**RESPONSE of *Tilapia zillii* Juveniles to DIFFERENT CONCENTRATIONS OF 2,2-DICHLOROVINYL DIMETHYL PHOSPHATE (DDVP).**

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Concerns have often been raised about the moderation of agro-chemicals on cropland not so much of such is raised on the use of chemicals on animal farms. Domesticated large animals are often bathed against ectoparasites using chemicals. These chemicals often end up in runoff which empty into rivers and streams where they constitute danger to aquatic living organisms. The problem is compounded on integrated farms where crops, animals and aquatic food organisms are jointly raised. The beauty of integrated farming is the recycling of resources among the various components of the farm. More often than not animal bath water and waste water from chemical treated animals are emptied into drainages which empty into larger pools of water within or outside the farm are consequently used for fish culture.

This study finds out the lethal concentration of 2,2-dichlorovinyl dimethyl phosphate (DDVP) on juveniles of *Tilapia zilli*. This study was carried out on juveniles of *Tilapia zillii* weighing 0.8 – 1.0g raised in a renewable culture facility. Each of the treatments was in three replicates. The bioassay media concentrations were 0.075, 0.15, 0.225 and 0.3mg/litre to culture tanks. Fish were stocked 3/litre. Physico-chemical parameters of the culture media were measured before and after treatments were added. Data on the fish and water parameters taken and analysed using one way Analysis of Variance (ANOVA) differences between means were separated by LSD. Fish immediately became restive and uncoordinated, restlessness increased with length of exposure and increase concentration of DDVP. LC50 for juvenile *T. zillii* was after 48 hours at 0.075mg/*l*, 36 hours at 0.15mg/*l* and 24 hours at 0.225mg/*l*. Histological report shows alteration in some of the internal organs. The result indicates that DDVP is highly toxic to *Tilapia zillii,*  care should be taken in its use on integrated farms. It should be degraded/detoxified before it is carefully disposed to the environment.

Toxic, DDVP, Tilapia zillii, agro-chemical, detoxify, integrated farm.