

skimming or watering the case is different. If this were to be indiscriminately practiced and condoned, where would our cheese industry be in five years? The imputation that cheesemakers as a class are incompetent is unwarranted by the facts. It is generally agreed that the cheesemakers of Canada are doing their part better than the general run of patrons. The article in our November 5th issue distinctly explained that there is a certain slight unavoidable loss of fat in cheesemaking; this the patron gets in his whey. If the maker is unskilled or unintelligent, the loss may be slightly increased. The remedy for this is to hire expert makers and pay the salaries necessary to secure them. As for the imputation that patrons are prosecuted on insufficient evidence, we are in a position to state that the rule in Western Ontario (whence our correspondent writes) has been in no case to prosecute on the strength of a single test. A repeat test has always been made. Accordingly, while in 1908 in Western Ontario 223 samples of milk were found deteriorated from normal, only 43 prosecutions were entered, because in only 43 instances was conclusive evidence furnished by a repeat test. Every possible effort is made to avoid anything calculated to reflect upon or injure a patron without ample proof having been secured. One suggestion our correspondent makes should be taken to heart. It is to pay by test. Better still would it be to pay according to Prof. Dean's system of per cent. of fat, plus 2. This would in large measure do away with the temptation to adulteration. Meanwhile, only moral principle and the strong arm of the law must be relied upon to insure against fraud on the part of one patron as against others.—Editor.]

Yields Better Than Computed.

Editor "The Farmer's Advocate":

Enclosed you will find \$1.50, being my subscription for your esteemed magazine for 1909. We find "The Farmer's Advocate," if possible, improving each year. I am sending you the yearly report of Glenvale cheese factory, J. Cramer, proprietor.

The County of Frontenac suffered very severely during the last three months from the dry weather conditions then prevailing, our limestone district not being well adapted to stand continued drouth and furnish green pastures at the same time. Everyone was loath to feed the corn fodder until absolutely necessary, there being scarcely any surplus feed from 1907 remaining.

Following are the figures: Number of pounds of milk, 1,219,469; number of pounds of cheese, 110,907; cash received, \$13,047.94; average price per cwt., \$1.07; average price paid patrons, 96.90c.; number pounds of milk to make one pound of cheese, 10.99; average price, 11.76c. per pound. We pay 1 1-16c. per lb. of cheese for making, and draw the milk ourselves, and pay the salesman and secretary \$75.00. Cheese is king in our county.

I would venture to challenge the correctness of Mr. Publow's statement, that the cows of Eastern Ontario only gave 2,800 lbs. of milk during 1908. The cheesemakers have no correct list of the number of cows in their factories, and if they had, a large number only send six days out of the seven, and some only five months, to the factories. Of course we know the amount of milk is not what it should be, but it is really nearer 4,000 than 2,800 per annum.

Frontenac Co., Ont.

[Note.—Mr. Publow's statement as published in "The Farmer's Advocate" was that cows to the number of 340,829 produced an average of 2,700 pounds of milk in the six months following May 1st, 1908. No doubt, however, the facts mentioned by our correspondent account for the average milk yields being somewhat underestimated.—Editor.]

Soft Cheese Manufacture.

A start has been made at the Ontario Agricultural College, Guelph, in the manufacture of soft cheese. Professor Dean has secured the services of an expert from England, and, although the market in Canada is limited, it is thought the demand will grow rapidly. Small round cakes of one and a half pounds sell at 20 cents. Sweet, unripened milk is used, and the working done so as to retain the moisture throughout the cheese. The finished product is soft and spongy, containing about 50 per cent. moisture. Coloring is added to give a rich June tint. The yield from 100 pounds of fresh milk is about 124 pounds of cheese. Camembert and cream cheese have been made. Analyses of Camembert show the following composition:

	Fresh.	Ripe.
Water	52.7	51.15
Fat	21.87	22.52
Proteids	21.93	22.88
Ash	3.5	3.15

Following is the composition of cream cheese: Water, 50.66; fat, 62.99; proteids, 4.91; ash, 1.12.

Breeding and Feeding.

Prof. H. S. Arkell, of Macdonald College, tendered some good advice at a dairymen's meeting in Huntingdon, Que. He said the dairyman should have a double policy, to select the best stock and breed them to the best sires of a pronounced dairy strain, and with good records behind, if possible; then feed them the most economical ration consistent with the milk flow. Roots and corn silage, and our clovers, must form the basis of the profitable ration. This ration must be continuous twelve months of the year to get best results, concentrates to be added according to the season, and also according to the milk flow. Those foods rich in protein are the most desirable. Oil-cake meal was not appreciated by our Canadian farmers as it should be, and was a safe and valuable food for all classes of farm stock. Where alfalfa could be grown successfully, it was a most valuable forage crop for the dairyman. It required well drained land, with the water-level well below the surface. He emphasized these points: Breed to type and uniformity; this required the best thought and intelligence. Breed with an object in view—to always improve on present conditions, and then feed with intelligence all the year through.

Feeding a Prizewinning Herd.

Editor "The Farmer's Advocate":

In reply to your letter, as to how I managed my second-prize herd in the Western Ontario Dairy-herd Competition, I will say, in the winter months we feed corn, fodder and hay, and oat chop, about two quarts a day. In the spring, when the cows are milking, we feed a limited feed of oil cake and bran and oat chop mixed, and sugar beets. When the pasture is good, we feed once a day oil cake and bran. About the first of



Grade Holstein Cow.

In dairy herd of Seymour Cuthbert & Son, Oxford County, Ontario.

August we start to feed corn. Later on we feed sugar beets. The number of cows we milked last summer was twelve, and two 2-year-old heifers. The breed is Holstein grades. The number of pounds of milk we sent to the factory during the eight months was 128,808, besides raising two calves. Amount of money received was \$1,151.19. SEYMOUR CUTHBERT & SON.

Oxford Co., Ont.

Dairy Situation, Eastern Ontario.

From an address by J. A. Ruddick, Dairy and Cold-storage Commissioner, before the Eastern Dairymen's convention, Prescott, 1909.

Eastern Ontario, viewed from the standpoint of cheese production, divides naturally into three main districts, each with certain features which distinguish it from the others, and which for the present purpose may be designated as Central Ontario, Brockville and Eastern districts. The Central Ontario district, which includes Prince Edward, Hastings and Peterborough Counties, and of which the old Belleville district was the beginning, and is yet a kind of natural center, was the first part of Eastern Ontario to win prominence in the cheesemaking industry. The cheese from this district early acquired a good reputation on the British market, and the Belleville district was recognized as leading Eastern Ontario twenty-five or thirty years ago.

The factory system was started near Brockville about the same time as it was in the Belleville district, but the development was somewhat slower. The limits of the Brockville section have never been very clearly defined. It is said that at times the boundaries have been stretched to take in a good part of Eastern Ontario. It has been hinted that portions of the Province of Quebec have been included, but we are not concerned with that phase of the question at present.

The third, or Eastern, district embraces the territory included in the Ottawa Valley and the

Counties of Glengarry, Stormont, and, probably, Dundas; or, in other words, the country lying north and east of the Brockville section proper. This was the last part of Ontario to engage in dairying extensively, and probably the most notable feature of the development of the industry in these counties was the organization of large combinations of factories under one management. The Allengrove combination of factories, now broken up, was the largest ever known in the history of Cheddar-cheese making. That combination, along with several others, at one time practically controlled the manufacture of cheese in these counties.

PROS AND CONS OF COMBINATION MANAGEMENT.

It is not unreasonable to suppose that the combination plan of organizing the factory end of the cheese business has had some influence on the progress of the industry in a territory where it was so generally followed. The system has many advantages, especially where conditions tend towards small factories. It also has some disadvantages, and one is that the patrons and the management are not brought into close contact with each other, with the result that the patrons do not learn to take the same lively interest in the business as they do where the co-operative or single proprietary factory systems prevail. In one respect, the pioneer factory-owners of the Eastern district, although they are deserving of the greatest credit for their early enterprise, made a serious error in adopting a low standard for their buildings and equipment. This gave the section a bad start, from which it has never recovered, for we still find in the extreme Eastern counties the poorest buildings and the most unsatisfactory conditions surrounding the manufacture of cheese which are to be found in any part of Ontario.

THE GREAT CHEESE DISTRICTS.

It will be interesting, at this point, to consider the extent and distribution of the cheesemaking industry in Eastern Ontario. According to the returns of the Census and Statistics Office for 1907, the counties lying east of York and Simcoe, but not including these two, produced in that year 104,367,739 pounds of cheese, valued at nearly \$11,000,000, or considerably over two-thirds of Ontario's total output. We find that the business of dairying is most extensively followed in the Eastern group of counties, which, including Leeds and Carleton, are credited with over one-third of the total production of the cheese in Ontario. The exact figures for the Counties of Leeds, Grenville, Dundas, Stormont, Glengarry, Prescott, Russell and Carleton are 49,404,287 pounds, valued at \$5,760,555. The County of Dundas produces more milk per acre than any other county in Canada, the value of the cheese from that comparatively small county in 1907 being over one million dollars. No other section of Ontario is so largely devoted to dairying as that which comprises the counties in the extreme East. The farm revenues depend more on dairying in this district than they do in any other division of the Province. In the counties bordering on Lake Ontario, fruit-growing, the canning industries and beef-raising divide the attention of farmers to some extent, and in Western Ontario the diversity of farm industries is even more pronounced.

THE DRY ROT OF CONTENTMENT.

Referring again to Central Ontario, I have already stated that this district was a leading one some years ago; but, having attained that position, the dry rot of contentment began to take effect, and before many years the Belleville district was obliged to yield the banner to the Brockville section. I am not sure that my Belleville friends will admit this, but that is the way it looks to a disinterested observer. There is more to be said in this connection, however, because, as soon as the dairymen of that district realized that they had lost the place of honor, although it took some years to convince them of the fact, they immediately set about putting their house in order, with what result we shall see as we proceed.

COOL-CURING ROOMS IN BELLEVILLE DISTRICT.

The beginning of the cool-curing movement found the district in a receptive mood, and this means of recovering their position has been adopted to such an extent that within the past five years a large number of the factories in the counties of Prince Edward, Hastings and Peterborough have been equipped with cool-curing rooms. In this important reform, the district easily leads Eastern Ontario, especially in Prince Edward County. Every cheese factory in the Township of Ameliasburg is now equipped with a cool-curing room. I am informed that the one factory which did not adopt the improvement has closed its doors, and the milk will go to the others. All told, there are thirty cool-curing rooms in the Central Ontario district. I would not have you think that I look upon cool-curing as the whole thing in progressive cheesemaking, but I do look upon it as a very important factor in de-