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## Effect of Milking Strategies on Milk Yield and Udder Health of Crossbred Dairy Cattle in Thailand

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### Abstract

The Thai dairy industrie meets only about 30–40% of the domestic demand. Milk production in Thailand based on crossbred dairy cattle using methods developed in industrialized countries. Yield per cow is low amounting to 8–10 kg/day. Furthermore, the mastitis incidence is high (56%) under smallholder management and became a more serious problem in herds with machine milking than in hand milking herds.

This study aimed to evaluate the effect of milking method and calf rearing management on milk production and udder health of the cows.

Fourty crossbred (75–87.5% HF) dairy cows were included in two × two factorial experiment. The milking management was: hand milking (HM) and machine milking (MM), and the calf rearing management was: artificial rearing (bucket feeding, AR) and restricted suckling (RS). The calf suckling period in RS treatment was ended at 84 days postpartum. Milking treatment was continued until the end of lactation. MM cows had a significantly ( $p < 0.05$ ) higher daily total milk production (TMP) (7.49 vs. 6.97 kg/day) and total lactation milk yield (TLMY) (2297.72 vs. 2137.41 kg) than HM cows. The RS cows produced significantly ( $p < 0.001$ ) more TLMY (2455.46 vs. 1979.68 kg), annual total milk yield (ATMY) (2277.23 vs. 1970.73 kg), lactation saleable milk production (LSMP) (1724.64 vs. 2165.90 kg), annual saleable milk production (ASMP) (2035.21 vs. 1721.17 kg) and daily saleable milk production (SMP) (7.98 vs. 6.47 kg/day) than the AR cows. The MM cows showed significantly ( $p < 0.001$ ) higher somatic cell score (SCS) than their HM herdmates throughout the study period. The AR cows exhibited a significantly ( $p < 0.001$ ) higher SCS than RS cows.

**Keywords:** Annual/daily saleable milk production, annual/daily total milk yield, artificial rearing, crossbred, lactation saleable milk production, restricted suckling, somatic cell score, total lactation milk yield