OBJECTIVE

To evaluate effect of PHYTOCEE® on milk yield 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 35ºC to 45ºC. 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 milk yield in litres (L) was recorded on daily basis and assessed.

RESULTS

Effect of PHYTOCEE® on milk yield (L) in dairy cows

Group	Initial (Day 1-2)	Day 3-7	Day 8-14	Day 15-21	Day 22-28
G1-Control	5.28 ± 0.51	5.45 ± 0.46	5.07 ± 0.51	5.01 ± 0.52	5.13 ± 0.49
G2-PHYTOCEE®-50	7.86 ± 0.53	7.64 ± 0.52	7.52 ± 0.45	$*7.45 \pm 0.43$	7.75 ± 0.39
G3-PHYTOCEE®-75	9.15 ± 0.82	9.38 ± 0.91	9.17 ± 0.75	9.36 ± 0.82	$**9.65 \pm 0.75$
G4-PHYTOCEE®-100	9.89 ± 0.86	9.90 ± 0.84	10.03 ± 0.78	10.08 ± 0.71	$*10.32 \pm 0.79$

Values are expressed as Mean ± SEM; n=12; $*p<0.05$ and $**p<0.01$ (significantly changed) as compared to Week 1 based on Repeated Measures two-way ANOVA followed by Bonferroni Test.
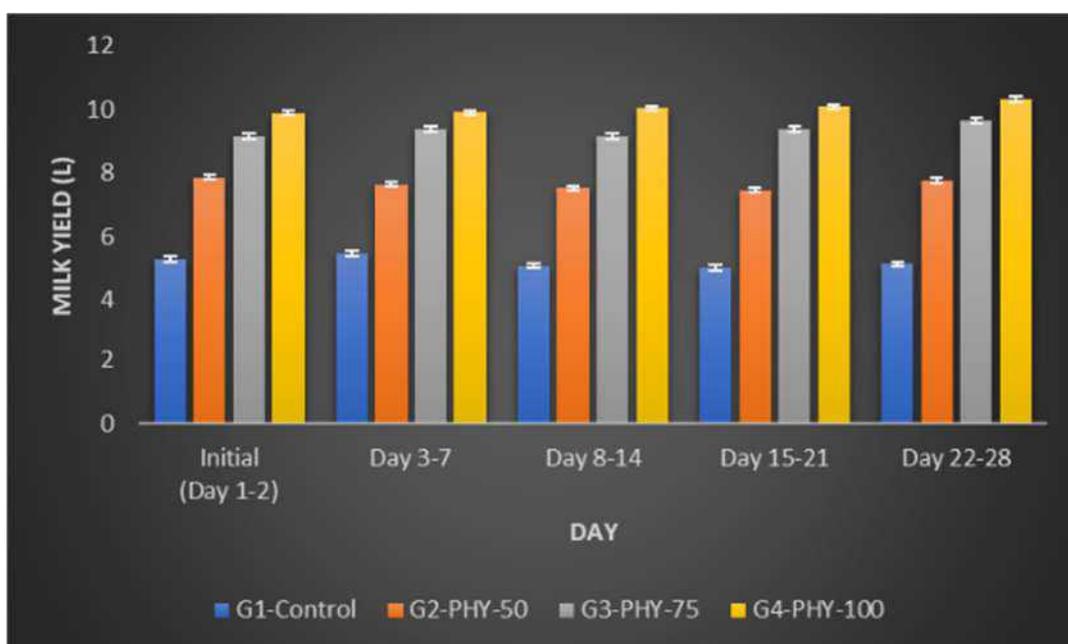

Figure : Effect of PHYTOCEE® on milk yield (L) in dairy cows

CONCLUSIONS

PHYTOCEE® supplementation at 75 and 100 g/animal/day increased the milk production of dairy cows by 500 and 430 ml/day respectively during the supplementation period of day 22-28 as compared to initial yield.

OUTCOME

Hence, supplementation of PHYTOCEE® at 75 or 100 g/animal/day could be suggested for alleviation of negative effects of heat stress and to augment milk production in heat stressed dairy cows.