

SYMPTOMATIC ANTHRAX.

Black leg, or black quarter, occurs occasionally in various parts of Canada from ocean to ocean. It is a disease which principally affects young and thriving cattle, and is seen more rarely in sheep and goats. It occurs at irregular intervals in certain districts, especially during the summer months, sometimes extensively, and at other times causing the deaths of only a few fat calves here and there within a limited area; it will prevail for a few months, especially when the calves are thriving best, and then disappear perhaps for some years. It is, like anthrax, a disease the germs of which emanate from the soil, but it is also seen in stabled animals when fed on hay grown on infected land.

It also is a bacterial disease, but although the bacillus is a spore bearer it is not identical with that of anthrax, and can be distinguished by being shorter and having rounded ends; the bacilli do not form chains as do those of anthrax, besides they have flagellæ having the power of movement, and, being anærobic, cannot be cultivated in an atmosphere containing oxygen. They form spores which are usually seen at the end of the rod, are ovoid in form, and are larger than those of anthrax. The bacilli are not found in the blood during life, but may be found in it after oxygenation ceases when death occurs. As the name indicates, the pathological manifestations are mostly confined to the quarter; which may be the hind or may be the fore, the calf becomes lame and unable to move the limb, except in a dragging manner, the quarter swells and the swelling crackles under the hand as if it contained confined air or gas. The animals may die suddenly or linger from twelve to forty-eight hours. Treatment is useless, and the remarks made as to the disposal of carcasses of animals dying of anthrax apply also to animals dying of black leg.

Setons in the dewlap are empirically recommended, but are of doubtful utility. It is well to check too rapid fattening by moving the calves to poorer pasture, and by giving them exercise by driving, and they should be prevented from eating grass grown over the graves of dead cattle; all graves of dead animals should be fenced.

Vaccination by means of an attenuated virus of the disease is now extensively and successfully practiced throughout Canada, more especially in the stock-raising districts of the west.

Vaccinating outfits can be procured from the Pasteur Vaccine Co., Limited, 56 Fifth Avenue, Chicago, or Messrs. Parke, Davis & Co., Walkerville, Ont., who manufacture the vaccines and furnish full directions for using them.

The vaccines are of two kinds, viz., single vaccine requiring only one application, and double vaccine requiring two application; first and second lymph.

The double vaccine especially has proved highly successful in the immunization of young stock both in the United States and Canada. Another form of vaccination is that

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