

The Iowa Experiment Station Mutton Test.

The bulletin setting forth the details of the test conducted at the Ames (Iowa) Experiment Station, by Prof. C. F. Curtiss, of the relative values of different breeds of sheep for fattening, has been issued and contains a deal of information worthy of careful consideration; in fact, the conclusions arrived at are the result of well-directed effort along the most practical lines. A preliminary report, giving the general results, appeared in the ADVOCATE of May 15th issue, page 208. The following are results not included in Prof. Curtiss' previous letter in our columns:—

The test, it will be remembered, was with ten lambs each of the following breeds and crosses, and five yearlings (Shropshire): Southdowns, Shropshires, Oxfords, Suffolks, Lincolns, Cotswolds, Leicesters, Dorsets, National Delaine Merinos, cross-bred Shropshire and Merino, and range grade lambs. Most of them, as our readers know, were bought in Canada. The period of the test extended over ninety days. The lambs arrived upon the farm early in November as rams and were castrated soon after arrival. Ram lambs were secured because first-class wethers of the different breeds could not be obtained.

In the latter part of Nov. the lambs were separated into lots of ten each, according to breed, and put into permanent quarters for the winter feeding experiment. These quarters consist of plain board shed, room 12x14 feet, and an open yard adjoining, about 12x30 feet, for each breed. Hay was fed in racks inside the shed, and grain in troughs in the open yard. An ample supply of bedding was kept in both shed and yard, and the door between continually open, but so arranged as to avoid injurious drafts of air. A box of salt was always before each lot. The main grain and hay feeds were given night and morning and a feed of roots at noon. The hay was fed first, morning and evening, and the grain followed. Water was given about 9 o'clock a. m. each day, and again before the evening feed of hay. All feed was carefully weighed in, and everything left was weighed back and deducted. Seldom, however, was any feed left over. The grain troughs were cleaned each time before feeding and the hay racks cleaned as often as necessary. Every breed was fed to its full capacity—a ration uniform in composition to all. Such was the care exercised throughout the whole experiment, which may be taken as being ideal treatment, economical of labor and food in view of the excellent results obtained.

During the preliminary period, Summers' Worm Powders were fed once a week to all the lambs. The range lambs were dipped, and during the winter the entire number was treated with pyrethrum powder, which effectively destroyed all ticks and lice.

During the preliminary period, until January 10th, the grain food proportion was 50 pounds of bran, 200 of oats, and 200 of shelled corn. During the middle of January the ration mixture was gradually changed to 25 pounds of bran, 50 of oil meal, 200 of oats, and 200 of shelled corn. This feed was continued to the close. Each lot was fed to its full capacity of this ration, together with roots and hay.

January 1st the daily grain ration ranged from 1½ to 2 pounds per lamb for all breeds except the range; these ate only 1 pound of grain each. At the close of the experiment the lambs, excepting range, were eating from 2 to 2½ pounds of grain per head daily. The range lambs were then taking 1½ pounds. The yearlings ate from 2 to 3 pounds of grain per head daily. The total amount of hay eaten was about two-thirds, by weight, of the total amount of grain. The roots ranged from one-half to one pound per head daily.

The following table shows the daily gain, dry matter per pound of gain, cost of food per pound of gain, and live weight price obtained per pound for the different breeds:—

BREED.	Daily Gain	Dry Matter Per Pound of Gain.	Cost of Food Per Pound Gain.	Live Weight Price Per Pound.
Southdown	.45	7.38	2.93 cts.	4.75 cts.
Shropshire	.48	7.18	2.88 "	4.625 "
Oxford	.52	7.40	3.03 "	4.50 "
Suffolk	.55	7.40	2.95 "	4.25 "
Lincoln	.55	7.29	2.89 "	4.50 "
Leicester	.52	7.49	2.93 "	4.50 "
Cotswold	.62	6.53	2.60 "	4.50 "
Dorset	.48	7.85	3.05 "	3.75 "
Merino	.29	9.35	3.78 "	4.25 "
Cross-bred	.41	7.02	2.82 "	4.50 "
Range	.37	6.84	2.71 "	4.50 "
Shrop. yearlings	.33	11.00	4.40 "	4.25 "

Apart from the lessons taught regarding the merits of the different breeds, it will be noticed that the gain for each and all of them was rapid and cheaply produced. Especially is this true of the lambs as compared with the yearlings. We are also shown that it pays to feed heavily when a well-balanced ration is used. Comfort without over-warmth, regularity of attention, and freedom from insect pests no doubt materially aided the fattening process. The conditions and care (except the weighing) accompanying this experiment were not more elaborate or expensive than any farmer can afford; in fact, one of the features of practical importance is the ordinary conditions in connection with the whole affair.



THREE REPRESENTATIVE SOUTHDOWNS.

No. 4—Bred by John Jackson & Sons, Abingdon, Ontario, Canada.
No. 9— " Jas. Scott, Aberfoyle, Ontario.
No. 5— " Wm. Martin, Binbrook, Ontario.

The Dominion Minister of Agriculture in Prince Edward Island.

ADDRESSING THE FARMERS AND BUSINESS MEN OF THE PROVINCE—FARMING AN EXALTED OCCUPATION—INTELLECTUAL ACTIVITY ESSENTIAL TO SUCCESS—ANGLO-SAXON SELF-RELIANCE—RESPONSIBILITIES OF PEOPLE AND GOVERNMENT.

Charlottetown, P. E. I., Nov. 10.—The Hon. Sydney Fisher, Canada's first farmer Minister of Agriculture, accompanied by Dr. Wm. Saunders, Director of the Dominion Experimental Farm system, has just made a tour of the Island in connection with his visit to the Maritime Provinces,



THREE REPRESENTATIVE SHROPSHIRE.

No. 11—Bred by Hon. John Dryden, Brooklin, Ontario.
No. 18— " Richard Gibson, Delaware, Ontario.
No. 12— " Joseph Edgerton, Nassau, Iowa, U. S.

delivering a series of addresses, in which he confined himself mainly to questions of practical farming and the establishment of the cold storage system.

A RESPONSIBLE POSITION.

In one of these addresses he frankly acknowledged the serious responsibility which he felt was involved in his position as Minister of Agriculture. People now expect a great deal more than was formerly the case. It was therefore necessary and proper that a Minister of Agriculture should know something about the business of the farmer with whom he is called upon to deal. There was no doubt that it was because he was a farmer that he was now Minister of Agriculture, and he was proud

that he had been selected to occupy his present position. He was prepared to magnify the position he now filled, for in Canada, an agricultural country, and especially in this Province, the interests of the farmer are paramount; but he felt that he was doing work for the business men, the traders, and the professional men, as well as for the agriculturist.

BRAIN POWER NEEDED.

It has long been the habit of many to believe that farming was a lower employment than commerce and the various professions, but to-day he ventured to say that there is no industry in this country that requires half as much brain work and intellectual activity as that of the successful farmer. This may startle some in a city audience, but looking at the way we now have to use our best brains justifies me in saying that if there is a young man in the community who shows a little capacity or is a little smarter than his competitor at school, he can safely turn his attention to the farm for the use of his best brain power. Under these circumstances, agriculture is a pursuit that our young men can enter. They can stay at home and make a successful livelihood in our own community and build up our industries instead of going into a foreign country. This is one of the reasons why the attention of the people of the country is so largely turned to the improvement of farming.

I am glad to know you have in this Island so largely taken up

DAIRY FARMING.

First, because it is that branch of farming which so generally gives the greatest opportunity for successful work. If you feed the animals well and convert their milk into butter and cheese, you are engaged in a process of manufacture which will repay you for your enterprise and skill, just as in the olden time those engaged in other manufacturing operations were paid more highly for their labor than those engaged in ordinary pursuits. Besides this the farm is more highly improved and cultivated by the use of the additional manure from stock. The butter and the cheese contain in a less bulk more value than any other kind of farm produce. In former days the farmer sent away in certain crops a large proportion of the nutrition of the soil of his farm, which was lost forever. But the man who engages in dairying is keeping at home a large proportion of the richest portion of the soil which he cultivates, and his farm, instead of becoming poorer, becomes richer, and he himself becomes a better man, a better farmer, and a better citizen. Dairying is, in fact, the highest development of agriculture; and this is another reason why I am glad to see that it is taking up so large a proportion of the attention of the people of this Province.

INTERCHANGE OF IDEAS.

I wish to impress you with the fact that the interests of farmers are mutual and that they cannot neglect their work in any one department without, in some measure, injuring the whole community. By mutual consultation and frequent discussion an immense advantage is gained. Wherever there is co-operation and a frequent interchange of ideas the farming industry will be benefited. The soil of this Province is such that if you play tricks with it and deal with it carelessly it is apt to get poor and run out. The result in such a case would be that in a few years the farmer would find himself minus his profits. The better way would be to keep on hand a good stock, and instead of selling roots and grain, feed them to animals, obtain an abundant supply of manure and keep up the fertility of the farms.

WINTER DAIRYING.

Mr. Fisher next gave an interesting account of his own experience as a dairyman, and spoke of the great advance made in "the Eastern townships" (P. Q.), which, through co-operation and the adoption of the newest and best methods, had now one of the finest lots of butter factories in Canada. During the summer season it is profitable to make the milk into cheese, but later in the season it is better to make it into butter, and he was glad that the people of this Province were now during autumn and winter running a number of butter factories. It is proper that cheese and butter making should go hand in hand. The cows which in the summer season produce milk that is made into cheese will later in the season produce milk which can profitably be made into butter. You cannot make your farms pay if you allow the winter to become a dead season, during which neither cheese nor butter is made. In winter we can produce milk for butter at a good profit. It is important in dairy farming that you will have a fair return of milk all the year round; that some of your cows will produce milk while others are resting, for you cannot keep all of your cows