



Analysis of chlorpyrifos and some toxic heavy metals in vegetables from Chiang Khan district Loei province

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This study is aimed to analysis and compared contents chlorpyrifos and heavy metals (Chromium, Lead, Cadmium) in vegetables sample from Chiang Khan district, Loei province. The samples were collected of 5 species including *Diplazium esculentum*, *Limnocharis flava* (L.) Buch, *Lasia spinosa* (L.) Thwaites, *Ipomoea aquatica* Forsk and *Neptunia oleracea* Lour. And were collected in December, 2014. The quantity analysis of chlorpyrifos by HPLC. The results showed that chlorpyrifos maximum contents in *Neptunia oleracea* Lour. of 0.0416 ± 0.0034 mg/kg and not detected in *Limnocharis flava* (L.) Buch. The determination of heavy metals by AAS. Results showed that highest content of Lead in *Diplazium esculentum*. of 0.3713 ± 0.0288 mg/kg. This study has found that the contents of chlorpyrifos and heavy metal in vegetables were lower than the standard value of Codex and Ministry of Public Health of Thailand. The percent recoveries of chlorpyrifos and heavy metals were ranges 89.29-98.74 % .

Keywords : chlorpyrifos; Codex; heavy metal; vegetable