

The pasture is several small paddocks of lucerne clover. Changed them from one to another during the four or five months last summer (May to August or September). They received nothing but whey in addition to the clover. Though they did not fatten a great deal, the growth was wonderful, and when taken off the pasture the two or three weeks of grain fitted up the cheapest hogs we ever sold, nor were they only the cheapest, but they were just the style for the buyer.

In the table given below, containing figures of the cost and receipts of a lot of forty-one pigs, it will be remembered that most of them were from inferior sows, and did not give the returns they should have given, or what we expect to get in the future:

COST.		RECEIPTS.	
Forty-one pigs @ \$3	\$123 00	6,890 lbs. pork	\$332 18
Feed consumed	42 80	Less outlay	183 80
Whey	8 00	Profit	\$148 38
Rent for 3 acres pasture	10 00		
Total outlay	\$183 80		

Huron Co., Ont.

F. C. ELFORD.

Our Scottish Letter.

On this first day of June no man could refrain from glorying in the splendor of the sunshine which distinguishes this day. May, for the most part, was in every respect unlike what poets have led us to believe she ought to be; but during the past few days the sun has shone forth with startling effulgence, and a brighter and pleasanter outlook one could not wish to see. During the past few days one could almost see things growing, and Nature is at the moment looking her very best. Farmers, alike Lowland and Highland, had good cause to complain of the backward condition of the crops almost until the past week; the weather was bitterly cold, and the progress of vegetation was slow. Turnip-sowing was not to be thought of, and croakers were beginning to conclude that Providence had forgotten the promise, and seed-time and harvest were not to be in 1890. All these forebodings have been belied. The season of 1890 will doubtless be like those which have gone before it, and somehow when things are balanced up one season is found to be very much like another.

Turnip-sowing is now in active progress, and farmers have plenty to do. The utility of this great root crop has often been called in question, and conflicting theories are entertained as to why it should be so popular. Some maintain that in itself the crop is of no account; its value lies in the benefit which accrues to the soil from its growth. Others have it that without "neeps" British agriculture would be *non est*, and possibly neither view is quite correct. Turnips are not now as indispensable a food as they once were. Many substitutes are in the market, and some of them are possibly improvements on the turnip. But when all is said there are certain virtues in the turnip which cannot elsewhere be found, and no wise man would dream of dropping the crop as an important factor in the rotation. The chemist will give an analysis showing that turnips have little feeding value, but the man who tries to do without them and has succeeded is not yet above the horizon. At the same time there are farmers who, from their own practical experience, have come to doubt the utility of yellow turnips, and have gone in wholly for the growth of swedes. One of the best farmers in the west of Scotland was telling me, no further gone than yesterday, that he has sown no yellow turnips this year, but filled up the whole acreage with swedes. He did this because he found, from experience, that two swedes were worth three yellow turnips for feeding purposes, and they occupy less space in the fields. He is convinced that he will have richer milk and cream, and less labor from growing swedes only.

SOME SALES OF HACKNEYS.

Hackneys are the most popular breed of horses in this country, and recently several notable sales have been held. The most extraordinary was that at H. R. H. the Prince of Wales stud farm at Wolferton, near Sandringham. The Prince had a very distinguished company around his table, and fabulous prices were realized. A gelding sold for 925 gs., and a pair for 1,050 gs. No doubt the owner of the 925 gs. animal feels big, but we would like to buy several geldings for that money, and he will feel a bit disappointed should somebody in the "row" attract more attention than he does. On the whole, while one likes to see good prices, there is just a possibility that 925 gs. is beyond reason for a gelding. In Scotland we have to be content with much lower figures. Both Mr. Morton and Mr. Scott—the one in Ayrshire and the other in Lanarkshire—have recently had sales, and in each case an average of over £60 was obtained. Mr. Morton had 66 horses and ponies—a very big lot to throw upon the market in one day—and he got an average for them of £61 6s. 11d. apiece. Mr. Scott had hardly one-half the number, but his average was £61 3s. In both cases the horses were big, well-colored and very handsome. Better harness horses have not been offered in Scotland for many a day, and no doubt greater popularity is yet in store for the Hackney in Scotland. At Mr. Morton's, and indeed at both sales, buyers were present from all parts of the country, and bidding was steady if not sensational, and with perseverance and wise selection of the best kind of animals an increasing demand for home-bred carriage horses may be looked for.

Butchers are, it appears, feeling the pressure of the times. In Glasgow they are finding it difficult to make ends meet, so they have advanced the price of beef, mutton and pork by 1d. per pound. It is really very sad, because it has hitherto been understood that some of them were making money so fast that they did not know how to dispose of their wealth. Joking apart, it is of course impossible to believe that butchers are hard up, but we understand that they cannot now get the same amount for the offal as in other days, and the trade is becoming specialized, so that an animal does not cut up so profitably as of yore. With it all we have an idea that the butcher could very well have afforded to go on at the price he was getting for his meat, and that this latest movement is just another evidence that he will have big profits, come what may. There is no proper effective trade rivalry amongst butchers, a fact which does not operate in favor of the public. They are better organized than any other trade in the country, and can make and keep compacts as no others can. How long this may continue we cannot say. The monopoly is not good for the community, but the number of men who care to become butchers is obviously limited. So long as this continues the butcher will make his own price and his own terms with the public.

THE SINGLE-JUDGE SYSTEM FOR SMITHFIELD.

The Smithfield Club had long the reputation of being the most conservative of all our agricultural institutions. Its *vis inertiae* was great, and any attempt to interfere with the *status quo* was defeated. Within the past few years, however, it began to move. First one and then another hoary superstition faded before the clear light of modern commerce, and attention was anew directed to the primary objects of the Club. It was instituted to promote early maturity in live stock, and towards this goal it has now for three or four years been bending with accelerated footsteps. Recently the Council has outrun its own reformers, and a movement has been made at which, considering its origin, one is disposed to be almost horrified. It has been agreed to have a single judge in all classes, and even for the championships. I believe in single judges for breed classes, but the Club will be clever if it can find a man qualified to hold the balance fairly between the champions of rival breeds. A butcher is the best man for the job, and it may be possible to find one who is perfectly unbiased as between the claims of rival breeds, but we do not envy the Club its task in searching for the fitting man. Whoso lives until next December will see what he will see in this big fight.

"SCOTLAND YET."

Legislating for the Doctors and Vets. in Prince Edward Island.

Our Local Legislature has finished its labors for this season, and farmers are rejoicing that the agony is over. As the majority of our law-givers is composed of traders and professional men, it is not to be expected that farmers' interests will be either understood or considered. Much of the time of the session was consumed in providing measures for protecting the interests of medical men. When that was perfected, they had a "WHACK" at the cow, for that class of men have the same increasing hatred for her as is recorded in the old song:

"I don't like you, Dr. Fell;
Why it is I cannot tell,
I don't like you, Dr. Fell."

So they set to work and framed an extremely oppressive and unnecessary compulsory tuberculin test law, in which heavy penalties, and extraordinary powers to the veterinary surgeons, are the prominent features. The argument in favor of this law was that this Province is now free from tuberculosis, and that by frequently testing our cows and excluding all cattle coming from other parts of Canada that had not been tested, the Province will continue to be exempt from that disease. But those who are acquainted with the report of Hon. Sydney Fisher, Minister of Agriculture, know that he says his veterinary agent reports over five per cent. of Island cattle diseased, or about the same percentage as he finds in Ontario.

But as ability to retail tobacco, tea and soap constitutes the principal qualification for members of our Legislature, they should not be expected to know much about agricultural reports. Much less can they know that mice, rats and other of the rodent species of animals are more generally afflicted by tuberculosis, and more actively engaged in scattering the germs of that disease in barns, granaries, stables, and residences, than any other creature, not excepting man.

ISLANDER.

Soft Pork Again.

Our Toronto market report in this issue mentions that soft, off-colored sides are commencing to come forward, and the cause assigned is soft pasture or clover feeding. Such sides cannot be exported, and are put into local markets, where the effect will be depressing. It is well enough to grow pigs on pasture, but they should have at least a few weeks' grain-feeding before marketing, in order to give to the flesh the proper consistency and flavor.

We would just here repeat what we suggested last year in regard to this question of clover-feeding and soft bacon, and it is that our experimental

institutions take up this subject in earnest with hogs of varying ages, on different classes of pasture, supplemented with varying varieties and proportions of grain, dairy wastes, etc.

FARM.

Dr. Saunders, Director of Dominion Experimental Farms, on Selection of Seed and Other Farm Subjects Before the Committee on Agriculture.

To the Editor FARMER'S ADVOCATE:

SIR,—As requested, I submit a statement of the position I took in evidence given before the Special Committee on Agriculture and Colonization of the House of Commons, on May 30th, regarding statements recently made by the Commissioner of Agriculture and Dairying before that Committee. Much the larger part of the time allotted me was given to an explanation of the work the Experimental Farms have been doing for the past eleven years in experimental tests and in demonstrations along five important lines which I have long regarded as the underlying principles in successful farming. These are as follows:

- (1) The maintenance of the fertility of the soil by the proper care and use of barnyard manure, the plowing under of green crops, and the economizing of the elements of fertility by a judicious rotation of crops.
- (2) Best methods of preparing the land for crop.
- (3) The importance of early sowing.
- (4) The best varieties of grain, fodder plants, and roots to sow in the several climates of the Dominion, taking into consideration productiveness, quality, and earliness of ripening.
- (5) The selection of plump and well-ripened seed for sowing.

To show that we had been demonstrating the truths taught, I cited the experience had at the Central Experimental Farm in increase of crops by bringing into play all these important principles. It was shown that by comparing the average of crops obtained for the first three years after the Farm was firmly established, viz., 1889, 1890, and 1891, with the average of the last three years, 1896, 1897, and 1898, that there had been an average increase in the oat crop of 23 bush. 13 lbs. per acre; in barley, an average increase of 12 bush. 7 lbs.; and in spring wheat, an average increase of 4 bush. 50 lbs. per acre.

Selection of Seed.—With regard to the question of the selection of seed I said: "The selection of seed grain for sowing is most important and cannot be too strongly recommended. This, however, cannot be said to be a new principle or a new application of a great principle. It has been the practice at the Experimental Farms ever since their establishment to select the seed used for sowing from year to year, by cleaning the grain thoroughly with the fanning mill, and by the use of suitable sieves, separating the plump and well-matured grain and using this for seed. Much the same practice has been followed by many good farmers in different parts of the Dominion."

As a sample of the teaching of the Experimental Farms on this point, I quoted the following from the Annual Report of the Experimental Farms for 1891, page 5:

"One of the most important means of improvement within the farmer's reach is the selection of good seed. Every seed has an individuality of its own impressed on it by nature, which, under favorable conditions, will manifest itself. Each seed is provided with a germ in which lies this impress of individuality, and this germ is embedded in a store of such food as is best suited to stimulate the growth of the young plant. When the seed is plump that food supply is bountiful, and the infant plant so nourished makes rapid headway; but where the seed is imperfectly developed the store of nourishment is much lessened. Crops are thus often enfeebled at the start and delayed in ripening by the use of poor seed, or they ripen unevenly and lack that vigor so necessary to a liberal return. It is well known that some farmers, by the selection of good plump seed and thorough preparation of the soil, grow of oats from four to eight pounds heavier per bushel than many of their neighbors."

"Good varieties of grain sometimes deteriorate by long and careless cultivation to such an extent as to make them unprofitable. Judicious selection and change of seed would no doubt conserve this fertility and add greatly to the length of life of such varieties. New sorts are obtained either by careful selection and cultivation, by the preservation of occasional sports which occur in nature, or by artificial crossing. The watchful farmer may do much to improve his own grain and method and continually secure new varieties by the second, but the third method (artificial crossing) requires much more skill and care, and is usually practiced only by the expert in such matters. On the Experimental Farms all these methods are in operation."

Selecting the largest heads from the most productive plants.—With reference to the recommendation to select the largest and best heads from year to year "from the individual plants which give evidence of power by succeeding and yielding largely under soil and climatic conditions where the crop is to be grown the following year," I may say that this plan was begun at the Experimental Farms in 1888, when good average seed was sown, putting the individual kernels a foot apart each way to secure strong growth. Selections were made from the most productive of these plants. It was found that the largest kernels selected from the finest heads were much heavier than the seed from which they had been grown. The results of this work were communicated to the Royal Society of Canada in a paper which was published in the Transactions for 1889. In 1889, the carefully selected seed grown in 1888 was sown, choosing only