ABSTRACT

YUDI MAULANA. A.1510953. Agronomic Performance of Several Accessions of Star Gooseberry {*Sauropus androgynus* (L.) Merr.} Plants of Bogor Origin Treated with Various Compositions of N-Organic Fertilizer. Under immediate supervision of Arifah Rahayu and Nur Rochman.

In order to meet the demands for safe vegetables which are free from chemical residues, environmentally friendly fertilizers are required. This study was aimed at assessing the agronomic performance of several accessions of star gooseberry {*Sauropus androgynus* (L.) Merr.} plants of Bogor origin treated with various compositions of N-organic fertilizer. A factorial completely randomized design with two factors was used. The first factor was star gooseberry accession consisting of Dramaga, Cinangneng I, Cinangneng II, and Katulampa. The second factor was N fertilizer composition consisting of 100% N-urea, 100% N-cattle urine, 100% N-kipahit, 75% N-urea + 25% N-cattle urine, 75% N-urea + 25% N-kipahit, 50% N-urea + 50% N-cattle urine, 50% N-urea + 50% N-kipahit, 25% N-urea + 75% N-cattle urine, 25% N-urea + 75% N-kipahit, 0% N-urea + 0% N-cattle urine + 0% N-kipahit. Results showed that Katulampa gooseberry plants had the highest number of leaves, number of leaflets, fresh weight, dry weight, nitrate content, and total dissolved solid content. N fertilizer compositions gave significant effects on all growth and production parameters excluding stem diameter and number of leaflets. The use of 75% Ua + 25% Kp fertilizer composition significantly increased plant height, number of leaves, number of buds, total bud length, fresh weight, dry weight, nitrate content, and total dissolved solid content. The best quality gooseberry plants with the highest chlorophyll, carotene, and vitamin C contents were shown by Dramaga accession treated with 50% Ua + 50% Un and 50% Ua + 50% Kp, respectively.

Key words: *Sauropus androgynus, cattle urine, kipahit, N-organic, Bogor accession*

ABSTRAK

YUDI MAULANA. A.1510953. Penampilan Agronomi Beberapa Aksesi Katuk {*Sauropus androgynus* (L.) Merr.} Asal Bogor pada Berbagai Komposisi Pupuk N-Organik. Di bawah bimbingan Arifah Rahayu dan Nur Rochman.

Dalam memenuhi tuntutan konsumen yang menghendaki sayuran aman untuk dikonsumsi dan bebas dari residu bahan kimia diperlukan pupuk yang ramah lingkungan. Penelitian ini bertujuan untuk mengetahui penampilan agronomi tanaman katuk {*Sauropus androgynus* (L.) Merr.} asal Bogor pada berbagai komposisi pupuk N-organik. Penelitian ini menggunakan Rancangan Acak Lengkap Faktorial yang terdiri atas dua faktor, yaitu aksesi katuk (Dramaga, Cinangneng I, Cinangneng II, dan Katulampa) dan komposisi pupuk N (100% N-urea, 100% N-urine sapi, 100% N-kipahit, 75% N-urea + 25% N-urine sapi, 75% N-urea + 25% N-kipahit, 50% N-urea + 50% N-urine sapi, 50% N-urea + 50% N-kipahit, 25% N-urea + 75% N-urine sapi, 25% N-urea + 75% N-kipahit, 0% N-urea
+ 0% N-urine sapi + 0% N-kipahit). Hasil penelitian menunjukkan katuk aksesi Katulampa memiliki hasil terbaik pada peubah jumlah daun, jumlah anak daun, bobot segar, bobot kering, kandungan nitrat, dan kandungan padatan terlarut total (PTT) dibandingkan dengan ketiga aksesi Bogor lainnya. Perlakuan komposisi pupuk N nyata berpengaruh pada semua peubah pertumbuhan dan hasil tanaman katuk, kecuali pada peubah diameter batang dan jumlah anak daun. Penggunaan komposisi pupuk 75% Ua + 25% Kp nyata meningkatkan tinggi tanaman, jumlah daun, jumlah tunas, total panjang tunas, bobot segar, bobot kering, kandungan nitrat, dan kandungan PTT. Kualitas tanaman katuk terbaik ditunjukkan pada katuk aksesi Dramaga dengan perlakuan komposisi pupuk 50% Ua + 50% Un dan 50% Ua + 50% Kp yang berturut-turut memiliki kandungan klorofil dan karoten serta vitamin C tertinggi.

Kata kunci: *Sauropus androgynus, urine sapi, kipahit, N-organik, aksesi Bogor*