

## ABSTRACT

An Experiment was carried out to determine whether surfactant detergent LAS (Linear Alkylbenzene Sulfonate) has a negative effect for the development of each stadia of *F. cancrivora* embryo for hatching to larva.

Frog eggs that had been ovulated were put in petri dish each contained ten eggs. The frog eggs in the petri dish were given detergent LAS treatment that had been mixed with water 0.8 mg/l, 1.6 mg/l, 2.4 mg/l, 3.2 mg/l and 4 mg/l concentration, respectively. The research was designed by Split Plot with 5 replication.

The result of the experiment showed that the abnormality of embryo was increased in the line with the addition of concentration of detergent LAS. In gastrula stadium, the abnormality of embryo increased significantly at the concentration of 3,2 mg/l and 4 mg/l. In neurula stadium the abnormality of embryo was commenced at the concentration of 2.4 mg/l, 3.2 mg/l, and the highest abnormality of embryo was occurred at the concentration of 4 mg/l ( $p < 0.05$ ). There is an correlation between the concentration of detergent LAS and the embryo development stadium toward the embryo abnormality. The increase of detergent LAS concentration resulted in the increase of the abnormal embryo percentage, especially in the critical development stadium that are gastrula, neurula and hatching period. The detergent LAS at the concentration of 0.8 mg/l, 1.6 mg/l, 2.4 mg/l, 3.2 mg/l and 4 mg/l did not decrease the *F. cancrivora* embryo hatching level. Nevertheless, the higher the concentration of detergent LAS, the higher the death percentage of the frog embryo would be.

Key words : *Fejervarya cancrivora*, Linear Alkylbenzene Sulfonate (LAS), abnormality of embryo