

Research Title	Risk Assessment for Use Chemicals in Agriculture on the Highland of Karen Community in Ta Phoen Khi Village, Suphan Buri Province
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This research study aims to identify hazards and risks from the use of agricultural chemicals. Hazard analysis and risk analysis of the use of agricultural chemicals by considering the potential impact covers the three factors of security and healthy human, properties and environmental. That's Including the assessment of the risk reduction measures and the use of agricultural chemicals. The assessment tool is designed to assess the risks Hazard and Operation Studies (HAZOP).

The results of risk factors can be collected in various of potential danger. Divided by events that happened are before spraying of agricultural chemicals have 9 factors, during spraying have 8 factors, after spraying have 5 factors and other categories have 7 factors. When the hazard analysis by assessing both the likelihood of risks and the severity of the consequences occurred and determine the risk analysis to the risk level of each factor. The results showed that the risk factors are the level of extreme risk in the before spraying has 1 factor is the factor of not using gloves to mix the chemicals. During spraying have 5 factors including factors 1) do not wear glasses to prevent chemical drift into the eye 2) do not wear gloves to prevent contact with skin 3) the direction of spraying is invalid 4) smoke while spraying and 5) eating and drinking water in agricultural areas. After spraying have 4 factors including factors 1) do not showers or change clothes immediately after spraying is completed 2) effluents from cleaning chemicals near natural ponds 3) do not separate washing clothes in general and 4) into the sprayer within 1-3 days after spraying. And the other categories have 3 factors including factors 1) collect behavior in chemicals used and not used incorrectly 2) disposal of chemical residues incorrect such pour in the general area and 3) do not managed and disposal of chemical containers properly exhausted as dumping and burial.

However, it can be seen that the likelihood of danger from the use of agricultural chemicals in Karen community are based on the chemical behavior incorrect there. Considering the impact of the use of agricultural chemicals can be seen that the risk factors used in the assessment would cause impacts three factors : 1) security and healthy human, 2) properties and 3) environment. Moreover, the evaluation measures and ways to reduce the risks from the use of agricultural chemicals in the form of measures that essentially transfer the knowledge of the chemical, using chemicals properly, use of personal protective equipment, practices correctly during operation and chemical management both of which have not been used and exhaustion etc.