INTISARI

Latar belakang : Limbah merupakan sisa aktivitas manusia yang berpotensi menimbulkan dampak negatif terhadap lingkungan dan kesehatan masyarakat. Limbah tersebut dapat berbentuk padat maupun cair seperti sisa cucian ikan dan buah-buahan. Pedagang di Pasar Kranggan Yogyakarta masih membuang limbah padat dan cair secara sembarangan. Hal ini berisiko mencemari lingkungan serta menimbulkan gangguan kesehatan akibat bau menyengat dan menarik perhatian vektor penyakit. Salah satu upaya untuk mengatasi permasalahan ini dengan mengolah limbah organik menjadi pupuk organik cair yang bermanfaat untuk meningkatkan kandungan unsur hara seperti N, P, K serta memberikan manfaat bagi kesuburan tanah dan pertumbuhan tanaman.

Tujuan : Mengetahui variasi formulasi limbah pisang tanduk, kulit nanas, cucian ikan yang paling efektif sebagai bahan baku pupuk organik cair mampu menghasilkan kadar N,P, K yang memenuhi batas minimum standar mutu sesuai dengan KEPMENTAN RI No. 261/KPTS/SR.310/M/4/2019.

Metode : Jenis penelitian adalah *Quasi Experiment* dengan *Post Test Only Design*. Penelitian ini menggunakan 3 variasi perbandingan formulasi limbah pisang tanduk, kulit nanas, dan cucian ikan mengetahui pengaruh unsur hara kadar NPK yang terbaik pupuk organik cair. Perbandingan dari ketiga variasi antara lain variasi A 2 kg : 3 kg : 5 liter , variasi B 3 kg : 2 kg : 5 liter, variasi C 2,5 kg : 2,5 kg : 5 liter yang di fermentasi secara anaerob selama 22 hari.

Hasil : Rerata pada variasi A N=0,01181% ; P= 0,1933% ; K=0,1316%, pada variasi B N=0,128% ; P=0,2060% ; K=0,1694%, dan pada variasi C N=0,168% ; P=0,2221% ; K=0,2077%. Hasil analisis uji statistic dengan uji *One Way Anova* mendapatkan *p-value* pada kadar P (0,102) > 0,05 sehingga tidak ada perbedaan bermakna pada variasi formulasi, sedangkan pada kadar N dan K memiliki nilai *p-value* < 0,05 yang menunjukkan adanya perbedaan bermakna pada variasi formulasi. Selanjutnya dilakukan uji *Least Significance Difference* (LSD) menunjukkan bahwa angka selisih tertinggi terdapat pada variasi C dengan kadar N: 0,02627 dan K: 0,03230.

Kesimpulan : Ketiga perlakuan memiliki pengaruh terhadap kandungan unsur N dan K dengan *p-value* 0,000 dan 0,026. Namun unsur P tidak terdapat perbedaan yang bermakna antar variasi perlakuan.

Kata kunci : Pemanfaatan, limbah pasar, POC.

ABSTRACK

Background : Waste is the residue of human activity that has the potential to cause negative impacts on the environment and public health. The waste can be in solid or liquid form such as fish and fruit washing. Traders in Kranggan Market Yogyakarta still dispose of solid and liquid waste carelessly. This risks polluting the environment and causing health problems due to strong odors and attracting disease vectors. One of the efforts to overcome this problem is by processing organic waste into liquid organic fertilizer which is useful for increasing the content of nutrients such as N, P, K and provides benefits for soil fertility and plant growth.

Objective : Knowing the most effective variation of banana waste, pineapple skin, and fish washing formulations as raw materials for liquid organic fertilizer can produce N, P, and K levels that meet the minimum quality standard limits according to the Republic of Indonesia's Ministry of Agriculture Decree No. 261/KPTS/SR.310/M/4/2019.

Method : The type of research is Quasi Experiment with Post Test Only Design. This study used 3 variations of formulation comparisons of banana horn waste, pineapple peel, and fish wash to determine the effect of nutrient levels of the best NPK liquid organic fertilizer. The comparison of the three variations includes variation A 2 kg: 3 kg: 5 liters, variation B 3 kg: 2 kg: 5 liters, variation C 2.5 kg: 2.5 kg: 5 liters which were fermented anaerobically for 22 days.

Results : Average on AN variation=0.01181% ; P= 0.1933% ; K=0.1316%, in BN variation=0.128% ; P=0.2060% ; K=0.1694%, and in CN variation=0.168% ; P=0.2221% ; K=0.2077%. The results of statistical test analysis with One Way Anova testobtained a p-value at the P level (0.102) > 0.05 so that there was no significant difference in the formulation variations, while the N and K levels had a p-value < 0.05 which indicated a significant difference in the formulation variations. Next, a test was carried out*Least Significance Difference*(LSD) shows that the highest difference is in variation C with N levels: 0.02627 and K: 0.03230.

Conclusion : The three treatments had an influence on the content of N and K elements with a p-value of 0.000 and 0.026. However, the P element did not have a significant difference between treatment variations.

Keywords : Utilization, market waste, POC.