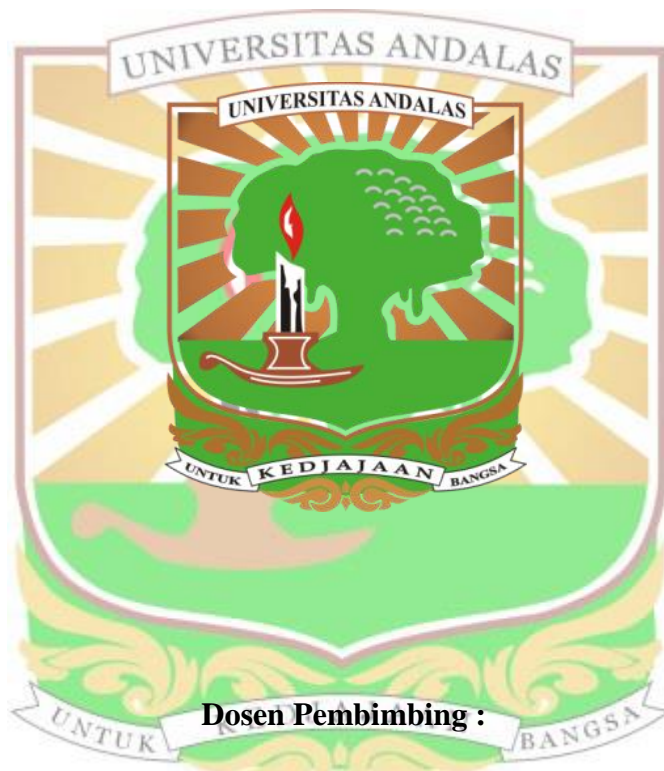


**UJI KARAKTERISTIK FISIKOKIMIA DAN HARGA POKOK  
PRODUKSI PATI, KONSENTRAT PROTEIN DAN MINYAK  
BIJI JAGUNG (*Zea mays*, L)**

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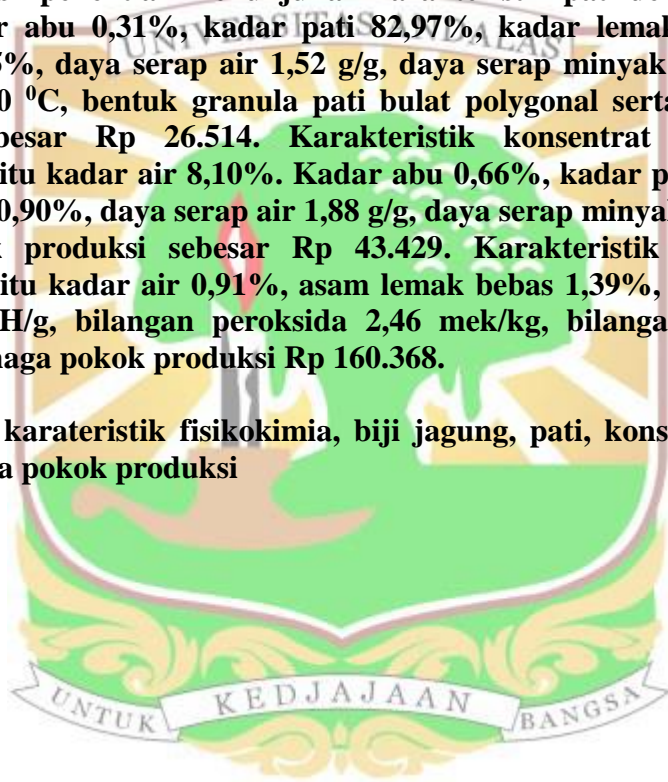
# Uji Karakteristik Fisikokimia dan Harga Pokok Produksi Pati, Konsentrat Protein, dan Minyak Biji Jagung (*Zea mays*, L)

Titi Nofrianti, Fauzan Azima, Aisman

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui karakteristik fisikokimia dan harga pokok produksi pati, konsentrat protein dan minyak jagung dengan varietas Bisi-2. Penelitian ini menggunakan metode eksplorasi. Eksplorasi yang dilakukan adalah mengekstraksi pati, konsentrat protein dan minyak dari biji jagung dan menganalisis mutunya serta menghitung harga pokok produksi. Hasil penelitian menunjukkan karakteristik pati dengan kadar air 7,86%, kadar abu 0,31%, kadar pati 82,97%, kadar lemak 0,81%, kadar amilosa 50,65%, daya serap air 1,52 g/g, daya serap minyak 1,15 g/g, suhu gelatinisasi 70 °C, bentuk granula pati bulat polygonal serta harga pokok produksi sebesar Rp 26.514. Karakteristik konsentrat protein yang dihasilkan yaitu kadar air 8,10%. Kadar abu 0,66%, kadar protein 20,57%, kadar lemak 0,90%, daya serap air 1,88 g/g, daya serap minyak 1,42 g/g serta harga pokok produksi sebesar Rp 43.429. Karakteristik minyak yang dihasilkan yaitu kadar air 0,91%, asam lemak bebas 1,39%, bilangan asam 1,21 mg KOH/g, bilangan peroksida 2,46 mek/kg, bilangan penyabunan 137,59 serta harga pokok produksi Rp 160.368.

*Kata Kunci* : karakteristik fisikokimia, biji jagung, pati, konsentrat protein, minyak, harga pokok produksi



**Physicochemical Characteristic and Production Cost of Maize Starch,  
Protein concentrate and Oil (*Zea mays*, L)**

Titi Nofrianti, Fauzan Azima, Aisman

**ABSTRACT**

This research was aimed to determine the physicochemical characteristics and production cost of maize starch, protein concentrate and oil from Bisi-2 varieties. This research was used exploratory methods. The exploration is carried out to extract starch, protein concentrate, and oil from corn kernels and analyze the quality and calculate the cost of production. The result showed the characteristic of starch with water content of 7.86%, ash content 0.31%, starch content 82.97%, amylose content 50.65%, fat content 0.81%, water absorption 1.52 g/g, oil absorption 1.15 g/g, gelatinization temperature 70 °C, starch granule shape and cost production amounted to Rp 26.514. Characteristic of protein concentrate produced with water content 8.10%, ash content 0.66%, protein content 26.90%, fat content 0.90%, water absorption 1.88 g/g, oil absorption 1.42 g/g and cost of production amounted to Rp 43.429. Characteristic of oil produced are 0.91% moisture content, 1.39% free fatty acid, 1.21 mg KOH/g acid number, 2.46 meq/kg peroxide number, 137.59 mg KOH/g saponification number and cost products Rp 160.368.

*Keywords* : physicochemical characteristic, corn kernels, starch, protein concentrate, oil, cost of production