Orasa Boonmerati 2014: The Effect of Grouping with Heat Mount Detectors on Heat Detection Efficiency in Lactating Cows. Master of Science (Animal Science), Major Field: Animal Science, Department of Animal Science. Thesis Advisor: Assistant Professor Jamroen Thiengtham, Ph.D. 62 pages.

The reproductive management efficiency of postpartum dairy cow can be monitored by improving estrus detection. The objective of this research was to examine the effect of grouping technique with heat mount detectors in loose housing dairy production system on heat detection rate and submission rate in lactating cow. The cows were devided into 2 groups, 9 cows in each group. In Group I, the animals were observed for estrus behavior (G) in group. In Group II, they were applied heat mount detector patches on the tail head area (Estrus Alert®; G^+). The data were collected when heat mount detector patch had been rubbeb off and the colour changed from black to red more than 50 % by observation. The estrous cows were artificial inseminated (AI) and AI records on farm were used to calculate submission rate. The analysis of heat detection rate and submission rate using the Chi-Square test (Test For Independence). The results showed that oestrus detection rate of the cow in G group and G^+ group were significantly different ($P<0.01$) but submission rate were not significantly different ($P>0.05$). Considering the detection of estrus during the experimental period (45 days), this value of the cow in G^+ group was observed to reach 100 percent within shorter time than that of the cows in G group (22.2%). The results indicate that the use of heat mount detectors may improve heat detection efficiency and increase number of subjected to artificial insemination in the dairy herd, with no improvement of submission rate.

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