

EFFECTS OF PERCENTAGES OF HOLSTEIN-FRIESIAN BREED AND SEASON OF BIRTH ON AGE AT FIRST SERVICE IN HEIFERS

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ABSTRACT The objective of this study was to evaluate the effect of percentage of Holstein-Frisian (HF) breed and season of birth on age at first service. Data on birth date, first service date, season, and percentage of HF breed were collected from 37 small holder dairy farms in 5 areas of Mae-Jo dairy cooperation, Chiang Mai province. The seasons were categorized into hot (March-June), rainy (July-October), and cool (November-February), respectively. The percentages of HF breed were categorized into REGULAR (<90%), HIGH (90-<95%), and HIGHEST (>95%), respectively. Heifers aged more than one year were included in the statistical analysis, using Cox's model. The dependent variable was the interval between birth dates to the end of follow-up dates. Censor was defined when heifers was not bred within 815 days. From 400 heifers data, 260 heifers were included in the final model. Percentage of heifers with first insemination within 815 days old was 40.4% (105/260). Median of age to first service in heifers was 683 days. Results from Cox's model shows that HF breed was associated with age at first service by HIGHEST group had less age than REGULAR group (HR =1.76 and P<0.05). Heifers born in rainy season were inseminated earlier than heifer born in all season (HR = 1.67, and P<0.05). In conclusion, ages of heifers with HF breed > 95% and born in rainy season are less than the other groups. **Chiang Mai Veterinary Journal 2006;4(1):19-24.**

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