

The Diagnosis of Tuberculosis in Cattle.

We take the following interesting extract from the North British Agriculturist:—

Tuberculosis appears to increase in prevalence amongst cattle and especially among dairy stock, undoubtedly depending upon their being closely housed, one infected animal thus spreading the disease to those in near proximity with it. Statistics in this and other European countries indicate that 20 per cent. of the bovine race suffer from this serious disorder. Of the cows killed in Edinburgh in 1891 under the Pleuro Pneumonia Slaughter Order, 20 per cent. were found on *post-mortem* to be affected. Bulls, steers, and young cattle of both sexes, being attacked in much less proportion than housed adult cows, confirms the conclusion that contagion is the prime cause of the complaint, or, in other words, demonstrates that the tubercle bacillus is transferred from the infected to the sound. Some authorities still adhere to the view formerly entertained that the disease is hereditary and transmissible from the main parent, or from the female during pregnancy. However produced, in view of limiting its prevalence and preventing its being communicated from cattle to man, as it is apt to be with infected milk, it is very important that bovine tuberculosis should be discovered in its earlier stages. But during its earlier progress, and especially when it attacks the deeper seated glands or organs, its presence is determined with difficulty. The most careful auscultation and percussion may detect no definite evidence in the lungs of cattle, which are the site of about 60 per cent. of the attacks, and yet in such unsuspected cases *post-mortem* examination frequently discovers disease which may have been slowly developing for weeks or even months.

In the current number of the Journal of Comparative Pathology and Therapeutics, Professor McFadyean has a very valuable paper on the 'Diagnosis of Tuberculosis in Cattle.' He premises that the essential condition of the disease is the presence of the bacilli. The bacilli occur in the local lesions, but although in certain stages they are transmitted in the blood stream from the primary lesion to other parts it is scarcely possible to find them in the blood. The Professor has made a series of experiments which demonstrate that, even in cases of general and serious tuberculosis, bacilli are not present either in the blood or in the milk.

THE CHUMP.

One more allusion to the champion Aberdeen-Angus heifer. All the butchers to whom I spoke, who had seen her alive, remarked on the small "chump"—that is to say, the narrowness of the spinal bone at the setting on of the tail. Whether the fineness of the tail itself has anything to do with this or not I am unable to say; but a "whipthong" tail is usually associated with general "quality" by breeders. The thickness of the "dock" in sheep is always regarded as an indication of thickness of lean meat. This leads me to repeat, once again in this connection, my firm belief is that no animal can be profitably sold to the butcher until it has attained its complete development; that is to say,

until the spinal column has grown to its natural limit, because it is this part of the structure which admits of the largest development of lean meat. I may be wrong but I stand to be shot at.

(*Eng. Ag. Gazette.*)

THE CARE OF CATTLE IN WINTER.

A very important matter is the winter and fall care of cattle. From my experience, it is necessary that the milch cows should never be left out on cold damp nights, as this is the first cause of their coming down in milk, and it is almost impossible to get them up to the same amount again, no matter how much they are fed. I consider this extra feed all loss, which could have been saved by simply keeping the cows in. There are thousands of dollars lost every year through the country by this neglect.

As soon as the winter sets in, they are brought in permanently and are not turned out till the grass is ready either in the latter part of May or the beginning of June. The time for turning them out depends on the locality and the nature of the soil, as grass is produced earlier in some soils than in others. Here, I take the precaution of not turning them out on a very bright warm day, neither do I leave them out all day at first, as it would be too sudden a change, and it is possible that the sun might have an injurious effect on their skin. I always feed a little dry meal and hay for the first week after they go out in order to prevent the grass scouring them too much.

I would advise feeding on mangels or other roots during the months of April and May, as it prepares them for the change to the grass, and also keeps them up in flesh and milk; but they also require meal as well. I strongly advise my fellow-farmers who sell oats and hay to feed them to their cattle. For instance a farmer was selling his hay and feeding his cows on straw and *moulée*. I advised him to change, give the cows hay and use the straw for bedding and clean his cows, which he did. He was selling his milk at 18c per gallon and after giving it a fair trial, found he was getting \$9.00 per 100 bundles for his hay from the extra milk. Some claim they should be turned out in May on bright, warm days, but I have tried and found no good results, as I find that the cattle become so restless and unsettled and so eager for the grass that it interferes with their milking and their regular feeding.

My reason for not putting out my cows in winter is to keep them up in flesh and milk and I have never seen any bad results therefrom. On the contrary they come out better and healthier in the spring by keeping them in a proper temperature and not exposing them to chills.

Now comes another very important point, the stable. Care should be taken to build it very warm and to have abundant light and ventilation, the ceiling should be from 8 to 9 feet, and there should be good large windows, for it is so necessary to have the sunlight in the stable.

In so many cases we find cow stables built like a box without light or ventilation; the cattle breathing the same air over and over again; it is a well known fact that this air becomes poisonous and injurious to the health of the animals. I am satisfied that two-thirds of the stables in the Northern part of this Province are built on

that principle. While feeding the cattle, the doors have to be left open at least nearly three hours per day. No wise thinking man would ever suppose that cows would give any profitable returns with such treatment.

Suppose we ask a poultry man why he has so much light in his honnery, he will answer that he cannot get a profitable returns from his hens, unless they have the full benefit of all the sunlight which can be conveyed into the building. With cows it is the same, they require all the sunlight possible. The proper temperature for milch cows is from 60° to 65°, and for every degree below that the quantity of milk is reduced; at 40° it takes one third of the food to keep up the animal heat, and at 30° it takes one-half; while it is almost impossible to keep up the amount of milk.

During our trip this summer, judging for the "Merito Agricole," I noticed that the farmers who had dark, cold stables, with little or no ventilation and who turned out their cattle every day during the winter, were the ones who only received from \$20.00 to \$25.00 per annum from each cow. Otherwise, where the cattle were better cared for and the stables were on a more improved plan, the average was from \$30.00 to \$38.00. In the Eastern Townships where a speciality is made of taking good care of their cattle, I have known some whose cows averaged from \$50.00 and upwards each at the cheese or butter factory.

In conclusion I would like to say a few words in regard to the pasture. Fully one half of the farmers have quite too much land under pasture. They have adopted a plan of pasturing in the same place for three or four years, then ploughing it up and sowing oats or other grain for the same period, and then turning it back to pasture without ever seeding it down.

According to my experience, a pasture requires more seed, as it is not allowed to grow so tall and requires a thicker bottom than a meadow. For hay, 4 lbs. red clover, 2 lbs. alsike and 1 peck timothy is sufficient. For pasture, 2 lbs. red clover, 2 lbs. alsike, 2 lbs. white clover, 1 lb. red top, 1 lb. blue grass and 1 peck timothy seed is a good mixture. A pasture seeded down in this way would give more and a great deal better grass on one half the land, besides improving the land very much.

GEO. BUCHANAN,
Côte St Michel.

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The Horse.

THE HORSE.

The Roadster as a Profit-Maker.

Among the many well filled classes at the recent national horse show in New York, and perhaps the most interesting for the majority of horsemen to watch, was the roadster. This is a class of horses whose usefulness has a far wider range than that of any other one class. A roadster, therefore, must be an animal having a combination of good qualities exceeding that of almost any other type.

One of the first things our interested spectator will notice in the catalogue is the entry in several different classes of the same animal. While this may be done to a certain extent, it has without a doubt been carried too far in some respects, notably so in entering horses in both the trotting and roadster

classes. These should be distinct, each a class in itself. The typical American trotter is not what one would call an ideal road horse. He is too delicate, narrow chested, and too much of a racing machine to be a good in-and-out horse on the road. Colonel Kips' mares, My May and Mona, were beautiful specimens and well worthy of a blue ribbon, but they should be classed as trotters and not roadsters. They are a type that all men would like to own and drive, but comparatively few men have the means to keep a horse for one particular kind of driving; therefore, they must try and find an animal whose qualifications combine those of several different types.

A roadster should be a large and powerful horse, broad chested standing at least 15 hands high, well put together, who can go along at a three-minute gait and keep it up. He must have a good, allround action not too high, if possible, something between that of the hackney high stopper and the trotter. He should be a strong and easy mover, at the same time carrying some style with him.

In this horse also we need more than in any other a good walker. How comparatively few good walkers one can find when looking for them. A horse cannot trot forever as some people seem to think. He must rest a little now and then, and if he is a good walker one does not mind it, whereas if he happens to be a poor one, the chances are that the driver gets impatient and pushes him on. If the men who break our colts would pay more attention to teaching them to walk well and carry their heads so as to obviate the use of the check rein, instead of trying to develop a few seconds of speed below the standard mark, we should have a more satisfactory lot of road horses, and the breeders would make as much money. It is only once in a very long time that one can breed a record breaker, even when if you have the right stock,—and there is plenty of it in New England or New York—ono can get a good roadster every time, and they will always command a good price.

The day for scrub horses has gone by and they are at present a drug on the market, but good ones can always find a buyer and at a fair price. Must we always have our Eastern markets filled with Western and Canadian horses which are brought here, many of them only half broken, and sold as roadsters that are safe for a lady to drive? Are we not endangering the lives of those nearest to us, our mothers, wives and sisters, by buying such animals and turning them over for their pleasure driving? Rather let us have our markets filled with a good substantial animal, born and bred in New England or York state, whose every movement is known to us and on whom we can rely—ono that has good manners and will command recognition and respect from horsemen far and near.

Then at the next show in New York let us ask for a class for roadsters in which the speedy and sensational trotter is not eligible. This will certainly help to improve the present condition of our road horses and is nothing more than should rightly be claimed in their behalf. We speak of the "national horse show" as the directors have elected to call it, yet how little it bears out the name. Nine-tenths of the horses exhibited are animals that have been imported, many of them having been prize winners in some foreign country and in no way represent our national horse. Let us be more "American, and when next year comes around show a lot that will represent an American bred animal.—[W. J. Lux.]
P. and. H.