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# WISCONSIN BANKERS' FARM BULLETIN

## Feed An Economic Dairy Ration

By

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WHERE ECONOMIC DAIRY RATIONS ARE FED

One or more silos, well-made clover and alfalfa hay and a comfortable, well-lighted barn, afford conditions for making dairy rations economical.

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# Feed An Economic Dairy Ration

The first step in feeding economical dairy rations is to learn the capacity and ability of cows to produce milk. Economical feeding is based on milk production, and it is, therefore, important to weigh the milk of each cow at each milking and to know, at least approximately, the amount of butter fat it contains. The true dairyman rids his herd as soon as he can of all but bred-for-production cows.

**Provide Cows with Comfort and Plenty of Water.** However good a ration may be, it will not be economical if cows are not kept comfortable and in good physical condition. House them in clean, comfortable, well lighted and properly ventilated stables and do not turn them out during the winter for a longer period each day than they apparently enjoy being out. Two or three times daily provide the herd with pure fresh water which is not colder than that from a deep well. An abundance of water is necessary for milk production. Where cows are not watered in the barn, a tank heater will prove profitable.

**Feed Cows According to Their Production and Stage of Lactation.** Feed fresh cows sparingly for the first few days after calving and do not allow them to become chilled. Water with the chill removed, a few quarts of scalded bran or oats, and good hay, is sufficient for a cow the first day or two after she has calved. The condition of the cow should determine the manner in which she is fed following this period. Ordinarily it requires two to three weeks to get cows back to full feed. Be careful not to overfeed or allow the cow to get off feed or out of condition.

A complete ration for a cow weighing approximately 1,000 pounds may be made by feeding one pound of grain mixture for every three

or four pounds of milk produced in addition to: (1) 30 pounds of corn silage and 10 pounds of hay (clover or alfalfa preferred), or (2) 30 pounds roots and 15 pounds of hay, or (3) 8 pounds dried beet pulp soaked 12 to 24 hours prior to feeding and 10 pounds of hay; or (4) 20 pounds of hay with one to two pounds of oil meal added to her grain.

Cows that give milk of high per cent of butter fat should receive one pound of grain for every three pounds of milk produced, and cows exceeding 1,000 pounds in live weight should receive a relatively larger amount of hay and silage or roots.

Dry cows can be maintained on hay and silage or roots. It is profitable, however, to feed cows a sufficient amount of grain during the dry period to have them in good physical condition at calving time. Cows should be dry for six to eight weeks prior to calving. It does not pay to have them dry for a longer period.

**Not All Farm-Grown Rations Are Most Economical.** The market prices for corn, oats and barley often make it more profitable for farmers to feed grain mixtures composed largely of purchased feeding stuffs. A knowledge of the grain and feed market should determine the character of the ration. At the same time, however, rations should be made as complete and palatable as it is possible to have them from farm-grown feeds. The farm should be made to produce clover or alfalfa silage or roots and cereal crops that may be fed or exchanged for other feeding stuffs. The profit in dairying is in feeding farm-grown feeds in a manner to realize the highest market price for them and at the same time have them converted into manure that is returned to the fields. It pays to buy commercial feeding stuffs to supplement farm-grown grains and make the ration complete or to replace farm grains when market prices justify the exchange.

**Home-Made Grain Mixtures for Dairy Cows.** The following mixtures at present prices are less expensive, give greater variety and are more satisfactory for milk production, than rations made up exclusively from farm-grown grains. Dairymen in every community should co-operate with their local feed dealers or feed agents to secure the feeding stuffs in these mixtures at the most reasonable prices.

**No. 1.**

| | Lbs. |
|---|---|
| Wheat bran | 40 |
| Gluten feed | 10 |
| Ground oats | 20 |
| Corn meal | 20 |
| Oil meal | 10 |

Cost $1.42 cwt.

**No. 2.**

| | Lbs. |
|---|---|
| Wheat bran | 30 |
| Corn meal | 25 |
| Ground oats | 30 |
| Oil meal | 15 |

Cost $1.48 cwt.

**No. 3.**

| | Lbs. |
|---|---|
| Distillers' grains | 30 |
| Wheat bran | 30 |
| Ground oats | 20 |
| Corn meal | 15 |
| Oil meal | 5 |

Cost $1.48 cwt.

**No. 4.**

| | Lbs. |
|---|---|
| Wheat bran | 40 |
| Ground oats | 35 |
| Gluten feed | 25 |

Cost $1.36 cwt.

**No. 5.**

| | Lbs. |
|---|---|
| Corn and cob meal | 20 |
| Ground oats | 30 |
| Wheat bran | 40 |
| Oil meal | 10 |

Cost $1.35 cwt.

**No. 6.**

| | Lbs. |
|---|---|
| Ground oats | 25 |
| Corn meal | 25 |
| Wheat bran | 20 |
| Malt sprouts | 20 |
| Oil meal | 10 |

Cost $1.48 cwt.

**No. 7.**

| | Lbs. |
|---|---|
| Wheat bran | 40 |
| Corn meal or hominy | 30 |
| Distillers' grain or gluten feed | 20 |
| Cotton seed meal | 10 |

**No. 8.**

| | Lbs. |
|---|---|
| Wheat bran | 40 |
| Distillers' grain | 40 |
| Cotton seed meal | 20 |

Cost $1.47 cwt.

Cost was computed on distillers' grains at $32 (per ton); bran at $23; ground oats at $30; corn meal at $32; oil meal at $38; gluten feed at $30; hominy feed at $35; malt sprouts at $20; corn and cob meal at $25; and cotton seed meal at $37.

If dried distillers' grains are not available, gluten feed, dried brewers' grains or malt sprouts, with preference in the order named, may be substituted for them. Barley, hominy, and rye may be substituted for corn. Equal parts of bran and corn meal are a substitute for oats when prices and the available supply necessitates. Cotton seed meal does not have the laxative property that oil meal contains, but with succulent feeds like silage and roots and other laxative feeds like bran, clover and alfalfa hay may be fed to good advantage as a substitute in supplying protein.

Dairymen oftentimes lose the opportunity to feed the most economical ration by letting the season go by without purchasing when feeds can be bought at most reasonable prices. By studying and taking advantage of market conditions and getting local feed dealers to assist in buying feeds during the summer, the dairymen of a locality in Walworth county secured 120 tons of feeds, including oil meal, wheat bran, brewers' grains, and wheat middlings, at a cost of $3,005.00. These feeds purchased at winter prices would have cost $3,640.00. Buying them at the right time saved these farmers $635.00. The interest on the amount expended for feed at six per cent would amount to $90.15, and deducting this there would still be a saving of $544.85. This offers a splendid example of one way in which dairy rations can be made most economical.