

ABSTRAK

Limbah cair rumah tangga merupakan masalah yang mengakar di masyarakat karena aktivitas manusia yang melimpah, bahkan lebih banyak dari limbah industri. Penelitian ini mengatasi permasalahan limbah cair rumah tangga menjadi pupuk organik dengan memanfaatkan starter Pumakkal. Penelitian ini dilakukan dalam beberapa tahap. Pertama membuat pupuk cair limbah rumah tangga dengan formula pumakkal P1 (3 isolat bakteri), P2 (6 isolat bakteri), P3 (9 isolat bakteri), P4 (12 isolat bakteri), P5 (15 isolat bakteri). Kedua, uji kualitas pupuk cair limbah rumah tangga. Hasil penelitian menunjukkan kadar NPK memiliki baku mutu 2-6% dengan nilai N (0,337%), P (1,755%), dan K (3,818%) pada perlakuan tertinggi, dan persentase nilai N+P+K sebesar (5,91%) sudah memenuhi SNI. Kadar C-Organik memiliki baku mutu (minimal 10) dengan nilai 19,979% pada perlakuan P5, sehingga C-Organik melebihi SNI. Sedangkan pH memiliki baku mutu (4-9) dengan nilai 6.176 pada perlakuan P5, sehingga pH tersebut telah memenuhi SNI.

Kata kunci: limbah cair rumah tangga, pupuk cair, pumakkal.

ABSTRACT

Household liquid waste is a rooted problem in society because of abundant human activities, even more than industrial waste. This research overcomes the problem of household liquid waste to become organic fertilizer by utilizing Pumakkal starters. This research was conducted in several stages. The first was to make household waste liquid fertilizer with pumakkal formula P1 (3 bacterial isolates), P2 (6 bacterial isolates), P3 (9 bacterial isolates), P4 (12 bacterial isolates), P5 (15 bacterial isolates). Second was the test quality of household waste liquid fertilizers. The results showed the levels of NPK have quality standards of 2-6% with grades N (0,337%), P (1,755%), and K (3,818%) at the highest treatment, and the percentage value of N+P+K was (5.91%) has complied with SNI. The C-Organic levels have a quality standard (minimum 10) with the value of 15,706 in the P5 treatment, and thus C-Organic exceeds SNI. The pH has a quality standard (4-9) with the value of 6,176 on the P5 treatment, so the pH has met the SNI.

Key words: household liquid waste, liquid fertilizer, pumakkal.