ABSTRACT

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**TESTING THE EFFECTIVENESS OF PANDAND (*Pandanus amaryllifolius*) AND BASIL (*Ocimum americanum L*.) LEAF EXTRACT AS A NATURAL REPELLENT AGAINST HOUSE COCKROACH (*Periplaneta americana*).**

ix + 66 pages + 14 tables + 6 pictures + 6 attachments

Cockroaches are pests that are not liked, this is related to the impression of being dirty, disgusting, causing a bad smell, vectors of several diseases and causing allergic reactions to humans. Cockroaches can also cause food poisoning because they carry pathogens in their bodies such as Salmonella, Staphylococcus, Streptococcus, Coliform and other pathogenic bacteria. Cockroaches are a place to live and transmit disease pathogens because cockroaches can eat anything, including food scraps thrown in the kitchen and in the garbage box (Arifah *et al*., 2016)

The purpose of this study was to determine the effectiveness of a mixture of pandan leaf extract (Pandanus amaryllifolius) and basil leaf (Ocimum americanum L.) as a natural repellent against house cockroaches (Periplaneta americana) with mixed variations of 0ml: 8ml, 2ml: 6ml, 4ml: 4ml. , and 8ml : 0ml.

Based on the results of the study with a total sample of 500 house cockroaches (Periplaneta americana) with a mixed variation of 0ml: 8ml, 2ml: 6ml, 4ml: 4ml, and 8ml: 0ml, 5 replications were carried out. With the results at levels of 0ml: 8ml having an effectiveness of 88%, levels of 2ml: 6ml having an effectiveness of 80%, levels of 4ml: 4ml having an effectiveness level of 95%, levels of 6ml: 2ml having an effectiveness of 90%, and 8ml: 0ml having levels of effectiveness of 91%.

The conclusion of this study is that pandan leaf extract (Pandanus amaryllifolius) and basil leaf (Ocinum americanum L.) can be used as natural repellents for house cockroaches (Periplaneta americana). The average number of house cockroaches (Periplaneta americana) that resisted pandan leaf extract (Pandanus amaryllifolius) and basil (Ocinum americanum L.) leaves the most was at 4ml: 4ml, while the lowest was at 2ml: 6ml.

Keywords : *Periplaneta americana*, pandan leaf (*Pandanus amaryllifolius*) and basil leaf (*Ocinum americanum L*.)

Libraries : 19 readings (2009-2019)