

**THE CONSISTENCY OF MILKING ORDER AND ITS RELATION TO MILK PRODUCTION AND BODY CONDITION**

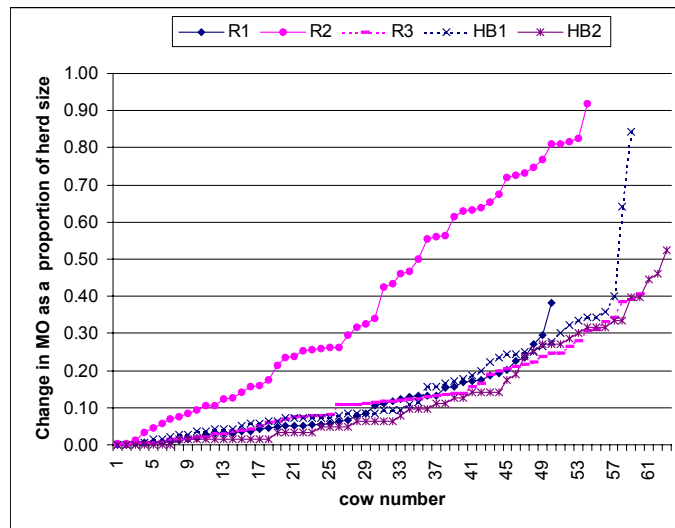
M. KENNEDY and S.J. CHAPLIN

Institute of Land and Food Resources, The University of Melbourne, Dookie College, Vic 3647

As herd and farm sizes increase, cows in pasture-based dairy systems are likely to spend a greater proportion of their time off pasture, resulting in longer time spent standing on concrete and less time grazing, with reduced milk production. If milking order (MO) is consistent, this problem will be most extreme for cows that are milked last. It has been suggested that early MO cows are likely to be high producing and better conditioned cows, however, there is limited literature available on the topic. This study aimed to determine whether a consistent MO exists and whether production and body condition are related to MO.

Milking order was observed on 3 rotary (R1, R2 and R3) and 2 herringbones (HB1 and HB2) dairies in the Northern Irrigation Region of Victoria. Average herd size was 280 (range 63-472). All used supplementary feeding and had a mixture of Holsteins and Jerseys. Milking order was observed at a morning milking in weeks 1 (MO1) and 2 (MO2) on all farms. On farm R1, body condition score (BCS) and milk yield (MY) data were also collected. The change in MO was calculated and analysed for between 50-65 randomly selected cows on each farm. Change in MO was calculated as MO2-MO1, and expressed as a proportion of the herd size. The relationships between mean MO and BCS, and mean MO and MY, were calculated using a Pearson Product-Moment correlation.

Very few cows kept their exact position in the milking order between weeks 1 and 2 (between 0 and 7 cows on farms 1-5). Four of the 5 herds (Figure 1) had very similar degrees of consistency (mean number of places moved in the MO = 7-10% of herd size, i.e. 14 places in a 140 cows herd). However, in R2 (the largest herd), there was greater movement in the milking order (mean change in MO = 34% of herd size). The distribution shown in Figure 1 also suggests that there is variation in MO consistency between cows within herds. There was no significant relationship between average MO and either body condition or milk production.



**Figure 1. Distribution of cows' changes in milking order as a proportion of herd size for 3 rotary and 2 herringbone dairies (see the text for calculation of change in milking order).**

These results show that MO consistency is similar in both rotary and herringbone dairies. Some cows within a herd show a very consistent MO between consecutive weeks, but others move considerably. While MO can be consistent in herds of different sizes, some herds may have very little consistency in MO, with probably being related to herd size.

Email: schaplin@unimelb.edu.au