

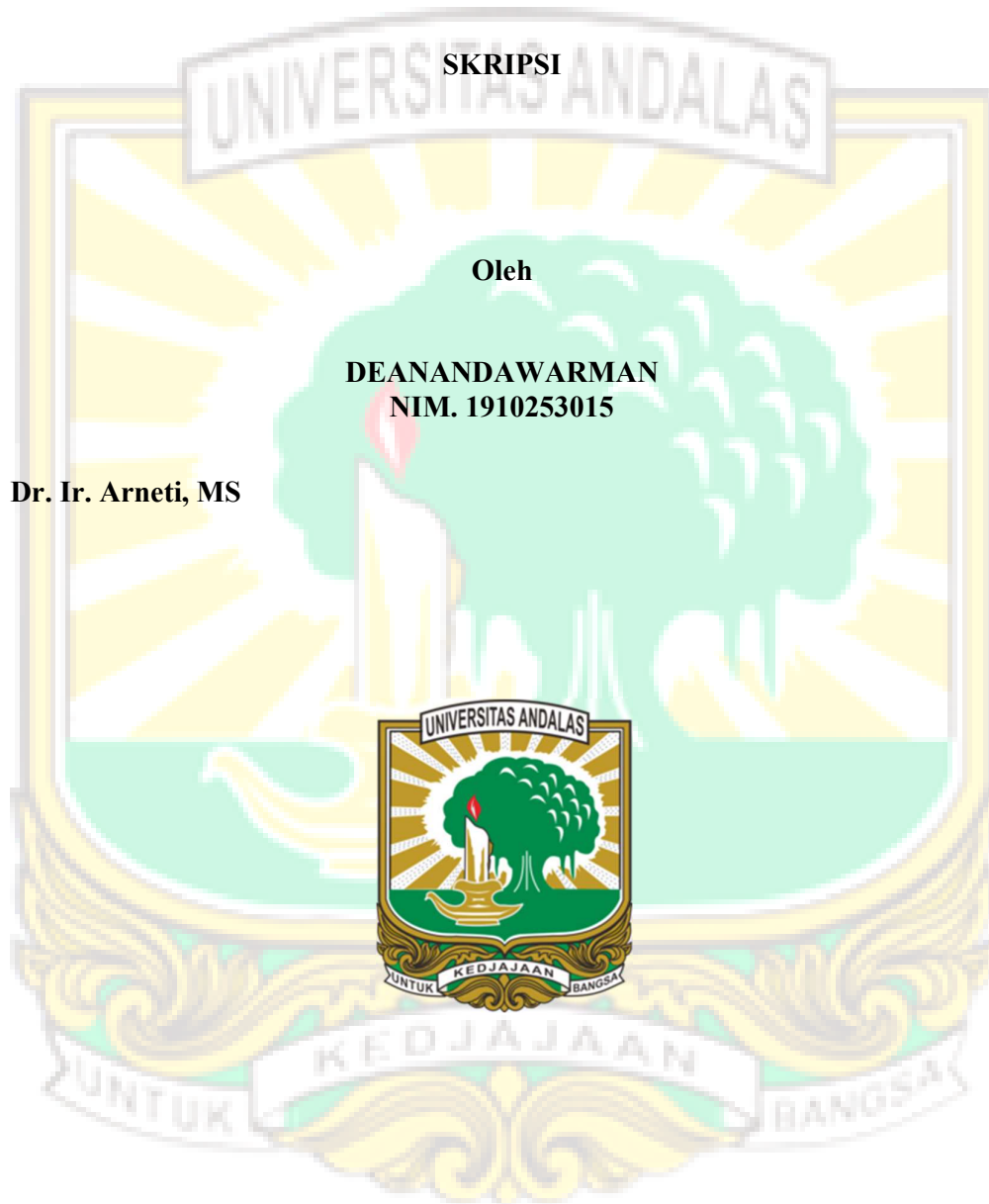
**KEANEKARAGAMAN ARTHROPODA TANAH PADA  
TANAMAN BROKOLI (*Brassica oleracea* L. var. *italica*) YANG  
DIBERI PERLAKUAN BEBERAPA JENIS INSEKTISIDA**

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# KEANEKARAGAMAN ARTHROPODA TANAH PADA TANAMAN BROKOLI (*Brassica oleracea* L. var. *italica*) YANG DIBERI PERLAKUAN BEBERAPA JENIS INSEKTISIDA

## Abstrak

Arthropoda merupakan kelompok hewan yang berperan penting dalam ekosistem pertanian. Penelitian ini bertujuan untuk mengetahui keanekaragaman Arthropoda tanah pada tanaman brokoli yang diberi perlakuan beberapa jenis insektisida. Penelitian keanekaragaman Arthropoda tanah di pertanaman Brokoli dilakukan di Jorong Kandang Diguguak, Nagari Koto Laweh, Kecamatan X Koto, Kabupaten Tanah Datar dengan Rancangan Acak Lengkap (RAL). Penelitian ini terdiri dari 4 perlakuan (Insektisida nabati formulasi nanoemulsi, Bioinsektisida *Bacillus thuringiensis*, Insektisida sintetik Abastar, dan Kontrol) serta 6 ulangan yang diaplikasi dengan beberapa jenis insektisida pada selang waktu satu minggu saat tanaman berumur 21 Hari Setelah Tanam (HST) hingga 70 (HST). Sampel Arthropoda tanah dikumpulkan menggunakan metode perangkap jebak (*pitfall trap*) pada 72 titik yang mewakili seluruh perlakuan. Hasil penelitian menunjukkan bahwa keanekaragaman Arthropoda tanah pada tanaman brokoli yang diberi perlakuan beberapa jenis insektisida berbeda tidak nyata antar perlakuan. Identifikasi lebih lanjut terhadap sampel Arthropoda tanah di lapangan menunjukkan bahwa keanekaragaman Arthropoda tanah tergolong rendah (0,28 - 1,68), sedangkan kemerataan Arthropoda tanah tergolong sedang (0,15 - 0,76). Arthropoda tanah yang ditemukan di pertanaman brokoli termasuk ke dalam 9 Ordo dan 27 Famili, jenis Arthropoda tanah yang dominan ditemukan yaitu ordo Diptera Famili Sciaridae dan ordo Collembola Famili Tomoceridae.

Kata kunci: Eksperimen, lapangan, nabati, pestisida, perlakuan

# **DIVERSITY OF SOIL ARTHROPOD IN BROCCOLI (*Brassica oleracea L. var. italica*) PLANT THAT WAS TREATED WITH SEVERAL TYPES OF INSECTICIDE**

## **Abstract**

Arthropods are a group of animals that play an important role in agricultural ecosystems. This research aims to determine the diversity of soil arthropods in broccoli plants treated with several types of insecticides. Research on the diversity of soil arthropods in broccoli plantations was carried out in Jorong Kandang Diguguak, Nagari Koto Laweh, X Koto District, Tanah Datar Regency using a Completely Randomized Design (RAL). This research consisted of 4 treatments (nanoemulsion formulated vegetable insecticide, *Bacillus thuringiensis* bioinsecticide, Abastar synthetic insecticide, and control) and 6 replications which were applied with several types of insecticide at intervals of one week when the plants were 21 days after planting (DAT) to 70 (DAP). HST). Soil arthropod samples were collected using the pitfall trap method at 72 points representing all treatments. The results showed that the diversity of soil arthropods in broccoli plants treated with several types of insecticides was not significantly different between treatments. Further identification of samples of soil arthropods in the field showed that the diversity of soil arthropods was relatively low (0.28 - 1.68), while the evenness of soil arthropods was classified as moderate (0.15 - 0.76). Soil arthropods found in broccoli plantations belong to 9 orders and 27 families, the dominant types of soil arthropods found are the order Diptera, family Sciaridae and the order Collembola, family Tomoceridae.

**Keywords:** Experiments, field, nabatical, pesticides, treatment.

