**Determination of pesticide residues: Buprofezin, Chlorpyrifos, Cypermethrin and Permethrin in rice from Kandal, Prey Veng and Svay Rieng Province.**

**Kin Bora**

Cambodia is a country that depends on agriculture. Most of people are rice farmers. They use pesticides to protect their crops, especially during the dry season, but some of the pesticides they use have been banned by the Ministry of Agriculture. Nowadays, pesticide residues on agricultural products are a big concern worldwide not only on rice but also on fruit, vegetables and cereals which many people eat everyday. There has been a lot of research around the world on pesticide residues because of the effect on human health and the environment. The research presented here is a study of pesticide residues in rice from Kandal, Prey Veng and Svay Rieng Province. Samples were collected directly from farmers after interviewing them about their use of pesticides. Buprofezin, Chlorpyrifos, Cypermethrin and Permethrin were the most common pesticides used. Samples were extracted with ethyl acetate and cleaned up by passing through SPE column (ENV+) with Ethyl acetate/cyclohexane (1:1)​​ . The extract was analyzed by GC-MS (Gas Chromatography Mass Spectrometry) and compared with analytical standards. No pesticide residues are dectected for all samples below MDL (Buprofezin: 1.25ppm, Chropyrifos: 1.25ppm, Cypermeth rin: 3.125ppm, Permethrin: 1.14ppm).​​ Moreover, we had found the surprise results of pesticides which we bought from the market in Phnom Penh of 2 bottles are wrong with the label outside bottle and inside bottle. The 2 bottles of pesticides are HOPSAN 50EC on the label: Phenthoate 45%, Fenobucarb 30%, but inside bottles: Chlor​pyrifos and Cypermethrin, another one is Losmine 250 EC on the label: Imidacloprid 50g/l, Chlorpyrifos-ethyl 200g/l, but we didn’t see them inside the bottle.