

The Manitoba Dairy Industry for 1903.

BY FRED LUTLEY, FACTORY INSPECTOR.

The prosperity of the dairying industry, as shown by the profitable prices during the past few years, and the marked improvement which has taken place in the quality of our butter and cheese, has enabled the factories to greatly extend and improve their buildings and plant. In contrast with the experience of a year ago, the creameries this season are opening with particularly favorable conditions, both as to roads and pasturage; also, the warm weather has been the means of large quantities of cream being sent to the factories that otherwise would have been made into butter on the farm.

The outlook for the present season is very promising; the conditions during the past few years have been so favorable to grain-growing that in some districts the interest in dairy work has lagged, the high price of young stock inducing the farmers to let the calves do the milking, and this in turn with being dissatisfied with the test given them for their cream. The farmers are beginning to realize there is an "if" in the grain-growing business, and in many sections are slowly but surely turning their attention to mixed farming. As evidence of the confidence placed in the dairy industry, I may state that the Honorable Thomas Greenway, of Crystal City, has enlarged his private creamery, equipping it with an eight-horse-power gasoline engine, with the addition of a large ice-house and refrigerator, and rented it to a company for five years, who intended building an up-to-date creamery this season, their old factory having been too small for the large output of last year.

The new creamery at Ste. Anne des Chenes, costing four thousand dollars, with D. W. Shunk as manager, can say what hardly any other creamery can, that they paid expenses for the month of April, having fifty-six patrons who deliver their cream to the factory, and were making 500 pounds per day in May; this creamery being within one-half mile of the Oak Point cheese factory, which manufactured more cheese than any other factory in the Province of Manitoba.

At Mr. T. C. Gerrard's creamery at Shellmouth, the individual-can system for gathering cream has been introduced. Under this system the buttermaker takes the test, which formerly was taken by the cream-gatherer, by measuring the number of inches of cream. This plan is now being used in the Winnipeg factories. It saves time and gives satisfaction.

The creameries at Winnipeg, Brandon, Newdale, Solsgirth and Ste. Anne des Chenes have spent large sums of money for equipment with up-to-date appliances, such as improved churns, cream coolers, cream pumps and cream scales for weighing the correct amount of cream into the test bottles; also turbine testing machines, improved butter printers and refrigerators. These, in conjunction with improved methods of manufacture, will be the means of saving hundreds of dollars to the dairy industry this coming season. At Brandon a creamery 37x60 will shortly be built.

The sales of hand-power cream separators, barrel churns, thermometers and lever butter-workers are larger than last year, the old dash churn and butter bowl being discarded by all up-to-date butter-makers.

Our dairy industry would be greatly assisted by having an agricultural college with the dairy school in connection therewith, where factory assistants and farmers' sons could take a course of training in agriculture or dairying. The agricultural college is the proper place for educating factory assistants and men who have only a limited knowledge of dairy matters, as well as farmers' sons who are desirous of becoming acquainted with the principles underlying scientific dairying, and of acquiring a practical knowledge of the art of butter and cheese making, and the breeding and feeding of suitable cows for dairying.

The dairy school for the past eight winters has given instruction in milk and cream testing to quite a large number of students. This cream-testing business is the bone of contention, causing lots of dissatisfaction. The remedy for it, I believe, is that dairy farmers should buy an up-to-date, two-bottle testing machine, with glass-ware complete, costing, all together, five dollars. The Department of Agriculture will give them the instructions how to use them free, which will give very close results, though not accurate, but more accurate than the way most of the patrons do who send a given quantity, say three ten-gallon cans, to a certain factory, the same quantity to another factory, not knowing whether

both samples contain the same per cent. of fat, but compare the amount of the cheque as an indication of which factory tested the cream correctly. This seems to the uneducated farmer, and the public generally, a very good way, but neither factory may have given what it should. It is impossible for any separator to produce 30



SWEEPSTAKES GOLD MEDAL.

Donated by the "Farmer's Advocate" for the farmer or farmer's son, not over 25 years of age, making the highest total score in live-stock judging at the Winnipeg Industrial Exhibition, 1903. A facsimile of this medal will be given at the Brandon Exhibition.

gallons of cream from say ten cows, that will make the same quantity of butter each week, no matter what name it is sold under, or how steady the machine is turned, but the contrary seems to be the general opinion throughout the Province of Manitoba.

When our agricultural college is established, and the dairy school in connection, this much-needed knowledge of how to test cream with the churn, to prove the correctness of the same, will be an inducement to farmers to engage more extensively and permanently in the dairy industry. I venture to predict that in the next five years the dairy products of the Province will be double what they are at the present time.



GOLDEN LAD'S CREAMPOT.

Prizewinning Jersey cow on the Island; an illustration of ideal dairy form and function.

Registering Jersey Calf.

Kindly inform me, through your valuable paper, how old a Jersey calf should be, before it is registered in the "A. J. C. C."? Also, how to proceed, and what is the cost? R. T.

Ans. If the calf is registered before it is two years old, the fee is \$2; if over two years, \$4. Write the secretary, Mr. J. J. Hemingway, 8 West 17th St., New York, for blank forms of application and rules.

The Dairy and Its Problems.

BY PROF. E. E. KAUFMAN, NORTH DAKOTA AGRICULTURAL COLLEGE.

One of the most important questions in the entire Northwest, along the line of agriculture, is that of dairying. Southern Minnesota was at one time considered the extreme northern limit of profitable dairying, but now the creamery has become firmly established in all parts of North Dakota, and is rapidly extending to Manitoba and the Canadian Northwest. If the rich, nutritious grasses of these sections can produce such an excellent quality of beef at a good profit to the ranchman, then why won't it produce a good quality of butter at a remunerative price to the dairyman? has become a leading question, and the many farmers who have turned their attention to milk production seems like a sufficient answer.

There really is not much money invested directly in dairying. The farmer keeps cows and finds it profitable for the calf each cow will raise. By milking these cows he can secure from \$25 to \$50 worth of butter per cow each year, besides growing just as good calves. The extra labor necessary in milking and feeding the calf by hand is paid for many times over, and an extra large profit looms up besides.

Then the farmer who is milking cows is on a cash basis. His income is monthly instead of yearly, and the profits arising from his being able to pay cash will net a nice little sum each year.

The farmer who is milking cows is growing a succession of forage crops that serve to keep up the fertility of his land, and keep it in the best possible condition for the staple crop, wheat. The finest wheat in the world is grown in the Northwest, and it is good policy to continue growing this crop, but is it not also good policy to keep up the fertility of the land in order that the same number of bushels can be grown on less acres of land. No system of farming will permit of such a profitable rotation of crops as dairying. Instead of a bare and unprofitable fallow, the land is made to return a crop that will more than pay the cost of cultivation, and the land is left in better condition for the crop following.

In addition to the products directly derived from the dairy, there are a few steers to sell every year, and a bunch of hogs will be raised on the skim milk not needed for the calves.

There is always a good market for first-class butter. Buttermaking is both a science and an art, but the average farmer has in only a few instances mastered both the art and science, and in consequence his butter often sells at a second or third class price. The advent of the creamery furnished the farmer a market for his raw product, milk and cream, and under the skill of a man versed in the art and science of buttermaking, an article is manufactured that sells for top prices and costs no more to produce than an article selling for four to ten cents less per pound.

In North Dakota the problem was to secure enough milk within reasonable distances to warrant the establishment of creameries. Where the land was all under cultivation the farms were too large. At other places more settlers were needed. The tendency to decrease the size of the farms, and the many new settlers, have to a certain extent remedied this difficulty.

The introduction of the hand-separator is also an important factor in the development of dairying in the Northwest. With the introduction of the centrifugal cream-separator it was generally supposed the gathered-cream creamery was a thing of the past. Indeed, it was almost entirely displaced by the whole-milk factory. The manufacturer was at work, however, and finally produced a hand-machine fully equal to the skimming qualities of the power machine, and which could be sold at a price within the reach of every farmer. The farmer found it cheaper to deliver cream than milk to the factory, and that the skim milk fed sweet and warm was more valuable than the average creamery skim milk. The cream could be collected from

a greater distance than milk, and many farmers found a market for their cream who otherwise would have had to make their own butter or let the calves run with the cows. Cheap and rapid means of transportation enabled many farmers, where there was no local creamery, to ship their cream long distances and thus find a ready market for the raw product. As a result the creamery system is undergoing a change, whether for better or worse time alone can tell. As to the effect so far discernible in North Dakota, it has led many to engage in