

Nutritional management practices in Manitoba and Saskatchewan farms with automatic milking systems

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There has been considerable debate regarding the quantity of concentrates that should be provided in automatic milking systems (AMS). Previous studies have looked at how much producers are currently providing; however, these studies did not include any information regarding the partial mixed ration (PMR). Twenty-two farms with AMS in Saskatchewan and Manitoba participated in a study looking at benchmarking the quantity of concentrates provided in the AMS in relation to the stage of lactation and milk yield, as well as the feed composition and chemical composition of both the partial mixed ration (PMR) and the AMS concentrates. An in-person survey was conducted at each farm, seven months of individual milking and feeding records were collected and, one year of milk yield and milking component records were obtained from dairy herd improvement (DHI). In addition, samples from the PMR, and the AMS concentrates were taken. The milking and feeding results were separated based on days in milk (DIM) into five categories early (1-45 DIM), peak (46-99 DIM), mid (100-199 DIM), late (200-305 DIM) and over (>305 DIM). They were also separated into milk yield categories low (< 30kg/d), medium ($\geq 30 \leq 50$ kg/d), and high (> 50 kg/d). The resulting data was summarized with descriptive statistics which provide a summary of the common feeding practices. The common practices include feeding pellets in the AMS. The quantity of pellets was programmed based on a table which used DIM and milk yield to set each individual animal's amount. The average concentrates provided ranged between 3.73 and 5.86 kg/cow/d in the AMS. The highest amounts observed were provided to high yielding cows with a mean of 7.01 kg/cow/d. Milking frequency was highest in higher producing cows with an average of 3.77 milkings/d. **Implications.** The results from the study provide an idea of the current practices being implemented in the industry, and will provide valuable information for future studies.