

# Herd Characteristics on Smallholder Dairy Farms in Western Kenya

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## **Abstract**

A cross-sectional proportional and stratified random sample survey of 400 smallholder dairy farms in Western Kenya was carried out to characterize the herd structure and determine its performance between July and October 2013. The results showed that the dominant improved breeds kept comprised exotic cattle-zebu crosses (41.7%), Friesians (34.3%), Aryshires (22.4%), Jerseys 1.6% with significant differences ( $p < 0.05$ ) in milk yields. The mean herd size was 2.46, while a proportion of 36.4% and 15% of the animals were lactating cows and heifers respectively. The mean milk yield /cow/day was 6.47 litres with 89.3% of the farms producing less than 10 litres of milk/cow/day. Average quantity of milk produced was 1168 litres/cow/year. Mean lactation length was 7.67 months (230 days) with majority of farms (77.8%) recording a lactation period of 5-7 months (150-210 days). The mean calving interval was 14.77 months (430 days) with a range of 12-36, while mean age at first calving was 28.16 months with a range of 24-38 months. 98% of the farms used Napier grass as the main fodder. The study concluded that the low performance of dairy herds in the region may be attributed to type of breeds kept, low numbers of lactating cows and replacement heifers, , short lactation period and utilization of low quality feed resources. It is recommended that management skills, strong institutional linkages, support for commercial rearing of dairy breeding stock, and feeds diversification programme should be developed to improve performance of dairy herds in the region.

**Key words:** Herd structure, dairy breeds, milk production, lactation period, calving interval, age at first calving.