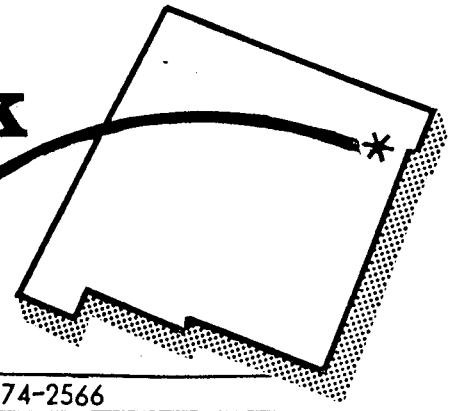




Clayton Livestock Research Center

PROGRESS REPORT



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ONCE VS FOUR TIMES DAILY FEEDING FOR FINISHING CATTLE

Glen P. Lofgreen, Michael G. Shafer and Danny R. Garcia

In an earlier study it was found that providing a restricted quantity of feed four times daily to finishing cattle resulted in a lower rate of gain, lower carcass quality and poorer feed utilization than cattle fed ad libitum once daily (Progress Report No. 34, December, 1983). Since the cattle fed four times daily were also restricted, it seemed necessary to determine the effects of feeding four times daily with feed being provided ad libitum. Even though a study at this Center (Progress Report No. 27, April, 1982) showed no advantage of twice daily feeding compared to one feeding per day, there is some evidence that increasing the frequency of feeding beyond twice daily may slightly improve digestibility and feed utilization.

One hundred and sixty-six yearling steers were divided into six paired groups based on initial weight and background. One pen of steers of each pair was fed a 90% concentrate ration once daily while the other pen was fed the same ration four times daily. The quantity of feed provided was adjusted daily so that each morning the feed bunk contained a very small amount of feed indicating the cattle were not underfed yet did not waste feed. After 190 days on feed all cattle were slaughtered on the same day at a commercial packing plant and data collected on hot carcass weight, yield grade and quality grade. The 190-day feeding period included the winter of 1983-84, a period characterized by extremely cold weather and poor cattle performance. However, the comparison is

valid since all cattle were subjected to the same environmental conditions.

Comparative data are presented in the table. There were no statistically significant differences between the groups fed once or four times daily in any of the performance criteria except dressing percent, where those fed once daily dressed significantly higher than those fed four times.

The net return per head favors the cattle fed once daily, because of the lower cost of feeding once compared to four times and the greater dressing percent resulting in a larger selling price per head for those fed once.

Since most of the differences are not statistically significant, one is able to conclude only that increasing the frequency of feeding from once to four times daily did not improve any of the performance criteria measured in this study.

A restricted intake fed four times daily did not improve performance in an earlier study and four times daily feeding of an ad libitum intake did not improve performance in this study. One must conclude, therefore, that if once daily feeding is closely controlled with good feed bunk management, little or no improvement in cattle performance or efficiency can be expected by increasing the frequency of feeding or restricting feed intake or a combination of the two. However, since good bunk management is more difficult to

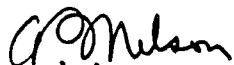
attain with once daily feedings some improvement might be seen with any modifi-

cation in feeding management which results in better control of feed wastage through improved management practices.

Comparison of Feeding Once Vs Four Times Daily

Item	Daily feedings	
	One	Four
Number of steers	83	83
Initial weight, lb.	594	590
Daily feed intake, lb.	17.72	17.62
Daily weight gain, lb.	2.44	2.47
Feed per pound gain, lb.	7.26	7.13
Hot carcass weight, lb	695	687
Dressing percent	65.7 ^b	64.9 ^a
Quality grade ¹	10.9	11.3
Yield grade	2.2	2.2
Costs and returns:		
Purchase price, \$ ²	375.65	373.12
Feed cost, \$ ³	251.16	249.75
Charge for extra feedings, \$ ⁴	-	5.70
Interest, \$	39.14	39.10
Total cost	665.95	667.67
Selling price, \$ ⁵	687.01	679.10
Net return, \$	21.06	11.43

- a, b Different at P<.05.
- 1 Choice = 13, Low Choice = 12, High Good = 11, Good = 10.
- 2 \$63.24/cwt.
- 3 Ingredient cost plus \$20/ton.
- 4 1¢/head for each extra feeding.
- 5 \$98.85 actual price/cwt. of carcass.



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