

**STUDY ON THE EFFECTIVENESS OF UNIVERSAL  
CLEANING SOLUTION IN REMOVING PESTICIDE  
RESIDUES IN CAULIFLOWER**

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## **ABSTRACT**

### **STUDY ON THE EFFECTIVENESS OF UNIVERSAL CLEANING SOLUTION IN REMOVING PESTICIDE RESIDUES IN CAULIFLOWER**

Nowadays, contents of pesticide residues in vegetables had become one of the hot topics closely related to human health. In order to find the effectiveness of universal cleaning solutions in removing pesticide residues in vegetables, the polluted cauliflower were washed using five types of cleaning solutions which are soda-salt solution, vinegar solution, tamarind juice solution, flour solution and tap water. Chlorpyrifos were extracted from residues cleaning process and cauliflower itself. The results had shown that tamarind juice solution had greatest removal effect between five types of cleaning solutions which have 93.04% removal rates followed by flour solution, 17.03% and vinegar solution, 11.42%. However, soda-salt solution and tap water did not have any removal effect in removing chlorpyrifos in cauliflower. Each cleaning solutions had difference removal effect in removing chlorpyrifos; the efficiency of tamarind juice solutions was significantly higher than other types of cleaning solutions; and tamarind juice solutions itself is a non-chemical substance and the preparation is very easy; therefore, the tamarind juice solution can be used as a general-purpose cleaning solution to remove pesticide residues in vegetables which can harm human health.