

**PENGUKURAN EFISIENSI USAHA TANI BAWANG MERAH (*Allium ascalonium* L.) DALAM PENGUNAAN FAKTOR PRODUKSI DI
KABUPATEN BANTUL D.I.YOGYAKARTA**

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INTISARI

Kecamatan Kretek dan Kecamatan Sanden memiliki luas lahan panen bawang merah tertinggi di Kabupaten Bantul, D.I.Yogyakarta. Akan tetapi, tingkat efisiensi usaha tani bawang merah belum merata diseluruh tingkatan petani karena pengaruh penggunaan jenis dan jumlah variabel *input* yang berbeda dan belum dioptimalkan. Tujuan penelitian ini adalah (1) mengevaluasi faktor produksi (variabel *input*) terhadap variabel *output* (2) menganalisis kondisi *return to scale* (3) mengevaluasi tingkat efisiensi usaha tani, serta (4) memberikan rekomendasi perbaikan.

Metode penelitian menggunakan Cobb-Douglas dan *Data Envelopment Analysis* (DEA). Cobb-Douglas digunakan untuk mengetahui pengaruh faktor produksi terhadap jumlah produksi, sedangkan *Data Envelopment Analysis* (DEA) digunakan untuk mengetahui tingkat efisiensi usaha tani dengan asumsi *output oriented* serta rekomendasi terhadap usaha tani yang inefisien.

Faktor produksi yang terdiri dari luas lahan, bibit, pupuk organik, pupuk kimia, pestisida cair, pestisida padat, dan tenaga kerja secara simultan berpengaruh terhadap jumlah produksi bawang merah. Terdapat 41 *Decision Making Unit* (DMU) efisien dan 19 DMU inefisien pada kedua kecamatan. Berdasarkan *potential improvement* Kecamatan Kretek efisiensi pestisida cair dapat ditingkatkan sebesar 42,47%, pupuk organik 29,15%, bibit 20,32%, luas lahan 15,67%, pestisida padat 7,76%, dan tenaga kerja 3,36%. Pada Kecamatan Sanden efisiensi pupuk kimia dapat ditingkatkan sebesar 47,11%, pestisida padat 39,92%, pestisida cair 34,32%, luas lahan 32,76%, tenaga kerja 20,19%, pupuk organik 19,45%, dan bibit 0,82%.

Kata Kunci: Bawang merah, Cobb-Douglas, *Data Envelopment Analysis* (DEA), Efisien

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**EFFICIENCY MEASUREMENT OF SHALLOT (*Allium ascalonium*
L.) TO USING PRODUCTION FACTORS AT BANTUL,
D.I.YOGYAKARTA**

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ABSTRACT

Kretek and Sanden have the highest onion farming in Bantul Regency, D.I.Yogyakarta. However, the efficiency level of onion farming has not been evenly distributed across all farmer levels due to the influence of the use different type and number of input variables and has not been optimized. The purpose of this study is (1) evaluating the factors of production (input variables) against the amount of production (2) analyzing the condition of return to scale (3) evaluating the level of efficiency of farming, and (4) providing recommendations for improvement.

The method that used in this study is Cobb-Douglas and Data Envelopment Analysis (DEA). Cobb-Douglas is used to determine the effect of production factors on the amount of production, while Data Envelopment Analysis (DEA) is used to determine the efficiency level of farming with the assumption of output oriented and provide recommendations on inefficient farming.

Production factors consisting of land area, seeds, organic fertilizer, chemical fertilizer, liquid pesticides, solid pesticides, and labor simultaneously affect the amount of onion production. There are 41 efficient Decision Making Units (DMU) and 19 inefficient DMU in both districts. Based on the potential improvement of Kretek the efficiency of liquid pesticides can be increased by 42.47%, organic fertilizer 29.15%, seeds 20.32%, land area 15.67%, solid pesticides 7.76%, and labor 3.36%. In Sanden the efficiency of chemical fertilizer can be increased by 47.11%, solid pesticides 39.92%, liquid pesticides 34.32%, land area 32.76%, labor 20.19%, organic fertilizer 19.45%, and seeds 0.82%.

Keyword: Shallot, Cobb-Douglas, *Data Envelopment Analysis* (DEA), Efficient

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