

**PENGARUH PESTISIDA NABATI DAUN JERUK PURUT TERHADAP
PENGENDALIAN *SITOPHILUS ZEAMAI*S DAN MUTU
BENIH JAGUNG**

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INTISARI

Kumbang bubuk jagung *Sitophilus zeamais* termasuk dalam kategori hama utama yaitu hama yang mampu memakan keseluruhan biji benih jagung yang sehat dan menyebabkan kerusakan. Salah satu bahan alami yang dapat dimanfaatkan sebagai biopestisida terhadap hama tersebut adalah daun jeruk purut. Penelitian ini bertujuan untuk mengetahui pengaruh pestisida daun jeruk purut terhadap pengendalian kumbang jagung dan mutu benih jagung selama penyimpanan empat bulan dan aplikasi pestisida yang paling baik untuk mengendalikan hama kumbang bubuk jagung dan mempertahankan mutu benih jagung. Penelitian ini dilaksanakan di Laboratorium Agronomi, Fakultas Agroindustri, Universitas Mercu Buana Yogyakarta. Penelitian ini dilaksanakan pada bulan Oktober 2020 sampai dengan Februari 2021. Penelitian ini merupakan percobaan faktor tunggal yang disusun dalam Rancangan Acak Lengkap (RAL), Terdiri dari 5 perlakuan dengan 4 ulangan sehingga terdapat 20 unit percobaan. Perlakuan dalam penelitian merupakan kombinasi antara formulasi dan takaran pestisida nabati daun jeruk purut yang terdiri dari serbuk 30 gram, serbuk 40 gram, ekstrak 20% ekstrak 0% dan satu kontrol (tanpa pemberian pestisida nabati daun jeruk purut). Hasil penelitian menunjukkan bahwa pestisida nabati daun jeruk purut mampu mengendalikan kumbang jagung dan mempertahankan mutu benih jagung tetap baik selama empat bulan penyimpanan. Ekstrak daun jeruk purut 30% paling efektif mengendalikan kumbang jagung, sementara itu mutu benih jagung dapat dipertahankan lebih baik dengan perlakuan serbuk daun jeruk purut 40 gram, ekstrak daun jeruk purut 20 dan 30% dibandingkan dengan perlakuan yang lain.

Kata Kunci: benih jagung, *Sitophilus zeamais*, daun jeruk purut.

THE INFLUENCE OF BOTANICAL PESTICIDES OF KEFFIR LIME LEAVES ON THE CONTROL OF *SITOPHILUS ZEAMAI*S AND CORN SEED QUALITY

ABSTRACT

The maize weevil *Sitophilus zeamais* is included in the category of primary pests that are able to eat whole of healthy corn seeds and cause damage. One of the natural ingredients that can be used as a biopesticide against this pest is kaffir lime leaves. This study was aimed to determine the effect of kaffir lime leaves botanical pesticides on the control of maize weevil and corn seed quality during four months of storage and the best botanical pesticide application to control of maize weevil and to maintain the quality of corn seeds. This research was conducted at the Agronomy Laboratory, Faculty of Agroindustry, Yogyakarta Mercu Buana University. This research had been conducted from October 2020 to February 2021. This research was a single factor experiment which were arranged in a completely randomized design (CRD), consisting of 5 treatments with 4 replications so that there were 20 experimental units. The treatment in this research was a combination of the formulation and dose of botanical pesticide of kaffir lime leaves consisting of 30 grams of powder, 40 grams of powder, 20% extract 30% extract and one control (without application of kaffir lime leaves botanical pesticides). The results of the research showed that the kaffir lime leaves botanical pesticide was able to control the maize weevil and maintain good quality of corn seeds for four months of storage. The 30% kaffir lime leaves extract was the most effective in controlling maize weevil, meanwhile the quality of corn seeds could be maintained better with 40 grams of kaffir lime leaves powder, 20 and 30% kaffir lime leaves extract compared to other treatments.

Keywords: corn seeds, *Sitophilus zeamais*, kaffir lime leaves.