

of the cream so that it will be sweet and clean-flavored.

Many of our patrons of cheese factories and creameries seem to think that strong opposition and competition among factory and creamery men is the only way to get a good thing. So far as I can see, the only thing strong competition does is to produce a poorer quality of milk and cream, and make inferior cheese and butter. Take a sample: This year a certain patron had his milk returned because it was sour and tainted. He told the maker if he could not take in his milk when it was sour he could not have it when it was sweet, and took it next morning to an opposition factory, where he was received with open arms. Another case, where one maker returned a can for being gassy, and it was taken to an opposition factory and taken in the same morning.

Will this kind of competition tend to improve the quality of our Canadian cheese or make more profits for the producer? There is no doubt that by taking in two such cans of milk as mentioned above, would cause a loss of ten or fifteen pounds of cheese in the vat it was put into. Let us all along the line have less talk about competition and cutting down prices, and more talk about how to improve the quality of our milk and cream, and butter and cheese.

GEO. H. BARR.

### Where Dairying Flourishes.

When the McKinley tariff shut Canadian barley out of the United States a couple of decades ago, the farmers of Hastings County thought they would have to go out of business. The market which had been taking their chief product for years was suddenly lost. What could be done?

For a number of years the cheese business had been established. It had grown slowly, but while barley held in the vicinity of a dollar a bushel, dairying did not by any means become a specialty. But things have changed. Now Hastings produces more cheese than any other county in Ontario, or, for the matter of that, in Canada.

While this premier position has been held for some little time, the apparent changes of the last two or three years are especially striking. The factories have always been built and owned co-operatively, for the most part, and new and improved buildings are taking the place of old, unsanitary shacks. A still greater change—a change of heart—is to be noticed among the patrons of the factories. Better stock and better feeding characterize the new era. It is not long since the scrub bull—a yearling at that—sired the greater number of the calves. Now, practically every farmer uses a good pure-bred male, for his best females, at least. The Holstein is the most generally popular of the pure breeds, and many of the grade herds have a high percentage of Holstein blood. Much better care than formerly is taken in raising the calves. It is difficult to do it properly where the milk is sent to a cheese factory. The best method seems to be the keeping at home of a certain amount of new milk for the youngsters until they are four or five months old. Many farmers give them the run of a clover meadow during the summer, before it is cut, and after the second growth springs up.

Better feeding is aiding and perpetuating the good work that better breeding has begun. Clover is grown much more largely than it used to be. It is the sheet-anchor of successful dairying, both for hay and pasturage. Peas and oats and corn are the soiling crops most used to supplement the pastures. The dairyman aims to maintain the milk flow at its highest during July and August, so that the cows will be able to produce well under the more favorable conditions of the later months.

Good stables, many of them with cement floors, are, too, the order of the day. A great deal of building and alteration has taken place in the last two years, nearly all of it with a view to improving the accommodation for the cattle and to increasing the returns from them. The hope of the Hastings Co. farmer is in the cow, and she will not—she has not disappointed him. What is true for Hastings, applies equally to the other counties of the Province—we might almost say, in all the Provinces east of the Great Lakes.

C. W. ESMOND.

### Feeding for Next Year's Milk.

It is too often the case where cows are kept simply to supply the family that as soon as they go dry they are put on light fare and left to shift for themselves. Not much is expected of such cows at any time, but it is always false economy not to get out of a cow, or any other animal, all she is capable of. A cow has to be fed a certain amount to maintain her, and it requires just as much time to bring up and milk a poor cow as a good one; therefore a person should endeavor to extract all the profit and pleasure possible out of his milk producer. To do this, the cow must have a chance when she is dry. Feed her enough to fortify her against the time of calving, then she will give a much better account of herself than if she had lived all winter on a mere-sustenance diet. If she is a profitable cow

her owner should know it and give her a chance, but it might be noted that there are many cows which shiver around during the winter, but which, if they were in another man's stable, would soon be discovered to be worth better care and feed. The family cow, whether kept for profit or convenience merely, deserves the best of care. She earns it, and her services are indispensable.

## POULTRY.

### Poultry Pointers.

Don't keep last winter's layers in small yards and close, stuffy houses; get them out in the fields, and let them roost in open coops.

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Be sure that the pullets have plenty of good food during the summer, if you expect them to be developed and lay well next fall when eggs are high.

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Provide a fresh supply of cool water, at least twice each day. Place the water-fountain or trough in a well-shaded place, wash it thoroughly once a day, and scald it with boiling water once or twice a week.

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It is a good plan to separate the cockerels and pullets as early as the sex can be positively distinguished. The pullets will do enough better to pay for the trouble, and the cockerels will consume more food and grow faster as they grow older.

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Now is the time to fatten and market all the old fowls that you do not intend to keep over another winter. They have about finished laying for this season, and will take on flesh and fat faster now than they will later when they are shedding their feathers.

### Neglected Poultry.

The amount of money lost to farmers and other poultry-keepers by keeping mongrel, cross-bred fowls, is almost incredible, and only fully realized when looking into the yards of various farms and dwellings, and seeing the miserable, ill-assorted, undersized fowls kept there. It disgusts one to see them consuming good food which would support a profitable flock of fowls. It is usually people who keep these mongrels who complain either that poultry-keeping does not pay, or, if they admit that fowls do pay for their keeping, that it is only to such a small amount as to be barely worth considering.

Fortunately, one is usually rewarded in a day's wanderings by meeting a few good housewives who keep good poultry, and find it a source of both pleasure and profit. Hard-working, thrifty wives of agriculturists and small holders, who are fully alive to the advantages of keeping level with the times in most matters, are sometimes painfully slow to take any measures to improve either the laying or table quality of their poultry. This is true, even when it is clearly pointed out to them that their neglect is losing them money month after month, year in and year out, and this is simply because they begrudge a small initiatory outlay in money and trouble which would be repaid the first season. It does not suggest itself to them that it is to their advantage to improve their stock and get a large return in eggs, and in the extra price obtained for their young birds killed for table.

One is often met with the argument, the farmer's wife can only get the same price for a large pair of fowls as for a small pair, so that there is no advantage in keeping good table poultry; yet the same raisers admit that the price of geese and turkeys varies with size and quality—the two arguments are illogical.

One great blunder often made is the selling of early pullets for the table, under the impression that the later broods will do just as well to keep for layers. This is a sad mistake, as it is the early pullets that begin to lay just when eggs are at the top price of the year, and when the old hens are taking a rest.

Old hens are too often allowed to run on year after year. The owners seem quite oblivious to the fact that these have not only failed to be self-supporting, but have become a positive source of loss to their owners. The best remedy for this evil is to sell them to the first buyer that comes along.

Many breeders make a point of breeding year after year from hens which make individually a liberal egg record, and the result of buying from such yards is pretty sure to be satisfactory. When we take into consideration all the trouble taken in keeping a record, by using trap-nests, of every egg laid by each individual hen—in fact practically opening a ledger account for every hen—it will at once be apparent what an advantage it is to secure eggs from such a yard, and that, too, early in the season, so that the pullets will begin to lay at a time fresh eggs are scarce and dear.—[W. R. Gilbert, in The Farmer.

### Reminders for Poultry-keepers.

Supply clean water. It is essential to health and to the hen for the production of the egg, the contents of which are nearly three parts water.

A large percentage of poultry, especially young chickens, die through drinking from puddles and dirty water in their drinking troughs.

As chickens grow, diminish the number of meals, as well as variety of food.

Separate the sexes as early as possible; the pullets will then obtain a better chance of getting their share of food.

Weed out the inferior birds, whether as to size, form or quality, at the earliest moment, and feed the two lots separately; unless the birds are on grass, supply them with green food daily, therefore cut grass is excellent. A mangel may be cut in halves and supplied for the birds to peck at.

The business man will keep his customers supplied all the year round, and by so doing he will obtain better prices in summer than outsiders who have nothing to sell in the dear season.

Learn the fattening system, if a practical knowledge has not already been acquired. Chickens finished in this way largely increase in weight and quality, being much richer on the table.

Milk should find its way into the chicken rations much more generally, and if a cow is kept for the purpose of supplying it, it would be found one of the cheapest of foods.

Young chickens still with the hens thrive better on a variety of foods. The object is to induce them to eat largely by giving small quantities during many meals.

The way to succeed in production is to use a trap nest, record the eggs laid by each hen in a particular pen, and to breed from these hens only which lay the largest number of eggs, adopting this plan each year.

Select the breeding cockerel from the eggs laid by the best-laying hen. Mate him with the best-laying hens or pullets, and again select both sexes for stock in the same way.—[Farmers' Gazette.

## GARDEN & ORCHARD.

### The Tussock Moth in Nova Scotia.

Just now a small section of King's County, Nova Scotia, is being treated to a new visitation, in the shape of a scourge of the tussock moth, which bids fair to entirely ruin the fruit of several orchards. The orchards most seriously affected are on Long Island, just north of Grand Pre station, where in several orchards there are already hardly any sound apples to be found.

The insects have been seen for several years past in small numbers, but have never been known to do any particular damage, and have received little attention, even as a possible future enemy. But last winter, and, more particularly in the early spring, when orchard owners began pruning, the writer received a great many of the egg clusters (which are quite noticeable when the leaves are off the trees), with requests for information as to the insect which laid them. Evidently last season was a good one for them, and they multiplied freely.

Some orchardists, where they were most plentiful, gathered the egg clusters during the winter and spring (at least two collecting over a peck of them from rather small orchards), and, as a result, their orchards are comparatively free from attack, while their neighbors who did not adopt this method are in some cases paying very heavily for their neglect. The worms hatch here about July 1st, though their time of coming out varies considerably, as they can now be found all the way from those just hatched, and less than a quarter of an inch long, to those nearly full-grown and over an inch in length. They feed on both foliage and fruit, but seem to prefer the young leaves at the tips of growing shoots, and the young apples. Of course, the most serious damage is on the fruit, and they will sometimes go over the entire surface, taking the skin and a little of the tissues beneath. In other cases they will gnaw holes here and there over the surface. In one or two orchards which the writer visited recently, there was scarcely a sound apple to be found, and while, no doubt, many of them will recover so as to be marketable, the great majority will never be fit for anything, even if they do not drop from the trees as a result of their injuries. They seem to attack all varieties indiscriminately for the most part. Spies being the only sort we found in a badly-infested orchard, which did not seem to be hurt much. The orchard included an early sweet variety, Golden Sweet, King of Tompkins, Baldwin, Blenheim and Ben Davis, and even the last-named was damaged considerably, though they seemed to prefer the more forward fruit, the tissues of which would, no doubt, be softer.

The insect is very easily recognized in the larval stage, even by those entirely unacquainted with it, by the two long black tufts of hair at the head and the one long tuft at the tail-end of the caterpillar. There are also four upright, whitish tufts along the back, like sections from a scrubbing brush, which are very characteristic. For the rest, the most common form is largely black and yellow, with a dull red head and two