

Investigation of Efficacy of Cleaning Methods of food (*Lactuca Sativa* and Tomato *Solanum lycopersicum*) by Qualitative Assessment of Pesticides and evaluation Mutagenicity

Ribeiro, L.¹; Oliveira, C.E.F.¹, Oliveira, M.S.N², Souza, A.O¹, Dorta, D.J³

¹Instituto Federal de Educação, Ciência e Tecnologia de Rondônia – Campus Ji-Paraná; ² Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro – Campus Duque de Caxias; ³Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto-Usp

INTRODUCTION: The agriculture practices requires, increasingly, the use of pesticides and therefore, several pests have become stronger, thus requiring more efficient pesticides. The presence of pesticide residues on vegetables can result in the poisoning of organism exposed and lead to development of several diseases as the cancer cells. To avoid pesticide intake, some recommendations of vegetables cleanings are recommended by governmental agencies. **OBJETIVES:** This work was aimed to analyze qualitatively possible pesticide residues on *Lactuca sativa* and *Solanum lycopersicum* by mutagenic assays using *Allium cepa* exposed to extracts of cleaning of vegetables using distilled water, aqueous NaHCO₃ solution (0,5% w/v) and 6% vinegar solution. **MATERIALS AND METHODS:** The samples of *Lactuca sativa* and *Solanum lycopersicum* were obtained of seven points distributed around of Ji-Paraná-RO. The vegetables were washed using water, aqueous NaHCO₃ solution (0,5% w/v) and 6% vinegar solution for 24 hours. The cleaning extracts were collected and the *Allium cepa* strain were exposed to the extracts. The analyzes were performed by analyze on the differences on growth of meristems and increase of amount micronucleus on cell of *Allium cepa*. **DISCUSSION AND RESULTS:** Increase of micronucleus and decrease of meristems were satisfactorily with the evidences of pesticides on extracts of cleaning food and samples from markets showed a high mutagenic potential, followed by the popular fairs, samples of restaurants and organic producer with low or no presence of pesticides in the samples and showed the risks of population. **CONCLUSION:** The results showed that *Allium cepa* was a good experimental model to evaluation of cleaning methods of vegetables suggested by ANVISA and they showed to the presence of pesticides in vegetables marketed on Ji-Paraná city. In addition The presence of pesticides on food is worrying due mainly to the lipophilic potential of substances that can raise the rates of these contaminants in the exposed population and can lead to several damages on future

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