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EDITORIAL.

Get the Manure Out Now.

There is a difference of opinion among farmers as to how much waste of fertility occurs when manure is spread on the fields in winter. On hilly land, and in a broken winter, no doubt a rather considerable proportion of the more soluble portions is washed away. To minimize this loss, some farmers deposit the manure on the field in small piles, convenient for spreading in the spring; others haul out and stack in deep piles, to be distributed with the manure-spreader after the snow goes off. Where time permits, this is an excellent way to apply manure on corn and root land; but time does not always permit, and the method of leaving in small heaps is open to the objection that they hold the frost long in spring, not only delaying the spreading, but sometimes retarding the plowing or other cultivation of the land. Then, too, the spot directly under the heap is liable to be unduly favored, as compared with the remaining area, although this, perhaps, is better than to have the dissolved fertilizer carried away to the river.

Upon one point there is almost unanimity of opinion. Whatever is done with the manure, it should at any rate be gotten out of the yard in winter, and either spread on the field, left in small heaps, or stacked conveniently for distribution with the spreader in spring. On level land it is doubtless best to spread at once, thereby completing the whole operation at one stroke in the slack season, and having the manure in good condition to incorporate readily with the soil. If spread on sod that is to be spring-plowed for corn, the waste will be minimized. On hilly land, we incline to favor piling and distributing with the spreader, where a spreader is available, otherwise dumping in small heaps, which, after becoming frozen through, will be proof against serious fermentation and leaching until they thaw out, which in most sections will seldom occur until spring.

However the manure is handled, there will be some waste. When left in an open yard to ferment and leach, the waste of fertilizer is considerable, and the waste of time much greater, though, in a water-tight manure cellar, where it is kept tramped and worked over by hogs, the loss will not be so great. The problem is how to handle the manure economically and secure quick returns, while conserving, so far as possible, the total content of fertilizing elements. To this end, winter hauling, at least, and, in many cases, winter spreading, as well, will be found the best plan to adopt.

Eastern Ontario Winter Fair.

With such admirable buildings and reasonable facilities for getting to them, Ottawa is entitled to one of the largest winter fairs in the Dominion. The display of live stock and farm products, as well as the character of the lectures, at the recent show, should make for an increased attendance next year; but even allowing for the hopes of the most sanguine being fulfilled, the show will not reach the proportions that are desired.

The farmers of Eastern Ontario, particularly the Ottawa Valley, differ somewhat from those of the Western part of the Province, as regards interest in agricultural education. In some districts many of them spend a part of the time engaged in lumbering, or perhaps have, during but recent years, transferred their attentions from lumbering to soil cultivation and dairying. Too few have yet realized the true value of demonstrations and discussions, and the inspection of animals and products of superior quality. Gradually an interest is being aroused, and, with the various agencies at work, particularly the Macdonald College, just across the Provincial boundary, in Quebec, after a few years, it is to be hoped, as great enthusiasm may prevail as is displayed each winter at Guelph. At present, the inclination of many seems rather to tend towards horse-races, gambling schemes, stage performances and various time-wasting pursuits, where educational features are absent.

The Eastern Ontario Winter Fair must develop on distinctive lines. It must be something more than a reflex of the preceding event at Guelph. Since a large percentage of farmers in the Eastern part of the Province are engaged in dairying, dairy features should be emphasized. Already, the milking competition is the center of considerable interest. Might it not be enlarged by offering liberal and extended lists of premiums for milk and butter-fat production, with cost of feed to be considered? Other features may suggest themselves; while on the lecture programme dairying should be given ample attention. We should like to see the programme more thoroughly adapted to Eastern conditions, and not so much of a repetition of that previously rendered at the Ontario Provincial Winter Fair. An echo of an earlier event makes a poor drawing-card.

It must be admitted that the management have had little encouragement in the past from the people they were endeavoring to serve, but it seems to us that, by breaking away from the Guelph conception, and evolving a unique type of winter fair, adapted to Eastern Ontario conditions, a larger attendance might be secured, and the resulting interest and enthusiasm will do the rest.

Feeding Value of Whey and Whey Fat.

Two important inferences are suggested by the results of an experiment conducted last summer at the Ontario Agricultural College, to ascertain the feeding value of the butter-fat in the whey resulting from cheddar-cheese making. These are:

1. That the feeding value of good sweet, clean-flavored whey has been commonly underestimated.

2. That the whey loses about one-fifth of this feeding value when the fat is skimmed off for making whey butter, or is allowed to accumulate and float as a stinking mess on top of the whey in the factory vats, to be afterwards thrown away.

During the season of 1908, the Dairy Department at the O. A. C., under Prof. H. H. Dean, conducted rather extensive experiments on the whey-butter question, and, in conjunction with the Animal Husbandry and Farm Department, in charge of Prof. G. E. Day, carried on a series of experiments to ascertain the relative feeding values for hogs of whey containing an average of about .25 per cent. (or one-quarter of one per cent.) fat, and similar whey from which the fat had been practically all extracted by means of a cream separator. A report of the results may be found in the Dairy Department of "The Farmer's Advocate" for January 28th. Eleven pigs were fed ordinary whey and meal, ten pigs were fed separated whey and meal, and twelve pigs were fed water and meal as a check group. Only about $2\frac{3}{4}$ pounds of whey was fed for each pound of meal. This is a rather small whey allowance, and goes to explain the extraordinarily high value indicated for the whey in promoting gains and saving meal, for it is well known that a small allowance of dairy by-products produces greater relative results than a large allowance. We presume, further, that the whey was sweeter and cleaner than that in the average factory vat, though we are not informed that it was pasteurized. Assuming that live hogs were worth $5.50 per cwt, and meal $1.50 per cwt. (which is, perhaps, rather too high), the unskimmed whey, according to this experiment, would have a value of 18.2 cents per cwt., and the skimmed whey a value of 13.4 cents, a difference of nearly 5 cents per cwt. in favor of whey containing the normal residue of butter-fat.

Taking these figures as a basis, let us see what bearing they have on the whey-butter question. At the O. A. C., the average amount of whey butter made was $2\frac{1}{2}$ to 3 pounds per 1,000 pounds of whey. Assuming the higher yield, and taking as an average price 20 cents per pound of butter, the value of whey butter made would be 60 cents per thousand pounds of whey. But, according to the pig-feeding experiments quoted, this thousand pounds of whey would be worth 48 cents less for pig-feeding as a result of being skimmed, or within 12 cents of the gross value of the whey-butter made therefrom. If this is the case, and if the patrons are to be adequately compensated for the loss of fat in their whey, where will the profit of whey-butter making come in?

Of course, it will be said that the average patron does not get this fat, anyway, because it chiefly floats on the top of the tank; but if the whey is pasteurized, as it should be, each patron will get a fair share of the fat, and will, moreover, receive his whey in a sweet, clean-flavored condition, largely, if not wholly, free from troublesome yeasts and disease germs. Incidentally, the cans will be easier to wash, and will last longer; the quality of the cheese will be, in many cases, improved, and trouble with bitter and yeasty flavors overcome.

While the results of the feeding experiment are in line with our expectations, we confess to no small surprise at the very high value indicated for whey as a hog feed. Though this is partly explained by the rather small amount of whey fed per hog, it is still very striking, and there is a clear call for a much more extended series of experiments to verify or revise the results. With it should be conjoined co-operative experiments on as large a scale as possible, comparing ordinary skimmed with unskimmed whey; pasteurized whey skimmed with pasteurized whey unskimmed. In fact, several distinct sets of experiments should be undertaken along this line, for the subject is very important, and one experiment, no matter how carefully conducted, can never be regarded as conclusive.

Meanwhile, patrons will do well to refuse to allow their whey to be skimmed, unless liberally recouped for the fat extracted. Rather, should they insist on having their whey pasteurized, thus insuring its return in a sweet, wholesome condition, with a normal percentage of fat and full feeding value.

A Moderate Opinion and Prophecy.

Prophecy is rightly considered a risky undertaking, but when one does prophesy, let him be moderate, lest his utterances come back to rebuke him. A year ago we ventured an opinion on the feeding value of whey fat, but, if Prof. Day's 1908 experiment is substantiated by further work, our opinion will be proven to have erred on the side of moderation. However, it is just possible that additional work, under ordinary farm and factory conditions, may indicate results more nearly in line with our calculation. At any rate, we take occasion to repeat herewith part of an editorial on "The Whey-butter Question," which appeared in "The Farmer's Advocate" of March 26th, 1908:

"There is another very important point of