

double demand arise, as it surely will, from abroad, as well as at home, the necessity of replenishing our supply to meet these double requirements becomes apparent. The lesson then is: Breed your mares next spring, and breed them early. It is not too late to breed this fall for autumn colts next year.

Carlton Co., Ont.

J. A. MacDONALD.

LIVE STOCK

Foot and Mouth Disease Again.

There are few seasons now during which foot and mouth disease is not reported. Following a closed port to importations from Britain, the neighboring States of Michigan, Indiana, Pennsylvania and Illinois, find they are infected with the much-dreaded disease, and must pass stringent laws to protect their own stock and that of the other States of the Union. Although the mortality is not reported to be high in this malady, yet it is so contagious and unpleasant that stockmen dread anything resembling foot and mouth disease. Cattle, sheep and swine are most commonly attacked, yet it has been seen in horses, and man is not immune. Human epidemics usually arise out of the consumption of milk from infected animals, and during the outbreak in Berlin, Germany, in 1895, the celebrated pathologist, Virchow, unhesitatingly pronounced the trouble as foot and mouth disease among the citizens of the city.

The symptoms of the disease vary with the country and climate where the outbreaks occur. In Canada the appearance of the malady has been marked by a mild character and lack of vitality, as compared with outbreaks in the British Isles. This is due, no doubt, to the dry atmosphere of Canada, and the moist or humid conditions which exist in the Old Country. The general symptoms are usually a slight fever and lack of appetite, and these troubles may be quickly followed by eruptions of the mucous membrane of the mouth, the skin between the toes, and of the skin of the udder and teats. The eruption or pustules in the mouth may be on the lips, palate or tongue, and they soon burst, exposing a red, inflamed area and profuse and continued salivation follows, often glairy—like the white of an egg—and sometimes bloody. The pustules on the feet and udder are usually smaller than those in the mouth, and on breaking ulcers usually form and, in the feet, extend under the horn. From exposure to mud or filth further infection occurs, and the hoof may be entirely shed. Sheep in such a condition will often walk on their knees. In acute cases the disease may extend to the respiratory and digestive tracts, and death occurs in five or six days. The majority of cases, however, are mild and respond to proper treatment, and the animals recover in about two weeks.

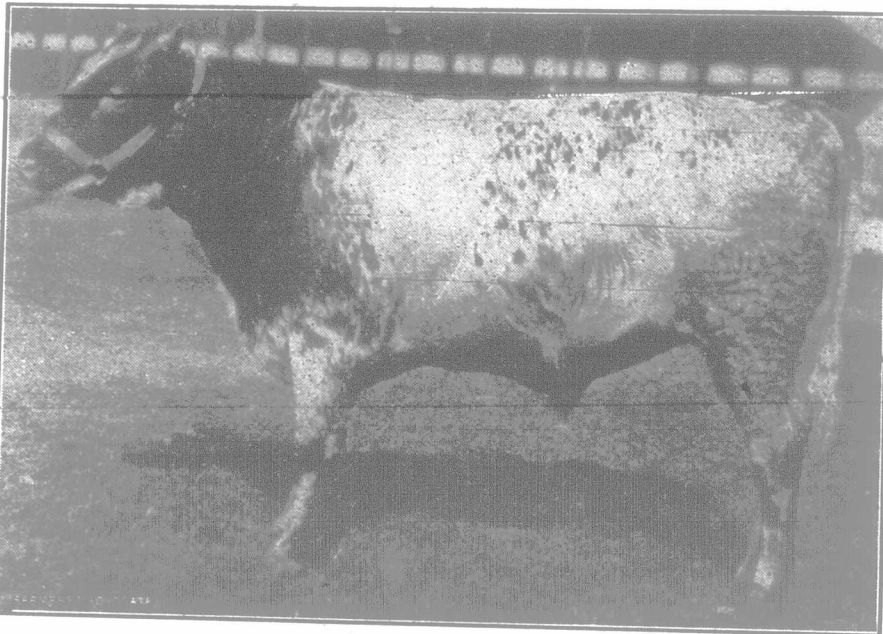
How the disease spreads is still a mystery. Scientists claim that it is due to a small germ or microbe, so small in fact that it cannot be seen with their most powerful microscopes. If this be true it is quite easy to believe that it might be transported from place to place by the most fragile medium. The spiders' webs or, "flying summers" as the Danes call them, which blow about so profusely in summer have been suspected of conveying the disease, while birds, insects, vermin and dogs are considered guilty of transmitting the trouble. Hay or bedding upon which diseased animals have lain or salivated is a pronounced carrier.

It has been found that man also disseminates the disease germs, and during the outbreak of foot and mouth disease in New York State in 1908 the appearance was considered due to a foreigner who secured work in the Stock Yards at Buffalo and probably carried the disease on his clothes. In England the disease has appeared in different parts of the country at much the same time, and when there was absolutely no interchange of stock between the different communities. This led veterinary departments to believe that all the initial outbreaks were due to a dissemination of the virus by birds, or even on currents of the atmosphere.

Stringent laws are always enacted when foot and mouth disease occurs, and the slaughter of infected stock with suspects in quarantine is found most practical and effective as a treatment. It is severe of course, but economical in the end. During a previous outbreak in the United States, which occurred in 1902, the Department destroyed 4,461 animals, compensating their owners to the extent of \$128,908.57. Again in 1908 the Secretary of Agriculture asked for \$500,000 to stamp out another appearance of this troublesome ailment of cattle. It is one of the worst diseases in the stall or feed run, and every assistance should be given the various departments in eradicating it from American fields and herds.

Buy Cottonseed Meal.

Reports have it that cottonseed meal is likely to be low in price the coming winter. Feeders will be glad to hear that there is one concentrate which is not going to soar out of all reason because of the war and other conditions. It is going to be no small problem to feed high-priced feeders on very dear grain and sell on a fluctuating market next spring and make very much profit. Over in the States, the source of most of the cottonseed meal which comes into Canada, feeders are depending upon getting this material at a lower price than usual. In fact it is said to be in the State of Minnesota abnormally low already, and if it is low in that State it is altogether likely that the price is not high in any part of the Union. With low prices there, lower prices will obtain here. In experiments carried

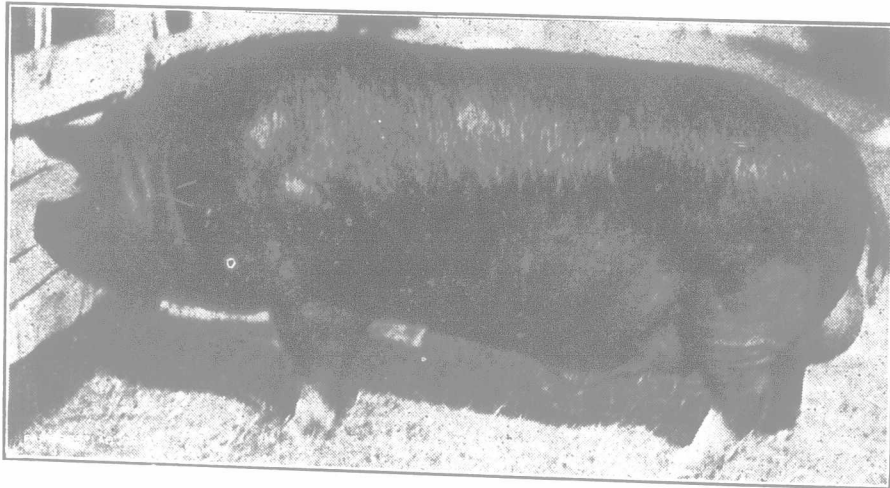


Spring Valley Leader.

Champion Shorthorn bull at Ottawa, 1914. Owned by Kyle Bros., Drumbo, Ont.

on by H. R. Smith, of the Minnesota Agricultural College, it was found that cottonseed meal proved to be equivalent to linseed meal (oil meal) in feeding value, and practically double that of wheat bran.

The meal is very high in protein, and is especially valuable as a supplementary feed when corn or barley predominates in the ration with roughage other than clover or alfalfa hay. The feeder who has timothy or other grass hay this year, and has plenty of corn silage well-cobbed, might do well to look into the price of cottonseed meal and use it to some extent in compounding his ration. It has been fed with excellent success in connection with corn and corn silage, and seems, according to experimenters, to offset in some degree the laxative effects of the latter. From one to four pounds of cottonseed meal per day fed to



Champion Ferkshire Boar.

This hog won at London, 1914, for Adam Thomson, Shakespeare, Ont.

each steer will make a balanced ration with corn, barley and any coarse roughage other than clover and alfalfa. With either clover or alfalfa, both of which are relatively high in protein, the cottonseed meal should be reduced to about one-half the quantity. With cottonseed meal low in price many feeders who have not already tried it should make an effort to obtain some of this material, and begin by feeding in small quantities and watch results carefully.

People wonder how some of our platform orators can conscientiously contend that this war men are taken to the front, there to be killed and maimed, while the weaker remain at home as the fathers of future generations.

The Future of the Hog Market.

From a review of the hog situation in the past four or five years we are led to believe that the bearish condition of the market at the present time should have no tranquillizing effect upon the activities of the breeding industry this fall. True it is prices have reached a low level on our large markets, selling as low as \$7.15 to \$7.25, fed and watered. Several conditions have contributed to these circumstances but conditions in other parts of the world will in a short time, we believe neutralize this undesirable state of affairs at home and re-establish prices on a higher level. In retrospect we find that prices during the last four or five years have been low during the first part of November. Our reports of November 10, 1910, recorded hogs as selling and for \$6.90 at country points. Our report for November 2, 1911, had it that hogs sold for \$6.15 to \$6.25 on the market and for \$5.75 to \$5.90 f.o.b. cars at country points. During the week previous to November 9, 1911, selects sold for \$6.30 to \$6.35. In November of 1912, they sold for \$7.65, but November of 1913, was more satisfying to raisers of hogs for during the first part of that month they maintained themselves on the nine-dollar level. An interesting feature in connection with these reports is that the week previous to Nov. 2, 1911, saw 10,520 hogs delivered to the Stock Yards, in Toronto, and prices ranged from \$6.15 to \$6.25. For the week ending Saturday, Oct. 31, 1914, 12,171 hogs were delivered

at Toronto, selling for \$7.50 and for \$7.15, f. o. b., country points and \$7.75 weighed off cars at the market. In November of 1910, with only 7,096 as receipts, prices were down at country points to \$6.90, practically identical with that prevailing during the first week of November this year after a receipt of over 12,000 at the market. This goes to show that prices can be maintained at the present time equal to those of a few years ago when only approximately half the amount of hogs were being handled. The Canadian West is beginning to produce a large number, and their influence on our eastern market is beginning to be felt. This is something new in the live-stock-market conditions of Canada, but conditions in the European countries have taken a new turn and will neutralize, we believe, the heavy productions in Canada.

Readers who studied the article in our issue of Oct. 29th, by J. W. Flavelle, will bear in mind his statement about the wastage and heavy killings which have taken place in Denmark and Holland, and his agent in Europe predicts that next summer even will see a vast decrease in the amount of the output from these two countries. They have supplied England liberally with hog products, and with the falling off in that direction the British Isles may again turn to Canada for a quantity of our hams and dressed carcasses. In the past, after an ebb in values, prices have soared again to a satisfactory level, and we believe that with the altered European conditions which exist at the present time, prices will soon recover and make the enterprise as profitable to breeders as it has been in the past. Raisers of swine will be unwise at the present time to curtail their activities in any direction, for the outlook is such that prices will surely be restored to a normal and profitable basis.

The Toronto News sensibly observes that if the farmers of Canada will feed Great Britain they will do as valuable service as the soldiers who go into battle. What is urgently needed is an increased, capable contingent upon the land, and a re-adjustment of conditions relative to farming will promote that end.

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