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# Grazing Behaviour In Relation To Bloat

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## SUMMARY:

**D**ESPITE the world-wide occurrence of bloat in free-grazing ruminants, relatively little is known of the etiology and prevention of the condition. Since ingestion of herbage is the first link in the chain terminating in bloat, it is surprising that little factual information exists on the relationships between grazing activity and ensuing bloat. From intensive observations on the grazing habits of dairy cows at Ruakura, techniques have been developed which seemed suitable for investigating feed ingestion-bloat relationships. These observations also suggested that it might be possible to assist in bloat prevention by inducing animals to change their normal grazing patterns.

Four series of trials are described:

(1) A comparison of "break" grazing and normal "rotational" grazing without restriction of feed in either case. Break grazing observations covered two and five breaks per day.

(2) A comparison of these two systems where "break" grazing involved restriction of area available to the cows, and "breaks" varied from 7 to 11 per day.

(3) Comparison of "off and on" grazing with normal rotational methods in an attempt to force changes in grazing pattern.

(4) Comparison of the same pasture grazed at different lengths under rotational grazing methods.

The degree of bloat, ruminal movement, eructation and grazing behaviour were noted.

In general, the result of trials 1 and 2 showed that, irrespective of number of breaks, break grazing with or without restriction gave no effective control of bloat. There were definite indications that a strictly enforced system of "off and on" grazing could afford considerable practical control. Long feed proved definitely safer than feed of the same botanical composition grazed at shorter stages of growth.

It was found that cows on potentially dangerous grass had short grazing times with few periods of intense activity. Thus, the oft-stated opinion that bloat is caused by cows eating greedily of dangerous pastures was not substantiated. On the contrary, cows on such pasture showed marked reluctance in their grazing activity.

Bloat-producing swards were also associated with reduced rumination time, even in respect to cows showing no symptoms. Bloats cows always showed very low rumination times.

In the early stages of bloat, ruminal movement and belching increased in frequency and intensity. This is contrary to the theory that bloat is due to rumen atony. Atony was observed only in the advanced stages of the trouble.

Many of these observations were made on identical twins. From the similarity in their behaviour, it can be concluded that inheritance is an important factor affecting the occurrence of bloat amongst cows grazing the same herbage.