

Effect of Pollutant Ingestion on Pupation and Feeding Efficiency of *Spodoptera exigua*

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Heavy metals, Polychlorinated Biphenyls (PCB) and Dioxins are pollutants that may affect organisms. To find out the effect of these pollutants, the beet armyworm (*Spodoptera exigua*) were fed with contaminated artificial food. Heavy metals (mercury, lead and cadmium) and dioxin completely inhibited pupation at 1,000ppm. PCB's has significant effect on pupation even at 0.005ppm but Juvenile Hormone Esterase (JHE) activity was not affected during in-vitro assay. Mercury was found to be lethal to *S. exigua* late instar larvae at the concentration of 1,000ppm. Cadmium, although not lethal at the same concentration, decreased the *S. exigua* efficiency of food conversion to a significant degree. At lower concentrations, heavy metals have no effect on the efficiency of food conversion. PCB's affect efficiency of food conversion and digestibility even at a very low concentration of 0.05ppm. Dioxin at 1,000ppm has no effect.