

ABSTRAK

Tujuan penelitian ini yaitu 1) mengetahui pengaruh variasi formula Pumakkal terhadap hara makro (nitrogen) pupuk limbah cair karet. 2) mengetahui pengaruh variasi formula Pumakkal terhadap hara makro (Fospor) pupuk limbah cair karet. 3) mengetahui pengaruh variasi formula Pumakkal terhadap hara makro (kalium) pupuk limbah cair karet. 4) mengetahui pengaruh variasi formula Pumakkal terbaik terhadap hara makro (nitrogen) pupuk limbah cair karet. 5) mengetahui pengaruh variasi formula Pumakkal terbaik terhadap hara makro (Fospor) pupuk limbah cair karet. 6) mengetahui pengaruh variasi formula Pumakkal terbaik terhadap hara makro (kalium) pupuk limbah cair karet. 7) mengetahui hasil penelitian layak dijadikan sumber belajar panduan praktikum. Penelitian yang dilakukan merupakan penelitian kuantitatif dengan menggunakan metode eksperimen. Penelitian ini menggunakan 5 perlakuan dan 1 kontrol 3 kali ulangan. Ke lima perlakuan tersebut yang memenuhi standar minimal ada pada P5 (terdiri dari 15 isolat bakteri sebagai pendegradasi protein, amilum, dan lemak) dengan persentase 2,01, perlakuan lain (P0-P4) belum masuk kriteria minimal pupuk organik cair yang baik. Hasil penelitian dijadikan sumber belajar biologi berupa panduan praktikum.

Kata Kunci: Hara Makro, Limbah Cair Karet, Sumber Belajar

ABSTRACT

The aims of this study were 1) to determine the effect of variations in the Pumakkal formula on the macronutrient (nitrogen) of rubber liquid waste fertilizer. 2) determine the effect of variations in the Pumakkal formula on macro nutrients (Fospor) of rubber liquid waste fertilizer. 3) determine the effect of variations in the Pumakkal formula on the macronutrient (potassium) rubber liquid waste fertilizer. 4) determine the effect of variations of the best Pumakkal formula on macro nutrients (nitrogen) rubber liquid waste fertilizer. 5) determine the effect of variations of the best Pumakkal formula on macro nutrients (Fospor) rubber liquid waste fertilizer. 6) determine the effect of the best Pumakkal formula variation on macro nutrients (potassium) rubber liquid waste fertilizer. 7) know that research results are worthy of being used as a learning resource for practicum guides. The research conducted is a quantitative research using experimental methods. This study used 5 treatments and 1 control with 3 replications. The five treatments that met the minimum standards were at P5 (consisting of 15 isolates of bacteria as degraders of protein, starch and fat) with a percentage of 2.01, the other treatments (P0-P4) did not include the minimum criteria for good liquid organic fertilizer. The results of the research are used as a source of learning biology in the form of a practicum guide.

Keywords: Learning Resources, Macro Nutrients, Rubber Liquid Waste