

## OCUPATIONAL ACUTE PESTICIDE POISONING AMONG FARMERS IN SRI LANKA: A CROSS SECTIONAL STUDY

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Most estimates concerning the extent of acute pesticide poisoning have been based on data from hospital admissions which would include only the more serious (suicides) cases. The latest estimate by a WHO task group indicates that there may be one million serious unintentional poisonings each year and in addition two million people hospitalized for suicide attempts with pesticides. This necessarily reflects only a fraction of the real problem. On the basis of a survey of self-reported minor poisoning carried out in the Asian region, it is estimated that there could be as many as twenty five million agricultural workers in the developing world suffering an episode of poisoning each year. Least attention was paid by the scientific community on agricultural work related mild pesticides poisoning and major focus on suicide. Occupationally acute pesticide poisoning is an important health problem among Sri Lankan farm workers, but there is a paucity of pesticide poisoning data from Sri Lanka. Using the FAO standard questionnaire of a possible occupationally acute pesticide poisoning, the prevalence of acute work-related pesticide poisoning among farmers in Sri Lanka was investigated.

A sample of 291 pesticide applicators from five districts at 115 villages in Sri Lanka was participated in face to face interviews. Respondents who self-reported having one or more of a list of twelve symptoms within 24 hours after pesticide application were categorized as having suffered occupational acute pesticide poisoning. The pesticide poisoning was assessed. A total of 291 (85%) pesticide applicators reported an acute work-related pesticide poisoning. The most frequent symptoms mentioned were reported by the 291 farmers were headache (42%), dizziness (40%), blurred vision (30%), skin irritation (25%), nausea/vomiting (13%), and excessive salivation (sixteen percent). Most occupational acute pesticides formulations are chlorpyrifhos 400 g/l EC, profenophos 500 g/l EC, abemectin 18 g/l EC and glyphosate 360 g/l SL. Cholinesterase test of farmers was not used for this report due to delaying of analysis of blood samples.

This study found that 85% of Sri Lankan pesticide applicators suffered occupational acute pesticide poisoning and suggests that pesticide safety training, safe application methods, and precautionary behavioral measures could be effective in reducing the risk of pesticide poisoning. Pesticide use is probably one of the largest toxicological problems in Sri Lanka, and a coordinated action by authorities, society and international bodies is needed to limit the number of poisoning and the environmental pollution.

**Keywords:** Sri Lanka, Acute pesticide poisoning, farmers, occupational poisoning