

EVALUATION OF DETERGENTS IN MOLASSES TO PROVIDE A BLOAT
PROPHYLACTIC SUITABLE FOR SELF-MEDICATION OF DAIRY CATTLE

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Twice-daily drenching of dairy cattle with any one of a number of detergents will prevent bloat. Unfortunately farmers have been slow to adopt this method because the farmer must drench at milking time when he is otherwise busy. Dairy cows will not voluntarily ingest the detergents presently available for bloat control, but molasses can be used to make detergents more palatable. Providing the farmer can obtain a high level of acceptance by his cows, an automatic dispenser delivering a prophylactic dose of detergent in molasses to each cow at milking could overcome the labour problem associated with drenching. The aim of the experiment was to determine the maximum concentration of a number of detergents in molasses which is acceptable to more than 95% of cows, and to show whether the mixture with the greatest concentration of detergent in molasses is effective as a bloat prophylactic.

The first experiment tested Terics 12A23B, 12A23 acetate, 15A11 and 18M10. Forty non-lactating dairy cows, already shown to accept bail-fed molasses, were allocated to four replicates and fed a detergent/molasses treatment followed by two feeds of molasses only. Commencing with a 10% concentration of the detergent in molasses, each detergent was offered to each group of cows at increasing concentrations until the overall acceptance fell below 95%. The experiment also tested the detergent that was acceptable at the highest concentration in molasses in the field under bloat conditions to ensure that bloat could be effectively prevented. The data were analysed by regression using each group of cows as an analytical unit.

Teric 12A23B was accepted by at least 95% of cows at a higher concentration (20%) in molasses than any of the other detergents. The acceptance of the other detergents fell below 95% at about 15, 10, and less than 10% for Terics 12A23 acetate, 15A11 and 18M10 respectively (Fig. 1).

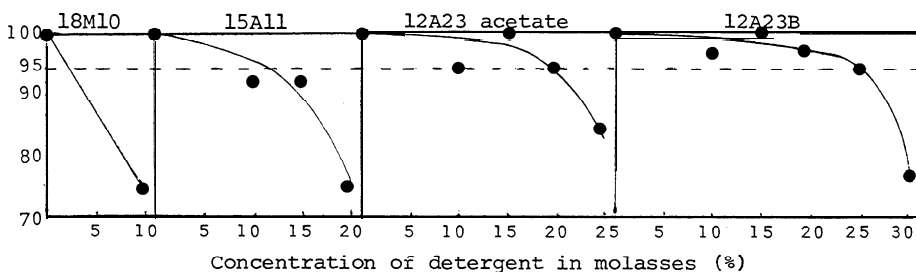


Fig. 1 Effect of concentration of detergent in molasses on acceptance

When tested for prevention of bloat, a prophylactic dose of Teric 12A23B at a concentration of 20% in molasses completely prevented bloat, compared to 98 instances of bloat with molasses alone. The use of 20% Teric 12A23B in molasses, dispensed by an automatic unit at the dairy, will be almost as effective as twice-daily drenching for preventing bloat in dairy cattle but will need less labour than drenching.

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