

were sold, the price paid for choice exporters at Toronto was \$5.25. Thus, you see how the people of Toronto appreciate high-class beef at a better price than export cattle. Those cattle only received an average of two pounds of meal daily, and three-quarters pound of bran.

In conclusion, by growing Hungarian grass and alfalfa, we can do without mill feeds, oil cake, and also use less meal. A. B. McDONALD.
West Middlesex Co.

AMPLE DIGESTIVE APPARATUS.

A good deal of overdrawn argument is occasionally advanced to the effect that beef cattle cannot be economically raised and fed unless they be of the very low-set, compact, cubical beef type, and of a special-purpose beef breed. As a matter of fact, these models of type do not always prove the most profitable feeders. The big-barrelled steer frequently makes the best gains, and, while an excess of paunchiness means an extra proportion of cheap meat and offal, still the cattle feeder's interest demands a certain departure from the trim-bellied, lathe-like conformation which constitutes the butcher's or the packer's ideal. An experienced feeder remarked to us one day that he never liked to buy a steer that lacked a good middle. Other things being equal, the big-barrelled steer made the best use of his feed. Of course, he was not speaking of those pot-bellied runts which are walking barnyard evidence of insufficient nourishment on poor, bulky food, but of well-grown cattle that have been properly started out in life, and carried along in good thrift right up to the finishing stage.

SWEET-CLOVER HAY FOR LAMBS.

Some ration experiments with lambs at the Wyoming Experiment Station seem to indicate that while sweet clover is of somewhat less value than alfalfa when fed with corn, still it makes a satisfactory feed. Comparing two lots of lambs, one fed alfalfa and the other sweet-clover hay, the former made an average gain of 34.4 pounds in 14 weeks, and the latter 30.7 pounds. The sweet-clover lot ate one-sixth more hay, somewhat more corn, and a small amount of oil meal. The larger consumption of sweet-clover hay was due to the fact that it had been cut late, and was very coarse and stemmy. Range lambs liked it from the start, and showed a steady appetite for it.

THE FARM.

TOPPING WITH SHEEP, LOADING WITH FORKS

Editor "The Farmer's Advocate":

In two recent issues of "The Farmer's Advocate," we have read two articles re the harvesting of turnips. Here is the way we have been harvesting our turnip crop for some years past: About Oct. 20th we put our lambs in the field, and by November 1st they have the tops all eaten off, so that part of the work in topping is saved. Next, we do as "Young Farmer" mentioned. We have a common iron harrow, with comparatively short teeth, tie a plank across the harrow, and hitch on the horses, get the whip going, and in a few minutes ten or twenty loads of turnips are lying ready for loading, free of earth and most of the large roots—more so if the weather is dry at the time of harrowing. "Young Farmer" did not say how he loaded his roots, which is a very important part of the work. In most cases it is done with the hands, which is away behind the times. We take a five or a six-toed grape (fork), file the prongs quite sharp, and with the prongs we spear the turnips, often spearing three at a time. This can be done without bending your back. The turnips leave the grape at once when the handle of the grape strikes the wagon box. This method is common in this part now. When first introduced, some of the older men thought the harrow teeth and grape prongs would spoil the root for keeping, but we have not the least fear of it injuring the turnips for keeping purposes. In this way, we can draw in as much in a day as we would in four days following the old style. JAMES E. MANSON.

Lanark Co., Ont.

MANURIAL VALUE FROM VARIOUS FEEDS.

Hoard's Dairyman publishes a table giving the manurial value of different feeds, based on greatly reduced and conservative calculations. It estimates the manure from a ton of corn silage to be worth 43 cents; corn stover, \$1.03; clover hay, \$1.96; timothy, \$1.17; ground corn and cob, \$1.80; ground corn, \$2.24; ground oats, \$2.60; wheat bran, \$4.74; cotton-seed meal, \$8.36; linseed meal (new process), \$6.91; gluten feed, \$3.42; and gluten meal, \$4.90. All this, on the assumption that the liquid manure is not permitted to go to waste, or the manure left in piles to leach in the field or in the yard.

THE ENGLISH SPARROW.

Almost anything in the line of birds adds to the beauty of our outlook, especially in the winter months, and one can almost forgive the sparrows' discordant quarrellings for sake of seeing something flying around.

The English sparrow may eat insects, scales and weed seeds, but just at present he is oftener found in the stealing business among the poultry in the scratching-shed, in the granary, and even in the silo stealing the exposed corn, providing he can find his way into these places, and it is a small hole a sparrow can't find and go through. In the summer whole flocks fly to the grain fields and take the top grains from the heads of standing wheat; again and again visiting the fields after the grain is cut, and picking from the shocks; and even after the grain is in the barn it is not safe from them, for they will eat the grain from all the exposed heads and look for more.

I'll leave the mathematician to tell just how many dollars the English sparrow costs the Province each year, and also how many dollars he saves.

A flock of pigeons would add greater beauty to the landscape, to say nothing of their value in filling the pie, than does the English sparrow. The pigeons would not destroy more grain, and would certainly eat a great many weed seeds.

Could the sparrow be banished, would not the chickadee and other birds which are winter residents of our woods become frequent visitors in our gardens and orchards?

In spring will come the robin and the other feathered friends which have wintered in the south, and the sparrow will do his utmost to drive the more useful birds from the territory which through the winter he has illegally possessed. Could he be evicted, would not a greater variety of birds, and greater numbers, find nesting places in the home ground, which at present are forced to escape from his selfish quarrelsomeness. I have seen a pair of bluebirds driven from their selected summer home. No doubt nature students could tell of others.

Sparrow hunts have been successful in destroying large numbers, but owing to the great prolificacy of these birds, one season later sees the number just as large. Persistent shooting, if it does not kill, drives them away, but only for a short distance and a short time. These methods, though useful, are too spasmodic and unorganized to lessen the number very much throughout the Province. Could not an organized scheme for their destruction be planned? Not organized simply in one small locality, but wider and more far-reaching, extending from township to township, and district to district.

The plan here suggested would begin in the school section, among the school children, and during the summer months. It is a plan for the destruction of the eggs of the English sparrow. Some would-be benefactor might offer first, second and third prizes for the schools, say in each township, that could show the greatest number of eggs collected. Some children might be tempted to smuggle in the eggs of other birds, but the teacher should teach the scholars to distinguish the nest and egg of the English sparrow, and while one sparrow's egg might count one point, the egg of any other bird brought in should count ten points off. Each day the teacher would count the eggs, enter them in her book, and destroy them, or, if preferred, they might be blown and strung on cords and used as wall decoration, until the final egg had been laid and brought in. To still further stimulate the boys and girls in this work, the trustees might offer a prize to the boy or girl in each school whose total number was the highest in the season. The prizes in all cases most appropriate would be some of the many nature books on the market. These would help the pupils to know the birds and to love them, and to desire to see them in their natural surroundings.

If no one offered prizes, one school might compete against its nearest neighbor, and a field day be arranged, when the losers would treat the winners. Every plan has some objections. It seems less cruel to destroy a new-laid egg than to shoot the full-grown bird. Encouraging children to destroy birds' nests—even English sparrows' nests—may not seem right to every person.

Climbing trees and barn rafters is good exercise for the muscles, but some parents might prefer the English sparrow to the torn clothes, to say nothing of possible broken limbs. If we get the grown people interested they may provide long light ladders, and take a hand in helping the boy or girl to win, while defeating the English sparrow. M. E. GRAHAM.

Middlesex Co., Ont.

THE DAIRY.

DUTY OF PATRONS IN WINTER.

Those in close touch with the dairy industry of Canada continually emphasize that what is required to further improve the quality of cheese and butter is a supply of raw product in prime condition. Long experience and dairy-school training are two agencies that have resulted in competent makers, at least in the leading dairy districts. The work of dairy superintendents and instructors, as they are variously called, does much to ensure a uniformity of product and to remedy defects. With this recognized efficiency in the manufacturing end, the patrons must rise to the occasion, accept advice from instructors, makers and fellow patrons of the district, and do everything in their power to provide a supply of milk or cream free from defects.

During the winter months opportunities are at hand for acquiring the necessary information as to the condition in which milk and cream should reach the factories, and how to deliver it in that condition. Every friend of the dairy industry is anxious to know the proper methods connected with every operation with which he has to deal. There are numerous meetings for the discussion of dairy problems which can be reached with the expenditure of little time and money. If the questions are not discussed sufficiently those in charge are always willing to answer questions or explain any point.

Provided it is found impossible to attend meetings, the agricultural press meets the requirements in treating the questions of vital interest and answering questions. In any event the reading of editorials and contributed articles is an important adjunct in the work of dairy education.

But those dairymen who are enthusiastic must not be content to attend meetings and read. The regrettable feature as regards perfecting any branch of the farming industry is that those who are the cause of imperfections are slow to attend meetings and do little or no reading. It is the duty of the progressive to approach their more or less backward neighbors and do all possible to have them attend one or more meetings and subscribe for first-class agricultural journals. The most successful makers do what they can to remedy matters, but various difficulties arise which prevent them covering their districts. Occasionally patrons become antagonistic and refuse to listen to the solicitations of the maker. These men may be approached by a prosperous neighbor more readily than by any other person. Such missionary work done in a locality benefits the patrons of the factory as a whole, by improving the quality of the product and ensuring higher prices.

Between now and next spring there is ample time for the local missionary campaign. Do what is possible to have a large attendance at meetings, and also to have every patron read and study; then note the result in higher returns from the factory next season.

PROBLEMS OF THE DAIRY.

By Laura Rose.

THE COW AND THE STABLE.

Each season brings its own peculiar difficulties in the dairy business, but in the winter months difficulties multiply, and are hardest to overcome.

Not long ago I was staying at a farm home. The Goodman of the house said to me, "You haven't seen my cows yet." Now, usually, I am always ready to go to see the stable and the cattle. This time I allowed the cold to be sufficient excuse to remain indoors. Why? I wanted to enjoy the cream and butter, and "What the eye doesn't see the heart doesn't grieve over." I had the intuition that if I saw the stable and cows my relish for the cream and butter would suddenly diminish.

I know it is hard to keep everything as one would like, but certainly a greater effort should be made to have the cow stable more sanitary. Many people have grown so used to bad conditions that these do not shock them as they should. If some terrible scourge would suddenly arise as a result of the carelessness in the dairy stables, it would prove a blessing. Then men would be up and doing, instead of being content to walk around and through the mire.

Sweep down the cobwebs; whitewash the ceilings, walls and mangers; have the floors tight and dry on which the cows lie. Make such provision as to give the cows plenty of fresh air without causing a direct draft on them. Beware of the dark stable; it is sure to harbor dirt and disease. Groom the cows just as regularly as you do your horses. It helps to keep them clean and healthy.

No matter how pure and abundant the food and water supply may be, if the stable be dark, dirty and ill-ventilated the cows cannot remain long in good health. The health of the animal is of paramount importance. It is certainly a most repulsive thought to take a fluid which comes direct from the inside of a diseased animal and use it as a staple article of diet. The pure-milk movement is one of vital interest to us all.

Many of the bad flavors found in winter are