AGE AT FIRST CALVING FOR PRODUCTION-RECORDED FRIESIAN DAIRY CATTLE IN WESTERN AUSTRALIA

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The costs of a delay in age at first calving (AFC) can be substantial. These costs include increased overhead costs, the opportunity cost of not making alternative use of resources (e.g. raising steers for beef production), reduced production per lifetime and reduced genetic gain. The aim of this study was to quantify the age at first calving in production recorded dairy herds in Western Australia.

First lactation records from 27,465 Friesian cattle born between 1974 and 1984 and enrolled in an official herd recording programme (Herd Improvement Service Western Australia) were analysed. A first lactation record was defined as the first production recorded lactation initiated between 18 and 49 months of age. Friesians comprised 89% of all first lactations recorded during this period. Data included cattle from herds which herd-recorded for the first time.

The average AFC in herd-recorded Friesian cattle born in W.A. between 1974 and 1984 was 33.3 months (s.e. = 0.03) – see Fig. 1.

Although AFC differed between the major dairy regions (P<0.001), these differences were not as great as anticipated on the basis of differences in climate, quota sizes and distributions and calving patterns. For example, the average AFC for the major irrigation regions (Waroona-Harvey Irrigation and Collie Irrigation areas), which have a year-round calving pattern and large market milk quotas, was 34.0 months (s.e. = 0.06) compared to 32.7 months (s.e. = 0.09) for a dryland region (Margaret River) which has large special products’ milk quotas and a more seasonal calving pattern with few animals born during the months September-December. There were differences in the AFC distribution pattern with a bi-modal distribution for the Margaret River region compared to a normal distribution for the irrigation areas.

The average AFC in W.A. of 33 months is greater than the target stated by many producers. More than 70% of producers aim to calve at 24–30 months of age (Hough and Sawyer, unpublished). The delay in AFC may be due to a combination of factors including farmers deliberately delaying breeding to calve heifers at a particular time of year, heifers not reaching an adequate size for mating to occur at a younger age and/or having submitted heifers to service, conception is delayed due to low body weight or other causes. We concluded that heifer fertility warrants further investigation. It is currently being investigated in a monitoring programme on commercial properties.

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