

Hold Fast to the Dairy Cow.

Dairymen who kept up their herds during the past year instead of reducing them and jumping into some other branch of farming, will reap the reward this season which their perseverance deserves. It is hard to see why so many farmers should be always going out of this, that or the other line, at the time of depression, just when prudence would dictate the advisability of stocking up with good cows, so as to be ready for the better times sure to follow. The swing of the pendulum between extremes of price is largely due to the fickleness of human nature, leading, as it does, to unceasing fluctuations in value, caused by alternate over and under production, which in turn is the result of previous fluctuations. The economic disadvantage of such a tendency is serious all round. From the standpoint of our Canadian dairy export business it is a grave detriment, because our customers, failing a regular supply, become switched off onto some other country's produce, and, their taste not being cultivated exclusively for our goods, they do not become willing to pay the premium in price, which might be obtained from fastidious customers regularly supplied with a uniform product of certain flavor and appearance. In local markets again the inconstant supply restricts consumption in times of scarcity and high prices, whilst in periods of glut the producer does not gain much by the free consumption, since the price he then gets leaves little or no margin of profit. If there is any reason to warrant a farmer in changing from one line to another, it would be to get out of the lines that have held high and into those that have been depressed—a reverse of the usual practice.

As a general rule, we believe it pays much better to stick pretty well to the same lines from year to year, except when calculation shows one or more to have been unprofitable for a series of years, in which case it may be wise to work into something likely to give better average returns. One great disadvantage of shifting in and out of dairying is that it necessitates a change of stock, good cows being often sold and inferior ones bought later. Many factory patrons, by the way, change any way, buying, milking and feeding the cows for beef. In our opinion there is only one class of dairymen who should ever do this, viz., those situated on expensive land near a town or city, supplying a retail milk trade. They do not have skim milk to raise the calves, and the whole milk, even if there were a regular supply, is rather expensive calf feed. But the ordinary dairymen should by all means raise his own cows. He has the necessary skim milk—if patronizing a cheese factory he should have a few of his best cows calve in fall, or at least in early winter—and by keeping fewer cows and turning some of his roughage into well-bred dairy heifers, he can make more money, in the long run, with considerably less drudgery, than by keeping only cows. The most objectionable feature of dairying is the daily chores, particularly milking, Sundays, holidays, and all the time. The time spent in milking may be recompensed by the returns, not the slavishness entailed by the keeping of a large stock of milch cows requiring three or four hours' milking a day on the part of each hand. It ties the whole family down. This may be largely obviated by turning part of the feed into good dairy heifers, which, if properly bred and cared for, will be found a convenience, economy, and pleasure.

A still stronger reason for raising one's own cows is the fact that it is the only possible hope of dairy herd improvement, which in most cases is absolutely essential to satisfactory profit. How any farmer, in this day of dairy tests, published experience, and cow census revelations can expect to get a profitable herd going out and purchasing cows here and there, by mere appearance, is hard to understand. Few farmers sell their best cows, and those who do rarely have good herds from which to choose. Every practical man, too, knows that a cow hardly ever does her best when changed to a new stable, under different environment and attendance, so that what, with risks of being "bitten," loss in accustoming the cows to new conditions, and lack of opportunity for improvement, systematic purchase to renew the herd is very poor business. The sesame to successful dairying is good cows—much better cows than are common in the country today—and the only way to get them in reasonable numbers is to raise them in one's own herd from the best cows (selected by scales and test) bred to a good dairy bull. Such a system persistently followed enables a man to improve a herd with almost mathematical accuracy, and the possibility of such systematic improvement by selection constitutes one of the greatest advantages of dairy farming. This improvement is impossible to the man who dairies spasmodically, depending upon periodic purchase to replenish his herd.

On the majority of Eastern farms the cow is and will continue to be an indispensable adjunct. In fact, on most farms dairying should be the mainstay. There is a good market for the products of the Canadian cow, but to make the most out of her we must stick to her through thick and thin.

Properly handled, she is a money-maker always, and in times of adversity an unfailing standby. The dairymen who has sacrificed his herd, thinking to find an easier or more profitable road to wealth, will come back to the cow, having gained more in experience than in pocketbook. Stick to the dairy cow.

How to Secure a High Quality of Cheese and Butter.

Producers of milk and cream would serve their own interests to consider carefully at this time the facilities afforded for the manufacture of a first-class product by the factory or creamery which they expect to patronize during the coming season. The Ontario Government has engaged a staff sufficient to give instruction at a very moderate cost—less than one-half the actual outlay—to all creameries and factories which make application at once. If the patrons of cheese factories are alive to their best interests, they will see to it that the proprietor or manager secures an instructor to give monthly visits and point out to the maker mistakes in methods, suggestions as to improvement in quality so as to meet the demands of the market as nearly as possible, defects in equipment, the need for greater cleanliness, the necessity for proper temperature in curing, the proper disposal of whey, etc.

The instructor will also make it his business to test the individual samples of milk, not only for the butter-fat content, but for the detection of undesirable flavors. By taking a small sample from each lot and making a curd test, the instructor is able to detect the lot or lots which are causing trouble in manufacture. He very often finds that trouble arises from milk produced by a patron who has the best of buildings, and is apparently following the most up-to-date methods in cooling and caring for his milk. A rusty can, or one with seams not properly soldered, musty surroundings, proximity to hogpens, etc., may be causes of contamination.

Proper tanks or cans in which to gather cream, the assurance that the cream gatherers understand their business thoroughly and are giving each patron proper credit, are of vital importance to patrons of creameries. Instructors will also be prepared to visit the farm and instruct the producers as to the best methods in setting milk for the separation of cream, the running of separators, proper utensils, washing and care of separators, the proper thickness of the cream, the necessity for keeping all cream sweet until called for by the gatherers, etc.

Do you wish to have the services of an experienced man who is devoting his whole time to the work to give advice and instruction to your maker as well as to yourself throughout the season? If so, see that the proper party makes application for an instructor at once. This is a duty which every producer owes to himself, as well as to our most important agricultural industry. If the place which we now hold in the foreign market is to be retained, greater effort must be put forth by both producers and manufacturers to see that the quality of the product is maintained and improved.

Applications for instruction should be made as follows: For places east of Toronto, G. G. Publow, Kingston; for places west of Toronto, including the Counties of York and Simcoe, G. H. Barr, London, Ont.

Cheddar Cheese Making.

By Prof. A. J. Glover, Illinois.

Milk that has more than .2 of 1 per cent. lactic acid should not be received for cheesemaking.

Unless milk is occasionally stirred while it is being received and ripened, the cream will rise, and by mixing it with the milk again some of the cream will become churned, thereby losing considerable fat in the whey. When the milk is all in the vat steam should be turned on and the milk heated to 86 degrees, and the rennet or acid test made. Milk should be ripened to a point where in two hours from the time the rennet is added the curd will be ready to separate from the whey.

The first day that cheese is made, the maker should make a rennet test and note the condition of the milk. If milk is found to be overripe, the cheesemaker must hurry to keep ahead of fermentation. If milk is too sweet, he will have to wait until the proper amount of acid develops. When good sweet milk is delivered a starter should be used to hasten the ripening. Usually not over two per cent. is needed.

When the milk is properly ripened the rennet extract should be added, about 4 ounces to 1,000 pounds of milk. This is diluted in a pail of water, and is poured evenly into the vat from one end to the other. The water should be at about 86 degrees. The rennet should be thoroughly mixed with the milk, by stirring gently for five minutes after it is added.

The curd is ready to cut when it will break clean before the finger. Curd should be firm enough to cut in 15 to 30 minutes after the rennet is added, into cubes one-half inch square, which is fine enough for slow-curing cheese. The curd must be stirred constantly, or it will soon settle and knit together. It is well to stir five minutes before the steam is turned on; then apply steam, slowly at first, taking about 45 minutes to raise the temperature from 86 to 98 degrees. If milk is heated rapidly it requires vigorous stirring to keep particles from knitting together, and causes considerable loss in the whey. When the milk is over-ripe, the curd must be heated faster and to a higher temperature.

It is difficult to tell when the curd is cooked enough. There should be one-eighth inch of acid in the curd when the whey is drawn. When a handful is pressed together it should not remain in a solid mass, but fall apart readily. An overcooked curd will be tough and corky, while an undercooked one will be soft and mushy

and will not make solid cheese. The whey should show only .2 of 1 per cent. acid.

When the correct amount of acid is developed the whey is drawn and the curd placed on racks in the end of the vat and covered with coarse linen cloth. It should be stirred for a few moments to remove loose whey, and then left to mat evenly, about six inches deep. In about 15 minutes it may be cut into large blocks, which should be turned frequently to prevent the whey from collecting in any part of it.

When the curd is cooled to 85 degrees it can be put in the press. Pressure should be applied slowly at first, but in 15 minutes full pressure can be applied. The cheese will be ready to press in one hour. After dressing the cheese it should be pressed until next morning, when it may be taken out and put in a cooling room.—[American Dairymen.

POULTRY.

Another W.-Wyandotte Champion.

To the Editor "Farmer's Advocate":

I have read with keen interest the discussion in the "Farmer's Advocate" of the question, "Which is the Most Profitable Breed of Poultry for the Farmer?" The White Wyandotte is the favorite here for the following reasons: First, because they are the best layers in the winter. Second, because they are very gentle, good sitters and mothers. Third, they are the best for fattening purposes, as they are a plump fowl, and can be finished better at an early age than the Rocks, which are rougher and larger, and require to be kept longer.

I enclose the record of twelve pure-bred White Wyandotte pullets for one week, ending March 10th, 1904. During the week they laid fifty-nine (59) eggs, which, at 25c. per dozen, gives \$1.28.

During the week they consumed:

23 lbs. wheat screenings, at 80c. per bushel	26c.
28 lbs. boiled potatoes, at 40c. per bushel	16c.
3 lbs. wheat bran	4c.
1 gallon skim milk	2c.
1 peck raw potatoes, turnips, etc.	6c.
	52c.

making a total cost of 52c., leaving a balance of 71c., or nearly 6c. per hen per week.

These pullets were hatched the latter part of April, and began to lay in November.

They are fed as follows: In the morning, mashed potatoes and bran, with milk to drink. At noon, raw potatoes or turnips, and the dinner scraps. In the evening, they get all the grain they need, thrown in litter on the floor. They also get crushed oyster and egg shells, and all the water they will drink, and always have a box of ashes to dust themselves in.

Last season I raised about sixty pure-bred chickens. The cockerels were fattened and marketed at four months of age, and brought in about 75c. each. These hens are not kept in a warm house, and it could only be cleaned out twice during the winter on account of the manure being frozen. But these hens are the very picture of health. From twenty hens in 1904, I sold \$41.50 worth of eggs.

Now, if any person with Leghorns can beat White Wyandottes, either as layers or for market, let us hear from them. NORMAN C. McKAY. Pictou Co., N. S.

The Breeding Yard.

The importance of strength and vigor in fowls composing the breeding yard is quite often overlooked or given less consideration than it should receive. Too much attention cannot be paid to selection for strength and vigor. Without this our best varieties of pure-breds would soon degenerate into mongrels of the poorest kind. The selection and mating of strong, vigorous fowls, with some definite object and some notable improvement in view, is what can only properly be called an up-to-date breeding yard.

Farmers, as a rule, do not pay enough attention in the early spring to the selection and mating of their breeding birds. On the thoroughness with which this is done depends the success or failure of the season's work in the poultry yard. Where haphazard methods are followed the results will first be noticed in the low percentage of fertility in the eggs, and later on in the mortality of the chicks, thus causing a double loss in the very beginning. Were, instead, intelligent and systematic methods followed in selecting and mating a pen of a limited number of fowls of uniform size, shape and color, headed by a strong, vigorous male—a pure-bred bird—the results would far exceed the extra labor and expense involved.

The male bird represents half the flock, and should by all means be pure-bred. The females, for best results, should also be pure-bred, but even with a flock of common or good grade hens much improvement can be accomplished by using a pure-bred male. By selecting twelve or fifteen pullets or yearling hens of the best layers, having uniform size, shape and color, and mating with a vigorous male of your chosen variety, a good utility strain may be built up in a comparatively