EFFECTS OF PARITY AND STAGE OF LACTATION ON FIRST SERVICE CONCEPTION IN CROSSBRED DAIRY COWS

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Abstract The objective of this study was to determine the effects of the stage of lactation and parity on first service conception in holstein crossbred dairy cows belonged to small holder farmers in northern part of Thailand. Cows in the first to sixth lactation inseminated within 30-150 days after calving were conducted to study. Data was consisted of 4,561 cows and the 5,596 observations of AI times with the result of pregnancy diagnosis. The first service conception was analyzed by logistic regression (PROC LOGISTIC; SAS). For univariate, cows in sixth lactation had higher conception rate when compared with first lactation cows (Odd ratio = 1.49; 95%CI = 1.177-1.88). The first service conception of cows inseminated 91-120 days postpartum or 121-150 days was not statistically different when compared with cows inseminated during 60-90 days (Odd ratio = 1.05; 95% Wald CI = 0.92-1.20 and Odd ratio = 0.91; 95% Wald CI = 0.91-1.08 respectively) .For multivariate analysis, Cows in lactation 5 and 6 had higher risk of conception than first lactation cows. Cows inseminated within 60-90 days had the first service conception as cows inseminated 61-120 days or 121-150 days (Odd ratio = 0.82; 95% Wald CI = 0.92-1.20 and Odd ratio = 0.91; 95% Wald CI = 0.77-1.08 respectively). Insemination for cows during 30-60 days had lower pregnancy outcome. In conclusion, this study presented that parity and stage of lactation effected on first service conception in crossbred dairy cows.

Key words: crossbred dairy cows, stage of lactation, parity, first service conception.