

# LIVESTOCK AND DAIRY

## SUMMER FEEDING OF DAIRY COWS

### Cost of Carrying Cows On Pasture—Supplementing Pasturage With Grain Feeds—Using Summer Silage

ONE of the most common mistakes in the feeding of dairy cows on the farm is that the good cows are not given a sufficient quantity of feed above that required for their physical maintenance to obtain the maximum quantity of milk they are capable of producing. Successful feeding of dairy cows involves the providing of an abundant supply of palatable, nutritious feed at a minimum cost and feeding in such a way as to receive the largest milk production from the feed consumed. Feeding for profit is defined as liberal feeding, or feeding to the full capacity of the cow, in a new Farmers' Bulletin of the United States Department of Agriculture, No. 743, "The Feeding of Dairy Cows."

From the standpoint of economical milk production, a dairy cow generally should not be fed more than she will consume without gaining in weight. There are times, however, according to the bulletin, when it is desirable to make exceptions to this rule. Practically all heavy milk producers lose weight in the early part of their lactation period; that is, they produce milk at the expense of their

Where the value of land is so high that the cost of pasturing is excessive, or where the land may be more profitably used for growing crops, other methods of summer feeding are more profitable. It is stated that in some sections for average production a cow can be fed on dry feed for 20 cents a day, and when the cost of pasturing exceeds that amount some other method of feeding should be considered.

Grain should be fed to heavy-producing cows under all pasture conditions. The following table is furnished as a guide to feeding grain with an abundant pasture. Variations should be made to suit different conditions and individual cows.

Jersey Cow		Holstein Friesian or Ayrshire Cow	
Daily Milk Production (Pounds)	Pounds of Grain	Daily Milk Production (Pounds)	Pounds of Grain
20	3	25	3
25	4	30	5
30	6	35	7
35	8	40	9
40	10	50	10

Grain fed to cows on pasture need not contain the same percentage of protein as for winter feeding. Pasture being an approximately balanced ration, the grain ration should have about the same proportion of protein to other nutrients. The following mixtures are suggested for supplementing pasture without other roughage:

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6. Credit to the owner,
7. Bigger profits.

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1. Lack of uniformity,
2. Mongrels and misfits,
3. Late maturity,
4. Poor market demand,
5. Less money for your feed,
6. Discredit to the owner,
7. Loss and Dissatisfaction.

—Missouri Agricultural College.

body flesh. When such cows approach the end of their milking period they normally regain the flesh they have lost, and the farmer can well afford to feed them liberally, with the assurance that he will be repaid in the form of milk when the cows again freshen.

Pasture is the natural feed for cows, and for average conditions, with ample pasture and good grasses or legumes in good, succulent condition, good production can be secured.

The cost of land is a factor in the economy of using pasture, however. If pastures are depended upon entirely for from four to six months of the year, and production is kept up to a profitable standard, anywhere from one to four acres or more must be provided for each cow, says the bulletin. This is assuming that a permanent pasture is of good, clean turf, with few or no waste places, or that a temporary pasture has a good stand of grass or legumes throughout. Land that will provide such pastures frequently is high-priced. The following tables show the cost of pasturing a cow on land ranging from \$25 to \$200 an acre:

Acres per Cow	Value of Land per Acre				
	\$25	\$50	\$100	\$150	\$200
1	\$1.50	3.00	6.00	9.00	12.00
1 1/2	2.25	4.50	9.00	13.50	18.00
2	3.00	6.00	12.00	18.00	24.00
2 1/2	3.75	7.50	15.00	22.50	30.00
3	4.50	9.00	18.00	27.00	36.00
3 1/2	5.25	10.50	21.00	31.50	42.00
4	6.00	12.00	24.00	36.00	48.00

Cost of pasture per cow per day on basis of preceding table with a pasture season of 150 days:

Acres per Cow	Value of Land per Acre				
	\$25	\$50	\$100	\$150	\$200
1	1 Cent	2	4	6	8
1 1/2	1 1/2	3	6	9	12
2	2	4	8	12	16
2 1/2	2 1/2	5	10	15	20
3	3	6	12	18	24
3 1/2	3 1/2	7	14	21	28
4	4	8	16	24	32

To carry cows over a period of short pasture without a falling off in milk, soiling crops are growing in favor. For this purpose second-growth red clover, alfalfa, oats, or peas, are excellent. Corn is also available in August and September. What may be a disadvantage in the use of soiling crops is the extra labor required to cut and haul these crops from day to day, especially if field work is pressing.

On high-priced land, where the problem is to produce a sufficient quantity of roughage, or if the cost of pasturing is excessive, the summer silo may be used to advantage. An acre of corn in the form of silage will provide succulent roughage for several cows for a season. During periods of drouth, when both pastures and soiling crops fail, a silo filled with well-matured silage grown the previous year is most valuable.

In planning a summer silo, it should be kept in mind that its diameter should be in relation to the number of cows fed daily. As a general rule, under summer conditions, a cow will consume about 20 pounds of silage. Silage enough must be removed daily to prevent excessive surface fermentation. On this basis, a summer silo for 20 cows should be 8 feet in diameter; for 30 cows, 10 feet; and for 40 cows, 12 feet. As 8 feet is about the minimum diameter for a silo for best results, a summer silo is most applicable in herds of 20 or more cows.



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