragging till winter does set in. Perseverance is likely to be rewarded, and every dragging will do good.