

Efl cacy of PHYTOCEE® on Survivability of Zebra Fish Subjected to Ammonia Stress

OBJECTIVE

To evaluate the effect of PHYTOCEE® on survivability of model fish, Zebra fish (Danio rerio) in an ammonia stress model.

MATERIALS AND METHODS

The test groups consisted of two groups viz. G-Normal control (n=20) received the normal feed without PHYTOCEE® and G2-Experimental group (n=20) received feed added with PHYTOCEE® [1 kg/ton (0.1%)]. The fishes in G1 and G2 were fed with respective diets for 15 days. On day 16, the fishes in both G1 and G2 groups were challenged with ammonium acetate at 40mM and were observed continuously and the mortality at every hour (time in hrs) was recorded till 100% mortality.

RESULTS

Effect of PHYTOCEE® on survivability rate of Zebra , sh

	0 hr	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	9 hr	10 hr	11 hr	12hr	13hr	14hr
G1-Normal Control Group															
Live (No.)	20	17	08	00	--										
Mortality (No.)	00	03	09	08	--										
Cumulative Mortality (%)	00	15	60	100	--										
G2-Experimental Group															
Live (No.)	20	20	19	12	12	12	10	09	07	06	04	03	02	01	00
Mortality (No.)	00	00	01	07	00	00	02	01	02	01	02	01	01	01	01
Cumulative Mortality (%)	00	00	05	40	40	40	50	55	65	70	80	85	90	95	100

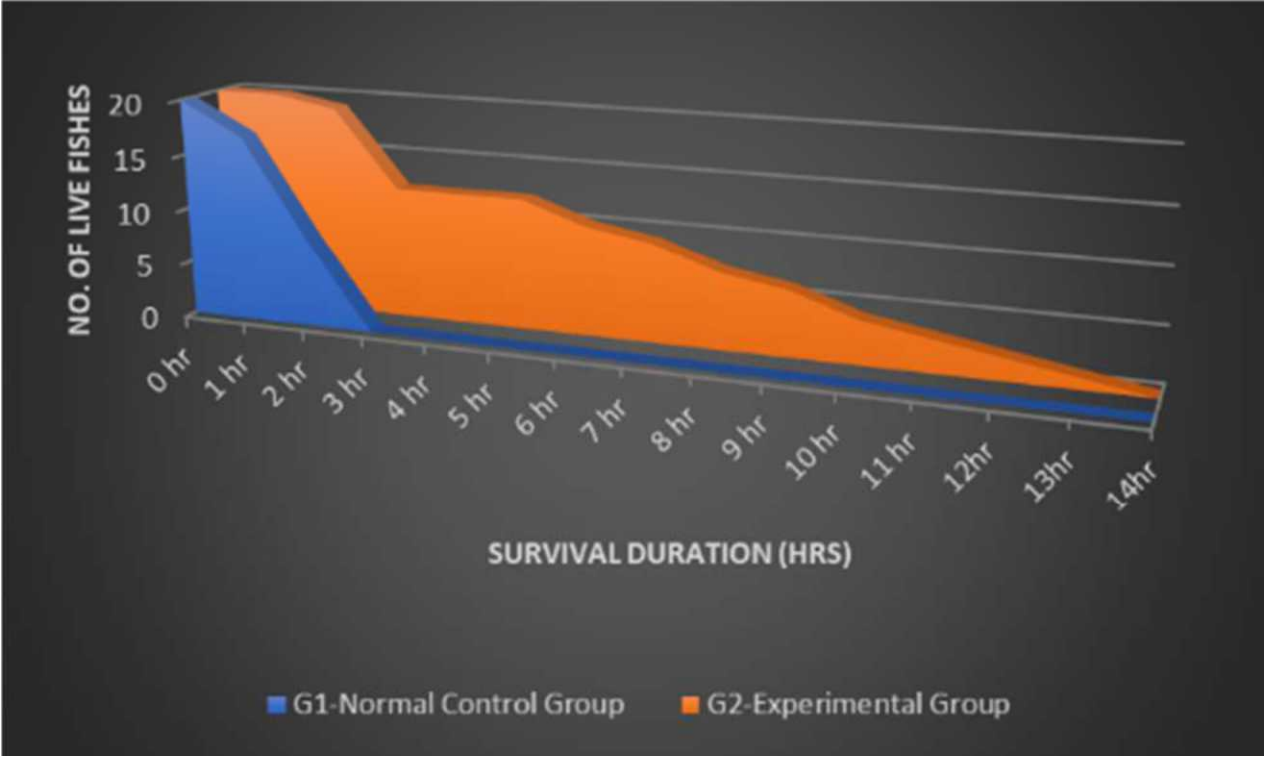


Figure. Effect of PHYTOCEE® on survivability rate of Zebra , sh

CONCLUSIONS

- Survivability of Zebra fish was better in PHYTOCEE® supplemented group as compared to normal control.
- PHYTOCEE® afforded the protection against ammonia toxicity in Zebra fish.

OUTCOME

PHYTOCEE® supplementation at 0.1% may offer antistress and/or immunomodulatory effect to aquatic species and improve their survival.