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ORGANOPHOSPHATE PESTICIDE LEVELS IN URINE OF FARMERS PLANTING MIMOSA AND PEOPLE LIVING IN THE NEARBY AREA. ASST. PROF. DR. PENSRI WATCHALAYANN, FACULTY OF PUBLIC HEALTH, THAMMASAT UNIVERSITY, 12121 THAILAND (E-MAIL: PENSRI.WATCHALAYANN@GMAIL.COM)

Abstract:

Organophosphate pesticides were used in planting mimosa, an edible vegetable growing in water pond. This research aimed to investigate the levels of organophosphate pesticides in water and organophosphate pesticides exposure among farmers planting mimosa. 35 farmers and 35 of people living in the same community were interviewed individually about their personal data and working behavior. Moreover organophosphate pesticide metabolites in their urine were determined. Each of 35 water ponds was also analyzed for organophosphate pesticides. The levels of organophosphate pesticide in water pond planting mimosa were less than detection limit (Limit of Detection = 0.01 mg/l). Metabolites of organophosphate pesticides were found in urine of 11 farmers with the average of 7.197 mg/l while 14 person of the control group had been found urinary organophosphate metabolites with the average of 3.223 mg/l. There was no statistical difference of urinary organophosphate pesticides metabolites among these two groups ($p<0.05$) It suggested that there may be another organophosphate pesticide exposure pathway which should be determined in order to create appropriate measures for reduction pesticides exposure. However, awareness and safe use of pesticides should be expeditiously promoted.

Keywords:

Organophosphate pesticide, Pesticide metabolites, Pesticide exposure, Mimosa

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