

Dairy.

Cost of a Pound of Cheese.

BY L. E. ARNOLD.

What does it cost to produce a pound of cheese or butter or a quart of milk? These are questions which every farmer should ask himself, and figure upon till he can answer them to his satisfaction. Too often no definite calculation is made of the cost of raising any product of the farm. The only way in which the farmer gets the cost of his various products, or makes a comparison between cost and market value, is by looking at his standing at the end of the year, and seeing whether he has made a living, or more, or less. If he falls behind, he says farming don't pay, and it matters little whether the fault is in his economy or farm management, or in the ratio of cost of products to selling price. The effect upon his welfare is the same in either case, and the deficit is sure to be charged to the business of farming. If the ends of the year meet he is satisfied with the result, and the only complaint that will be heard will be a regret at the hard labor of a farm life. If a surplus is left above the cost of living, then all goes well, and the conclusion is that farming pays, but the cost of producing the several items from which revenue is derived is seldom measured with any sort of accuracy. Now and then where a farm is pretty exclusively devoted to one single production, the owner, or manager, can, by a little attention, compare receipts and expenditures so as to measure the price at which his goods can be put upon the market. In riding several miles lately with the Honorable Hiram Smith, of Sheboygan Falls, Wis., the following facts in relation to his farming were gathered, and may be of some interest to others by way of reaching an approximation toward the cost of his cheese, which is the chief product of his farm:—The leading facts are that this farm consists of 200 acres, valued at \$75 an acre, which would rent at 4 per cent. of its value, or \$3 per acre. On this farm he keeps 50 cows, which produce in the aggregate 25,000 pounds of cheese annually. Besides supporting the cows the farm supports the necessary teams and a small amount of other stock. It also raises above what the stock consumes about \$300 worth of grain, which is annually sold, besides supplying the necessities and furnishing a residence for his family. The refuse of the dairy is fed to swine, and brings an annual return of \$100, which is expended in mill feed for the cows, which is considered cheaper, and is fed in part in the place of grain. The products of the cows, before and after the season for cheese-making, with what is raised outside of the dairy, pay the interest and depreciation of the dairy and keep the farm and buildings in repair. The labor is nearly all hired, and costs in round numbers \$1,000 a year. These facts will furnish a basis for getting at what it costs him to produce cheese. His 25,000 lbs. of cheese and \$300 worth of grain sold have cost the rent of farm and the value of the labor put upon it. The other outlays have been balanced by incomes other than the cheese and the grain sold.

The rent of farm at 4 per cent. of value is...	\$ 600
The cost for labor is	1,000
Cost of making and boxing at factory on the farm	250
	\$1,850
Deduct for grain sold	300
	\$1,550
Total cost of 25,000 lbs. of cheese	\$1,550
Cost of one pound, 6.2 cents.	

Mr. Smith is a good farmer, and has a good farm, but he does not, even at the showing above, get down to the lowest limit in cost of producing

milk. His cows, compared with many others, are well fed, but they are not fed up to the fullest extent for profitable production. He has a good herd of cows, but their capacity for milk-giving could be considerably increased in a few years by selection and breeding. It costs him, as it does most other farmers, more than it need to, by reason of exposure to cold, to support them in the winter season. When cows are enveloped in cold air it rapidly absorbs away the heat of their bodies, and extra food must be consumed to keep up the standard of natural and healthful temperature. The more loss of heat by exposure, the more extra food required, and the greater the cost of keeping. To produce milk at the lowest limit of cost, the extra food for restoring the warmth absorbed away by the winter's cold must be reduced to its minimum. Not one milk producer in a thousand does this, but it must be done to reduce milk to its lowest cost. It is plain then that cheese can be produced at a cost even lower than in the instance quoted, and that the dairyman in Wisconsin can live and maintain himself until cheese falls below six cents a pound, if he avails himself of the best skill in selecting and caring for his herd. With such cows as are found in the average of dairies, and the present price of labor and land, with the reasonable attention which Mr. Smith is giving to his business, it would seem that cheese in this country can be produced at a cost of 6½ cts. a pound, but could be reduced even below that figure by improved dairy stock and better modes of farming.

The Dairy—Its Prospects and Profits.

From an address by Prof. X. A. Willard, at the International Dairy Fair, New York, we quote the following:—

Referring to the co-operative system in this State, he said that in 1874 New York had 1,139 of these co-operative factories, at which more than 23,000 farmers were delivering the milk of 308,352 cows. As the factories of New York have been considerably increased since 1874, it is estimated that at least 30,000 farmers and as many farms are now identified with the dairy interest. The dairy conventions, which for sixteen years have had remarkable sway, are an outgrowth of the co-operative system. These have stipulated inquiry and a desire for improvement. At Little Falls more than 25,000,000 pounds of cheese from the factories annually change hands, and at the Utica Board of Trade much more. For the last twenty years, or up to 1879, dairying of all kinds has been very remunerative: in fact, so uniform have been its profits that the gains could be calculated with great accuracy and certainty for months in advance of the crop. American dairy-men have a foreign market for all their surplus. The annual consumption of cheese in England is estimated at 504,000,000 pounds. The British make has been estimated at 312,000,000 pounds, and is now, according to Prof. Sheldon, 382,000,000 pounds, leaving 222,000,000 pounds as the annual amount required to supply the English demand for free consumption.

For the year ending December 31, 1878, American cheese exports amounted to 134,000,000 pounds, while the Canadian exports, during the same time, were about 42,000,000 pounds. The import of cheese into England from Holland and other countries on the continent was not far from 64,000,000 pounds, making a total of 240,000,000, or 18,000,000 pounds more than is ordinarily required in Great Britain for a free consumption. In view of these figures, it became plainly evident a year ago that the surplus cheese of 1878 carried over to the spring of 1879 must sell at low prices, making a loss to holders. It is now estimated that the make of English cheese, owing to the bad season, is one-quarter less this year than that of 1878, showing a decrease of 70,000,000 pounds. The American and Canadian crop, it is believed, will fall short 50,000,000 pounds from that of 1878. This total decrease of 120,000,000 pounds is good reason for the recent advance in prices. Whatever may be the disposi-

tion of the crop of 1879, it can hardly be expected that the cheese crop of 1880, under ordinary circumstances, can be marketed at much above seven cents. The turn in the fall trade has influenced dairymen to keep full herds, and it will stimulate an extension of business in new districts, especially in Canada, which has become a formidable competitor for the English trade. The cattle and dead meat ocean trade will also exercise some influence on the price of cheese. The best brands of American cooked corned bone-dress beef, put up in tins, sold in London at 50s. per 100 pounds, Australian mutton in tins at 5d. per pound, and American bacon at 44s. to 46s. per hundred weight, while secondary American cheese is quoted at 52s. to 54s. per hundred weight. The maintenance of such high rates on cheese would drive consumption upon meats. The real prosperity of American dairymen is not to be promoted by high prices. Low prices mean the reduction of the make in England and an outlet for an increased exportation from America. American cheese-makers have made some mistakes in the past in devoting all their energies to one style of product, in looking forward too exclusively to a foreign market, and neglecting home wants. The home market is the best in the world, if properly supplied with a variety of goods.

Borax for Salting Butter.

The following article we extract from the Scientific Canadian, and we recommend it to the attention of all. Now, when there is such progress in all things connected with the farm, it is well to experiment when there is a possibility of improvement.

The Italian Minister of Agriculture has addressed a communication to the Chamber of Commerce of Milan relative to experiments in salting butter with borax, which have been carried out at the agricultural station at Florence. From the account which appears in the Giornale di Agricoltura, borax would appear to have a most marvellous effect in insuring its absolute preservation. Samples of fresh butter made at the Florence station, and purposely not carefully freed of their buttermilk, were found, on the addition of about eight per cent. of borax, to maintain their natural fine flavor, without the least change whatever, for upwards of three months. To attain this satisfactory result it is necessary that the borax should be perfectly dry and in very fine powder, and care must be taken to insure its thorough mixture with the whole mass of the butter operated on. Among the further advantages of this plan, it is noted that borax imparts no flavor of any kind to the butter, while it is entirely harmless to its nature, and also reasonably cheap. Still later experiments have shown that a very much smaller proportion of borax suffices to produce the desired effect, and also that simple solutions of the salt act quite as well as the dried powder.

It has been alleged that too much borax imparts a bitter flavor. This might be lessened by washing in water. The safe point is that if borax should prove a useful preservative element for butter, meats, &c., the borax industries of Nevada might be very properly advanced.

Sir John Sinclair has stated that it is supposed that the same quantity of herbage that would add 224 lbs. to the weight of an ox would produce 900 English gallons of milk.

The Agricultural Economist (Eng.) says:—One green crop in a rotation of the four-course system would yield, with proper cultivation, quite as much good for cattle as the land would produce in permanent pasture during the whole four years.

A. Hyde, in N. Y. Times, speaks of the successful farmer as follows:—Other things being equal, the successful farmer is a member of an agricultural society and attends the fairs, not so much to exhibit his own stock and products and secure premiums, as to learn from the exhibitions of others. He is also a member of some farmers' club, and attends the meetings, not so much to ventilate his own opinions and practices as to imbibe the wisdom of his peers. He also studies the markets and the best time and mode of marketing his products, for success in farming depends almost as much upon the skill in selling as on the skill in producing.