

Impact of PHYTOCEE® on Heat Stress Amelioration in Cattle: Effects on Milk Yield and Milk SNF

OBJECTIVE

To evaluate effect of PHYTOCEE® on milk yield and milk SNF (solids not fat) in heat stressed dairy cows.

MATERIALS AND METHODS

A total of 12 Holstein Friesian cross bred (HFx) dairy cows aged between 1-5 years and in their early and mid-lactation period were selected for this study. Selected dairy cows were equally divided in to 2 experimental groups namely G1-Control group (n=6) and G2-PHYTOCEE® treatment group (n=6) at 50 g/animal/day. The Temperature-Humidity Index (THI) thresholds for heat stress in cattle was as follows; for mild heat stress (THI 72 to 79), for moderate heat stress (THI 79 to 89) and for severe heat stress (THI > 89). The duration of treatment was 33 days (5 days baseline + 28 days PHYTOCEE® supplementation). The milk yield in litres (L) and SNF (%) were recorded on daily basis and assessed.

RESULTS

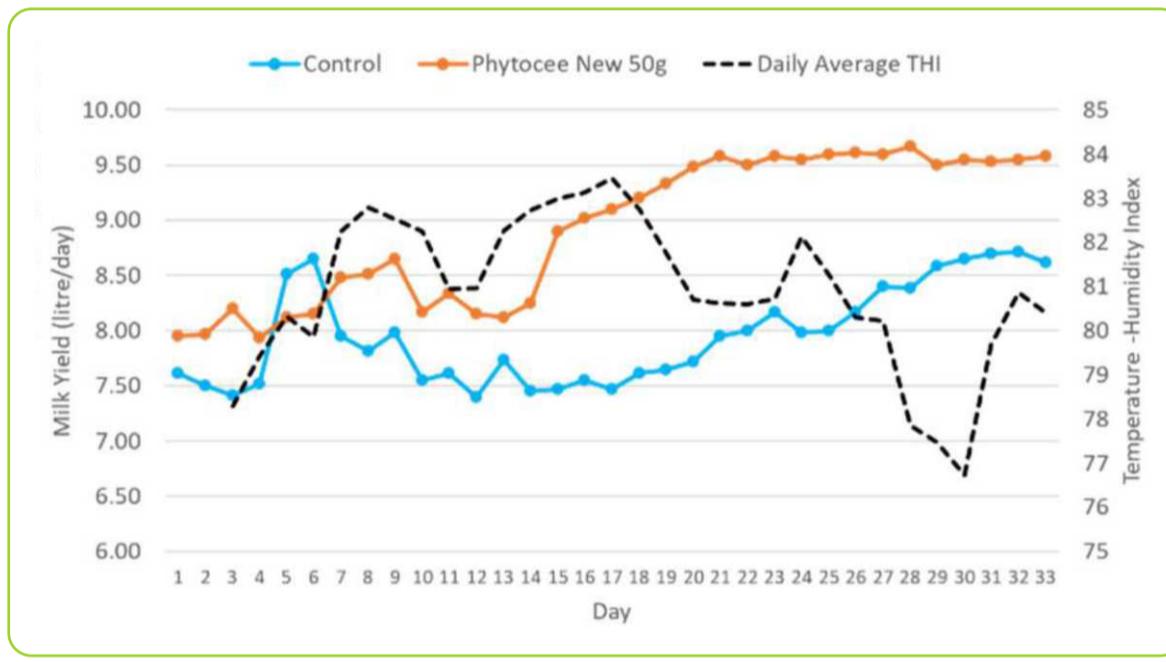


Figure 1 : Effect of PHYTOCEE® on milk yield (L)

Values are expressed as Mean; n=6

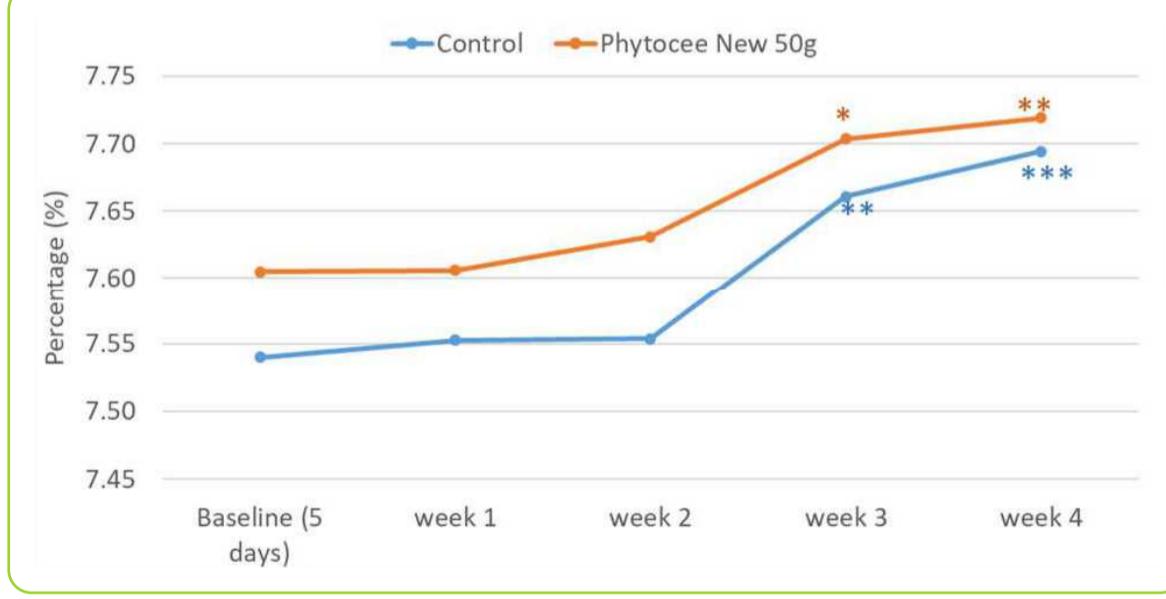


Figure 2 : Effect of PHYTOCEE® on milk SNF (%)

Values are expressed as Mean; n=6

*** p<0.001, ** p<0.01, * p<0.05 as compared to baseline based on Repeated Measures One-way ANOVA followed by Dunnett's multiple comparison post-hoc test

CONCLUSIONS

- PHYTOCEE® supplementation improved the milk production from day 12 as compared with baseline even though at higher THI and had sustained the milk production thereafter.
- PHYTOCEE® supplementation significantly increased the SNF (%) from week 3 and week 4 as compared with baseline.

OUTCOME

Hence, PHYTOCEE® supplementation to dairy cows during environmental stress condition can reduce the discomfort and improve the milk production.