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## Dairy Cow Feeding Guide

Horace M. Jones

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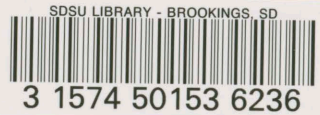
Website: [extension.sdstate.edu](http://extension.sdstate.edu)

Phone: 605-688-4792

Email: [sdsu.extension@sdstate.edu](mailto:sdsu.extension@sdstate.edu)

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## DAIRY COW FEEDING GUIDE

By Horace M. Jones, Extension Dairy Specialist.

### Increased Profits from Systematic Feeding

The ultimate aim of dairy farming is to produce a profit from milking cows. Profits depend to a large extent upon reducing the cost of production to the very lowest point possible. This can be accomplished, not by reducing the amount of feed given the cow, but by administering feeds in such proportions and in such quantity as will cause the cow to reach her maximum production.



Silage,	30 pounds
Alfalfa hay,	10 pounds
Corn,	5 pounds
Bran,	3 pounds
Oilmeal,	2 pounds

### FEED NECESSARY FOR FOUR GALLONS OF RICH MILK

#### Cows Vary in Their Needs

Each cow has her individual needs which can be ascertained only by constant observation on the part of the feeder. However, the requirements of all cows fall within certain limits and the table which follows was constructed with the average cow and the usual South Dakota farm-grown feeds in mind. Individual adaptations can be made from it.

#### Aim is to Simplify

The average feeder is usually not so concerned with the nutrients in the various feeds as he is with the kinds and amounts of those feeds that he should provide under certain conditions. The accompanying table aims to give this information in just as brief and convenient form as possible. It is recognized that it will not answer for all conditions but if it serves as a basis upon which the feeder can commence systematic feeding and thus try out his cows, it will have served its purpose.

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# Dairy Cow Feeding Guide\*

## DIRECTIONS FOR USE

First of all look in the left-hand column and determine to which class your roughage belongs. Suppose that you have corn fodder and alfalfa hay; that means that the grain mixture which you ought to feed will be one of those opposite Group II of the roughages.

Next look at the headings across the top. Your cows should fall into one of the three groups given there, according to the amount of milk which they give. Suppose again that your cows are giving between 25 and 35 pounds of milk

per day, and suppose that they give milk of an average test. The mixture to feed will be found under the head "4 to 5%" in the second wide column.

It has previously been decided that the proper mixture is to be found opposite Group II of the roughages, so follow the two columns mentioned until they intersect. Feed either three parts of bran and one of oats, three parts of corn and two parts of oilmeal, or equal parts of oats, oilmeal and corn. All feeds are to be mixed in the proportion of one part each

unless otherwise specified.  $\left. \begin{matrix} \text{Bran} \\ \text{Oilmeal} \end{matrix} \right\}$  means mix equal parts of the two.  $\left. \begin{matrix} \text{Oilmeal 2} \\ \text{Bran 1} \end{matrix} \right\}$  means mix oilmeal and bran, using twice as much oilmeal as bran.

The figures below show that 11½ pounds of the first mixture or 9 pounds of the others should be fed per day. Thus, the proper mixture and amount can be determined for different yields of milk, for different tests of butterfat and with different classes of roughages.

### GRAIN MIXTURE FOR VARYING MILK YIELDS AND TESTS

Roughages Available	15 to 25 lbs. milk daily, Testing			25 to 35 lbs. milk daily, Testing			35 to 45 lbs. milk daily, Testing		
	3 to 4%	4 to 5%	5 to 6%	3 to 4%	4 to 5%	5 to 6%	3 to 4%	4 to 5%	5 to 6%
I Prairie hay, corn fodder, corn silage, timothy hay, Sudan grass or similar feeds.	Bran Oilmeal Cottonseed meal	Gluten feed Soybean meal	Oats Soybean meal	Oats 2 Oilmeal 2 Cottonseed meal 1	Bran Oats Oilmeal	Corn Bran Oilmeal	Oats Bran Oilmeal	Oats 2 Oilmeal 2 Corn 1	Oats 1 + Bran 3
	Soybean meal	Oats 2 Oilmeal 2 Cottonseed meal 1	Oats Bran Oilmeal	Soybean meal 1 Gluten meal 1 Bran 2	Corn 1 Bran 3 Oilmeal 2	Bran Gluten feed	Oats Soybean meal	Corn and cob M Oilmeal	Corn Oats Oilmeal
	Oilmeal 2 Bran 1	Oats 1 Bran 2 Oilmeal 3	Bran 1 Gluten feed 2	Oilmeal 3 Bran 2 Oats 1	Soybean meal Oats	Corn and cob M Oilmeal	Gluten feed 2 Bran 1	Bran Corn Oilmeal	Corn 3 Oilmeal 2
II Corn silage and alfalfa, timothy and clover, corn fodder and alfalfa, prairie hay and alfalfa, prairie hay and soybean hay, similar combinations, or millet.	Bran Oats Oilmeal	Bran Corn Oilmeal	Oats 1 + Bran 3	Corn Bran Oilmeal	Oats 1 + Bran 3	Corn 2 Oilmeal 1	Oats 1 + Bran 3	Oats 1 + Bran 2	Oats + Bran
	Oats Soybean meal	Corn and cob M Oilmeal	Corn Oats Oilmeal	Bran Gluten feed	Corn 3 Oilmeal 2	Oats 1 Bran 2	Oilmeal 2 Corn 3	Oilmeal 1 Corn 2	Corn 3 Bran 2 Oilmeal 1
	Bran 1 Gluten feed 2	Bran Gluten feed	Corn 3 Oilmeal 2	Oilmeal Corn and cob M	Oats Oilmeal Corn	Corn 2 Bran 1 Oilmeal 1	Oats Corn Oilmeal	Bran 1 Oilmeal 1 Corn 2	Corn 1 Bran 4
Lbs. per day with I and II	4	5	7	7	9	10½	11	12½	15
Lbs. per day with III	5	6½	8	9	11½	15	14	16½	19
III Alfalfa, clover, soybean hay, sweet clover, cow-peas or other leguminous roughage.	Corn 4 Oats 1	Corn 3 Oats 1	Corn 4 Oats 1	Oats 2 Corn 1	Oats 2 Corn 1	Oats 2 Corn 1	Corn Bran	Corn Bran	Corn Oats Bran
	Corn 6 Bran 1	Corn 5 Bran 1	Corn 6 Bran 1	Corn 2 Bran 1	Corn 2 Bran 1	Corn 2 Bran 1	Oats 3 Bran 1	Oats 3 Bran 1	Corn Bran

\* Based on the Armsby feeding standard.

+ Use the amount opposite "Lbs. per day with III."

### Helpful Feeding Hints

A gallon of milk weighs about 8 pounds.

The milk of average cows tests between 4 and 5 percent butterfat, that of Holsteins from 3 to 4 percent, and that of Guernseys and Jerseys from 5 to 6 percent.

Alfalfa hay and corn silage together supply ideal roughage.

A cow ordinarily eats from 30 to 40 pounds of silage per day and from 10 to 20 pounds of hay.

Feed a cow all the roughage she will eat.

A cow cannot eat enough hay and silage to produce her maximum of milk, hence the necessity of feeding concentrates.

All grains or concentrates make better feed if they are ground.

Feeds can be mixed in lots of several hundred pounds by shoveling back and forth on a tight floor.

Concentrates ought to be weighed when fed. If this is impossible use the same measure each time, find out how many pounds of a certain feed it holds and use that as a basis for estimating the volume which each cow should have.

Cottonseed meal should not be used in too large quantities. About 2 pounds per cow per day is all that it is safe to feed.

In most cases at present, it is poor economy to try to get along with farm-grown feeds exclusively.

Soybean meal and alfalfa hay can be raised on the farm, are cheaper than oilmeal or cottonseed meal, and are just as valuable from the feeder's standpoint.

When bran is \$20 per ton, oilmeal is worth about \$57 per ton as a source of protein.

Systematic feeding results in higher milk production and at the same time cuts the feed bill.



SILAGE IS AN EXCELLENT ROUGHAGE