ABSTRACT

Carbofuran was very toxic at bird and chicken, a granule of them can kill a small bird. Exposure to adult organism, carbofuran can inhibit choline esterase (ChE) activity of human nerve system, vertebrate and insect. The abnormality of brain development at chick embryo can result the abnormality of function in a hatched and also in growth period to the adult chicken. This research used Randomized Complete design with 3 treatments and repetition with 10 fertile eggs each. Each egg in the control group were injected 0.1 ml NaCl physiologic 0.09%. All of eggs were stored into incubator in 38°C with 60 – 80 % humidity. Observation to brain were carried out in day old chick (DOC) and 2 weeks after hatched, the measurement of brain weight, amount of purkinje cell. The exposure of carbofuran in degraded dose resulted in the decrease brain weight of 2 weeks chicken age and no significant differences in DOC in those groups. Brain have responsed to carbofuran as toxic agent and subserve growth regulatory and morphogenetic functions in developing embryo. Although carbofuran can promote cholinergic activity evoke neurodevelopmental damage, but brain vesicle resistant to carbofuran as good as adult brain.

Key words : Carbofuran, brain chicken,