

## **Performance of Sahiwal in Relation to Environmental Parameters in the Dry Zone of Sri Lanka**

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This study was conducted to assess the production and reproductive performance of the Sahiwal in relation to certain environmental factors in the dry zone of Sri Lanka. Data on calving, lactation, age at first calving and birth weight of calves were collected. The collected data were tabulated and analyzed in relation to ambient temperature (AT), relative humidity (RH) and rainfall (RF) during the period of 2005 to 2010. The mean AT fluctuated between 26.6 °C and 34.9 °C while RH varied between 64.7% and 87.6%. The annual RF showed a bimodal pattern, reaching the highest value from October to December with and a very small elevation in March to May. The majority of the calves (47%) were born between February to May. The average gestation length was  $285.7 \pm 56.24$  days and the gestation length was not different between the two sexes of calves. Mean ambient temperature of the month is negatively ( $r=-0.59$ ,  $p<0.05$ ) correlated to birth weight. The results suggested that the pre-partum period to be the most vulnerable to environmental stress. The temperature and relative humidity were the most important environmental factors affecting reproductive and productive performance of Sahiwal.

**Keywords:** Postpartum, Birth weight, Milk yield, Environment, Sahiwal