

STUDI EFEKTIVITAS PENGERINGAN DENGAN DEHIDRATOR TERHADAP KARAKTERISTIK TEPUNG TELUR

Oleh:

Frengki Eksel

ABSTRAK

Penelitian ini bertujuan untuk mengetahui suhu yang tepat pada pengeringan tepung telur dengan menggunakan dehidrator, mengetahui karakteristik tepung telur yang dihasilkan, dan untuk mengetahui analisis kelayakan ekonomi dari pembuatan tepung telur. Penelitian ini dilaksanakan pada bulan Juni sampai Agustus 2023 di Laboratorium Analisis, Sifat Bahan dan Produk Agroindustri Teknologi Industri Pertanian Universitas Dharma Andalas Padang, Laboratorium Vahana Scientific dan Laboratorium Mikrobiologi Hasil Pertanian UNAND Padang. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan perbedaan suhu pengeringan yaitu: A=50°C, B=55°C, C=60°C, D=65°C, E=70°C dengan 3 kali ulangan. Hasil pengamatan dari masing-masing perlakuan dianalisis dengan ANOVA. Jika berbeda nyata maka dilanjutkan menggunakan uji lanjut DNMRT pada taraf 5%. Hasil penelitian pengeringan tepung telur dengan dehidrator berpengaruh nyata terhadap rendemen, kadar protein, derajat putih dan tidak berpengaruh nyata pada kadar lemak, kadar air, uji pH, daya buih. Hasil pengujian terbaik terhadap tepung telur yaitu perlakuan suhu 50°C dengan rendemen 23,80%, derajat putih 38,75, daya busa 213%, kadar protein 80,30 %, kadar air 4,11%, pH 7,33, kadar lemak 41,50%, dan uji *Salmonella* 0. Hasil perhitungan *Break Event Point* (BEP) tepung telur atas dasar unit sebesar 2.894 kotak dan *Break Event Point* (BEP) atas dasar rupiah yaitu Rp.57.899.613.

Kata kunci : Tepung Telur, Pengeringan, dehidrator, Karakteristik, BEP

STUDY OF THE EFFECTIVENESS OF DRYING WITH A DEHYDRATOR ON THE CHARACTERISTICS OF EGG FLOUR

By:

Fengki Eksel

ABSTRACT

This research aims to determine the correct temperature for drying egg flour using a dehydrator, determine the characteristics of the egg flour produced, and to determine the economic feasibility analysis of making egg flour. This research was carried out from June to August 2023 at the Laboratory of Analysis, Material Properties and Agro-Industrial Products, Agricultural Industry Technology, Dharma Andalas University, Padang, the Vahana Scientific Laboratory and the Agricultural Microbiology Laboratory, UNAND Padang. The research design used was a Completely Randomized Design (CRD) with different drying temperatures, namely: A=50oC, B=55oC, C=60oC, D=65oC, E=70oC with 3 replications. The observation results from each treatment were analyzed using ANOVA. If it is significantly different then continue using the DNMRT further test at the 5% level. The results of the research on drying egg flour with a dehydrator had a significant effect on yield, protein content, degree of whiteness and had no significant effect on fat content, water content, pH test, foam power. The best test results for egg flour were treatment at a temperature of 50°C with a yield of 23.80%, whiteness degree 38.75, foam power 213%, protein content 80.30%, water content 4.11%, pH 7.33, fat content 41.50%, and the Salmonella test was 0. The results of the Break Event Point (BEP) calculation for egg flour on a unit basis are 2,894 boxes and Break Event Point (BEP) on a rupiah basis, namely IDR 57,899,613.

Keywords: Egg Flour, Drying, dehydrator, Characteristics, BEP