ABSTRACT

DRYING PROCESS OF TARUM (*Indigofera zollingeriana*) LEAVES USING A RAK TYPE HYBRID DRYER TOOL

By

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Tarum (*Indigofera zollingerina*) is a land plant belonging to the Leguminosa family. This plant grows widely in Sumatra and Java According to Akbarillah, et al., 2002, tarum leaf flour contains crude protein (PK), namely 27.89%, crude fat or ether extract (EE) 3.70%, and crude fiber (SK) 14.96%. added that tarum leaf flour contains mineral content, namely Ca 1.16%, P 0.26%, Mg 0.46% and complete amino acids and is almost the same as soybean meal (Palupi et al. 2014). The population of beef cattle and goats in Indonesia is currently continuing to increase, it is recorded that the population of beef cattle in Indonesia in 2022 will be around 18,061,000 heads and 19,397,960 goats spread throughout Indonesia, where is the data on the population of beef cattle and goats increased compared to the previous year (2021) which was only 18,053,710 head of cattle and 19,229,067 head of goats.

The use of hybrid dryers is an effective choice for drying Tarum leaves. Testing materials using electricity and solar energy (hybrid) was carried out for 8 hours. Testing materials using an oven was carried out for 6 hours. Tests using direct solar energy (traditional) were carried out drying for 12 hours.

Proximate analysis is one way that has often been used to determine the value of nutrient content in raw materials or food. From the results of testing the proximate

content of Tarum leaf flour using a hybrid dryer obtained; moisture content 10.52%, protein 22.47%, fat 11.69%, fiber 8.75%, ash content 10.70% and BETN 35.87%. Drying using oven obtained; moisture content 10.98%, protein 17.54%, fat 12.87% fiber 6.78%, ash content 9.72% and BETN 42.11%. Drying using direct solar energy (traditional) obtained; moisture content 12.31%, protein 18.54%, fat 8.64%, fiber 8.54%, ash content 14.27% and BETN 37.7%.

Keywords: Tarum, drying, hybrid, proximate test.

ABSTRAK

PROSES PENGERINGAN DAUN TARUM *(Indigofera zollingeriana)* MENGGUNAKAN ALAT PENGERING HYBRID TIPE RAK

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Tarum *(Indigofera zollingerina)* merupakan tumbuhan darat yang termasuk dalam famili Leguminosa. Tumbuhan ini banyak berkembang di Sumatera dan Jawa, tepung daun tarum mengandung protein kasar (PK) yaitu 27,89%, lemak kasar atau ekstrak eter (EE) 3,70%, dan serat kasar (SK) 14,96%. Abdullah et al. (2010) menambahkan, tepung daun tarum memiliki kandungan kadar mineral yaitu Ca 1.16%, P 0.26%, Mg 0.46% dan asam amino lengkap dan hampir sama besarnya dengan tepung bungkil kedelai (Palupi et al. 2014). Populasi sapi potong dan kambing di Indonesia saat ini terus mengalami peningkatan, tercatat populasi sapi potong di Indonesia pada tahun 2022 sekitar 18.061.000 ekor dan kambing sebanyak 19.397.960 ekor yang menyebar di seluruh wilayah Indonesia, di mana data populasi sapi potong dan kambing ini meningkat dibandingkan dengan tahun sebelumnya (2021) yang hanya 18.053.710 ekor sapi dan 19.229.067 ekor kambing.

Penggunaan alat pengering hybrid menjadi pilihan yang efektif untuk pengeringan daun *Tarum*. Pengujian bahan menggunakan energi listrik dan matahari (*hybrid*) dilakukan selama selama 8 jam. Pengujian bahan menggunakan oven dilakukan selama 6 jam. Pengujian dengan menggunakan energi matahari langsung (tradisional) dilakukan pengeringan selama 12 jam.

Analisis proksimat adalah salah satu cara yang sudah sering digunakan untuk mengetahui nilai kandungan nutrisi di dalam bahan baku atau pangan. Dari hasil pengujian kandungan proksimat pada tepung daun *Tarum* menggunakan alat pengering *hybrid* didapatkan ; kadar air 10.52%, protein 22,47%, lemak 11,69%, serat 8,75%, kadar abu 10,70% dan BETN 35,87%. Pengeringan menggunakan oven didapatkan; kadar air 10,98%, protein 17,54%, lemak 12,87% serat 6,78%, kadar abu 9,72% dan BETN 42,11% . Pengeringan menggunakan energi matahari langsung (tradisional) didapatkan ; kadar air 12,31%, protein 18,54%, lemak 8,64%, serat 8,54% , kadar abu 14,27% dan BETN 37,7%

Kata kunci: Tarum, pengeringan, *hybrid*, uji proksima