

**PENGARUH PUPUK ORGANIK CAIR DARI LIMBAH SAYURAN DAN  
BULU AYAM TERHADAP HASIL PANEN TANAMAN OKRA HIJAU  
(*Abelmoschus esculantus* (L.) Moench)**

**Nisa Sulastri  
131434030**

**ABSTRAK**

Produksi sayuran selama 6 tahun terakhir di Indonesia mencapai 11.394.891 ton. Produksi sayuran yg meningkat menyebabkan limbah sayuran juga meningkat. Selain itu terdapat pula limbah bulu ayam berasal dari tempat pemotongan ayam yang mencapai 72.775 ton. Solusi untuk mengatasi limbah tersebut adalah membuat pupuk organik dari limbah sayuran dan bulu ayam karena limbah sayuran mengandung unsur makro yang berkisar 0,228 g/ml dan limbah bulu ayam mengandung 90 % protein. Pupuk diaplikasikan pada tanaman okra hijau untuk memperkenalkan tanaman ini kepada masyarakat. Penelitian ini bertujuan untuk mengetahui pengaruh pupuk organik cair dari limbah sayuran dan bulu ayam terhadap hasil panen tanaman okra hijau dan konsentrasi pupuk organik cair yang optimal untuk meningkatkan hasil panen tanaman okra hijau.

Pupuk organik cair diberikan dalam tiga perlakuan yaitu konsentrasi 10%, 30% dan 50%. Terdapat pula pupuk urea (kontrol positif) dan kontrol. Pupuk organik cair diuji kandungan C-organik, nitrogen, fosfor, kalium dan C/N rasio. Data dianalisis menggunakan uji statistik yaitu *one way anova* dan Duncan jika data berdistribusi normal dan homogen. Jika data tidak normal dan homogen maka menggunakan uji Kruskal wallis dan Mann-Whitney. Parameter yang diamati adalah jumlah buah, berat basah buah, berat kering buah dan kadar air buah okra hijau.

Pada penelitian ini pemberian pupuk organik cair dari limbah sayuran dan bulu ayam berpengaruh terhadap hasil panen tanaman okra hijau. Selain itu tidak ditemukan pupuk organik cair yang paling optimal untuk meningkatkan hasil panen tanaman okra hijau tetapi pupuk organik cair tersebut memberikan jumlah buah, berat basah buah, berat kering buah dan kadar air buah yang sama dengan pupuk urea.

**Kata kunci :** Limbah sayuran, bulu ayam, pupuk organik cair, okra hijau (*Abelmoschus esculantus* (L.) Moench)

***THE EFFECT OF ORGANIC LIQUID FERTILIZER FROM VEGETABLES  
WASTE AND CHICKEN FEATHERS TOWARD OKRA PLANT  
(Abelmoschus esculantus (L.) Moench) HARVEST***

**Nisa Sulastri  
131434030**

**ABSTRACT**

*Vegetable production during the last 6 years in Indonesia were among 11.394.891 tons. The increases of vegetable production were causes the vegetable waste also increasing. In addition, chicken feather were also wasted, this comes from the chicken slaughtering and it reached among 72.775 tons. The solution to overcome the waste then by making an organic fertilizer from vegetable waste and chicken feathers because vegetable waste contains macro element which is about 0.228 g / ml and chicken feather contains 90% protein. This fertilizer were applied to the okra plants to introduce this plant to the community. The aim of this study were to determine the effect of organic liquid fertilizer from vegetable waste and chicken feathers toward the harvest of okra plants and to know the optimal concentration of organic liquid fertilizer to increase the quality of the harvest from the okra plants.*

*Organic liquid fertilizers were administered in three treatments, they were concentrations of 10%, 30% and 50%. Urea fertilizer also used as positive control and control. The organic liquid fertilizer were tested from the C-organic, nitrogen, phosphorus, potassium and C/N ratio. Data were analyzed using statistical test one way anova and Duncan if the data were distributed normal and homogeneous. If the data were not normal and homogeneous then Kruskal Wallis and Mann-Whitney test was used. The parameters being observed were number of fruit, wet weight of fruit, dry weight of fruit and water content of the okra fruit.*

*In this research, the provision of organic liquid fertilizer from vegetable waste and chicken feathers influenced the okra harvest. In addition, no optimal organic liquid fertilizer were found to increase the yield of okra plants but the organic liquid fertilizer gave the number of fruit, wet weight of fruit, dry weight of fruit and water content of the fruit as the same with urea fertilizer usage.*

**Keywords:** *Vegetable waste, chicken feathers, organic liquid fertilizer, green okra (Abelmoschus esculantus (L.) Moench)*