

Pengaruh rasio c/n bahan baku pada kualitas kompos dengan metode pengomposan in vessel = Effect of ratio c / n feedstock on compost quality using in vessel method

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Abstrak

Sampah makanan memiliki kecenderungan timbulan semakin besar dan apabila tidak dikelola dengan tepat maka menimbulkan masalah kesehatan masyarakat dan kebersihan lingkungan. Salah satu upaya mengolah dan menambah nilai sampah tersebut yaitu pengomposan. Dengan campuran daun kering dari halaman Fakultas Teknik Universitas Indonesia, sampah makanan yang berasal dari kantin fakultas tersebut dikomposkan secara in vessel. Karena rasio C/N bahan baku kompos penting maka didisain 18, 20, dan 22, dengan perbandingan sampah makanan terhadap daun berturut-turut sebesar 3:1, 1:1, dan 1:3. Pengomposan selama 60 hari menunjukkan rasio C/N memengaruhi salinitas, konduktivitas, kadar air, volatile solids, karbon, nitrogen, volume lindi, dan warna kompos, secara signifikan. Berdasarkan kualitas kompos pada SNI 19-7030-2004, rasio C/N sebesar 20 optimal digunakan.

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Food waste has an increasing trend line in generation and if it is not managed properly, it will make problem in public health and environment clean. One of action to treat and add its value is composting. By mixing dry leaves from yard in Engineering Faculty Universitas Indonesia and food waste from canteen in the same faculty, they were composted in vessel. Because of ratio C/N feedstock is important, so it was designed into 18, 20, and 22, with ratio of the food waste to dry leaves in a path were 3:1, 1:1, and 1:3. Composting during 60 days showed that the ratio C/N affected salinity, electric conductivity, water content, volatile solids, carbon, nitrogen, leachate volume, and colour of compost, significantly. Based on compost quality in SNI 19-7030-2004, ratio C/N feedstock in 20 is optimal to use.