

Heat Stress Mitigation Potential of PHYTOCEE® in Cattle : Effects on Rectal Temperature and Respiratory Rate

OBJECTIVE

To evaluate effect of PHYTOCEE® on rectal temperature and respiratory rate in heat stressed dairy cows.

MATERIALS AND METHODS

A total of 48 Holstein Friesian cross bred (HFX) dairy cows aged between 3-8 years and in their early, mid or late lactation period were selected for this study. Selected dairy cows were equally divided in to 4 experimental groups (n=12) namely G1-Control, G2-PHYTOCEE®-50 (50 g/animal/day), G3-PHYTOCEE®-75 (75 g/animal/day), and G4-PHYTOCEE®-100 (100 g/animal/day). The environmental temperature during the study period was between 35°C to 45°C. The duration of treatment was 4 weeks. The dairy cows were used as their own controls and, therefore, allocated to a control pre-treatment period (week 0), followed by a treatment period (4 weeks). The assessment parameters viz. rectal temperature (°F) and respiration rate (breaths/min) were evaluated.

RESULTS

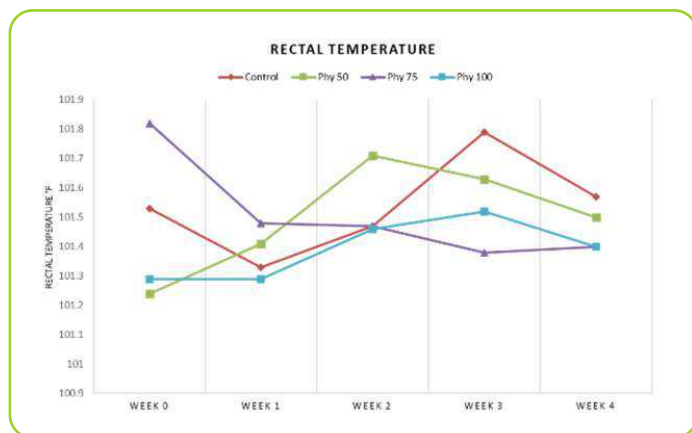


Figure 1: Effect of PHYTOCEE® on rectal temperature in dairy cows



Figure 2: Effect of PHYTOCEE® on respiration rate in dairy cows

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CONCLUSIONS

PHYTOCEE® supplementation at 75 g/animal/day effectively reduced the respiratory rate and rectal temperature during the treatment period as compared to week 0 (pretreatment).

OUTCOME

Hence, supplementation of PHYTOCEE® at 75 g/animal/day could be recommended for amelioration of heat stress conditions in dairy cows under field conditions.