

## THE EFFECTS OF TYPES OF FEED AND PERIOD OF YEAR ON FLUCTUATIONS IN DAILY FEED INTAKE OF CATTLE

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### ABSTRACT

Data were collected on daily intake of 20 dairy cattle from the University of Leeds on 2 different feed types 9 different months and 72 beef cattle from Hillsborough fed 6 different feed types and at 2 different periods each. The data were subjected to statistical analysis to determine the level of variations and repeatability of fluctuations in intake. The analysis of the data from the University of Leeds showed that there were more fluctuations when the animals were being fed with grass than with silage. Although, the mean intakes were similar between the months with similar feed, the fluctuations in intake were not. There was significant repeatability of mean intake in all the months with the same feed with no repeatability of variation between the months except January and February ( $r^2 = 0.56$ ) when the animals were fed with silage and April and June ( $r^2 = 0.70$ ) when the animals were fed with grass. In the data from Hillsborough, there seems to be more variations with single silage types i.e. low quality silage or high quality silage than the mixtures of grass and maize silage. There was also repeatability of intake of all the types of silage with a correlation coefficient of 0.69 to 0.93 except for the high quality silage. However, there was no significant repeatability of variations in feed intake except low quality silage with a correlation coefficient of 0.78 and regression coefficient of 0.605 and regression equation: LQS 1 = 1.56 + 0.824 (LQS 2). Therefore, mean intake of feed can be predicted since there was repeatability of intake, but not that of variations in intake, where there was no specific pattern of intake of feed.

**Keywords:** Daily feed intake; fluctuations; period of year; cattle.