Interest in amphibians continues to rise as people become more and more aware of this fascinating group of animals. They occupy a prominent status in the evolutionary history, for being the first vertebrate to establish life on land. They contribute a major portion of the vertebrate biomass in many semiterrestrial and aquatic ecosystems, and occupy a very important position in the food webs as predators and prey. Furthermore recent reports suggest that the amphibian populations in many parts of the world are declining at an alarming rate. Incidences of the occurrence of deformed amphibians are also reported to be increasing. According to Global Amphibian Assessment (GAA), nearly one-third (32%) of the world’s amphibian species are threatened, representing 1,896 species. By comparison, just 12% of all bird species and 23% of all mammal species are threatened. The mechanisms responsible for many of these declines have remained elusive. Owing to their semipermeable skin, relatively less protected eggs, biphasic life history and position in the food webs, they can be exposed to waterborne and airborne pollutants in their breeding and feeding habitats. Though there are some serious efforts to study the possible cause for the world wide decline, research on amphibian toxicology is relatively recent and sparse when compared with the extensive studies devoted to fishes, birds and mammals. Euphlyctis hexadactylus is a common amphibian species found in Kerala. Since water-logged paddy fields and fresh water bodies form their favorite dwelling places, they are having a high degree of chance to be exposed to agricultural contaminants like pesticides. The objective of the present study is to evaluate the effects of two commonly used pesticides-nuvacron and carbaryl-on the histopathological and biochemical aspects of *Euphlyctis hexadactylus*. 