Intake and Dietary Choices by Grazing Ruminants: Effects of Time of Day and Water Soluble Carbohydrate Content of Herbage. (C06-rook223927-Poster)

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Abstract:

Grazing cows normally eat a big evening meal. Cows grazing daily paddocks received new grass in the morning (AM) or the evening (PM). Meal patterns differed but not grazing time or intake. After 70 days PM cows yielded 5% more milk. High PM water soluble carbohydrate concentration (WSC) may improve digestibility and synchrony of nutrient supply. Support comes from trials with high WSC Lolium perenne cultivars. An inverse correlation between NDF and WSC increased digestibility, intake, and milk and milk protein yield for cows given high WSC grass with no effect on milk composition. There are other hypotheses. Given free choice cows normally choose 70% white clover and 30% L. perenne preferring clover in the morning and grass in the evening. This effect and the big evening meal may allow filling of the rumen with slowly digested food maintaining rumen microflora during the overnight fast. WSC may explain why the big evening meal occurs, but not its initiation, which occurs without herbage sampling. We studied effects of disrupted light pattern on dairy cows during a total solar eclipse. Grazing pattern was little affected suggesting that it is not controlled by light intensity alone.

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