

Heifer Calves for the Dairy.

Most of the breeders of both the dairy and beef breeds will agree that the usefulness of an animal for either beef or dairy may be largely influenced by the feed and care it receives in early life. With dairy cows it is found that those with large stomachs and strong digestive apparatus are the most profitable in converting food into milk and butter. Never object to a big eater as long as she gives the returns in the pail. The aim in rearing dairy calves, especially with heifers, is to keep them in a growing, thrifty condition all the time and encourage a large stomach by feeding largely on bulky food, such as clover hay, bran, etc., and especially guard against their digestive organs getting deranged. It is quite a simple matter to raise a big, sleek-looking calf if you have no regard to cost, but to raise a good one cheaply is where the rub comes. When butter is worth from 25 to 30 cents per pound we cannot afford to feed it to calves very long. However, a good many practice false economy in taking the new milk away too early. Whole milk is the most perfect food we have for the young, and we can hardly afford, especially with pure-bred stock, to take many chances of deranging digestion by making a too early change from that food. At birth we usually leave the calf with the cow two or three days. This is largely a matter of convenience with us. We have equally good success by removing them from the cow at once, and they learn to drink readily even if they run with the mother a few days. We feed them warm whole milk from their dam until they are three weeks or a month old, commencing with six or seven pounds per feed twice a day, and gradually increasing until they are taking about ten pounds to a feed. By this time the calves are past the most critical period, have started to eat hay, bran and oats, and are chewing the cud. Now, gradually drop the whole milk from their ration, giving about four pounds of new milk, with from eight to twelve pounds of fresh separated milk twice daily. With heifers we generally drop the new milk out entirely when they are six weeks old, but with bulls, continue it a couple of weeks longer. A good deal depends on the condition and appetite of the calf. Many good feeders never feed anything mixed in with the milk, and have best success with feeding the grain ration, which is largely of bran and oats, dry immediately after they are through drinking. Mixing meal with their milk is one great cause of scours, as in gulping it down with the milk it is washed into the small intestines without being properly digested; and scours is simply indigestion, caused almost always by improper feeding. Pick out the lightest and sweetest hay for the calf barn, and give them all they will eat of it; and always provide them with clean, dry, well-bedded box stalls. A calf will never thrive well in dirty, wet quarters, and if we can find time to groom them several times a week, it is time well spent. It is a great promoter of growth and thrift. It is well to turn them out for an hour every fine day in winter for exercise. Calves that are born in late summer and fall we let go on pasture the following spring, with light grain rations continued. Calves that come in spring should not get to pasture until they are a year old. Nothing will stunt young calves quicker than hot sun and flies.

A Trip Through the Famous Elgin Dairying District.

BY LAURA ROSE, O. A. C.

I thought I would like to visit the locality which has made such a name for itself in the dairying line, so one morning I took an early train out of Chicago, and, after travelling about forty miles, reached the City of Elgin, Illinois.

I went first to the only creamery in the city, where Mr. Davies, the proprietor, showed me every kindness. The building was very complete and up-to-date in its arrangements. Special mention might be made of the expeditious method of heating or cooling the cream by means of piping running through the cream vats and connected with the engine and refrigerator, so that through the same piping hot or cold air could be turned on at will. The make was not so extensive; still, the butter handled there was considerable, as much was brought in from outlying creameries. The cream was being pasteurized and churned, with only very little acid developed. The flavor of the butter was excellent. I was particularly interested in watching the men pack the butter into small tin cans for the Alaska trade. The butter for this purpose has to be of the finest quality, and the tins must be made air-tight. Mr. Davies said there was a strong demand for fancy butter, and he was shipping large quantities to New York and elsewhere. The package for this butter was very neat, being made of thin pasteboard folded in sizes to hold one or more brick-shaped pound prints.

Through the courtesy of the editor of the *Elgin Dairy Report*, I had a long, delightful drive into the country, and was surprised to find what an exclusively dairying district it was. Large herds of grazing cattle were to be seen on every farm. No particular breed predominated. The herds were a mixture of all the leading dairy strains. I asked why this was, and was told they gave a better average quality of milk.

The farmers grow only such crops as they feed

to their stock—hay, oats and corn. And such corn! Well, I'll not say how tall it was, nor mention the size of the big ears on it, lopping over with their own weight like a donkey's. The words of the poem came again and again to me as I drove along the roadway:

"Always and always, night and morn,
"Hay and oats," with fields of corn
Lying between them, not quite sere,
But just in the full thick leafy bloom,
When the wind can hardly find breathing-room
Under their tassels,—cattle near,
Biting shorter the short green grass,
And a hedge of sumach and sassafras,
With bluebirds twittering all around."

Anyone who has doubts as to whether a well-managed dairy farm pays or not should take just such a drive as I took that afternoon. The homes were commodious and comfortable-looking, and the barns well built. I went through a number of barns and was impressed with their convenience, but more especially with their cleanliness. Radiant with whitewash, and the floors thoroughly cleaned out and sprinkled with sawdust or lime ready for the evening milking, they looked as if indeed care was taken to keep the milk clean and pure. Later on in the day, when I called at the office of Borden's Condensed Milk Co. and learned from the manager the conditions on which the company received milk, I understood better why the stables were so clean, etc. They just had to be, for if the inspector found things not up to the mark the milk from that quarter was refused. This is a dreadful disgrace and means serious loss to the farmer. The factory is largely patronized, as a good price is realized all the year around for the milk—from \$1.00 to \$1.25 per 100 lbs., according to the season. I told the manager I noticed a complete absence of silos on the farms. "Yes," he replied, "we do not allow the feeding of silage or anything of a fermentative nature or that which will impart the slightest disagreeable flavor to the milk. This precaution is necessary to give the condensed milk keeping qualities."

I thought to myself how some of our cheese and butter makers would rejoice could such stringent rules be enforced among their patrons, and how much better it would be for the dairy industry and the farmers themselves.

If our large Canadian export cheese trade is to be sustained and the foreign market for butter further extended, it will only be secured by perfect cleanliness, judicious feeding and intelligent manufacturing.

The London Dairy Show.

In the milking test at the London (England) Dairy Show last month an unregistered Shorthorn cow, 33 days in milk, gave 73 lbs. milk in the one-day test, and made 2 lbs. 10½ ozs. butter, ratio 1 lb. milk to 1 lb. butter, 42.56, the highest record in the show by a cow of any breed. The first-prize registered Shorthorn cow, E. Dawe's Cherry, 104 days in milk, gave 55 lbs. 2 ozs. milk, and 2 lbs. 5¼ ozs. butter, ratio 33.83. The highest yield of butter by a Jersey cow was 2 lbs. 2¼ ozs. from 29 lbs. milk, 157 days in milk, ratio 13.83. The first-prize Guernsey cow gave 31 lbs. milk, 147 days in milk, 1 lb. 8¾ ozs. butter, ratio 20.04.

POULTRY.

Put Hens that Will Lay in Winter into Your Flocks, and You Will Make Money.

BY J. E. MEYER, WATERLOO CO., ONT.

It is now the season for us to look carefully over our flock of poultry to see that only such birds as will prove profitable are retained through the winter. If you have any hens in your flock that were over a year old last spring, it will be best for you to get rid of them, unless you find some of them well on in moult and in good condition, when you are likely to find such pay for keeping.

The best rule to follow is never to keep hens more than the second winter. Of course, to know the exact ages of your hens, you should have started to mark your chicks a couple of years ago. Do not fail to secure a chick punch and commence next spring; and in the meantime, you will do very well if you rid your flock of all hens that moult late—that is, all those that are not well moulted by Nov. 1st to 15th.

While moulting, your hens should be liberally fed on a variety of grain, of which wheat is best, with a soft feed once each day of ground oats, barley, corn, middlings, and bran, mixed, say two varieties at a time, as oats and middlings, corn and bran, or barley and middlings, or bran together with a little ground oil cake or sunflower seed.

Keep their roosting places free from drafts, and perfectly clean. Keep down vermin by applying coal oil to the perches once a week and keeping the droppings removed. During the day, give your hens the run of the barnyard and fields, where they will find much food, until snow comes.

Besides getting your flock of hens in shape for winter laying, you will have to look after your

pullets. Now, half-grown late pullets are not going to pay for their keep over winter, as they are certain not to lay before spring, when eggs are cheap. The food they will consume during winter in order to reach maturity will cost very much more than to bring them to maturity during summer and fall, so that it will not pay to keep any but the early-hatched, well-matured pullets, that will be ready to lay by December.

All the cockerels should be separated from the pullets by this time, and they should, like the hens, be carefully fed, kept clean, and given comfortable roosting places. One of the greatest losses amongst chickens is caused by allowing them to roost in poorly-made, draughty coops, where they catch cold, lose their flesh, and do not thrive. This can best be avoided by giving them comfortable roosting places and plenty of good food.

What we wish to impress upon our readers is that it is folly to expect to make money out of one hundred hens and pullets fed during the winter when twenty-five of the hens are too old to lay and twenty-five of the pullets are late-hatched, hungry, miserable things that eat their heads off several times before ever thinking of laying. Get rid of the twenty-five old hens and the twenty-five late pullets. Their room will do the fifty good birds left many times more good than their company. You will save in feed bill, and the fifty good birds left will lay when eggs are scarce and dear, and make you a handsome profit.

Vigilance the Price of Eggs.

BROWN LEGHORNS THE FAVORITES.

I have been keeping a few fowls for a number of years. I find that one must be with them much of the time to make them do their best. Watch and work are the two great essentials of success. Watch them, and if one seems sick or does not lay, try and find out the cause. My chickens are all tame, so I can catch them any time. If one gets sick, I pick it up and examine it thoroughly to see if it is hurt in any way externally. If not, I keep it separate from the rest of the flock for a few days and doctor it. If it is in the winter, it may be chilled, and if so, a good feed for it is some warm bread and milk, with a little cayenne pepper. I have various remedies for different diseases. Then you will have to work, work, work, to keep their house clean. I think that it is a woman's place to look after the poultry on a farm, but if she is not fond of fowls she may as well leave it to the men, because the chickens know just the minute you step your foot in their house whether you are a friend or an enemy. One reason I say that it is a woman's work, is that she is gentler to move around than the average man, and if she loves them she will notice their every want much quicker than a man. My husband says my flock of fowls all look alike to him. Now, no two are the same to me. If I had them all named, I could tell each one by the difference in their combs or some certain peculiar action of each one. If I just step to their door and speak they all run to me; but you let a stranger go there, and they will run away every time.

I was speaking of keeping their house clean. It should be cleaned every day, but twice a week will do at this time of the year. Give them fresh litter and throw the grain on it for them to scratch for. It gives them exercise and helps to make eggs when fowls are confined. If you love your fowls, you will be thinking of some surprise for them in the way of feed. Hang up a cabbage about two feet from the floor, in the center of the room, and they will jump and grab for a mouthful, as they are fond of it. Also have a sheaf of oats, wheat or barley, suspended on a pole, about the same distance from the floor: they will pick out every kernel. Cook vegetables of all kinds for them twice a week. They are fond of onions and the odor that penetrates through the skin is said to drive lice away. Give them meat three times a week if you can get it for them.

I have a dust box by the window so the sun shines in it. How they enjoy a good dust bath in the winter. I have another box with gravel, lime and charcoal in it. It is surprising how soon it gets empty. After I have cleaned their house out, and refilled the nests, given them fresh straw, and they come in and see it, they mutter away their thanks, and pay me in a full egg basket at the end of the week.

I have 26 thoroughbred Brown Leghorns. I started with only eight, but increased the flock, as I could look after more and have plenty of room. For weeks at a time they would every one lay every day. They have never wanted to sit once. The flock has laid winter and summer all the time, only at the moulting period. Then I would rather they did not, as a hen cannot manufacture eggs and feathers at the same time; if they do, they are too weak to go on laying all winter. Feed them well while they are losing their feathers. Do not think because they do not lay, you will not bother to feed them. That is a mistake. I would not keep any other breed of poultry. The Brown Leghorns are the fowls for eggs. How much nicer it looks to see a flock all one color than to see every kind all mixed up.

Norfolk Co., Ont.

FARMER'S WIFE.