

**EFFECT OF RECTAL AND VAGINAL TEMPERATURE AT
ARTIFICIAL INSEMINATION ON PREGNANCY RATES OF
HIGHLAND AND LOWLAND DAIRY CATTLE**

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ABSTRACT

This study aimed to know the best rectal and vaginal temperature for artificial insemination in correlation to pregnancy rates in dairy cattle. One hundred dairy cattle were used as samples for this study. The following detail are as follow, fifty dairy cattle from Nongkojajar districts and fifty dairy cattle from Grati district. Rectal and vaginal temperature were measured manually from every dairy cattle at the time of artificial insemination. Observation was done on the 40th-60th day after insemination to determine pregnancy rate. The method used in this research is mean to get the best rectum temperature and vagina temperature for the artificial insemination and regression tree analysis to correlation in conception rate percentage. The result of this study showed that the best rectal temperature 38 °C and vaginal temperature 39 °C. Vaginal temperature directly affect on pregnancy rate because in tree regression statistic test describe not affect of rectal temperature instead of vagina temperature which affect pregnancy with <39.8 of temperature and 68,8% of pregnancy.

Key word : dairy cattle, rectal temperature, vaginal temperature, pregnancy rates, highland, lowland