

every wagon wheel pressed, in the second crop and the third crop. You will see a little track right through the fields where they went. Therefore, horses and cattle are very bad on it.

FEED AND CARE OF THE DAIRY COW.

J. R. Danks, Madison.

Nearly all progressive dairymen realize that the feed and care of the dairy cow is very closely associated with the amount of butter produced, and as the profit or loss on each cow is largely determined by the butter production, it will readily be seen that the subject is an important one, as it largely effects the welfare of all dairymen.

One of the first lessons to be learned in feeding the dairy cow is that in order to get the best results from a herd it is necessary to study the individual peculiarities of each and every cow in the herd, and then try and feed them according to their individual needs. It is simply impossible to get the best results from a herd of cows by feeding them all the same ration.

In formulating a ration for the dairy cow the following factors are very important and should always be taken into consideration, viz.: 1st. The amount of butter she is producing. 2nd. Her condition or live weight. 3rd. Her temperament or tendency. 4th. Her period of lactation. The cost or market price of the various feeds, together with their actual feeding value, will of course always be taken into consideration by the feeder who is anxious to keep the cost of the ration down as low as is consistent with the best results.

Owing to the peculiar characteristics of each individual cow, no definite rules can be laid down in regard to the amount of grain a cow should be fed, even when the production of milk and butter is known. Ten pounds of grain per day would, for some cows, even when recently fresh, be a heavy feed, for the

simple reason, perhaps, that they would not eat more, while others might be fed 15 or 18 lbs. per day and even return a good profit over the cost of the feed.

The appetite of the cow is, however, a very poor guide to follow in determining the amount of grain she should be fed. Rather let the amount of butter that she is producing and her condition of flesh or live weight largely determine this. She should, however, in all cases be fed all the roughage, such as silage, hay, etc., that she will eat.

While in selecting grains for the ration intended for the dairy cow, it is desirable to have a large amount of protein, we must not forget that no matter how much protein a certain feed may contain, if it is not palatable, i. e., if the cows will not eat it readily—the protein is of but little avail.

One of the first things to determine about any food intended for the dairy cow, is its palatability. It makes no difference whether it is a soiling crop, silage or grain, it is absolutely essential that a cow relish her food.

To illustrate this point, the analysis of sorghum will show you that it contains but very little protein, but at the Wisconsin Experiment Station we have gotten better results by feeding sorghum to our dairy herd than any other soiling crop that we have ever raised, and this is largely because the cows relish the sorghum and will eat large quantities of it.

At the Wisconsin Station the average amount of grain fed to the dairy cow is about 8 lbs. per day, this with 40 lbs. of silage and 6 lbs. hay constitutes a day's ration for the average cow, during the winter, though as I have stated this amount varies considerably.

As to the care of the dairy cow, one of the best general rules to observe is to keep the cow as comfortable and contented as possible. If the cow is not comfortable and contented the owner will always be the loser. If the cows are allowed to stand out in the cold during severe weather a certain amount of food will be required to keep the body warm, which had she been

in a warm stable would have been transformed into milk and butter.

In order to succeed as a dairyman a person must be in sympathy with his cattle. He must be a keen observer and thorough with his work even to the smallest detail, and have a love for his stock that will cause him to work from early in the morning until late at night, if need be, in ministering to the wants of his cattle, so that they may be comfortable and contented.

During the winter they should be kept in comfortable stalls in a warm well ventilated stable and let out for a short time on pleasant days for exercise. If it is necessary to turn them out for water, a tank heater should be used to keep the ice from gathering on the trough and the cows should be put back into the stable as soon as possible when the weather is severe or stormy.

During the summer months when the heat and flies annoy the animals it is usually advisable to keep the cows in a darkened stable during the day and feed them soiling crops such as sorghum, green corn, oats and peas, etc. They may be turned out to pasture at night as the flies will bother them but little while it is dark. This is the system followed at Madison with the Station herd and it has been found very satisfactory.

At the time of calving the dairy cow will need special attention. Prior to freshening she should have been put in a box stall, fed a light grain ration, which should be slightly laxative, such as bran and oil meal,—the amount depending on the condition of the cow.

It is usually advisable to feed the cow a light ration only for a few days after calving, taking about a week or ten days time to bring her up to a full feed. Any water which is given the cow to drink, for the first four or five days after freshening, should have been slightly warmed, and pains should always be taken to keep her from draughts or a sudden change of temperature as this is quite likely to bring on milk fever.

If the dairy cows in Wisconsin were given the care and attention which they doubtless deserve, the average yearly butter

production could be easily increased 50 lbs. per cow and as there are over one million dairy cows in the state according to the census report, this at an average price of 20 cts. per pound would mean over ten million dollars additional income for the dairymen of the state, and this at very little more expense on the part of the dairymen.

DISCUSSION.

Ex-Gov. Hoard: You spoke about giving cows a soiling crop, but you said nothing about using ensilage for a soiling crop. What do you think of that?

Mr. Danks: I think I would prefer silage. Probably it would be cheaper than the soiling crop and feeding them in the summer. If you have enough silage to feed through the summer, I would advise that, as being more advantageous and cheaper than the system of soiling.

Ex-Gov. Hoard: Do you use much roots?

Mr. Danks: A few only. We consider that the silage takes the place of roots as a laxative feed. Just after freshening, we prefer to feed them roots for a few days, rather than to put them on silage too quickly, but otherwise we do not think them necessary when we have silage. We always raise some sugar beets and we use those, and when we are running weekly tests or anything of that sort, when we wish to have a cow do specially well, we feed her roots in connection with silage as they generally will do a little better. But they are more expensive to raise and you can't afford to raise them if you have a silo.

A Member: Do you curry your cows?

Mr. Danks: We groom them, yes.

Question: What are the floors?

Mr. Danks: We have in Madison a cement floor. All the stables have cement floors, but where the cows stand we have a board floor on top of the cement. We found that even where they were well bedded, the cows would stiffen up in the winter