Namyen Siripat 2009: Atrazine Residues in Soil Sediment in Huaykapo Watershed, Nam Nao District, Phetchabun Province. Master of Science (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Associate Professor Nipon Tungkananuruk, Ph.D. 107 pages.

Atrazine is the widely used herbicide in corn filed in Huaykapo watershed, Nam Nao District, Phetchabun province. The atrazine contamination will effect both the environment and human health. In this research, the determination of atrazine residues in soil sediment from Huaykapo Watershed introvert type 4 month (August , September , October and November 2008) was conducted by composite sampling from 15 station in Huaykapo watershed and using high performance liquid chromatography to measure the atrazine concentration.

The percentage of organic matter, sand, slit, clay and base saturation, cation exchange capacity and pH of 4 month soil sediment were investigated and found that in each value of each month the nearly values were obtained.

The results of atrazine residues determination showed that on August, September, October and November 2008 had values at average 44.9, 26.0, 8.4 and 30.4 μg/kg, respectively. It was observed that in low water quantities on August and November had average atrazine residues (38.4 μg/kg) higher than in high water quantities on September and October (17.2 μg/kg). Because of in the period august and November was the season that started cultivating corn, the agriculturist started the plow loosens the soil and blow a atrazine. Consequently the contents of atrazine residues in Huaykapo watershed were agreement with the accepted value (22 mg/kg) from Pollution Control Department.

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