

**ABSTRACT****THE DECREASE OF CHOLINESTERASE ACTIVITY IN BLOOD AT SPRAYERS ONION FARMER (Studies in Ngadiboyo Village, Sub Frost, District Nganjuk 2010)**

A lot of health problems suffered by farmers due to pesticide use is the poisoning. One caused the poisoning is used faction *organofosfat* and *carbamat* pesticide so that can degrade activity *cholinesterase* in blood. This reseach purpose to know degradace of cholinesterase pesticide sprayer farmer blood in shallot crop and factor”s wich influencing it.

This study design was cross-sectional nature with a samples number of 29 farmers spray pesticides on crops in the village of onion Ngadiboyo, Sub Frost, Nganjuk District. Data collection is done by checking with cholinesterase activity using *tintometer kit* methods and questionnaires. This research analysis using statistical test of paired t-test to determine the reduction and use logistic regression to determine the influencing factors. Tests using a significant level ( $\alpha$ ) = 0.05.

Statistical test results obtained using *pairet*-test no difference of blood cholinesterase activity before and after spraying pesticides on onion plants. Logistic regression test results obtained: the use of APD, long exposure together affect cholinesterase activity before and after spraying pesticide to the value of each probability  $p = 0.04$  and  $p = 0.027$ . While variable type of pesticide and wind direction did not affect cholinesterase activity before and after spraying of pesticides with probability value 0,208 and 0.999.

Can be concluded that there is a decrease in cholinesterase activity before and after spraying pesticides, the factors that influence a decrease in blood cholinesterase activity of spraying farmers, among others: the use of APD and the longer the exposure.

Keywords: spreyers farm, decrease of cholinesterase activity, influence factor