

Village Cow-Keeping.

EDITOR CANADA FARMER.—Strolling through a well-known village in the County of Waterloo a few weeks ago, this deponent was listener to an interesting conversation. The speakers were a confectioner, the happy possessor of one cow, which, he said, he kept at a loss, and a shoe-maker who owned four of the bovines and affirmed that they paid him remarkably well. In proof of this affirmation he compiled the following statement after due deliberation. I give it as nearly as possible in his own words, premising that the question of pasturage is not taken into account, and that for the simple reason that perhaps the great majority of Canadian villagers get their pasture free, their kine being simply turned out to the roads where they are allowed to roam and graze at will.

But to my statement. Mr C (so I will call the shoe-maker) keeps four cows, three of which are giving milk, the fourth being dry. It may be added also that, of the three milkers, one has but three teats and another only two. On the first of last June Mr. C. laid in one ton bran at \$13.00, and 200 lbs. chopped stuff worth \$3.00. On this he fed his cows, two pigs, and a number of hens up to September 1st, (three months) and with the following results, viz. —

Quantity of butter between 1st June and 1st September, 156 lbs. at 17 cts. per lb.	\$26.52
Minimum quantity of milk used in his own family during that term 3 quarts daily at 5 cts. per qt.	13.50
Extra milk used on different occasions, say	3.00
Quantity of milk sold, same time	12.60
Increase in value of two pigs fed wholly on chopped stuff and buttermilk.	14.00
Increase in value of one cow, same time	15.00
Value of eggs produced by hens fed solely on chopped stuff and thick milk 50 doz. at 13 cts.	6.50

Total.....\$91.12

THE WHOLE SUMMARIZED.

Expenditure	\$16.00
Returns.....	91.12

Profits in three months

Such in brief is Mr C's statement which undoubtedly shows a large margin of profit for three months. There are, however, one or two considerations occurring here, and these should be taken into account, viz. 1st.—The three months mentioned are the best of the whole year, bovine milk rather lactically considered. 2nd. Pasturage is not taken into account. 3d. Would the cost of pasturage deducted from the above profits, leave a sufficient margin to merit the name of "paying," the trouble of milking, etc., etc., considered? And lastly, supposing after the deductions it did pay, and pay well, would the profits of these three months be counterbalanced, or would they not during the remaining nine months of the year?

A CONSTANT READER.

Fast Walking Horses.

Early in this year, we drew attention to the desirability of fostering the walking gait in horses, by the giving of special prizes to the best walkers. We notice that the idea has been taken up elsewhere. The *Rural World* says:

The best gait a horse has is the fast walk. A slow walking horse is an abomination. Who has patience with such a horse? If you ride him or drive him, he exhausts your patience. If he is used to plough or harrow, or go on the road, he mopes along at a snail's pace. He does only about half the work of a rapid walker. If time is money, you make money because you save time by having a horse that walks fast. Breeders should pay attention to this matter. In selecting a stallion to breed from, by all means select one that can walk fast. A slow walking stallion will be likely to get slow walking colts; while the stallion that has a long, rapid, spirited stride, will be likely to get colts with a similar action.

Then, there is a great deal in breeding to a horse with spirit and ambition. These cold-blooded horses will beget cold-blooded colts. The nearer you can approach the thorough-bred, even for obtaining a fast walker, the better. There is game there, and spirit, and endurance, and stamina, and style. There are neat, bony heads, the prominent eyes, the small ears, the capacious nostrils, the large lungs and chest, the well-developed muscles, the bones as dense as ivory. Even for walkers, then, get the nearest to thorough-bred possible, and the same for trotters, and of course the same for runners. As you have, then, horses fit for any company, and for any purpose—to pull the plough, or

buggy, or carriage, or to carry you upon their backs. Breed large, fine mares to thorough-bred horses, and you will get colts that you will not be ashamed to have your friends see.

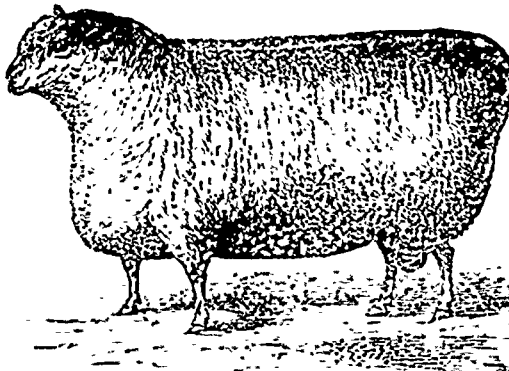
Economic Horse Management.

(Continued from last month.)

Two years ago, I fed a lot of horses on maize and hay, another lot on maize, beans, and hay: the result being greatly in favour of the mixture. Those fed on maize only showed as great bodily bulk, but not such hard, firm muscles; they were not so fresh at the end of the day's work, and when excessively worked, were loose in their bowels. I allowed 5 lbs. per day more of the maize than of the mixed grain, but 98 lbs. a week of beans and maize kept the horses in better condition than did 119 lbs. of maize alone.

Barley is usually looked upon as an unsuitable grain for horses. It is said to cause irritation of the skin. I have used it largely, and have not detected this or any other objection to its use when the market price suggests that it is economical. I have, however, seldom used it in larger proportions than 25 per cent. of the total allowance of corn. Barley is the staple food for horses in Spain, and in Turkey, Syria, and other eastern countries. It is about equal in feeding value to oats or maize, for which it may be substituted when the relative price of these grains are such as to render it economical.

Bran, as you are all aware, is only a portion of grain, and of itself, not a food capable of feeding any animal. As an addition to other grains, or a mixture of grains, it is, however, of great value. Chemically it is rich in nitrogen, but in practice we find that this constituent is not in a digestible form, and we value bran simply as a bulky palatable article, having a laxative effect on the bowels. It is then indicated as a useful agent for admixture with foods tending to produce constipation, or as a substitute for



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rich food when disease or illness suddenly puts a stop to the regular waste of muscular tissue. In other words, when the demand for nitrogenous matter is wanting.

No matter what grains or mixtures of grains we use, some bulky provender is required to enable the horse to properly digest his food. Hay serves this purpose, but it also supplies nutritive material, and, as an indispensable article of provender, requires proper attention. Considering its price in relation to its feeding value, hay is very expensive. Its feeding value, too, is very variable, depending greatly upon its growth, the state in which it is cut, the condition in which it is harvested, &c. Good hay should be of quick growth, should be cut before the formation of seeds in it—i.e., when in flower—and should be well won. It must not be stacked wet or too green, lest it ferment, as this process detracts from its nutritive value. Even when all these events are attended to, hay varies in value according to the grasses it contains. I am convinced that one ton of hay composed of such grasses as timothy, cock's-foot, dog's-tail, fox-tail, perennial rye grass, &c., is worth two tons of that formed of "hen-pen" or wild hops, mountain flax, rib grass, and other short, broad-leaved grasses that abound on poor undrained land. Over and over again have I tested the value of these two kinds of hay, and always with the same result—loss of condition among the horses, and a much larger consumption of the inferior hay. I have often compared new-land hay with old-land, and I value 50 lbs. of old-land as equal in feeding value to 60 lbs. of new.

Hay must not be looked upon as an addition to the provender, but as an important part of it, and its quantity must be regulated according to the amount of grain given, and the relative proportions of each must depend upon their respective prices, and the amount of work performed by the animal. There is one more point which I would impress, viz., that hay, from its form, is likely to be greatly wasted. An allowance of 12 stones of hay per week is never eaten by a horse; a large portion is wasted under his feet. In removing long hay from the rack or manger, portions are continually let fall by the animal, trampled on, and spoilt. At one large colliery nearly a third of the hay sent into the pit was wasted and returned to bank with the manure. We had not been long on that

establishment before the horse-keepers were made to pay smartly for their negligence. But even with care, when the mangers are properly arranged, and the length of the hay altered by cutting, considerable waste is inevitable.

(Concluded next Month.)

FROZEN POTATOES.—Experiments in Germany on frozen potatoes prove that the freezing in no wise alters the chemical composition of the tubers. The change is simply physical, and even if frozen hard, they are still fit for distillation, or they may be pressed to get rid of the water, and then ground into a very good meal adapted for feeding cattle.

FALL FEEDING.—Do not let stock fall away in flesh as winter approaches. What is lost now is doubly lost—once in the value of what it has taken to produce the weight, and again in what it will take to restore it. Added to this, less food will produce a pound of flesh now than will be required when a larger amount of animal heat has to be furnished.

COMPARATIVE VALUE OF FOODS.—Taking timothy hay as the standard of comparison, it requires 100 pounds of it to supply a certain amount of nourishment. It is estimated by careful experiment, that the same amount of nourishment can be obtained by using the following quantities of other food: Clover hay, 90 lbs.; rye straw, 155 lbs.; oat straw, 221 lbs.; potatoes, 195 lbs.; carrots, 250 lbs.; beets, 316 lbs.; ruta baga, 232 lbs.; wheat, 43 lbs.; peas, 44 lbs.; beans, 46 lbs.; rye, 49 lbs.; barley, 51 lbs.; corn, 56 lbs.; oats, 59 lbs.; buckwheat, 64 lbs.; and all cake, 61 lbs.

INCESTUOUS BREEDING.—Randall in his work on sheep husbandry remarks:—A brother and sister may be apparently healthy—may be actually so—but may possess an idiosyncrasy which, under certain circumstances, will manifest itself. If these circumstances do not chance to occur, they may live, apparently possessing a robust constitution, until old age. If bred together, their offspring, by a rule already laid down, will possess the idiosyncrasy in a double degree. Suppose the ram to interbreed with sisters, half sisters, daughters, grand daughters, etc., for several generations, the predisposition toward a particular disease—in the first place slight, now strong, and constantly growing stronger—will pervade and become radically incorporated into the constitution of the whole flock. The first time the requisite exciting causes are brought to bear, the disease breaks out, and, under such circumstances, with peculiar severity and malignancy. If it be of a fatal character, the flock is rapidly swept away, if not, it becomes chronic, or periodic at frequently recurring intervals. The same remarks apply, in part, to those defects of the outward form which do not at first, from their slightness, attract the attention of the ordinary breeder. They are rapidly increased until, almost before thought of by the owner they destroy the value of the sheep.

THE CARE OF MALES.—Male animals designed for breeders should be kept as much as possible in the lot, and not in the stable or box stalls; fed in a box or trough, with good, healthy, nutritious food, in such quantity as to insure a vigorous growth, after allowing all the grass or hay the animal will eat, keeping him in only in very bad weather, and then no longer than it may be storming. Exercise in the open air is conducive to health in man or beast, while lying on the ground has a tendency to keep the system of an animal cool, which is very necessary when an animal is eating stimulating food. His order should not be so high at any time as to interfere materially with his service, but should always be so good as to be vigorous and healthy. He should rather be improving than declining, and should render but one good service to each female, and never more than two, in one day, if in full work.

FAMOUS CATTLE THAT WERE NOT PRIZETAKERS.—The Duke of Gloster was seldom shown. The Duke of Airedale never won a prize. Old Renack was never in show condition. The old Baron of Oxford lived fifteen years without ever being considered a prizetaker. The dam of Minster was never in a show-ring; neither were the dams of May Flower, of Breastplate, or the 24th Duke of Airedale ever seen on a fair ground, or if so, but seldom. The 4th Duke of Geneva, the 10th Duke of Thoudale, the 11th Duke of Geneva, and the 21st Duke of Airedale are among the best sires of the last few years: none of them are show bulls. The best son of Breastplate is from a cow that was never in a show-ring. Young Mary, by Jupiter, produced her last calf in her 21st year, and left behind her an innumerable posterity of prize animals, yet she spent but a small portion of her life in a stable, and was but seldom in the show-ring. Mazurka, by Harbinger, was not the prizewinner of Mr. Alexander's herd, yet she left behind her a much more celebrated and valuable family than Belum or Forget-me-not. Miss Hudson, by Hermes, was never in a show-ring, yet she left behind her the celebrated London Duke and Duchess family. Goodness, by Omotes, won but few prizes, yet she left behind her the Dukes and Duchesses of Goodness, a family growing in favor every year; the Roses of Sharon, the Gwynnes, the Misses Bates and the Nelly Wyllys are all from cows little known in the show yard, cows well-bred, but only kept in best condition for transmitting the valuable characteristics of the race.