



A Dairy Farmer's Home in the Young Province of Alberta.

Red Deer, Alberta, is fast becoming a thriving dairy district. Around it are located several of the best pure bred dairy herds of Western Canada. A. H. Trimble, whose home is here illustrated, is one of the pioneer Ayrshire breeders of the West.

The Feeding of the Dairy Cow

Some Principles and Explicit Directions—E. S. Archibald, B.A., B.S.A., *Dom. Animal Husbandman*

It has been clearly demonstrated that the good dairy cow is a more economical producer than any other farm animal. Not only does she actually yield more product from a given amount of feed, but she does this at the least cost and greatest profit.

Notwithstanding these facts the production of milk and fat from the average cow is exceedingly low, being approximately 3,800 pounds milk and 130 pounds fat per annum which in value is less than the total cost of production. Nevertheless it has been clearly demonstrated that by better feeding and management this average may be easily increased from 30 to 80 per cent. with an increased cost in feed and labor of only 10 to 20 per cent.; the margin would be largely profit. Such an increase is not only a financial necessity but the patriotic duty of every dairy farmer.

Feeding the Dairy Cow.

The milk produced by a dairy cow of proper type is in proportion to feeds consumed plus the reserve of feed stored in the body as fat and flesh. As an example of the latter it has been shown that fresh cows may be fed on a maintenance ration or even starved for several days yet produce milk in fairly large quantities with, however, a proportional decrease of weight and flesh. Again it has been proven that cows of proper type having a store of flesh before calving will not only milk more heavily, but also more persistently during the succeeding milking period. It is clear, therefore, that this supply of fat and flesh stored on the dry cow of dairy type will be drawn upon when most needed, and be either given off as milk or so take the place of feeds consumed in supplying bodily needs that a larger proportion of these feeds may be utilized for milk production.

The dry cow receives little attention from the majority of dairy farmers. The thin cow at calving is in poor condition to make milk profitably, and cannot produce the rugged, healthy calf fitted to withstand the many calf ailments. Allow the cow four to ten weeks before freshening. A pound of meal a day during this dry period is worth as much as two or three pounds of meal fed after the cow has freshened. On poor pasture, feed the dry cow green feed, silage or roots and a grain ration, composed of two parts

of any two of the following meals: bran, ground oats, ground corn, ground barley, plus one part ground oil cake. To the thin cow feed 4 to 7 pounds daily! If the cow is in good flesh, give roughage as needed and 1 to 2 pounds daily of the above-mentioned grain mixture; if the cow is fat withhold the grain, but on the other hand do not sacrifice flesh or lose a thrifty condition.

Feeding at Calving.

Feeding the cow at calving requires special care, varying with the individuality of the animal. Be sure that the condition of the bowels is normal. Constipation at this time is apt to induce many troubles such as milk fever, caked udder, etc. After calving give a tepid drink containing a handful of linseed oil meal per pail of water, allow to rest quietly for twelve hours, after which give a warm bran mash, with two bran mashes on the second day after calving. Feed a limited supply—6 to 8 pounds—of clean hay, preferably clover. Draw a little milk three or four times daily for the first three days; do not milk dry until after the third day, as such a procedure

frequently brings on milk fever. On the fourth day start the dry meal ration consisting of four pounds equal parts bran and ground oats. Increase the quantity of grain and ground oats. Increase the grain mixture to a full grain ration on or about the sixteenth day after calving.

Feeding the Fresh Cow.

The feeds consumed by a dairy cow in milk are utilized for two purposes, viz., the manufacture of milk and the maintenance of the body. The cow weighing 1,000 pounds requires the equivalent of 10 pounds clover hay and 10 pounds oat straw or 35 to 40 pounds of mixed pasture grass for maintenance alone. To this must be added the feed to supply energy necessary to manufacture milk. Hence it is evident that the meagre feeding of cows in milk induce little, if any, milk flow after the surplus body tissue has been used, while liberal feeding with practically the same maintenance requirements will induce heavy milk production.

It is evident that milk produced under the latter conditions will cost much less per gallon.

Rations for the Milk Cow in Stable.

The foundation principles of the successful selection of feeds and the feeding of dairy cattle depend upon the palatability, variety, nutrition and ease of digestion, and succulence of the ration given. All these essentials of a well balanced ration for economic production must be considered when raising or purchasing foodstuffs.

The most economical ration must have as a basis cheap but rich nutritious farm grown roughage, such as clover or alfalfa hay, ensilage and roots. The liberal feeding of meals is advisable to balance the roughage ration, and in addition, to provide the heavy milking cow with an extra supply of nutrients in a less bulky form.

A pound of grain when the cow is fresh is equivalent to several pounds of grain after the cow has decreased materially in her milk flow. Feed one pound of meal for every three and a half pounds milk produced; as her lactation period progresses decrease the meal gradually to one pound for every five pounds of milk produced. A fair average is one to four. Following are a number of well-balanced daily rations for the 1,000 pound dairy cow suitable to the individual needs of farmers throughout different parts of Canada.

No. 1.—Mixed hay 16 pounds, turnips or mangels 40 pounds, meal mixture composed of bran 4 parts, ground oats 2 parts, ground barley 2 parts, oil cake 1 part, cottonseed meal 1 part. This meal fed at the rate of one pound per 3½

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In Older Ontario the Farm Homes Reflect Permanence and Solidarity. This photo, showing the home of Wm. Bell, an extensive dairyman, was secured by an editor of Farm and Dairy near London, Ont. Homes such as this one are most numerous in the dairy sections of Eastern Canada and reflect the permanence and solidarity of the dairy industry.