with main component of the device: photometric sensor and principle based on the works by Ellman. By a non-probabilistic sampling, we recruited 190 farmers from the two townships fulfilling all the inclusion criteria and available to participate to all stages of the study.

**Results** The studied population is essentially young: 83.16% were under 45 years old, with 75% illiterates. 70.3% of the farmers have more than 10 years of spraying experience. We noted that 2.06% of the farmers still used domestic containers to prepare the pesticides. As precautions to prevent poisoning after spraying, 10.31% of the surveyed farmers drink milk. There was a significant AChE decrease between pre-exposure (AChE 3.08±2.3 UI/ml) and post-exposure (AChE 2.65±0.52 UI/ml); p=0.009. 73.1% of the farmers were concerned by that inhibition. Those who could read the pictograms faced less inhibition of AChE (p<0.05). The age variables, level of education and experience of pulverisation do not have any influence on AChE inhibition.

**Conclusion** AChE monitoring is needed for the surveillance of farmers.