

REPRODUCTIVE EFFICIENCY OF CROSSBRED HOLSTEIN FRIESIAN HEIFERS IN THE NORTHERN PART OF THAILAND

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Abstract The study of reproductive efficiency of crossbred Holstein Friesian heifers in northern part of Thailand was performed. The record of 3,162 heifers, which had calves birth date in the year 2001 and 2002 from Chiang Mai Artificial Insemination Research and Biotechnology Center were used. All heifers were divided into 5 groups by percentage of holstien friesian ($\leq 50\%$ HF, $>50\%-75\%$ HF, $> 75\%-87.5\%$ HF, $> 87.5\%-93.75\%$ HF, and $> 93.75\%$ HF) which were 28 (0.88%), 336 (10.63%), 1,487 (47.03%), 966 (30.55%), and 345 (10.91%) heifers (percent) respectively. The finding of this study were that more than 88% of all heifers were $>75\%$ HF. The result of reproductive efficiency of all heifers showed that mean \pm SD of age at first calving and services per conception were 963 ± 186.91 days and 1.46 ± 0.82 times respectively. First service conception rate was 65.16 percent. Group of $>75\%-87.5\%$ HF showed the lowest age at first calving (940 days) and the lowest services per conception (1.25 times) and the highest first service conception rate (82.14%) were found in group of $\leq 50\%$ HF. Pair-wise comparison among groups, groups $>87.5\%-93.75\%$ HF, and $> 93.75\%$ HF had age at first calving less than group $>50\%-75\%$ HF ($p < 0.05$). The reproductive efficiency of heifers in the northern of Thailand have been shown in this study could be useful for the studies to improve the reproductive efficiency in the future.

Keywords: Reproductive efficiency, Crossbred Holstein Friesian heifers
