

LIVE STOCK.

Foot and Mouth Disease.

In view of the alarming spread of foot and mouth disease in cattle in the United States and the danger of its introduction into Canada, it may be considered opportune to discuss the subject thoroughly in these columns.

It is a highly contagious and infectious disease, due to a specific virus and characterized by vesicular eruptions in the mouth, between the clouts, around the coronets and often in other regions. In some cases the mouth only is affected, while in others the eruptions appear only in the feet. In milch cows the udder and teats are often involved. In such cases the milk is unfit for use. While cattle are more susceptible than other classes of stock, others are not immune, as sheep, pigs, dogs, poultry and even horses are sometimes attacked, and even the human being is not exempt, but in this article we will confine our remarks to cattle.

CAUSES.—Like all other contagious diseases it can be caused only by the introduction of the virus or contagion into the system of healthy animals. In diseased animals the virus exists in great numbers in the saliva, the discharges from the eyes and nostrils, and as the intestinal mucous is highly charged the excretions are a source of great danger. Thus food or litter of any kind, as hay, grain, roots, grass or straw which has been contaminated with the saliva of diseased animals, becomes a carrier of the virus, and requires only to be ingested by other animals in order to propagate the disease. It is also readily conveyed from diseased to healthy animals by the hands or clothing of attendants, by rugs, blankets, pails or other stable utensils. It is claimed that the disease can, and has been spread by diseased cattle wading through and defecating in streams, which subsequently coursed through healthy districts. There is no doubt that the disease often follows the course of a stream.

SYMPTOMS.—After a period of incubation (the period that elapses between the introduction of virus into the system and the appearance of the first symptoms) varying from twenty-four hours to three or four days, or in some cases longer, the temperature of the animal becomes increased from 2 to 4 degrees. This symptom is often not noticed except in cases where the animals are being closely watched and their temperatures are regularly taken. The increase in temperature is soon followed by the appearance of vesicles or blisters varying in size from a ten-cent piece to that of a twenty-five-cent piece on the tongue, inside of the lips, roof of the mouth and sometimes on the udder and teats. Smaller vesicles appear between the clouts, around the coronets and heels, and there usually is a discharge from nostrils and eyes. The animal presents symptoms of irritation in the mouth, by a constant movement or smacking of the lips, champing of the teeth, a flow of saliva from the mouth, and difficulty in mastication; the affection of the feet being manifested by more or less lameness in the foot or feet affected. In a short time the walls of the vesicles are thrown off leaving raw surfaces, which, however, are soon covered by fresh material. In severe cases there is an entire separation of the hoofs from the sensitive structures of the feet. Owing to the escape of contaminated fluid from mouth, feet and intestines, pastures or yards soon become impregnated with the virus, which contaminates cattle walking in these sections, or can be carried from field to field, or from road to road by vermin, small game or dogs. One attack does not render an animal immune from another, but it is claimed by many that an animal is attacked only once in a season, but there are exceptions, and it is not unknown for an animal to suffer from two or three attacks during a period of a few months. Milch cows suffering from a severe attack usually go dry, but when the attack is light the decrease in milk supply is not great. In mild cases the symptoms are not serious, and when the feet are not seriously involved recovery often takes place in from one to two weeks from the first manifestation of the symptoms. In cold weather if the cattle be exposed a hoarse cough is often noticed accompanied by a nasal discharge, and in aggravated cases the mucous membrane of the whole intestinal tract is seriously involved, and when vesicles appear at the anus this condition is indicated. When the feet become seriously involved the animal stands with back arched and with all feet well under the body, or lies most of the time.

TREATMENT.—Preventive treatment of course consists in keeping cattle away from the virus. Curative treatment is more effective than in most contagious diseases. Mild cases require little medical treatment, the disease being a fever that runs through a definite course and terminates in recovery. While the mouth is sore the patient should be given free access to cold water, and if the fever be high an ounce of nitrate of potassium should be given three times daily. The food

should be soft and easily masticated. If supuration be present in the feet all partially detached horn should be removed, and the raw surfaces dressed three or four times daily with an astringent as 1 oz. each of acetate of lead and sulphate of zinc dissolved in a pint of water or a 4 per cent. solution of carbolic acid. When the soreness is not too great plegets of tow dipped in the solution may be placed between the clouts and around the coronet and bound there by a bandage. In more severe cases, where debility and loss of appetite and strength are well marked, it is well to give stimulents as 4 to 6 oz. of whisky or 2 oz. sweet spirits of nitre in a little cold water every few hours and also tonics, as 2 drams each of gentian, ginger and nuxvomica three times daily. Where the sloughing of the feet is extensive the advisability of destroying the patient should be carefully considered, as treatment is troublesome and tedious, and a perfect recovery or even a partial recovery doubtful. Fortunately this disease is practically unknown in this country, and we hope that the precautions that the Government is taking at present will succeed in preventing its introduction.

WHIP.

Our Scottish Letter.

We should have settled down this week to write a brief review of the quarter of a century which has passed since we first began this monthly letter to "The Farmer's Advocate," but unfortunately the excitement of the time in which we live, accompanied by the companionship of a mild form of dyspepsia which has manifested a recurring affection for us since the beginning of August, has made it impossible for us to stay our minds on that serious task. Instead, then, this week we pen a few thoughts and reflections on the six weeks that have elapsed since last we faced this duty.

Autumn of 1914 will be memorable in Scottish agriculture. The whole season will be memorable quite apart from the stupendous war which be-



Yearling Hampshire Boar.

First and champion, Toronto and London, 1914, for Hastings Bros., Crosshill, Ontario.

gan on the first of August. Farmers have not had a season so favorable to their interests since 1879, the year of the crowning disaster to British agriculture, and of the beginning of sorrows which lasted with little intermission until the close of the nineteenth century. The revival began with the opening of the twentieth century, and culminated this year in fruitful returns coupled with high prices. These two things, under normal conditions, do not always go together. More frequently it is the other way about. When produce is plentiful prices are low—but this season it is not so; produce is certainly plentiful, but all round there is a high level of prices for everything produced on the farm. Sheep have been a splendid trade in spite of an inferior turnip or root crop. The one crop of the season which is a disappointment is the root crop. Swedes were sadly in lack of moisture at the proper time, and turnips of every variety are in a worse plight—having been attacked by mildew. In spite of these drawbacks prices for lambs have maintained a high level all through the store stock season, and sheep of all other ages and both sexes have been making plenty of money. At the ram sales held in September figure being paid for the first-prize shearling ram at the H. & A. S. Show at Hawick in July. Cheviot rams made, in two cases, £105 apiece, and a group of five sold at an average price of £58 4s. Blackfaces made in two cases £110 each, in one case £105, and in two cases £100 each. Other breeds besides these purely Scots and local breeds have been selling well. Suffolks, which for a decade had rather been in the background, have come to the front once more, and

at the Kelso sales were both numerous and high-priced. Oxford Downs have fairly caught on in this country, and at Kelso they actually outnumbered the native Border Leicesters. They do not make anything like the same individual prices, but, selling to a large extent as lambs, these great, lean-fleshed types make good remunerative prices, and many English breeders find it profitable to send large consignments of Oxford Down ram lambs to the Kelso sales. The lamb produced by the Oxford ram out of the Half-bred ewe is a most valuable butcher's beast. It carries a fine deposit of lean flesh, and while much of the fat has to be pared off the chop before it can be sold in a west-end shop the parings are not lost, and the whole leaves a very substantial profit to the butcher. Hence the popularity of the Oxford ram with farmers on medium land who cater for the lamb market.

At present there is a somewhat acute dispute between the wool brokers, who maintain that they are acting in the flockmaster's interest and the Government. The Government has rightly forbidden the exportation of wool to neutral countries during the progress of the war. The reason is very obvious. No matter what precautions merchants in neutral countries may take, it is impossible for them to refuse to sell to those who may be buying for this country's enemies. But the brokers maintain that the strong Blackface wool produced on Lanarkshire and other ranges in the midlands of Scotland cannot be manufactured into cloth. Therefore, they urge that the embargo should be withdrawn, and liberty given to export Blackface wool to the United States where it is in great demand in the manufacturing of carpets. This has been the great market for such wool during the past twenty-five years, and wool brokers maintain that seeing there is no market for such strong wool here, the embargo on its export should be withdrawn. Unfortunately for this contention it is a fact that there is a market for such wool in this country, that quite a fair proportion of it can be sold in this country for the manufacture of cloth,

and therefore it is impossible to allow its free export. It is to be hoped the Government may stand firm. The home market may be small, but it is not non-existent, and we cannot afford to run any risks. We are at war; our soldiers and sailors are not on the continent and blockading German ports for fun; they are not having a picnic these times. It is the duty of every true patriot to bear his share of the burden, and at all costs to refrain from doing anything likely, even in a round-about way, to enable the enemy to prolong the conflict.

Shorthorn autumn sales are over. They were held under very depressing conditions. The war cloud was bad enough—to it, so far as England was concerned, were added renewed outbreaks of foot and mouth disease in Kent and Northampton in the very week of the English sales. This meant that no one could buy for export. All ports will be closed against England for at least six months, and those whose hands are not full are hardly to be blamed, if, under these conditions, they refused to fill them. The sales revealed the extraordinary hold which certain pedigree strains have taken of the breeder's fancy. A very sound, healthy lot of cattle were sold by Mr. Parkin-Moore at his farm of Whitehall, Mealsgate, Cumberland. Perhaps no sounder lot of cattle has been put upon the market this year. Yet because of the absence from the catalogue of the favorite lines of breeding, prices were decidedly disappointing. Forty-five head made an average of £32 18s. 5d. They were well brought out, had all passed the tuberculin test, and the herd has given a good account of itself at the Birmingham Spring Show and sale; yet the absence of the fashionable paper made all the difference. It seems altogether too absurd. In the following week we had a series of sales in the north, when again the same results were revealed. The top price at the Collingie sale was 850 guineas, paid on behalf of H. R. H. the Prince of Wales for his farms in the Duchy of Cornwall for a bull calf. The 29 bull calves sold made an average price of £192 2s. 3d. The highest average made by Mr. Duthrie's bull calves was £409 16s. 3d. for seventeen in 1907. The most successful sire in the Collingie herd at present is easily the home-bred Knight of Collingie. Thirteen of his bull calves made an average of £244 5s. A wonderful trade was experienced at

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