



DAIRY FEEDING.

Feeds for milch cows for late winter and early spring use has more than usual significance this year, writes George A. Billings. This is due quite largely to the extremely late spring and the general scarcity of those foods, which because of their succulent nature contribute to the maintenance of the flow of milk. The cold, wet season of 1903 brought a poor return to the farmer of that crop which is his main dependence, namely, corn, and while a representative yield of hay was produced, the quality was more or less impaired by overripeness or poor curing, due to the season. With an empty silo a mow of poor quality hay and an almost empty corn crib it has become a serious question to some dairymen to produce milk giving a fair return for their labor and investment.

It is indeed fortunate if at this time one has a good mow of second cutting clover or mixed grasses. Corn silage is relatively cheap, greatly relished by cattle, and if the corn is allowed to mature in the field the greater part of the nutritive value of the crop is preserved. If fed in connection with more concentrated protein feeds, such as dried brewers' grains, gluten, oil and cottonseed meals, so as to be most economically balanced, there will be but little falling off of the milk flow. The cost of production per quart of milk will be comparatively reasonable, and a ration of 40 pounds corn silage, four pounds wheat bran, four pounds brewer's grains and two pounds cottonseed meal for a cow weighing from 800 to 1,000 pounds in good flow of milk, will bring good returns.

Experiments at the New Jersey experiment station demonstrate the practicability of feeding home grown protein such as alfalfa or crimson clover hay, with silage, which means a great deal to the feeder. When a ration of 30 pounds corn silage and 13 pounds alfalfa hay was compared with 30 pounds silage, five pounds mixed hay, six pounds wheat bran and five pounds brewer's grains, the cost of production per 100 pounds milk was reduced from 83.9 cents to 59.9 cents. With 4 pounds crimson clover hay and 30 pounds silage the cost of production was reduced 18.3 cents per 100 when fed in comparison with the same feed ration. A ration of 36 pounds corn silage and 17 pounds cowpea hay, fed in comparison with 36 pounds silage, five pounds corn stalks, four pounds wheat bran, three pounds brewer's grains and two pounds cottonseed meal gave a slight advantage to the cowpea ration. These experiments show the necessity of more intelligent feeding in order to maintain the flow of milk and more economical selection of food nutrients to cheapen the cost of production. The farmer who is fortunate to have in the latter part of winter a good supply of silage with clover hay will note a decided gain in his returns from the dairy.

What shall we feed in place of corn silage until early soiling crops can be harvested? Wet brewer's grains would furnish a succulent ration to a large degree, yet hardly advisable, as it is almost impossible to get the material in a fresh condition to be depended upon, and which, if sour, would produce an objectionable quality of milk; but the dried grains have been freely used at this station, producing very satisfactory results. In the absence of silage good results have been obtained by wetting a quantity of the dry grains a few hours before feeding, using just enough water to make them soft without being sloppy.

The brewer's grains will furnish about the same bulk and weight as the silage, but much richer in protein, requiring a strongly carbohydrate feed. Such a ration can be balanced as follows: Twelve pounds hay, six pounds corn and cob meal, five pounds brewer's grains, two pounds bran and one pound cottonseed meal. Wet enough brewer's grains for 24 hours; mix 600 pounds corn meal, 200 pounds wheat bran and 100 pounds cottonseed meal or a smaller amount in the same proportion and feed about nine pounds of the mixture with the wet grains, varying the amount to the weight of the cow and the flow of milk.

A new carbohydrate feed containing from 7 to 9 per cent. protein called dried molasses beet pulp, has recently been put upon the market, which, while being expensive for the amount of protein it contains may possibly be economical for the person who must purchase carbohydrates. The writer is conducting experiments with this and the dried, unsweetened product to ascertain its feeding value. The material is saturated with water some hours before feeding and the amount fed is equivalent in nutritive value to about 30 pounds silage. The results thus far look encouraging.

I wish to emphasize again the importance of considering the cost of feeds and the growing of leguminous crops to save the purchase of expensive concentrates. The farmer should aim to produce on the farm all the roughage and carbohydrates and to a large extent the protein feeds. For example, the college farm here in 1902 kept a herd of from 30, to 35

JUST SEEMED TO SUIT HIS CASE

WELLAND MERCHANT RESTORED TO HEALTH BY DODD'S KIDNEY PILLS.

Doctors and Medicine Failed—Dodd's Kidney Pills Succeeded—Other Cases They Just Seem to Suit.

Welland, Ont., May 30.—(Special).—J. J. Yokom, a prominent merchant of this city, is telling his friends of his remarkable cure of a terrible Kidney Disease by Dodd's Kidney Pills. Mr. Yokom's statement is as follows:—

"For more than a year I had been ailing with Kidney Trouble in all its worst symptoms. I had a distressed feeling in my head, little or no appetite and a feeling of languor. I became greatly reduced in weight.

"Doctors and medicines failing to give me any benefit I became despondent when by good luck I chanced to try Dodd's Kidney Pills and from the first they seemed to suit my case. After taking five boxes the old trouble had gradually disappeared and I was feeling better than I had in many years."

Dodd's Kidney Pills suit the case of every man, woman or child who has any form of Kidney Disease. They always cure and cure permanently.

milch cows for the entire year at 12.83 cents per day per head. This was done in the six summer months by a rotation of soiling crops giving each cow 60 pounds per day of a variety of green fodders with a small feed ration and in the winter months 30 to 40 pounds corn silage with some hay and a more concentrated feed ration. At the prices of feeds and hay in March, 1904, in the absence of silage, purchasing all of the roughage, it cost 22 cents per day per head to keep the same herd, or an increase in the cost of production of milk of almost 50 per cent. By feeding alfalfa hay with corn silage, giving a value to each the exact cost of raising and harvesting according to our own record, that is silage at \$2.40 and alfalfa hay (average for three years) at \$6.36 per ton, the cost per cow per day would be but 8.97 cents. These figures are significant and well worth consideration.

SPRAYING POTATOES.

In general, commence spraying when the plants are 6 to 8 inches high, and repeat the treatment at intervals of ten to 14 days in order to keep the plants well covered with bordeaux throughout the season. During epidemics of blight it may be necessary to spray as often as once a week. Usually six applications will be required. The bordeaux should contain six pounds of copper sulphate to each 50 gallons water. Whenever bugs or flea beetles are plentiful add one pound paris green or two quarts white arsenic stock solution to the quantity of bordeaux required to spray an acre.

Thoroughness of application is to be desired at all times, but is specially important when flea beetles are numerous or the weather favorable to blight. Using the same quantity of bordeaux, frequent light applications are likely to be more effective than heavier applications made at long intervals. When a horse sprayer having but a single nozzle per row is used, it is better to go over the plants once a week than to make a double spraying once in two weeks.

Those who wish to get along with three sprayings should postpone the first one until there is danger of injury from bugs or flea beetles, and

WHAT THE KING EATS.

What's Fit for Him.

A Mass. lady who has been through the mill with the trials of the usual housekeeper and mother relates an interesting incident that occurred not long ago. She says:

"I can with all truthfulness say that Grape-Nuts is the most beneficial of all cereal foods in my family, young as well as old. It is food and medicine both to us. A few mornings ago at breakfast my little boy said:

"Mama, does the King eat Grape-Nuts every morning?"

"I smiled and told him I did not know but that I thought Grape-Nuts certainly made a delicious dish, fit for a King." (It's a fact that the King of England and the German Emperor both eat Grape-Nuts).

"I find that by the constant use of Grape-Nuts not only as a morning cereal, but also in puddings, salads, etc. made after the delicious recipes found in the little book in each package it is proving to be a great nerve food for me besides having completely cured a long standing case of indigestion." Name given by Postum Co., Battle Creek, Mich.

There is no doubt Grape-Nuts is the most scientific food in the world.

Ten days' trial of this proper food in place of improper food will show in steady, stronger nerves, sharper brain and the power to "go" longer and further and accomplish more. There's a reason.

Look in each package for the famous little book, "The Road to Wellville."

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