

in boiling water, should be used to fill each quarter full of air, tying the teats with tape, and massaging the udder with the hands to force the air up into the system. A bicycle pump is the most effective, as it does the work quickly and thoroughly. Do not allow dosing with medicine, as, when paralyzed, the cow cannot swallow, and the medicine will almost surely go into the windpipe and lungs, surely causing death. Hundreds of valuable cows have been killed by dosing under such circumstances. The use of pure oxygen or sterilized air for filling the udder is doubtless safer than common air, but if care is taken in disinfecting the milk tube, and gently placing it in the teat, there is very little risk of damage to the udder.

Wide-awake Dairymen.

Editor "The Farmer's Advocate":

Replying to your request regarding our dairy herd, whose record has been sent you by J. H. Grisdale, of the Experimental Farm, Ottawa, we may say that we have received the blank record sheets from Prof. Grisdale for two years past now, and returned him a summary of our work.

A small history of our herd would be acceptable, we think. During the winter of 1906-07 we became quite dissatisfied with our old herd of "native" cattle, which usually returned about \$40 per cow per annum. We decided to sell them, and called an auction on Feb. 28th, 1907, selling our nineteen head, due to freshen in the spring; also, considerable hogs, etc. We at once purchased nine pure-bred Holstein-Friesian females and a sire, the breeding of Mr. Richardson, of Caledonia; also two lovely Holstein grades, which make up the herd of eleven, the returns of which Prof. Grisdale sent you.

The cattle we bought were somewhat thin and out of condition, but were of good breeding. During 1907, however, they gave 7,000 pounds average per cow (six of the eleven being two-year-olds). It takes a year, however, to build up the constitution of a cow, and last year they advanced over a ton of milk each. It was a dry season with us here, and water was scarce. They certainly would have done better had the season been favorable.

We have exhibited at two of our local fairs here in Grenville for two years, and were successful in getting sixty prizes on our live stock.

Our cattle have a good home, a stable which is well ventilated, with water always before them. We provide a good supply of roots and silage for winter feeding; also try to supply the cows with the necessary protein to balance their rations.

We like clover hay, silage and roots for roughage, and the best by-products of the starch and oil factories and breweries, together with oats and peas, grown on our own farm.

We have never done any official testing, but have weighed every cow's milk, individually, for two years past. We consider it the only business way to do. It has paid us well to keep records. We know our individual cows now. It teaches us considerable in feeding, and reveals many things to us we in no other way would be able to find out. If a cow is ailing, it is sure to indicate it. Before a man who does not weigh continually would be aware he had a sick cow, we, perhaps, would have ours better again.

We subjected our cattle, individually, to butter-fat tests at stated intervals throughout the season. We consider this even more important than weighing. According to our personal considerations, we estimate that they have produced over 300 pounds of fat each in 1908.

At present we have 24 head of pure-bred cattle, made up of 13 head due to freshen in the spring, 11 head of young heifers and bulls, all of which are in the pink of condition.

We use a system of soiling crops the same as they use at the Central Experimental Farm, Ottawa. Thanking you, Mr. Editor, for this privilege, and hoping it may help some other stockman.

R. CONNELL & SON.
Grenville Co., Ont.

J. N. Lemieux, of St. Hyacinthe, speaking before the Huntingdon, Que., Dairymen's Association, gave an interesting talk on the advantage of cool-curing of cheese to maintain the texture, quality and flavor of the cheese, resulting in a higher grade and quality. Cheese put through the cool-curing rooms, he said, sold for a higher price, and there was less shrinkage. All these points taken together would give an average of about 5 cents per cwt. of milk each season, which, in the aggregate, would mean larger profits to Quebec dairymen.

The work of cow-testing is as much a part of up-to-date farming as potato-spraying or other methods now in vogue to get the best results from the land. F. Whitley.

Cheese Business in Alberta.

"The Farmer's Advocate" had the privilege of an interview last week with T. B. Millar, the well-known Western Ontario cheesemaker, who went to Alberta three years ago. Mr. Millar first settled on the land, but a year's time found him again manipulating the curds, having now two cheese factories under his proprietorship in the sunny Province. The cheese business is of small proportions in Alberta, there being but eight factories in the Province, with an aggregate output of only about one hundred tons of cheese during the whole season. Co-operative dairying runs more to buttermaking, there being twenty-four Government creameries and a number of private ones. However, Mr. Millar saw no reason why the Province should not be supplying its own home demand for cheese, and two years ago he commenced making at Burnt Lake, about fourteen miles west of Red Deer. The factories, of course, are small, but prospects for development seem to warrant embarkation in the enterprise. Cheese sells for 12½ to 13½ cents wholesale. The milk is purchased from the patrons at prices ranging from 85 cents to \$1.00 per cwt., according to the locality of the factory and the season of the year. The patrons do the hauling. Each factory receives milk from a radius of 4 or 5 miles, numbering ten or fifteen patrons to a factory. The patrons average \$40 to \$60 and \$75 a month for milk, an odd one running up to \$100.

During the season of 1908 Mr. Millar has been pasteurizing the whey, raising it to a temperature of 155 degrees, and the patrons find that, by adding a little chop, they can raise pretty good calves. Good sweet whey contains a little more fat than skim milk, and all the other elements of skim milk except the casein. If the whey is sweet, and returned to the patrons with a normal percentage of fat and milk sugar, there is no reason why it should not make good feed. By cleaning the tanks once a week, they were easily kept in good condition, and the whey was good enough to drink. They never had a drop of sour whey all season. Both proprietor and patrons are much pleased with pasteurization of whey.

Mr. Millar has no regrets at having cast his lot in Alberta. There are, he points out, 162,265,600 acres of land in that Province. Deducting the 62-odd millions of grazing land, rivers and lakes, it still leaves a hundred million acres available for settlement, of which area only about 7,112,000 acres were cropped in 1907. Central Alberta he classes as a mixed-farming country, and Northern Alberta as more of a grain-growing section, with stock-raising and dairying an important adjunct. Fall wheat is succeeding well, authenticated yields of 64 bushels per acre having been reported. A sample of Dawson's Golden Chaff, submitted for inspection, indicated a fine sample of grain—plump, and quite hard for the variety. The country is well watered with mountain streams, more particularly west of the Calgary-Edmonton line. Homestead land, however, is not available in his section within less than 40 to 60 miles from the railway. As for the West generally, it has been recently estimated that there is more good land north of the Grand Trunk Pacific than is now under cultivation west of Winnipeg.

Benefits of Dairy-herd Competition

Editor "The Farmer's Advocate":

I have taken much interest in the letters that have appeared in your columns of those who were in the dairy-herd competition. Having been the first one to win the silver medal, I have followed the competition with more interest, perhaps, than I otherwise would have done. I cannot help but note the great interest that is being taken in this neighborhood, and the great progress many farmers have made since the dairy-herd competition was made part of the programme of the Western Dairymen's Association. Where there used to be herds with 4,000-pounds averages for the season, there are now 7,000 and 8,000 pounds, and some exceptional individual records are made, owing to the use of scales, where each cow's milk is weighed and recorded. I cannot help but feel, in the face of the great progress the dairymen are making, that dairying is yet in its infancy. I might state that, in the 1907 and 1908 competitions, I met personally nearly all the competitors, and it will be encouraging to the dairy instructors to learn that they were nearly all young men; and, with the young men becoming so interested, and making such progress, we cannot help but feel that there is a bright future for the dairy industry of Canada. We have been unable to take any active part in the last two dairy-herd competitions, owing to sending our milk and cream to Toronto, but we have successfully taken part in the dairy competition at the Guelph Winter Fair. Hoping the year 1909 will show even greater progress than 1908.

M. L. HALEY,
Oxford Co., Ont.

87 Cts. to \$1.10 Per Cwt. for Milk.

Editor "The Farmer's Advocate":

The annual meeting of the patrons of Connolly's Cheese Factory, East Nissouri, Oxford Co., was held at the factory on February 3rd. The secretary's report showed that 1,524,592 pounds of milk was received, from which was manufactured 138,386 pounds of cheese. The average price was 11.851 cents, and the number of pounds of milk required to make a pound of cheese, 11. The prices netted each month by the patrons per 100 pounds of milk were as follows: April, \$.8873; May, \$.8726; June, \$.9354; July, \$.9106; August, \$.9502; September, \$1.0644; October, \$1.1095; November and December, \$1.08.

The meeting was well attended, the patrons well pleased with the profits of the past season, and the outlook for the coming season is very bright.

B. J. CONNOLLY.

POULTRY.

Mating and Feeding Breeding Stock.

Editor "The Farmer's Advocate":

Being a reader of "The Farmer's Advocate" for some time past, I find some very interesting articles on poultry, which help me a great deal, so I thought I would send some of my experiences, which may be a help to others.

I have been a breeder of Barred Plymouth Rocks, Single-combed Brown Leghorns, and Single-combed Black Minorcas for a number of years, and have found from experience in handling one or all of these breeds, that you get more healthy chickens from pullets mated to a yearling cock bird, or from hens mated to a cockerel, than from pullets mated to a cockerel, or hens mated to a cock bird. In no case use birds in the breeding pen that are not well matured, and in all cases use the healthiest birds. I always like to keep the sexes separated until a month before mating.

Some people say to breed from your best-laying hens, in order to get good laying stock. This may be true, but I find that you get more fertile eggs from hens that do not lay many eggs during the winter months.

I feed a pen of twelve hens of the Leghorn breed a pint of wheat in the morning and a pint of oats and barley at noon. This grain is given in deep litter. I give them a mash at night, composed of two parts corn meal, one part chopped oats, one part wheat bran, the whole mixed with just enough milk or water to make it stick together, but not sloppy. Give as much of this mash as the fowls will eat in about 15 minutes. Some people prefer feeding the mash in the morning, but if fed at this time, I think it makes the hens lazy. For the Plymouth Rock and Minorca breeds, give one-quarter pint more grain. I always keep a beef head, oyster shells, and a road-dust bath, before the hens.

There are two ways of hatching chickens, the natural way and the artificial way, but I am only going to give my experience of the natural way, which, I think, is the best way to hatch a small number of chickens. When a hen becomes broody, do not get in a hurry; let her sit a few days, until she is sure. Meanwhile, I get the nest ready, which I put in a coop about two feet and a half square and a foot and a half high. This coop is made of inch lumber, except the front, which is poultry wire. Any person with a hammer and saw can make one. I like a cheese-box or an old half-bushel basket for a nest. I set the box in a back corner of the coop. I then go and get a sod to fit the nest. I hollow the sod out so as to make it comfortable, and cover it with a little fine straw. I then put a few china eggs in the nest for 24 hours to try the hen. If she sits, I put the genuine eggs under her. I should say that, previous to this, I dust both hen and nest with insect powder. I look at the eggs every morning, and if any has been broken I wash the dirty eggs in lukewarm water, and dry them quickly.

After the chickens are hatched, I do not feed them for at least twenty-four hours. For the first few days I give them hard-boiled eggs, some breadcrumbs and a little oatmeal. After they are two weeks old I feed wheat screenings and a little cracked corn. I do not advise feeding a mash to chickens, as it is apt to cause bowel trouble. Always keep the drinking vessels clean. A little green stuff, in the form of finely-chopped cabbage, is good. If you look at the top of the head of the little chaps, you are almost sure to find some gray lice. If you do, put a little grease on their heads.

R. S.

Wellington Co., Ont.