Preparing Corn and Clover Hay for Fattening Steers.

The above is the title of a bulletin issued last month by the Illinois Agricultural Exp. Station, giving in detail an account of an experiment in cattle-feeding, conducted by H. W. Mumford, the Chief in Animal Husbandry.

The object of the experiment was to determine which method of preparing and feeding corn and clover hay to fattening cattle would return to feeders, under varying conditions, the largest profits. Clover hay was the only roughage used in addition to corn fodder, it being taken for granted that, being a nitrogenous food, it was much more suitable for feeding in conjunction with corn than timothy hay or straw.

The steers used were Shorthorn grades, two and a half years old, purchased on the Chicago market in the months of October and December. In all, 130 head were used, divided for the purposes of the experiment into ten lots, great care being taken to have the cattle in the different lots as nearly alike as possible in weight, age, quality and condition. As is the common practice in the corn States, the cattle were not tied up, but were fattened loose in small feed-lots, having for shelter merely a low, open shed on the north side, water being accessible at all times. The steers weighed, on the average, 1,000 pounds, and cost in Chicago $4.27 per cwt., which was increased by freight and other expenses to $4.53 per cwt. by the time the experiment began, which was not until the steers had had time to rest and fill up.

The feeds used were principally corn and clover, but in every case except one were supplemented by a small allowance of concentrated nitrogenous food, gluten meal being given during the first three months of the test, and oil cake (old process) for the last three months. Clover was fed whole, except to two lots, for which it was cut and mixed with meal, but as no advantage resulted from having it cut, we will not refer to it again. Corn was prepared in a variety of ways. It was given in the form of silage with the addition of corn meal, and as ear corn, shock corn, shelled corn, corn meal, and corn and cob meal.

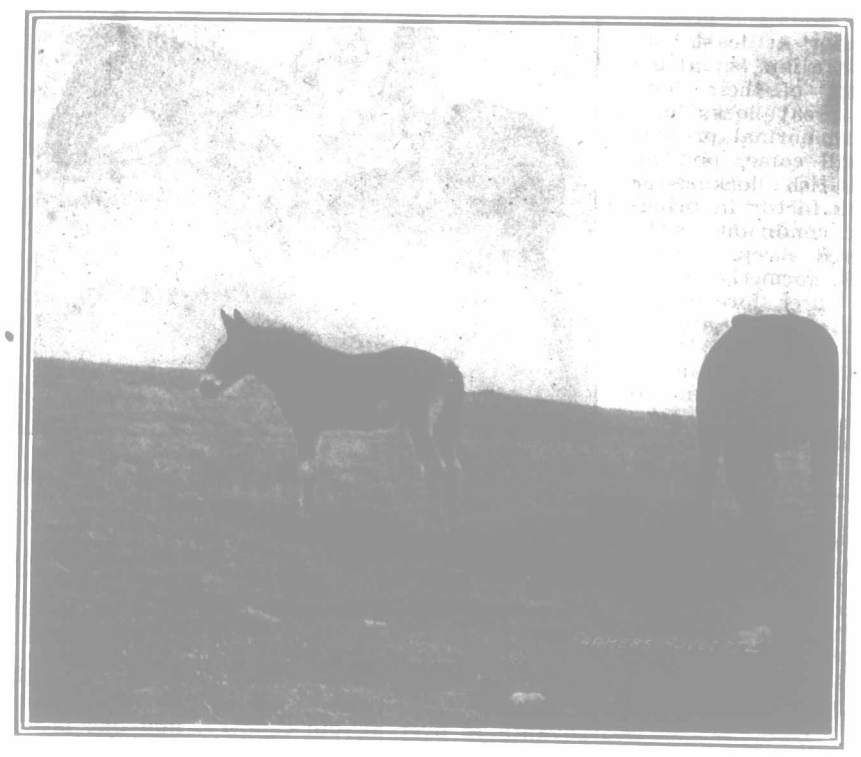
Ear corn was valued at 35 cents per bushel, 62½ cents per cwt. for grain alone, corn meal at 67 cents per cwt, corn and cob meal at 57 cents per cwt. The shock (fodder) corn and silage used were grown on the University farm, and the plots reserved for use were selected with the greatest care that the quality and proportion of grain to stover should be the same in each instance. Silage was valued at $2.75 per ton; shock corn per ton, $5.40. Gluten meal cost $29.00 per ton, and oil cake (pea size) $24.00 per ton, the estimate for clover hay being $8.00 per ton. No account was taken of bedding, nor of labor in feeding after food was prepared, the value of manure being thought sufficient to offset both of these. Pigs sufficient to prevent waste were allowed to each feed-lot; they received no other food than what they could pick up, and their gain in weight was credited to the different lots.

That the feeding was conducted judiciously, may be known by the very satisfactory gains in weight and profits recorded, and more particularly by the fact that these profitable gains continued right up to the close of the experiment, a period of 186 days. The exact average weight per steer at the beginning of the experiment was 1,021 pounds, at the close 1,440 pounds—a gain of 419 pounds, a daily average gain per steer of 2.25 pounds. During the last forty days the daily gain per steer averaged 2.64 pounds, certainly an excellent showing, and one which contradicts the common belief of feeders that the daily gains lessen as the finishing period approaches. It is accounted for, says Prof. Mumford, by the light rations of grain given at the start, which were very gradually increased for three months, after which time, however, the cattle were on full feed—that is, they got as much corn as they would eat. Canadian feeders might differ from the Professor when he says that at no time were the grain rations very large. In addition to gluten meal or oil cake, of which each steer (except in the case of one lot) received daily throughout from 2½ to 3 pounds, corn beginning at 8 pounds per day and increasing, until at the close 20 or 21 pounds daily was given, made what Western feeders may think moderate, but what we would consider very heavy grain feeding. The daily feed of clover per steer, which began at 13 to 14 pounds, lessened steadily, until at the end about 5 pounds were given. The net cost per pound of gain per steer, taking into consideration the pork produced, varied from 6 to 8 cents—profits per steer, from $4.13 to $9.84. The author is frank enough to state that if corn had been valued at 70 cents per cwt., and clover hay at $10 per ton, profits would have been nil in some cases and light in all. The cattle sold in Chicago at an average price of $6.10 per cwt., and except for one other load were the best on the market on the day of sale. The difference between buying and selling price was $1.57 per cwt.

The amount of pork produced varied greatly in the different lots, being smallest in the one fed silage and corn meal, and largest in the one receiving shelled corn.

Some of the experimenters' conclusions are as follows: "This test indicates that the supplementing of corn with nitrogenous concentrates used in this instance increases the efficiency of corn and clover hay for beef production." "The results of this experiment clearly indicate that simple methods, or, in other words, cattle-feeding practice involving but a small amount of labor, require considerably smaller margins than do more complicated methods involving a large labor element; that the method of feeding should make as high as 55 cents per cwt. difference in the margins necessary for finishing steers, is a subject worthy of careful consideration by every cattle feeder." "The results indicate that, with conditions obtaining in this experiment, it was not so profitable to grind, shell or silo the corn or chaff the hay as feed the same feeds in a more natural state. Broken ear corn, either with or without a nitrogenous supplement, and shock or fodder corn, all fed in conjunction with clover hay, gave the largest net profits per steer. These differences are sufficiently large to make it safe to accept the results without reserve." "Many who advocate the feeding of ear corn to cattle if hogs follow, advocate the feeding of meal if for any reason it is impossible to have hogs follow the cattle. The writer has been of this opinion, but the results of this experiment indicate that, after eliminating the hog from the cattle-feeding operations here presented, the feeding of ear corn was followed with larger profits than the feeding of meal." "The three rations giving the smallest net profits were shelled corn, corn and cob meal, corn meal."

"The reader is cautioned not to conclude that, since the feeding of silage was not followed with as large profits as the feeding of several other rations, it has no place in beef production. Silage ranks with ear corn, corn meal, and corn and cob meal in its ability to make rapid gains on fattening cattle."



Taking in the Situation on an Alberta Horse Ranch.

A Bad Advertisement for Canada.

To the Editor "Farmer's Advocate":

The Chicago Live-stock World says, editorially, anent the admission of Canadian store cattle into Great Britain: "Canada, having been definitely turned down by Great Britain, will probably seek an American market. John Bull's reply to Canada is practically, 'Make your cattle fat and I'll buy 'em.' But Canada is not a fattening country. It can raise good stockers, but sheathing their ribs with meat requires corn, and of that Canada has little."

Like the Canadians who are agitating the admission of store cattle into Great Britain, the Live-stock World is wrong. An infinitely small proportion of Great Britain's cattle are fattened on corn, rather on barley meal, roots and cake—oil cake or cotton cake. From observation in Ontario and practical experience in Quebec, I know that large root crops of splendid quality can be raised in these Provinces, and it would seem that American cake should be available at less cost in Canada than in England. That cattle can be finished without the help of corn, [illegible] splendid condition of the show cattle of Canada is ample proof. It does not cost so much to [illegible] a steer in Canada as it does on [illegible] English lands. Should my Canadian [illegible] that there is not room in Ontario [illegible] the stores of the West, they will surely pardon my retort that there is very little room for them on the crowded acres of British farms. The most damaging advertisement of one of God's most-favored garden spots is Canada trying to force her stockers upon a country that would prefer to take them as finished cattle.

ANGLO-AMERICAN.

An Open Letter to the Ingersoll Packing Company.

[Written for the "Farmer's Advocate."]

Gentlemen,—Farmers are proverbial croakers and grumblers, but I am not going to grumble just now, but rather give you a well-merited word of commendation. I honestly think that your company has done a very great deal for the farmers of Ontario. I believe that, not only is your factory and equipment second to none in the Province, but you have also done a great deal to foster and develop the hog-raising and bacon industry of Canada, and besides all this I can, from an experience of a great many years, testify that I have all along had very pleasant dealings with your company and its officials, from its pushing, energetic manager, Mr. C. C. L. Wilson, downwards. I have often weighed my hogs at home, and have always found that you gave good weight, and I believe that you generally give as high a price as is given in Toronto. The J. L. Grant Co., who managed the embryo business before your company took hold and developed the concern into its present immense proportions, made several importations of pure-bred Tamworth swine from England to improve the breed of hogs, and several breeders of Yorkshire hogs have also brought many animals to improve the breed of hogs in Canada, so that to-day many of our best farmers are sending into your factory just the very kind of hog from which you can turn out the best bacon for the British market. But there are still a number of farmers who raise a very undesirable kind of bacon hog—the short, fat, stubby pig—and perhaps they can raise and fatten that animal at a cheaper and less expensive rate than we can the handsome, long Yorkshire-Tamworth fellow that you so much desire. And yet, gentlemen, although you do not want the short, fat hog, you give the farmer just as much per pound for him as you do for the fine long fellow, while the latter are really worth at least 1c. per pound more than the short one. No doubt it may be true that you grade them when they come in car loads from dealers and have two prices, but there is no distinction made to the farmer. I have often delivered hogs at your factory which your men were so pleased with that they have told me that my hogs were just exactly what was wanted, and yet, a few farmers who bring in what you do not want got just as high a price per pound as I did. Your buyers tell me that they do not like to offend the man who has the short hog, in case he sells to some other buyer. Now, gentleman, you have come to the "parting of the ways." Unless you make a discrimination in favor of the long bacon hog, and give us who raise him at least one cent per pound more than you give to our neighbor who raises the short hog, then we are going to be offended, and I tell you for a fact that some of our farmers are now seriously thinking of introducing a strain of some of the short, fat breeds into their herds so that they can raise a pound of pork more cheaply. But if you give us one cent a pound more than you do to the man who has the short fat hog, then you will soon put him out of business.

One more point: The price of live hogs often rises and falls with very great suddenness, and so far as we are able to judge, without sufficient reason; so that when the price is high hogs that are scarcely fit are rushed into the market in case the price should fall, and then, again, when the price is low, hogs are held by the farmers until they are too fat, in the expectation of the price again going up. If it were possible to maintain a comparatively even, steady price, I think many farmers would be encouraged to raise more hogs than they do at present. But now the price is subject to such great fluctuations that we never know what we may be likely to get for a litter of young pigs by the time we get them ready for the market.

I am sure that the "Farmer's Advocate" and the Ingersoll Packing Co. have done a great