

RINGKASAN

Tulus Nopranto Nainggolan, **Respon Pemanfaatan Limbah Cair Kelapa Sawit Terhadap Pertumbuhan Dan Produksi Tanaman Kailan (*Brassica oleraceae* L.)** dibawah bimbingan Ir. Gusmeizal, MP sebagai ketua komisi pembimbing dan Ir. Ellen L. Panggabean, MP sebagai anggota komisi pembimbing.

Penelitian ini dilakukan di kebun percobaan Fakultas Pertanian Universitas Medan Area yang terletak di Jl.PBSI Medan Estate, penelitian ini dilakukan mulai April 2016 sampai Juni 2016, Tujuan penelitian ini yaitu untuk mengetahui Respon Pemanfaatan Limbah Cair Kelapa Sawit Terhadap Pertumbuhan Dan Produksi Tanaman Kailan.

Penelitian ini dilakukan dengan menggunakan Rancangan Acak Kelompok (RAK) Non Faktorial yang terdiri dari 4 taraf perlakuan yaitu : L_0 = Kontrol (NPK 20 g/plot), L_1 = 1 l/plot, L_2 = 2 l/plot, L_3 = 3l/plot. Parameter yang diamati adalah tinggi tanaman, jumlah daun, diameter batang, bobot basah panen per plot, bobot basah panen per sampel, bobot basah jual per plot, bobot basah jual per sampel.

Hasil penelitian menunjukkan bahwa Pemanfaatan Limbah Cair Kelapa tidak menunjukkan hasil yang berbeda nyata pada semua parameter pengamatan, akan tetapi pupuk cair dari limbah kelapa sawit mampu mengimbangi pertumbuhan dan produksi tanaman kailan (*Brassica oleraceae*. L) yang di pupuk dengan NPK.

Kata Kunci : Kailan, BOD (*Biological Oxygen Demand*), COD (*Chemical Oxygen Demand*), Limbah Cair Kelapa Sawit.

ABSTRACT

Tulus Nopranto Nainggolan. The Response Of Liquid Waste Utilization Of Palm Oil On Growth And Production Plant Of Kailan (Brassica Oleraceae L.). Under the guidance of Ir. Gusmeizal, MP as the commission chairman of counselor and Ir. Ellen L. Panggabean, MP as the commission member of counselor.

This research was conducted at the experimental garden of Agriculture Faculty University of Medan Area, located on Jl. PBSI Medan Estate. This research was conducted began in April 2016 until June 2016. The purpose of this research was to determine the response of liquid waste utilization of palm oil on growth and production plant of kailan.

This research was conducted by using Randomized Block Design (RBD) non factorial which consists of 4 levels of treatment are: L_0 = Control (NPK 20 g/plot), L_1 = 1 l/plot, L_2 = 2 l/plot, L_3 = 3 l/plot. Parameters observed were height of plants, leaf number, stem diameter, fresh weight of harvest by plot, fresh weight of harvest by sample, fresh weight of sell by plot, fresh weight of sell by sample.

The results of research showed that utilization of liquid waste of palm oil did not show significantly different results in all parameters of observation, but the liquid fertilizer from palm oil waste is able to compensate for the growth and production plant of kailan (Brassica oleracea L.) that fertilized with NPK.

Keywords: Kailan, BOD (Biological Oxygen Demand), COD (Chemical Oxygen Demand), Liquid Waste of Palm Oil.