

INTISARI

COBIS, B.B., 2015, UJI AKTIVITAS INSEKTISIDA EKSTRAK ETANOL, FRAKSI *n*-HEKSAN, FRAKSI KLOOROFORM DAN FRAKSI AIR DARI BUAH LADA HITAM (*Piper nigrum* L.) TERHADAP *Anopheles aconitus*, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Buah lada hitam (*Piper nigrum* L.) mengandung flavonoid, saponin, minyak atsiri dan alkaloid piperin. Tujuan penelitian ini adalah untuk mengetahui aktivitas ekstrak etanol, fraksi *n*-heksan, fraksi kloroform dan fraksi air dari buah lada hitam (*Piper nigrum* L.) sebagai insektisida terhadap nyamuk *Anopheles aconitus*

Serbuk buah lada hitam disokhletasi dengan etanol 96%, kemudian difraksinasi menggunakan pelarut *n*-heksan, kloroform dan air. Ekstrak etanol dan fraksi diuji aktivitas insektisida dengan konsentrasi 25 ppm, 50 ppm, 100 ppm dan 200 ppm terhadap nyamuk *Anopheles aconitus* dengan harga KC_{50} dan LC_{50}

Hasil penelitian menunjukkan bahwa ekstrak etanol, fraksi *n*-heksan, kloroform, dan air mempunyai aktivitas insektisida terhadap nyamuk *Anopheles aconitus* dengan nilai KC_{50} secara berturut-turut ialah 176,01 ppm; 140,17 ppm; 135,67 ppm; 180,01 ppm; dan nilai LC_{50} secara berturut-turut ialah 122,07 ppm; 106,91 ppm; 73,94 ppm; dan 140,48 ppm. Fraksi kloroform dari buah lada hitam mempunyai aktivitas insektisida paling tinggi dibandingkan ekstrak, fraksi *n*-heksan dan air.

Kata kunci: *Piper nigrum* L., *Anopheles aconitus*, ekstrak etanol, fraksinasi, insektisida, KC_{50} , LC_{50}

ABSTRACT

COBIS, B.B., 2015, TEST OF INSECTICIDE ACTIVITY ETHANOL EXTRACT, *n*-HEXANE FRACTION, CHLOROFORM FRACTION AND WATER FRACTION FROM BLACK PEPPER (*Piper nigrum* L.) TO *Anopheles aconitus*, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Black pepper (*Piper nigrum* L.) contains flavonoid, saponin, essential oil and piperin alkaloid. The purpose of this study was to determine the activity of ethanol extracts, *n*-hexane fraction, chloroform fraction, and water fraction from black pepper (*Piper nigrum* L.) as an insecticide to *Anopheles aconitus* mosquito.

Black pepper powder soxhleted by ethanol 96%, then fractionated using solvents of *n*-hexane, chloroform, and water. Ethanol extract and fractions were tested the insecticide activity to *Anopheles aconitus* mosquito by KC_{50} and LC_{50} values.

The results showed that ethanol extract, fractions of *n*-hexane, chloroform, and water had insecticide activity to *Anopheles aconitus* mosquito with KC_{50} value were 176,01 ppm, 140,17 ppm, 135,67 ppm, 180,01 ppm, respectively and LC_{50} value were 122,07 ppm, 106,91 ppm, 73,94 ppm and 180,48 ppm, respectively. Chloroform fraction of black pepper had the highest insecticide activity compared than extract, fractions of *n*-hexane and water.

Keywords: *Piper nigrum* L., *Anopheles aconitus*, ethanol extract, fractination, insecticide, KC_{50} , LC_{50} .