

Dairy.

Cows Coming in on Grass.

BY PROF. L. B. ARNOLD.

The best time for cows to come in is in the month of April. It is very desirable at any rate that they should come in long enough before grass comes to have all swelling and inflammation get out of their bags before being crowded with a large flow of milk from new grass, otherwise the fleshy condition is liable to continue to the injury of the flow all summer. But it often happens that this matter cannot be controlled just as desired, and some of the herd, especially where there are large ones, will be coming in when the pastures are at their best, and injury and often loss occurs from swelled udders, or milk fever, or garget, or obstructed teats. Cases of milk fever especially which have terminated fatally are so often reported coupled with an inquiry of the cause and remedy, that a word of warning in season seems appropriate at this time. To guard against milk fever and against injury to the udder as well, cows coming in after grass becomes flush which are in high flesh, or even in fair condition, had better be kept in the barn or away from grass entirely for two or three weeks before coming in and for at least ten days afterward, or until the swelling and hardness is out of their bags and the milk is flowing plentifully and without obstruction. Then a gradual introduction to grass may be safely ventured.

Cows which are pretty thin are quite as likely to do as well if allowed to make grass a part of their rations as to be entirely excluded from it, and they also may be allowed a small amount of some unstimulating food like bran or shorts, but heating food like corn meal, linseed meal, or cotton seed meal, should not, in warm weather, be given to any cow previous to parturition, and even in cold weather such heating food at such a time should be used very sparingly if at all.

While shut away from grass it is very important that cows should have all the good water they can drink, and that they have it when they want it. Thirst produces inflammation, and this is just what is all-essential at this particular time to guard against. Water is one of the best of febrifuges, and should never be withheld when wanted.

Another safeguard against the occurrence of milk fever is the use of saltpetre. It should be given to cows at all times, but more especially previous to parturition. It is just as useful for them as common salt. It is also one of the best safeguards I have ever used or known against retention of the after-birth, abortion, and garget. It should be used at all times whenever there is any indication to or danger of a swelled udder, by pulverizing finely and mixing with common salt at the rate of one ounce to the pound of salt and feeding the two together freely.

The immediate cause of milk fever is a cessation of the flow and secretion of milk by reason of excessive inflammation, swelling and hardening of the milk glands at a season when there is an extraordinary rush of blood to them which ought to pass through the udder but is obstructed by the swelling. A check in the flow of milk and blood both at the same time makes such an intense pressure upon the nerves of the udder as to produce the most excruciating pain. The whole system suffers from the shock—the weakest part, which from the state of excitement is usually the brain, but often the stomach, or some other organ, sympathizes most. Extreme nervous prostration and death soon follow, unless relieved. A crisis in this pressure upon the nerves of the udder is usually brought on by chilling the surface and

driving the blood inward, as by exposure to chilly night air or cold air or cold rain. Sometimes it is brought on by the debilitating effects of excessive heat, or by overloading the stomach when it is too weak to digest the load, or by drinking too much cold water when the stomach is too feeble to recover from the chill, all of which causes should be most carefully guarded against when it is known that milk fever is liable to occur, and it is always liable to occur when the bag gets very badly swollen, hot and hard. It does not occur when the bag is soft. It is therefore important to keep it flexible, and it is to this end our advice is chiefly aimed. If there is danger of swelling and inflammation from milk before parturition occurs, the bag should be milked out often enough to keep the inflammation down. Some people have a prejudice against milking before cows come in, but there is no more harm in milking them before than afterward. It is often necessary to do so to guard against garget as well as milk fever at this time of the year. After milking has once begun there should be no abatement. It should be continuous and regular, or trouble will be very sure to follow.

Delivery is usually soon followed by thirst, and in hot weather it is apt to be pretty severe. Discretion should be used in slaking it. If the animal is strong, water of the temperature of the air will not hurt her; but if she is at all weak, as she is very liable to be in hot weather, cold water will not be safe for her to take. I have found it a safe and excellent practice to take two quarts of bran or shorts in a pail, and turn on boiling water enough to cover it, and after standing ten or fifteen minutes, to fill the pail with cold water, and give this for the first drink. If well stirred up it will be so thin as to be readily drunk, and the flavoring of the bran makes the water, though warm, agreeable. If the patient is much weakened, it is an excellent plan to mix with the bran a tablespoonful of ginger, or an equal strength of some other stimulant. Moderate feeding should be followed for several days, or until the patient begins to gain strength and the milk to flow freely.

Following the course here marked out, I have never had a case of milk fever in my own dairy, though I have kept one a great many years, and had cows coming in at all seasons; but I have often had occasion to prescribe for others who have neglected the precautions.

A practical dairyman gives the following as his method of making a good dairy herd:—"Nine years ago I began weeding my herd of cattle, testing them, and dispensing with all that were not better than an average. I bought some cows, raised some heifers from my best stock, and when in milk one fell below my standard of a good cow. I sold her as soon as possible. Those of my own raising have nearly all proved superior to those purchased. I find that no cow will do as well when changing homes and masters as she will in her original home. When I had fourteen as good natives as I could well collect, I purchased a well-bred registered Jersey bull and raised my heifers, and from that source my present herd."

In all the late competitive exhibitions, where competition was unrestricted and merit alone controlled, butter made from cream which had been skimmed off the milk has carried off the prizes as against that made from whole milk.

The Board of Directors of the Eastern Dairy-men's Association met at Belleville, Friday, May 13, and after a long discussion, it was resolved to hold the next butter and cheese exhibition in connection with the exhibition of the Toronto Industrial Association in September next. The sum of \$400 was appropriated to secure a competent butter and cheese inspector.

Coloring Cheese.

The fact is familiar to all butter makers that should the cream become too warm in the churn the butter is sure to be very light-colored. The same principle holds good in cheese making, and as it is absolutely necessary to heat the curds to make cheese this heating takes the color out. Certain markets, and notably the English, require a cheddar color to our factory cheese, and in order to meet this, coloring matter of some kind must be used. Annatto in some form is generally considered the cheapest and best. The most economical manner of preparing it is with potash. At a late meeting of the Eigin Board of Trade a celebrated doctor discussed this question, and to show the ill effects of potash on the stomach, he exhibited a specimen partly destroyed by this powerful alkali. From that he argued that the potash in coloring matter is injurious to the human stomach, and must cut some figure in causing cheese to be short-lived. To what extent these conclusions may safely be adopted we will leave to the intelligent reader, but there certainly seems to be a measure of truth in them, at least to the degree that cheese makers should take some warning and be not too rash in high coloring with an article of which potash forms a principle ingredient.

It is our opinion that the market would eventually be improved if a general system of shading down the color was adopted to bring our factory make to more nearly resemble the famous Stilton. Purchasers taste considerably with their eyes, it is true, but still the table test proves the sure one in the long run, and no one can hold a good market any length of time without meeting this requirement. Our cheese have won their present high standing in the English market on their solid merits, and not by such a simple fancy point as that of color. We would not advise a too rapid change, but simply a toning down of color, which we believe would improve the quality and be a step in advance of the position now held by our highly colored cheese.—American Dairyman.

The Hog Nuisance at Cheese Factories.

At the recent Convention of Canadian Dairy-men at Stratford, Ont., the question of feeding hogs at cheese factories was pretty thoroughly discussed.

From the first establishment of the factory system, up to the present time, various methods have been proposed to do away with the hog nuisance at factories. At first, and even at the present time, many of the factories have hog-pens located near, where the whey is conducted, and f-d out to a considerable number of hogs belonging either to patrons or the factory managers. The stench from the whey and the pens pollutes the air for a long distance, not only to the damage of milk and products of the factory, but to the discomfort of persons living in the vicinity, as well as to the travelling public which are obliged to pass these establishments.

It has been claimed, and there can be no doubt of the fact, that the health of those living in the vicinity of these pest places is often seriously impaired. In some instances the hog-pens are located at quite a distance from the factory, the air is filled with foul odors, and is liable to be more or less absorbed by the milk, while it causes discomfort to those occupying the premises. In other cases the whey, after being run in a tank, is divided among patrons, who carry it back to the farm in the cans employed for hauling the milk. The plan does not wholly get rid of the stench arising from decomposing whey, while trouble is often experienced from a neglect of thoroughly cleaning the cans before using them again for milk. Much bad milk, it is claimed, comes from this source, and factory managers have much trouble in getting good milk, and in regulating the proportion of whey to the different patrons. At some factories so fierce is the struggle for whey that factory managers have resorted to the scheme of pumping water into the tank—diluting the whey freely in order that patrons may be freely supplied with material to fill their cans when returning home.

The method adopted by Mr. Losee, of Canada, avoids all these inconveniences. He makes cheese at a rate that entitles him to the ownership of the whey, and he runs it into tanks upon carts, and then hauls it away from the premises. His factory takes the milk from about 500 cows, and his plan is to take a 10-acre lot some little distance