

PRIZE ESSAY.

Sheep vs. Cattle.—For the General Farmer.

Every act of man relative to stock handling may reasonably be ascribed to one or two motives, or perhaps both, viz.: pleasure or profit. That sheep, representing a certain amount of capital, will, upon the consumption of a similar cash value of food, (other things being equal) yield as great, if not greater profit in their way than cattle representing the same capital investment, is, I think, too self-evident to every intelligent mind to require direct demonstration. Let an illustration suffice. The writer last fall sold a pair of spring calves for the sum of \$21.00, this having been at the time considered by disinterested parties an extraordinary price, (tho' it did not cover expenses) and bought with the same two ewes and five ewe lambs, and now at the date of writing he has sold \$51.00 worth of wool and sheep, besides having still on hand at least \$35.00 worth of sheep.

During the remainder of this discussion we shall deal chiefly with demonstrations of an indirect nature, such as is manifest in the detail management, trouble, expense and risk of handling each of the two classes of animals as compared with the other. With the generality of farmers, an early cash return of profit, with the least possible outlay in capital, handling, risk &c., is extremely desirable and will be most acceptable. Now that sheep husbandry is much better calculated and much more reasonably likely to fill the bill in these essential respects is what we shall attempt to show. The general farmer, of Canada, is a man of a very moderate amount of surplus funds, and hence is not equal to the task of a direct heavy investment. And sheep being much smaller, and each costing less money, may be more easily collected together in a herd than cattle, by piecemeal and as opportunity may offer. Moreover, sheep begin to multiply very much earlier, and continue to do so more regularly, rapidly, and unquestionably with less outlay. Besides this, an important consideration with most farmers in Canada is that each has already quite too much to look after, without the additional tax upon his energies of a stock which is likely to require a considerable amount of attention. Now, as a rule, sheep draw much less heavily upon a man's care than cattle do. Indeed, sheep may be successfully managed in a general way and in large numbers by a comparative youth or a female, whose strength and attentiveness would be anything but adequate to the task of attending a herd of cattle representing a like sum of money. Then, again, the vast majority of farmers have not fencing at all suitable to the requirements of a large herd of cattle, while a comparatively inferior fence will suffice to effectually turn sheep. In this all important respect alone, sheep husbandry has an advantage over that of cattle as three is to one. Moreover, with the general farmer, foul weeds are as a standing army feeding upon his capital resources, molesting his general peace of mind and interfering with his every transaction. Now, sheep are among our best scavengers, very greatly outstripping cattle in this respect. Indeed, in this particular, a healthy and sufficiently numerous herd of sheep will act as a body guard, both offensive and defensive. In fact, so practically correct is this, that no ordinary farm weed can possibly withstand the onslaught, so that he who keeps sheep will have the happy experience that in his herds he possesses very becoming and desirable, as well as successful help-meets, in the great and paramount work of subduing the earth. But, not only do sheep rid the farm of noxious weeds and at the same time profit themselves by their consumption, but they also return them to the soil in the improved form of excellent manure, which they seldom neglect to distribute with infinitely greater care and uniformity than cattle ever do. We have always observed that where cattle have grazed, unless much valuable time has been consumed in spreading their droppings (and time is money), there are large tufts of unpalatable grass, which neither the cattle themselves nor anything else will eat until long after its season. And this evil continues, unless

remedied in the above specified manner, year after year, to the great annoyance of the husbandman, while noxious weeds remain the undisputed occupants of the soil, delighting themselves with the fatness of the farmer's vested capital. Moreover, in most localities, there will be seasons in which, even if there be no natural scarcity of water, there will be, by means of severe droughts, so great a scarcity of water, and at the same time of pasturage, as to render the keeping of cattle almost impracticable.

Now, sheep are so constituted that they can pass through those scanty seasons and distressingly trying ordeals with comparative impunity. Moreover sheep are capable of thriving in localities and under circumstances where it would be practically out of the question for horned stock to subsist. There is but one respect in which cattle have the advantage of sheep, viz., they can wade in deep water in quest of food. Again, we know of no domestic animal which appears more plastic in the hands of man than sheep. They seem to yield, as it were by magic, to the molding care and design of the skilful shepherd. Besides, the sheep is a very prompt and reliable yearly paymaster, which cannot be said with so much truth of any other domestic grazing animal. It most generously yields its annual copen of wool and increase, and thus pays as it goes. In this respect the sheep is capable of teaching a very wholesome lesson to the youth of our land, and ought, for no other reason, to be extensively reared, viz.: to pay as you go, young man. Again, in the experience and observation of the writer, sheep have proven much less liable to disease and accident than cattle. And still another important consideration in favor of sheep husbandry over that of cattle is this, should disease or accident carry off an animal, the loss sustained would be much less than in the case of the loss of an ox or cow. In this respect alone the sheep handler enjoys an advantage over the other about as seven is to one. Furthermore, should the sheep raiser become pressed for a little money, and is compelled to sell, he only needs to sell to the amount required; besides in most cases of forced sales there is more or less sacrifice; this is usually in proportion to the amount sold, but since the sheep man is handling small animals, and hence required to sell only to the extent of his liabilities, less sacrifice will be experienced than would be the case where he disposes of larger and hence more valuable animals, i. e., animals representing more money. Then, again, it is much easier securing sale for small carcasses, especially in hot weather. At such a season a man could dispose of a sheep by the quarter when he could not possibly sell a quarter of beef, unless he cut it. And one great nuisance in connection with our villages is their by-laws prohibiting this. Again, in soft weather and his stock upon tender sward or grain pasturage, the sheep handler can sleep in peace knowing that his pastures will be all right, while the cattle-man will be harassed with the annoying thought that every step which his stock shall take is but so much direct and lasting damage to his fields. Surely every observing man knows how the horned cattle poach the land and pasturage to destruction. Moreover, of all the quadruped stock kept in Canada, sheep are the only ones that can be satisfactorily fed upon whole raw grain. True, calves will do very well in this regard for a few weeks while nursing their dams, but soon begin to void large quantities whole, of which the sheep is never guilty, unless it has been entirely overdosed. Besides, sheep require no such outlay for housing during the inclement season as do cattle. Sheep will be quiet and thrive in an open shed, while cattle require to be closed in and tied up, to secure comfort and avoid their goring one another. Lastly, by means of a portable fold, a man can safely pen his sheep over night, and at the same time upon a fresh piece of ground each night, and thus go regularly over a large field in a very short time, and effectually top dress it with the very best of manure, both liquid and solid, which can in no way be satisfactorily accomplished by cattle in the folding process. In short, the quick return and large profits to be realized by the handling of sheep has saved many a man from failure, when by means of any other stock he could not possibly have saved himself.

Indeed, the writer knows whereof he speaks, he having frequently realized about \$20.00 per head for each sheep carried through the winter, many of which were rams and ewe lambs, and had a flock left in the fall. At this rate the profits accruing from sheep raising will more than double those of our best general cattle.

O. O.

Beet Root Sugar Co. in Quebec.

A company bearing the name L'Union Sucnere du Canada, has been organized in France, with a capital of nearly two millions of dollars, the half of the capital paid up, for the purpose of manufacturing white sugar from beets grown in Canada. The company are desirous to have Canadians take stock in it, and share in its profits. At a meeting held in Montreal by a number of French-Canadian gentlemen, the agent of the company explained the plans of the new industry about to be started. The company offered to Canadian capitalists the privilege of taking one tenth of the stock, and also the right of having two Directors on the Board, which is composed of eight members. After discussing very favorably the new industry, it was decided to accept the offer of the French company, and the stock offered, amounting to \$100,000, was at once subscribed.

It is the intention of the company to erect its first factory at Berthier, Quebec, where a sufficient quantity of beets has been secured by contract. Four other factories will be erected during the year, should the supply of beets warrant the company in extending its operations. One thousand arpents of land are required for the cultivation of a sufficient quantity of beets for the work of each factory. Each factory will cost in erection and machinery from \$150,000 to \$200,000, and will manufacture from 20,000 to 30,000 tons of beets, which will produce about 1,600 tons of white sugar. The profits estimated by the Directors is placed at 25 per cent. on the paid up stock. This new industry will, it is believed, be at the least as profitable to the producers of the beets as to the company. They will receive for the beets a remunerative price, and the pulp will, after the sugar is expressed, be valuable for feeding stock.

Rats, mice and insects will at once desert ground on which a little chloride of lime has been sprinkled. Plants may be protected from insect plagues by brushing their stems with a solution of it. It has often been noticed that a patch of land which has been treated in this way remains religiously respected by grubs, while the unprotected beds round about are literally devastated. Fruit trees may be guarded from the attack of grubs and ants by attaching to their trunks pieces of tow smeared with a mixture of chloride of lime and hog's lard.

Copperas has no odor, but absorbs and disinfects the atmosphere of a room rapidly. If every dairyman would keep a little of it dissolved in water in his milk-room, changing it every two or three days, it would be found of great value. Salt, also, absorbs odors, and it is not subject to ferment itself. It therefore is a deodorizer, and this statement shows the great importance of keeping salt intended for dairy purposes in a pure atmosphere, or it may become spoiled before being used. This is not sufficiently considered by dairymen, who often keep salt in their cellars with decaying vegetables, which renders it unfit for use.

TO DRAIN A QUICKSAND.—G. M. C.; Quicksand will enter the finest joints in tile drains. Some drains have been laid with the joints bedded in a porous mortar, with an excessive proportion of sand, and made either of common lime or hydraulic cement. The proportion of sand may be 7 to 1 of common lime, or 12 to 1 of hydraulic cement. The joints are covered with this mortar. If the settling of the tiles is feared, they should be laid upon narrow hemlock boards 12 feet long and four inches wide. The tiles have also been laid in, and covered with tan-bark, which has prevented the entrance of the sand. In laying drains the greatest care should be taken to have the slope even and without depressions, and if the presence of silt of any kind is expected, silt basins should be made at convenient distances in such a manner that they may be uncovered and the silt removed every year in the dry season, when the drains are not flowing.