

so on our table land. Making this allowance, it would show the cultivated land where the crop is taken off and fed in the way we have done equal to the carrying of one animal to the acre for at least eighteen months, or six times the length of time that the blue grass would sustain it here, or three and one-half to four times what the pasture would do under the more favorable conditions of a more moist climate. In my reckoning you will see that I place the cattle fed for the season at an average of seventy-five, and the twenty-three sheep equal to five cows, counting the eighty-six cattle we have now, the fourteen horses and twenty-three sheep, in all, equal to ninety-four cattle. I think you will agree with me that this is at least a fair estimate. A mistake we made was in not continuing a slight meal ration from the time we quit feeding corn fodder in May until we began to cut corn in the last week of July. I consider that there we lost at least \$200 above what the meal would have cost us.

"The showing after carefully weighing and counting the gain at five cents a pound gives us a profit of \$30 per acre for each acre of land we have used in soiling. The hogs fed after the cattle, the surplus milk, the butter made from the cows we milk, and the growth of wool, amply compensate for the extra labor, while we have fully demonstrated that on this 240-acre farm we can safely increase our herd to 300 cattle or their equivalent in other stock, have better support for them, and at the same time have the land growing richer every year."

By a judicious use of the silo, in addition to the above system, the possibilities of the land to support large numbers of animals could be almost indefinitely increased.

How to Get Fall Lambs.

In England the ram is usually coupled with Dorset ewes during June and July, but in this climate (referring to Eastern and Middle States), that any large and uniform success in breeding Dorsets as late as June will result, we think improbable. Why? Because it is too hot then. Now, most seeds require great warmth to germinate; some, like the sweet pea, prefer cool conditions, so we plant them early. The same reasoning applies to sheep: their natural time of mating is fall, October and November, cool months. So if we want them to breed in the spring, we should select cool periods. This seems a simple thing. Yes, it is. And, like many simple things, it is overlooked. When we started with Dorsets, we read and were told they would breed any time of the year; also that June was the month to mate them for fall lambs. We tried them in June for many seasons, but with partial success only. This experiment convinced us that, while Dorsets will in isolated cases breed any time of the year, that for uniform and complete success, the "any time" must be a time when the conditions are right. We were now on the true track, and realized that for spring breeding we must select a time as near like the natural period of fall as possible, and (equally important) have the ewes as near like their natural fall condition as possible. To meet these desired conditions we suggest the observance of the following:

- 1st—Have ram with ewes not earlier than middle of March, not later than middle of May.
- 2nd—Put ram with ewes nights, not days.
- 3rd—Use young ram and feed him well while in service.
- 4th—Do not have ram too fat.
- 5th—Do not have ewes too thin.
- 6th—If ewes were not shorn early in fall, shear early as weather will allow.—H. D. Miller in Report of Dorset Club.

Gasoline for Stomach-Worms in Lambs.

For stomach-worms in sheep and lambs, the gasoline remedy is recommended by experienced sheep-raisers. The common fuel gasoline answers the purpose as well as the expensive benzene. Lambs should be first shut away from food for twelve or sixteen hours. The dose of gasoline is from one teaspoonful to one tablespoonful, the larger dose for mature sheep. It is not wise to guess at measures. Procure a small measuring-glass called a graduate; they are to be had of druggists and cost five cents. For a dilutant use either thin flaxseed tea or sweet milk. Four ounces of milk and two teaspoonfuls of gasoline well shaken together make a dose for a fifty-pound lamb. Care should be taken not to allow it to get into the windpipe and strangle the sheep. There is no danger if carefully given. Repeat the dose three times, at intervals of twenty-four hours. Bad cases may need further treatment after a week.

"The diet should be nourishing, but not too rich; care should be taken not to overfeed, as the digestion is much impaired by the presence of the worm. If other worms are present, gasoline will not rid the lamb of them. It should be supplemented by other treatment, such as a good worm powder. Most of the loss of lambs in humid countries comes from the stomach-worms. These are minute, hairlike worms about three-quarters of an inch long, and on dissecting the lambs they are easily found in the fourth stomach."

Report of the Canadian Minister of Agriculture.

We have received from Ottawa a copy of the annual report of the Hon. Sydney Fisher, Minister of Agriculture, just issued for the year ending Oct. 31st, 1899. Mr. Fisher refers to his personal visitation of various parts of Canada, particularly Ontario and the Western Provinces, enabling him to get a better insight into their conditions and needs. He notes that during the past year production was great, prices good, with a ready sale for all commodities. The enormous increase of the export trade in agricultural and animal products is noticeable, but not more so than the great improvement in the local or home market, consequent on the development of the country everywhere and in all lines.

He was very much struck with the great interest shown in all branches of live stock, and much pleased to note the increased prices obtained for almost all classes. This has had the effect of stimulating importation of the best class of pure-bred stock, and more than ever turned the attention of breeders to careful selection of stock, and has encouraged them to unusual investment with this object in view. While there was a decrease in the exportation of cattle and horses to Britain, sheep showed an increase. But the export of cattle to the United States has largely increased, there being an enormous demand for feeding animals. The removal of the vexatious old 90-day cattle quarantine in Feb., 1897, sent the exports up from 1,646 in 1896 to 85,301, valued at \$1,278,590, in 1899, according to the customs returns, and this doubtless accounts for the decreased export to Britain of finished beefs. The number of feeders shipped to the States was slightly less in 1899 than in 1898, but their value was greater. The removal of the old restriction on trade between the two countries has had a most wholesome effect, and, with the free admission of American corn, greatly needed for feeding purposes, constitutes two of the most gratifying features of Mr. Fisher's regime, and for which he deserves great credit. Allowed a fair field, the Canadian farmer and breeder can safely be trusted to successfully develop their own business aright without any artificial or official coddling. In fact, with the demand for breeding stock, feeders and good export beefs away in excess of the supply, the Canadian live-stock industry was never in a more healthy condition than at present.

It is gratifying to note the continued healthfulness of the live stock of the country. Tuberculosis is rapidly decreasing. The Chief Veterinary Inspector reports 16,822 suspected animals throughout all Canada tested during the year, and of these but 451 reacted to the tuberculin test. With regard to the latter, experiments confirm the work of last year as to the unreliability of any but the primary tests unless a long period intervenes. Prof. Adams reports frequent examples of animals re-tested within 30 days presenting no definite reaction. He therefore ventures the suggestion that imported breeding stock be quarantined long enough to permit Government inspectors making a second test without there being any possibility of veiling the condition of the animal. The communicability of the disease from animals to man appears still to be in doubt. The most that Prof. Adams would urge is the periodical inspection of dairies, and the condemnation of animals showing emaciation and definite clinical evidence of the disease, most certainly of those showing tuberculous udders.

Hog cholera occasionally breaks out in old centers, but is also decreasing, and has almost disappeared entirely from some of the hitherto most infected centers. Diseased swine slaughtered, 2,166; in contact, 2,579; total, 4,745; compensation paid, \$15,048.82. The country is practically free from sheep scab. One owner near Ft. McLeod, N.-W. T., where an outbreak occurred, voluntarily slaughtered his entire flock, thus eradicating the disease at once. No scab was discovered in the 62,308 sheep inspected at the shipping ports. Glanders is almost unknown in the older Provinces, and out of 97,014 cattle exported from Maritime ports, only 29 were found affected with actinomycosis. In the Northwest Territories 98 animals were destroyed for this ailment, and 83 successfully treated by the Mounted Police.

Allusion is made to the great increase in the export trade in butter, bacon, cheese, poultry, eggs, oatmeal, and the superiority of Canadian flour suggests the opening in Britain of bakeries for the sale of bread made from Canadian flour as a profitable commercial venture.

Three hundred creameries are now provided with cold storage, in accordance with Government regulations, and over 900 cheese factories and creameries have received certificates of registration under the Act providing for branding.

At the Central Experimental Farm, 200 acres has been set apart as a stock farm, under Mr. J. H. Grisdale, the Agriculturist. Sheep are now being kept, and more experimental live-stock work is being done.

During the year, Dr. Montizambert was transferred from Grosse Isle Quarantine Station to

Ottawa to fulfil the duties of Director-General of Public Health and General Superintendent of Quarantine.

The Patent Office, also in charge of Hon. Mr. Fisher, last year showed an increase in revenue of over \$7,800 over the previous year, the total revenue for this branch being \$107,261.56, showing a surplus of \$69,546.51.

Under health and criminal statistics we notice that during the period 1888-98 the number of convictions for crimes against the person increased 41 per cent., and against property 58 per cent., and the convictions for burglary, robbery, arson, etc., 111 per cent.; and it is also to be deplored that during the same period every province in Canada, except Ontario (which shows a marked decrease), shows increases in drunkenness.

Although about 45 per cent. of the population of Canada are in families whose heads and members are engaged in farming, and the value of all farm crops and products in Canada is not less annually than \$600,000,000, we regret to note that the Minister has not yet been able to arrange for the early, accurate and complete collection and publication of agricultural statistics, as has more than once been urged by the FARMER'S ADVOCATE, and which the report now before us practically admits should be done.

Affected Animals from the Argentine.

There arrived in the Mersey on Monday and Tuesday, from the River Plate, two steamers, named Severus and Bellagio, on both of which cattle were detected suffering from foot-and-mouth disease. The Order prohibiting the importation of live cattle from South America came into operation on Tuesday, but in accordance with the amended Order a permit was granted by the Board of Agriculture for the landing of these cargoes. The work was expeditiously carried out, and the 400 bullocks and 2,200 sheep which were on board the two vessels were at once slaughtered at the special lairage. The heads, feet, hides, and all offal were conveyed to sea and buried, and every precaution was taken by the dock authorities to prevent the disease spreading in this country. Since the order of prohibition was published by the Board of Agriculture three infected cattle and sheep cargoes have reached Liverpool. It is believed no other cattle vessels are on the voyage from South America to Liverpool, so that this trade, so far as River Plate ports are concerned, is now closed.—*Mark Lane Express of May 7th.*

[NOTE.—Great alarm was subsequently created along the Lancashire and Cheshire shores of the Mersey by the washing up from the sea of large quantities of diseased hides, sheep-skins and offal removed from South American cargoes infected with foot-and-mouth disease.]

The Water Supply in Loose Feeding.

Referring to the letter from Mr. Wm. Rennie in our last issue, on fattening cattle loose in box stalls, Mr. Thos. Baty, of Middlesex Co., Ont., who has been carefully testing that plan to his own satisfaction, advises us that he considers the suggestion by Mr. R. of the gutter behind, when cattle are stanchioned for feeding, into which the droppings can be thrown occasionally, a very valuable one in order to the saving of bedding. For watering, Mr. Baty advises a box projecting into the side or front of the stall, about 18 inches deep, with a hinged corner projecting an inch or two over the side next the animals, so that they can raise it with their noses, and so adjusted that it will fall back of its own weight when one has finished drinking. If held up with a bit of block when first put in, the cattle will soon learn that the water is there, and raise it up whenever they feel like drinking. As the lid closes itself, the objection is overcome of fodder or litter or the droppings of the animals running loose falling into the water. The opening should be large enough so that the animals can put their heads in comfortably to drink. Mr. Baty ties his cattle in stanchions when feeding, but they run loose the remainder of the time.

Sheep Dipping Tank.

In reply to a request for their plan of constructing a tank for dipping sheep, and for the dimensions of same, Messrs. Geo. Harding & Son, Waukesha, Wis., give the following:

Make an outside frame for sides and bottom of vat by setting up five pairs of 2x4s four feet long, connected at bottom with 2x4s twenty inches long, set on edge (eight inches allowed for joining). Dig a trench twenty inches wide, two feet deep and eight feet long, or any length you prefer, guided by size of your flock; we dip 100 head per hour in ten-foot vat by keeping three sheep in at one time. Set up your frames all in line in this trench with the tops twenty-two inches apart. Sheet up on the inside with two thicknesses of matched flooring. This will give you a water-tight vat. One end of the vat should slant at an angle of 40 degrees so sheep can walk out and onto drying platform, which should be made large enough for sixteen sheep, and so constructed with tight bottom that the droppings will drain back into the vat. Build a three-board railing around platform and divide into two pens, each supplied with a door so the sheep can go out on the opposite side from the vat. At the entrance to the drying pens from the vat, one gate will suffice, which will swing two ways.