

grazing on the experimental plots. Two plots of four acres each were selected, and one of these received a dressing of 10 cwt. of ground lime, and a few days later 4 cwt. of superphosphate and 1½ cwt. of sulphate of potash per acre.

Nothing was applied to the second plot. The pasture was naturally poor, but the artificials soon showed their effect by increasing the yield of grass, and by the finer character of the herbage.

Two cows were placed on each plot and changed from one to the other every two weeks. The cows on the manured showed a decided increase in the yield of milk, and in addition the plot was able to carry an extra cow during the latter half of the experiment. The manures cost 29s. per acre, but the increased milk yield, at 8d. per gallon showed a profit above the cost of 27s. per acre. The gain in milk was 84 gallons per acre, including the third cow. The quality of milk was not appreciably affected. The results are very encouraging as far as the experiment has proceeded.

#### CO-OPERATIVE ASSOCIATION

The Midland Farmers' Co-operative Association has had a successful year, or rather ten months, as owing to a change in the method of accounting, the figures only cover that period. The total trade during this time was £21,298, compared to £21,720 for the previous twelve months. The profit for the year was £861. The principal items of the society's purchases for its members were, cakes, £8,129; grain and meals, £5,377; manures, £2,786; and seeds, £1,611.

The idea is not so much to make a profit as to supply the purest and most genuine goods at a low price, and the society has been able to do this, and often considerably below market prices. The society is to branch out in a new direction by a scheme for the disposal of milk, and will equip a factory to handle any surplus milk. The membership during the year increased from 347 to 401.

#### WELFARE OF AGRICULTURE

An excellent paper on the Agricultural Development Act of 1909 was read by Mr. Eve before the Farmers' Club. Mr. Eve stated that no more important act had been passed affecting the welfare of agriculture.

At least £250,000 is to be applied annually for agricultural development. In the discussion it was claimed that England had more to fear from the science which held sway in Germany than from their ships or army. Another point emphasized during the discussion was the necessity of research rather than education.

By the way, no money is yet available under the act—the amount was in the budget suspended by the Lords—but endorsed by the recent elections.

#### PREPARING FOR LIVERPOOL SHOW

For the forthcoming Royal Show at Liverpool prizes to the amount of £10,620 are to be offered. The local committee contributes £1,890 to this total; £2,341 came from the various breed societies; and £567 from the Royal Lancashire Society. In the horse section £3,371 is offered; in the cattle section £2,840; for sheep, £1,990; and for pigs, £710. There are many miscellaneous prizes, and for the best managed farms in Lancashire and Cheshire £450 is to be awarded.

For the next year's show the city of Norwich has been selected and the King will be the president of the society for 1911. For the show of 1912 both Doncaster and York have sent invitations. A special committee was appointed several months ago to consider the new Development Act, and it suggests that assistance from the fund created by the act should be given to scientific agricultural research and to the improvement of live stock.

#### SKIMMED MILK FOR CONDENSER

Machine skimmed condensed milk has received vigorous condemnation at recent meetings of Chambers of Agriculture, and the Central Council has taken up the matter. Especially strong is the demand that all such milk should be labelled as unfit for infants' use—on the ground that "infants might have full stomachs of skimmed milk and still starve to death."

The suggested marking of all imported meat as "Foreign" or "Colonial" was also considered by the council, and a resolution in favor of such marking approved.

#### PREVALENCE OF TUBERCULOSIS

How prevalent tuberculosis is amongst dairy cows in England is indicated by 73 samples of milk being found tuberculous out of 676 samples examined by the Health Department of the London County Council. In addition, a veterinary inspection of 4,455 cows on 184 farms supplying milk to London resulted in 74 cows being found suffering from tuberculosis of the udder.

The medical officer strongly urges the early re-introduction into parliament of dairies and milk bill, which was one of the "innocents" slaughtered in the last session owing to lack of time for consideration.

#### THE EGG SITUATION

Increasing home production of eggs and a decrease of foreign and colonial supplies to the extent of 256,000,000 eggs were features of 1909. Last year's imports were valued at the huge total of £7,235,302, against £7,183,122 in the previous year—smaller supplies and higher prices.

Poultry imports were of the value of £920,699, compared to £934,679 in 1908. Canada plays but an insignificant part in egg imports, the total value being but £2,182. However, they were worth more per great hundred (10s. 11d.) than those from any other country. Denmark came next at 9s. 6½d. Russia is the largest single source of supply of both eggs and poultry—sending nearly £3,300,000 worth.

\* \* \*

The foreign trade of the United Kingdom for January showed a considerable increase over January, 1909. Imports increased by £2,420,790 and exports by £6,000,069. Grain and flour were responsible for £1,550,160 of the increase in imports. Animal products imported decreased by £333,889.

\* \* \*

Although February opened with dry and seemingly settled weather, rain soon returned again and land is in a sodden condition. This is especially deplorable in view of the arrears of plowing, as February is usually largely devoted to the sowing of spring wheat. Should the weather change so that farmers can get onto the land a large area will be sown to wheat in place of oats and barley. Of the crops above soil wheat looks fairly strong, rye is healthy and so is young clover.

Lambs and ewes are doing well, with lower mortality than usual, and the health of farm stock generally is good.

F. DEWHIRST.

### Nursing Hints for Stock Owners

BY DR. J. FIELDING COTTRILL.

#### Part III.

##### DISINFECTING

It is just as important that the animal and its surroundings be kept clean and sweet as it is for ourselves. Pure air I have already spoken of. It is Nature's own disinfectant. This is largely aided by sunlight and fresh water; but as we are not always able to take full advantage of these we use various chemical preparations, especially in contagious diseases, where hosts of disease germs may be given off and pollute the air. Here the fresh air would dilute, but would not destroy the germs rapidly enough. Fresh water would dilute and wash them away, too, but might cause the disease to spread elsewhere, but by adding say two ounces of carbolic acid to one gallon of water and flushing the stable out with this these dangerous germs would be destroyed. If about four ounces of crude carbolic be added to every gallon of lime wash the walls may be readily purified. It is scarcely necessary to say that the scraper and brush should be used previously. If unable to wash out the stable the crude carbolic may be sprinkled on the floor, etc. It will cost a mere trifle and may save the other animals.

Every sick animal should, whenever possible,

be removed from the rest of the animals, and the stall occupied by it at once thoroughly cleansed. I have known every mare (and cow) to lose her young because they were kept in the same place as one which had aborted. I have seen several mysterious cases of inflammation of the udder appear in the same stable which contained one animal with a badly suppurating wound. Septicæmia and pyæmia, or blood poisoning, will readily pass from one animal to another. These instances show that not only contagious disease cases should be isolated, but that it is erring on the safe side to isolate even simple cases. I have known hog cholera to be spread from the shoes of one who walked through a healthy pen after visiting a diseased one. Hence, it is dangerous for the same person to attend the sick and well, because the contagion may be carried by hands, clothes, brushes, etc. So that if an attempt is made at isolation let it be real. Let a separate person attend to the sick, or, if it is absolutely necessary that the same person attend to all the animals, he can at least freely use carbolic acid, four ounces to the gallon, on his hands after leaving the sick. He should also use an old coat when entering the stable, and this can keep the contagion from his ordinary coat. But be sure to use separate pails and stable utensils for the sick.

#### MEDICINE ADMINISTERED

See that the medicine is never given so strongly as to irritate the mouth, and that it is given regularly; and if you value your animal do not begrudge a little attention during the night.

Enemas, enemata, clysters or injections, as they are variously named, should be freely used on all sick animals. They should feel comfortably warm to the hand. In large quantities they will be ejected, and, therefore, cause the bowels to work. In small quantities they will be retained. In the case of a sick animal it may be wise, if it cannot swallow, to inject a small quantity of gruel (or soup if the patient be a dog).

Let me request you to say when you have a sick animal: "What would we do if one of us in the house were suffering in a similar manner to the animal? Then as far as possible do the same for the animal. Here is an example: If your eye is sore or inflamed you put a shade over it. Do the same with your animal. I have seen dozens of poor beasts suffering dreadful agony from their eyes. The tears have been rolling down their faces and their lids swollen to an enormous size, yet their owners were amazed when I have said that every ray of light was torment to the beast. "I never thought of it," is the general cry.

"Gentleness," "cleanliness," "regularity," and "thought" should be written over every stable door.

#### DEAD CARCASSES

This subject is beyond nursing, but I would like to say a few words about them. They should in every case be burned. To leave the carcasses for the coyotes is criminal, morally, and should be made so legally. To bury them, in many cases, is merely to court further disaster (unless they be covered with quicklime). But to destroy them by burning is safe.

\* \* \*

A pamphlet on the relation of the farmer and the general consumer to the wool tariff, from the pen of E. B. Biggar, Toronto, is being circulated. The writer sets forth in a conclusive way the arguments that have been urged in support of a higher woolen tariff and attempts to show that raising the duty on woolen goods will be in the direct interests of the consumer of woolens and the producer of wool.

With these arguments we are all more or less familiar. They are similar to those always urged by advocates of higher protection. The writer informs us that raising the woolen tariff will not necessarily mean increasing the cost of clothing to the consumer, and will markedly stimulate the sheep industry in Canada. Increasing the duty, he says, will mean that a smaller quantity of woolen cloth will be imported, and hence a higher tariff will operate to decrease the actual tax on the consumer. Similarly a higher tariff on wool will benefit the sheep industry by forcing manufacturers to buy more of their wool in Canada.