

THE FARMERS ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

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Agents for "The Farmer's Advocate and Home Journal,"
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thousand pounds of average whole milk contains 5.8 pounds nitrogen, 1.9 pounds phosphoric acid, and 1.7 pounds potash. Suppose a herd of twenty cows, producing one hundred and twenty thousand pounds of milk a year. This would contain 696 pounds nitrogen, worth, at commercial-fertilizer prices, \$125.28; 228 lbs. phosphoric acid worth \$13.68, and 204 pounds potash, worth \$10.20, or a total of \$149.16 worth of plant food—practically a hundred and fifty dollars' worth. Of course, seeing that a large proportion of this plant food is nitrogen, which the growth of legumes and purchase of grain would partially, if not wholly, restore, it should be possible to keep up and probably increase the productivity of a farm while selling milk, if the land has a good bottom to begin with. But fertility will not increase so fast as if feeding whey or skim milk to hogs, and carefully applying the hog manure. That dairymen may be found in the finest sections of Oxford County buying fertilizers, and convinced that it pays, proves that the chemist's calculation is worthy of consideration. The effects of selling fertility become increasingly evident with time.

Now comes the cheese business. Cheese, with hogs as a side-line, has been the making of many of the finest farming sections of Canada, and, while cash returns have seldom run so high as from the sale of milk, they have been fairly steady, while production of milk for the factory, leaving the cans on the milk-stand each morning for a hired hauler, entails a minimum of labor and expense. Cheese dairying interferes comparatively little with the routine of farm work. Moreover, the multiplying demands for milk for city trade, for condensing, and so on, are tending to restrict the make of cheese, and thus raise prices. This year, sales for April, May, June and July have netted patrons rather better than a dollar per hundredweight of milk. In addition, they have 96 pounds of whey for each hundred pounds of milk, and pasteurized whey is counted good value

at 10 cents per cwt. Reverting to our suppositious example, suppose the hundred and twenty thousand pounds milk from twenty cows all went to the cheese factory—it doesn't, because cheese is not made in winter, but, for sake of comparison, suppose it did—this would yield one hundred and eight thousand pounds of whey, worth \$108.00 for feeding. Even from a fertilizer point of view, this whey would contain approximately, according to Henry, 108 pounds nitrogen, worth \$19.44; 118 pounds phosphoric acid, worth \$7.08, and 216 pounds potash, worth \$10.80, or a total of \$37.32. The large difference in fertilizing value between the whole milk and whey is principally represented by the nitrogen in the casein, which, along with fat, constitutes the bulk of the cheese. Near the Brownsville milk-powder plant is a cheese factory, and the salesman, Alex. Fulton, gave us these figures from his own business. He has 100 acres of land, on which he grows corn, oats, clover and some wheat. From seventeen cows, his cash proceeds for milk during 1911 amounted to \$1,109.17. In addition, he runs off each year about forty hogs, purchased as suckers, and sells three or four hundred bushels of wheat. He does the work with the help of a married man living on the place, and the condition of his farm may be judged from the fact that his average yield of fall wheat is 35 bushels per acre. There is permanency and satisfaction in a system of dairying like that, with less onerous labor than where enough cows are kept to consume all the produce of the farm. It is more interesting and less binding, even if not always quite so remunerative. We notice that the man who goes in for keeping as many cows as his place will carry usually gets tired of the business after a while, and wants to sell out and quit.

Perhaps least remunerative in direct returns, but in many respects one of the soundest and best lines of dairying to follow, is the sale of cream—sweet cream, at sweet-cream prices where that is possible, but otherwise patronizing a butter-factory. As Prof. Dean says, selling cream "means more and better live stock, more fertility retained on the farm, and, to a man on a worn-out or wearing-out farm, this is no small matter to consider." A ton of butter-fat removes from the soil scarcely a cent's worth of fertility, and when a rich cream is skimmed, the removal of fertility from the farm is a negligible factor, for about nine-tenths of the plant food in the whole milk is retained on the farm to be fed to young stock, which in turn void a goodly percentage of the fertilizing constituents as manure.

Going back to our hypothetical example, let us see how the three lines of dairying compare in respect to the removal of fertility:

Sale of whole milk, 120,000 lbs., removes	\$149.16
Sending to cheese factory 120,000 lbs., removes	\$149.16—\$37.32= 111.84
Selling cream from 120,000 lbs. removes	\$149.16—\$134.24= 14.92

Skim milk, however, like whey, when rightly used, has a much greater value as feed than as manure. For economical rearing of good calves it is almost indispensable. If a farmer wishes to build up a high-class herd of cows, or, again, if he wishes to raise steers, skim milk has a value almost impossible to estimate. For colts, poultry and hogs, it also comes in to excellent advantage. Look for thrifty stock on a farm where skim milk abounds. Considering prices of other feed, 25 cents per cwt. is a very low value to place on warm, sweet separator milk, and, in reasonable quantities it can easily be made worth much more. Having regard to the steadily advancing price and difficulty in buying good cows, shrewd dairymen need hardly be reminded of the wisdom of breeding their own heifers, and some for sale, as well. It makes a more interesting, less laborious and usually more profitable system of farming than milking an unlimited number of cows, sacrificing the discards every little while at low prices, and going out with hard cash to purchase substitutes.

So there is a great deal more to this subject than cash returns. The aim should also be to de-

velop a permanently profitable and satisfying system of farming, to conserve fertility and to solve the labor problem, by eliminating the drudgery of too much milking, which ties every hand to the place week in and week out.

Perhaps we may conclude by endorsing an opinion recently expressed to us in conversation: Dairy products are bound to rise in value. There is no getting away from it. Expanding demand, advancing wages, and opportunities open to farmers in other lines, all taken in conjunction with the inherent nutritive value of milk, will contribute to this end. Dairying is an excellent line for the young farmer to adopt in moderation. Aim at quality of product. Keep a few cows, feed liberally, and select closely. Eliminate the culls; they wear the heart out of a man, without putting him ahead.

An Erroneous Theory.

The American theory of protection is that the measure of the customs duties should be fixed by the difference between the cost of producing an article in the protected country, and the cost of producing the same article in foreign and competing countries. The part that protection plays in enhancing the cost of domestic manufacture is ingeniously overlooked. Manifestly, a country that imports anything must pay for its imports with exports. The exports being sold in foreign markets, probably in the face of duties, must have been produced at a cost which would admit of competition with similar products from the country where they are produced cheaply as staples. Plainly, the basic industries of a country, which supply the bulk of its exports, cannot be protected by import duties in any large way (unless combined in gigantic organization to eliminate competition in the home market, and maintain prices artificially there above the level of the exportable surplus).

But the protection of secondary industries, by making some things dear, raises the cost of production in the basic industries, and hampers them in meeting competition in export markets. Except as in the case of a young nation desiring to develop cities and provide reasonable diversity of employment, high protection, as an ultimate policy, is obviously fatuous, its effect being to handicap the industries for which a country is specially adapted, in order to develop others for which it is less fitted, and which are, accordingly, less profitable. It thus entails an economic loss. It is just possible that a very small revenue tariff, say 5 or 10 per cent., might prove of advantage to the country collecting it, but a high-tariff policy is an expensive burden.

Undoubtedly, a chief source of erroneous argument both in the United States and Canada is neglect of the farmer's interest. The agricultural community has been looked upon as a stable factor which would go on producing, whether or no. The fact that agricultural output could be curtailed by enhancing the cost of the farmer's living, labor and implements, was innocently overlooked. Nevertheless, it has been so curtailed, until the United States, which should be still pre-eminently an agricultural country, is actually importing largely of some staple food products. So the high cost of living across the line is to some extent a reactive result of a systematic policy of strangling agriculture to build up urban industry. In its final outcome, it is not such a very bad thing for the individual farmer, but it is a handicap to the nation at large.

Lifting oneself by his bootstraps has never been a very profitable exercise.

"Foot-and-mouth" vs. Trade.

Some idea of the alarming consequences of the recent outbreak of foot-and-mouth disease near Liverpool, Eng., where contagion was carried from Ireland, may be inferred from the extent to which Great Britain is dependent upon the sister Isle for finished beeves, feeding cattle and other stock. Of Irish cattle, sheep and pigs, over two million head are annually exported to England. From Dublin alone, between 6,000 and 7,000 cattle are shipped to Britain every week, between 2,000 and 3,000 from Belfast, and about 5,000 from Cork, Waterford and Londonderry, not to mention those