

ECONOMICAL FEEDING OF SHEEP.

Editor "The Farmer's Advocate":

With regard to the question of "Economizing the meal ration," as far as wintering sheep is concerned, where there is a sufficient supply of good clover or alfalfa hay, or well-cured pea straw and a few roots of any kind, very little grain or meal will be required to bring the breeding flock through in good condition, especially if bred to drop their lambs a little on the late side. For early lambs, ewes must be fed liberally, even if bran and grain are high in price.

In fattening lambs for slaughter, the price of mutton should correspond somewhat to the price of grain feed. At the present prices of feedstuffs I would feed the breeding flock so far as is necessary a good percentage of bran; oats, if not above 40c., and, perhaps, the lower grades of barley, with some oil-cake meal; or, rather, in the nutted form for sheep.

Owing to the very dry season the pastures are very bare; it will be in order to begin feeding earlier than usual. Don't neglect the stock in the beginning of the winter.

JOHN JACKSON.

Wentworth Co., Ont.

THE INDIAN STEER IN JAMAICA.

The importation of Indian cattle into the Island of Jamaica, one of the British West Indian possessions, was not indulged in to any great extent till about eight years ago. In the South, when anything new is tried, and found successful, everyone immediately wants to go in extensively for it. Consequently, as soon as the breed had been tried by one or two ranchers, or "pen-keepers," as they are called there, and found hardy, the majority of the breeders on the Island immediately thought it proper to bring Indian blood into their herds.

The Indian steer is a very hardy and useful animal. He can do more work than the native steer, and does not seem to be affected at all by the awful heat which generally prevails there all summer. The Indian steer can be kept steadily at work, while the native steer will have to be rested from time to time, as he becomes "blown." He is used on the banana and sugar estates, chiefly. There he does the heaviest work, namely, drawing wagon loads and plows. His chief charm, however, is his immunity from the cattle-tick, which is so prevalent in the Island. While the native steer is covered with ticks, not one can be found on the Indian steer.

He is a larger, sleeker and hardier steer. His round bone is of finer quality, and he is a smoother and trimmer animal than the big flat-boned, beefier type of Jamaican steer. His head is altogether different, being broader between the eyes and longer in the face. He has large, long ears, and wide, spreading horns. His thin neck, very high withers, sharp chine, length of back, and lack of spring of rib, which deficiency is to some extent counteracted by the length of them, go towards making him a very curious-looking animal.

At the best, he is a wild, nervous brute. The barking of a dog and the cracking of a whip have been known to drive some of them mad. Fences are of no hindrance to them. They will jump an ordinary stone wall or fence of four or four and a half feet as easily as a steeple-chaser. This point, consequently, makes them very undesirable.

A cross between the Indian and Jamaican gives very good results. A half or three-quarter Indian is preferred to a quarter, but several ranchers have become so disgusted with their wild, roaming habits that they will have nothing to do with them. Thus, their numbers have been limited, and, instead of being bred extensively all over the Island, they are now only bred on the banana and sugar estates, and by the ranchers who cater to this trade.

E. F. COKE.

O. A. C., Guelph, Ont.

WINTER-FEEDING STOCK AT THE O. A. C.

Editor "The Farmer's Advocate":

In the feeding of both beef cattle and dairy cattle, we find it a marked advantage to put all our hay and straw through a cutting-box, and to mix with silage or pulped roots, or both, a day or so in advance of feeding. This system means considerable labor, but we find that it economizes food and enables us to feed a good deal of rough hay or straw which the animals might otherwise refuse. We find, also, that when we make the bulky part of the ration palatable, it requires less concentrated food to secure the same results. In the fattening of steers, we find that a very light meal ration can be employed when the bulky part of the ration is fed in such a way that the steers can eat it readily, and with relish. When hay is at all scarce, we use oat straw for both breeding stock and fattening steers, cutting the straw and mixing it with silage and pulped roots. I may say that, in the case of steers, we seem to secure practically as good results in this way as when we are feeding timothy hay of ordinary quality. Oat or wheat chaff would be better than the cut straw, and, where the threshing machine is arranged so as to render it possible to separate the chaff from the straw, it is good economy to save the chaff by itself.

In the case of dairy cattle, we find that if we do



Magdala's Gem.

Shorthorn heifer calf. First in junior class, Toronto Exhibition, 1903. Owned and exhibited by T. E. and G. C. Robson & Sons, Iderton, Ont. Sire Ridgewood Marquis.

not have clover hay to mix with the silage or roots, we have to feed more meal, in order to keep up the milk flow. Good red clover hay or alfalfa hay of good quality are great savers of concentrated foods. We find that when we change from clover hay to timothy hay, we have to make a special effort to keep up the milk flow, and in some cases we have used oil cake in the meal ration to compensate for the clover hay, though we find that even this does not make as satisfactory a ration as when we have clover hay without the oil cake.

In the case of sheep, pea straw can be utilized to a considerable extent, though, when a person is anxious to save grain to the greatest possible extent, and has good clover hay, I think he will find it more satisfactory to use clover hay and turnips. With a ration of this kind, practically no grain will be necessary until near spring.

For swine, we buy a good deal of wheat middlings for the younger pigs, and mix these with whatever home-grown grains we have at our disposal. For breeding sows, middlings and bran may be used to a considerable extent, with very little grain.

I would like to emphasize the special importance of making the bulky food palatable, and, in case of fattening steers, to start with a very light meal ration and gradually increase. If these two points are observed, the feeder will be surprised at the results he can obtain from a very light meal ration.

At present prices, bran looks to be about as cheap as anything on the market for most classes of stock. Bran can be utilized to good advantage in feeding dairy cows, and it may also constitute a considerable part of a ration of fattening steers, and helps to reduce the amount of grain used in this ration. We find, when we are feeding barley or corn to fattening steers, that it makes a marked improvement in the ration to add bran. Bran is especially useful when roots are somewhat scarce, and, as the root crop is generally short this year, most feeders will find it a marked advantage to use bran in their meal ration.

O. A. C.

G. E. DAY,
Professor of Animal Husbandry.

THE FARM.

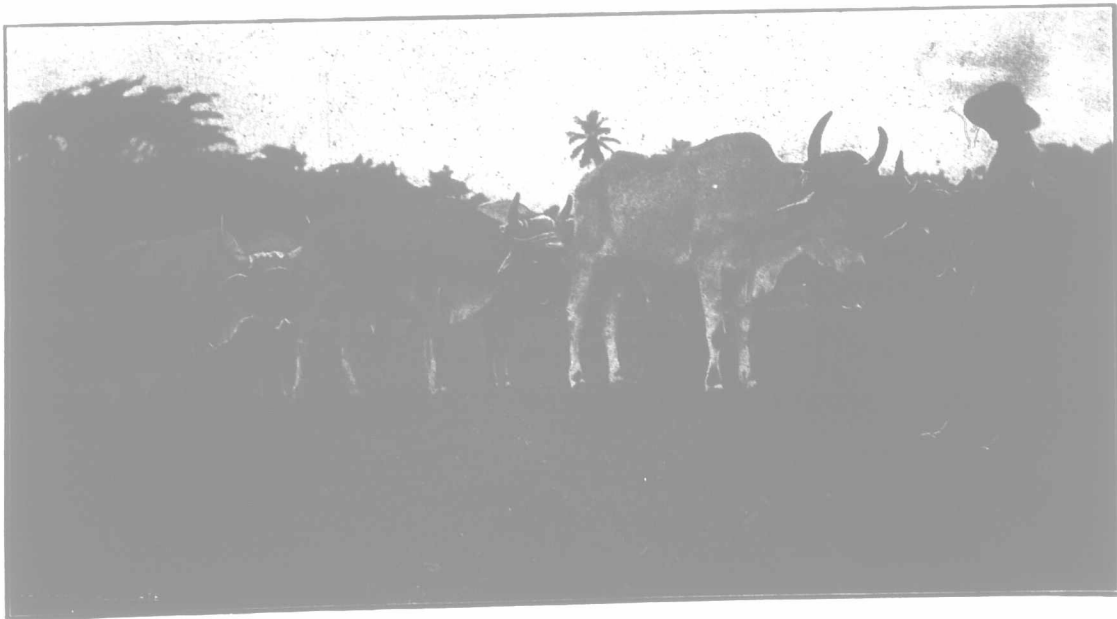
TWO SEASONS' EXPERIENCE WITH SPLIT-LOG DRAG.

SUGGESTIONS FOR IMPROVING OUR EARTH ROADS.

A year ago last spring I made a split-log drag, and took one mile of road that was in rather poor condition, needing grading and opening of the trenches. No attention had been given the greater portion of this road for some years, except leveling it once or twice early in the season with the old-time road-scraper to ascertain, along portions of this road, whether the center of the road, the sides, or even the gutters, if such could have been located, were the lowest point. The leveller simply smoothed, but did no grading, and the road, from year to year, became nearer level, the traffic causing the mud thrown up to be lodged along the sides of the road, which we find, in too many instances, are allowed to be overgrown with grass and weeds, to the detriment of the road and the discredit of the municipality, or those in charge of the highways. Soon an elevation is formed by the mud and dust finding a favorable lodging-place, so that the portion of the travelled road is an ideal spot during wet weather, with the traffic to convert it into a veritable mud puddle.

I wish, at present, to draw attention to the importance of guarding against the occurrence of such a deplorable state of our roads, and a means by which they can be greatly improved. This mile of road that I have in charge has all been graded with the split-log drag, the results of which have been noted by many, and the work shows for itself. It has been done, and done well. I am not prepared to say how the expense compares, all considered, with that of grading done by the road machine, but I think it can be done about as cheaply; and, one thing I do know, when once you have a road graded with the drag, you have a better road. I am not advocating that the split-log drag should supersede the road machine; it is our great road-builder, while I would denominate the drag as our "great road-maintainer."

My second season's experience has amply justified me in saying that an earth road, once properly graded, can be maintained in ideal condition by the judicious and timely use of the drag, and at less expense than the system generally pursued. By the system in vogue, from every five to ten years the roads are put—as they say—in condition; that is, they are graded, by drawing earth towards the center of the road, which usually diverts the traffic to the side, leaving the earth in the center of the road loose, and in the best condition to hold water. When traffic is forced to the center of road—there you are, wallowing in mud and mire! When roads are graded, they should be left in such condition that the traffic will at once take the center, so that they set firm, and are in much better condition when the wet season sets in. In order to divert the traffic on a newly-graded road to the center, where it should be, I have found it necessary, sometimes, to make a few rounds with the wagon, when, like sheep, other drivers follow the trail. The condition the roads are often left in when graded requires several years to make them firm and in good condition for traffic. By that time an elevation may have already formed at the side of the road by the mud and dust being lodged in the grass and weed-bound portion extending from the wheel-tracks to the gutters. This elevation prevents the free escape of water from the road, so that you do not have an ideal road, but an ideal spot for a puddle. Ideal roads are what we all desire, and can have the greater part of the year, without much expense, if we go about it in the right way. Many of our roads are too wide, costing too much to maintain. Narrow them down to from 18 to 20 feet, depending on the traffic, grade them properly, and use the drag frequently from gutter to gutter. Do not allow any grass or weeds to grow, and you will be surprised how easily you can maintain a road in ideal condition, and be



Indian Steers Ready for Hitching.

Representatives of a race of cattle now used to some extent as work cattle in Jamaica.