

Efficacy of PHYTOCEE® on Survivability of Shrimps Under Salinity Shock Stress

OBJECTIVE

To evaluate the effect of PHYTOCEE® on survivability of white leg shrimp *Litopenaeus vannamei* under salinity shock stress.

MATERIALS AND METHODS

The experimental shrimps were reared in pond (9.6*40*1.2 m) under standard rearing conditions. The shrimps were divided in to 4 groups having 210 shrimps per group distributed in three replicates in each group. G1 served as normal control and supplemented with basal Stay C (500 g/ton), G2 served as positive control, and supplemented with basal + top-up Stay C (500+1000 g/ton). G3, and G4 groups were supplemented with PHYTOCEE® at 100% replacement of top-up Stay C and 50% of top-up Stay C respectively. Shrimps in all group were subjected to salinity shock stress. The duration of treatment was 42 days. The survivability assessment parameter viz. final mortality percentage of shrimps and median lethal time in hours were evaluated.

RESULTS

Effect of PHYTOCEE® on survival parameters of shrimps

Groups	Final Mortality (%)	Median Lethal Time (Hours)
G1-STC (500 g/ton)	66.667 ± 1.672	260
G2-STC (1500 g/ton)	40.000 ± 0.000	-
G3-STC + PHY (500+1000 g/ton)	50.000 ± 1.054	340
G4-STC + PHY (500+500 g/ton)	70.000 ± 0.000	260

Values are expressed as Mean ± SEM; n=3; p>0.05 based on one-way ANOVA; STC, Stay C; PHY, PHYTOCEE®

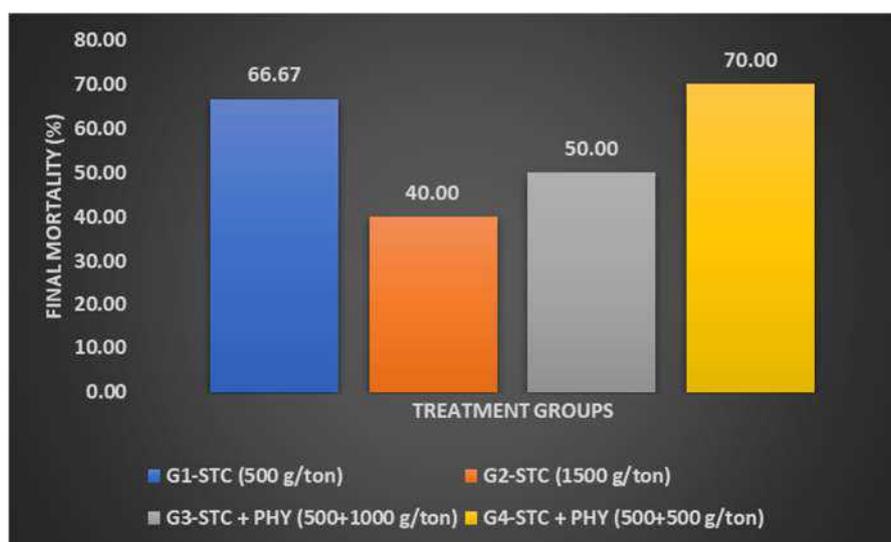


Figure : Effect of PHYTOCEE® on final mortality (%)

CONCLUSIONS

100% replacement of top-up Stay C with PHYTOCEE® resulted in better survivability of shrimps under salinity shock stress.

OUTCOME

Hence, supplementation of PHYTOCEE® (1000 g/ton) along with Stay C (500 g/ton) could be suggested for better survivability of shrimps under salinity shock stress.