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S. A. BEDFORD.

DAIRY

No questions come to us more frequently than questions along the line of milk and cream testing. We presume that the reason for this is that people do not understand this part of dairying. They think there is some mystery about it which they cannot understand, and that it is impossible for the layman to grasp the theory and practice of milk and cream testing. If cows always gave milk of the same composition; if cream separators or gravity methods of creaming always produced cream of the same richness or containing the same percentage of fat; and if all persons handling milk and cream were strictly honest there would be no need for any of us to worry our brains over testing problems.

Feed For Dairy Cows

EDITOR FARMER'S ADVOCATE:

I am thinking of going into dairying next fall. What kind of feed would spring rye make, cut for hay? I also intend growing flax, barley, oats and rye to chop and using straw and rye hay for rough feed. I want to grow all the feed required. As much information as can be given on these points will be appreciated.

Sask.

COWMAN.

Spring rye cut just as the heads are forming makes fair hay, but is more readily eaten if fed green. If allowed to become at all mature, it is very woody and cattle reject it. Spring rye makes very fair pasture while it lasts, but the crop is not generally heavy. Could you not grow fodder corn? It is by far the best and most productive crop for feeding cattle, and is excellent for milk production.

Have you ever considered the advantages of soiling your cows? I followed that plan for years. My system was about as follows: For spring feeding, I first cut fall rye, which was fed three times a day as long as it lasted. This was followed by green oats, then clover, vetches, second crop of clover, corn cut every day as required until it reached the roasting stage, when I cut and stooked it all and fed dry corn stalks until rye came around again. My summer cow stable was an open shed with manger running along the side facing the fields and it was very little labor pitching off the loads of green feed directly into this manger. I found that the cows gave large returns of milk when this plan was followed and only a limited area of land was required.

In this country I have found brome gives the earliest and best pasture, and if kept thinned out by an occasional plowing with a breaking plow, it will remain productive for a number of years. Timothy comes next and Western rye grass last.

Many speak highly of a mixture of oats and dwarf Essex rape, or rape alone, but I have found this to taint the milk somewhat, and have always avoided it for milking cows. Another plan followed by some of our most progressive farmers is to sow about a bushel or less of wheat on the partly prepared summer fallow and feed it off before winter. If the land is not too heavy, this plan packs the soil about right, but the surface should be broken up with a cultivator in spring before seeding, otherwise the surface will bake and greatly reduce the amount of water in the soil, this plan is not advisable for very stiff clay land.

M. A. C.

S. A. BEDFORD.

Winter Dairying on a Pioneer Farm

EDITOR FARMER'S ADVOCATE:

Last fall, I noticed an inquiry in your columns asking what was the best course to pursue in a district that was liable to be frequently hailed or frozen out. A few weeks ago, I noticed that you were asking for suggestions for the benefit of homesteaders. I have had experience in a district where hail and frost were liable to occur, homesteaded in such a district, and my experience may be of some use to others in a similar position.

The writer started on a homestead some years ago with little capital and very poor health. He has been twice hailed and once frozen out. We have always met our household expenses, and such like with the revenue derived from our cows. Consequently we aim to have returns the year round, in fact, find the returns during the winter months the most satisfactory. Some months our sales of butter are not very large, but they always balance the outlay for groceries. There are those who are waiting till they get suitable buildings before they try winter dairying, but the longer they wait the longer they will have to. Personally, I do not believe in too warm a stable, just so long as the droppings do not freeze, (unless during an occasional cold night) a cow is quite comfortable and feels smart. In a close, badly ventilated stable she is liable to go off her feed, at any rate, her appetite will be dull. You will find that the appetite of the cow in the well ventilated, moderately warm stable will be first class from fall till spring. And not only her appetite, but as the little boy said about his father, her "drinkatite" will be all right, too. By babying a cow, one may get a little more milk, but it costs too much in the long run.

My stable is only a primitive affair and my system of ventilation is equally so, but it answers the purpose. I just leave some of the filling out from between the

joists, where there will not be any direct draft on any animal. It is an easy matter to shove a little hay or straw into the opening when a cold snap comes. I would emphasize these points, for when one reads of the ravages of bovine tuberculosis in other places, it is well to be on guard and see that it does not gain headway in our herds.

The prevailing custom of tying a long row of cows in side by side, packed like sardines in a box, their heads held securely by rigid stanchions, has little to recommend it. For one thing the animals are too cramped. Just watch a herd of cows lying outside some nice day and note how many have their heads around on their sides. They seem to enjoy it and when a cow is contented she is either making milk or putting on beef. I tie mine in double stalls eight feet wide and consider that none too much room for two big cows, especially if they are heavy in calf. If I were doing it over again, I would make single stalls as they are much cleaner.

The problem of a balanced ration has to be practically solved by the individual dairyman himself. Much depends on the kind and quantity of seed available, but by juggling around a little and carefully noting results, one can generally make a good milking ration from the feeds found on the ordinary farm. I have found it best not to feed green feed too exclusively, have obtained better results by feeding hay once a day. The system we follow is somewhat like this: As soon as the fall nights get quite cool, we commence stabling those cows that we expect should milk all, or at least part, of the winter and feed a little green feed morning and night to each. They run out all day as we still have a good range around us, but the feed in the stable is increased as the grass dries off. During severe spells we keep them stabled all day, for fear of getting their udders or teats frozen. Once the winter has fairly set in, we do not allow them to range any more if we can avoid it, although sometimes they will strike off with the young cattle. First thing in the morning, we feed, clean back the manure, and bed them afresh. After breakfast, we milk. That is between seven and eight. Later on, they are turned out for water. If the day is fine and warm they remain out to feed around the straw rack in the yard, but if not, they are put back in the stable and fed. In that case, they are turned out for water again towards evening, and their night's feed put in their mangers while they are out. Milking time is immediately after tea, between six and seven. Some may object to those hours for milking as it means milking by lantern light for the first part of the winter. But if you tried milking by daylight during the shortest of the winter days it would mean the morning milking about nine o'clock and the evening about four, and that division of time would be unequal. I always try to feed a little chop, even when feeding green feed, and if it does not constitute part of the ration, I give a liberal allowance of chop twice a day. A mixture of one-third barley and two-thirds oats has given me good results. Another important item, and one that is frequently neglected, is plenty of salt. We salt every morning and find it pays, the flow of milk is heavier and the butter churns more readily and is of a better quality.

Looking at it from one point of view, the profit in winter dairying is much greater with fresh cows. But it is not always possible to have them fresh at the start, so one has to do the best with what he has, and try to arrange matters better for the next winter. Shippers and cows that will not be fresh till late in the following summer should be made to milk all winter if possible. They have to be fed a certain amount, anyway, and very little more added to that will make them pay their keep and likely a little more. Do not be afraid to start right in with the cows you have, whether they be good, bad or indifferent. Very few homesteaders can afford to purchase high-priced, special purpose cows, and few of us have time for the first few years to care for these hot-house plants. The winter is generally a busy time with us getting out building materials, firewood and such like. A man who will not make the best of a third rate cow would never make a success with a high class one. If he looks after the third class cow, you may depend upon it he will have the first class one by and by.

There are many things to discourage the beginner, especially the inexperienced one, they usually think they do not make enough, and consequently give up. Another common cause of discouragement is the man who is always boasting of the fabulous sums he realizes from his cows. It is only natural that such talk disheartens the new man, and he usually falls to running down his own cows and wishing he had those of the other man. It is always well to remember that although Ananias has been dead over nineteen hundred years, he still has a strong following. My advice is to buy a small pair of spring balances, get a pencil and note book and start out to do a little practical experimental work on your own account. Weight each cow's milk, weigh your cream before churning, weigh your butter. Note any difference in yield if the ration is changed, figure out just what it is costing you to produce the butter. Study how to increase the yield and lessen the cost of production. Make a good quality of butter and put it up in neat and attractive form. Try to sell to good advantage. If the local dealer will not pay enough, hunt around for a market elsewhere. Get interested yourself, get your wife and children interested and you will find dairying pleasant as well as profitable.

Alta.

LOCHINIVAR.

POULTRY

How to Get Winter Eggs

EDITOR FARMER'S ADVOCATE:

Having been asked by the editor of the FARMER'S ADVOCATE to tell our many readers how to get eggs in the winter, I may say the first thing to be thought of is a good laying strain of fowls.

It has taken me many years of hard work and careful selecting to build up my good laying strain, and now that I have got one it is little or no trouble to make the hens lay winter or summer.

Any old hen will lay a few eggs in the summer, and many people think that because they do so they should also lay in winter. But, to get eggs in winter in our cold climate is a very different proposition.

If our readers have hens that stop laying every fall after they have given them good care, it must be because they have a poor laying strain. In that case the best thing for them to do is to send to a breeder of pure-bred poultry and see that they get birds from a heavy laying strain.

\$10.00 should buy a good pen of say, four hens or pullets and a good male to mate with them.

Let them keep their other hens and make as much money as they can out of them as summer layers till they get a good start of winter layers from their new pen. The best plan, when spring comes, is to provide a small portable house for the pen you have bought, and keep them right away from your other poultry, unless you have suitable fencing. Keep them somewhere near the house so that it will not be much trouble to look after them during the hatching season.

The first year you should be able to raise enough chickens from that pen to give you a good start the following spring.

All the eggs from this pen should be marked when gathered, and set them under a hen as soon as you get a setting of thirteen, but not before, as I never find hens sit well on any less or any more.

When the chickens are a day or two old you can toe mark them, and in that way you will know all the chickens from your new pen in the fall.

The next spring, after the pullets have been laying all winter you will have no trouble in knowing your best layers. The best of the pullets should be put in a pen and mated up with a good cock or cockerel from a heavy laying strain. Send to the same breeder for your male bird to mate with them for you, and in a few years' time you will find that you are getting a nice income from winter eggs.

I find that the pure-bred Barred Rocks are the best breed to keep in this country, and I am working for a heavier laying strain every year, as I know that is what the farmers want, when we have such a good market for fresh eggs in winter.

So many poultry men tell me that I cannot produce standard plumage and good laying qualities in the same strain of fowls, but when I find I can raise only correctly marked feathers, I will give up poultry raising, as I feel sure that feathers, without utility qualities to back them up, are not much use to farmers or farmers' wives. After you have got your good layers the next thing to be thought of is, how are you going to care for them?

A laying hen must have a comfortable house and a good appetite all the time to do her best. I feed my hens three times a day, and give them all the skimmed milk and fresh water they want. They should have to work for their grain, and the simplest way to compel them to do this is to feed the grain in the sheaf.

They should have roots at noon—mangels, turnips or carrots, also any kind of meat you can manage to get for them.

They must also have their food fed to them regularly. Hens have a better idea of time than you, and if they are not fed when the regular time comes round, they become fretful and uneasy, and the result is loss.

The henhouse should be dry and not too warm; just warm enough so that their combs will not freeze in severe weather. Plenty of light is necessary so that they can see their grain as they scratch for it. Fresh air is a very difficult problem in this climate, but no one need be afraid of using plenty of cotton screens on the south side of the buildings. The cotton allows fresh air to enter, and I am sure keeps out just as much cold