VARIATIONS OF MIXING SORGHUM (*Sorgum bicolor (L) Moench*) TO PHYSICAL CHARACTERISTICS, ORGANOLEPTICS, PROTEIN AND CRUDE FIBER FOR MAKING TEMPE (*Glycibe max (L) Merril*)

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ABSTRACT

Background: Tempe is femented food by *Rhizopus sp*, a compact solid, distinctive smell and white or gray (BSN, 2012). Please note that Indonesia is the 10th largest importer of beans. Imports of soybeans during the period of 2009-2013 reached 93.65 million tons and during that period the average per year increased 6.59% (Pusdatin, 2016). An alternative that can be used to replace soybeans to make tempe is sorghum. It is known that sorghum is a class of cereals and local food alternatives that have not received much attention even by the central statistical agency because of its low production. Although sorghum has high tannin content, it is known that at the time of fermentation with the bacteria Rhizopus oligosporus tannin content decreased by 29.13% to 33.69%.
Objective: To determine the effect variations of mixing sorghum to physical characteristic, organoleptics, protein and crude fiber for making tempe.
Research Methods: The research type experimental, using the RAS method with 4 variations and 2 replications. Tests of physical charasteristic performed by researchers, organoleptics by panelists as many as 25 people, nutrient content performed in Labiratorium Chem-Mix Pratama.
Result: There is difference in physical characteristic between color, aroma, taste and texture of tempe. The result of Kruskal Wallis test of organoleptic showed that there were significant differences ($p < 0,05$) in terms of color, aroma, taste and texture of tempe. The highest protein content in sorghum tempe is B. Mean while, the highest crude fiber in sorghum tempe is D.
Conclusion: There is influence of mixing sorghum on physical characteristic, organoleptics, protein and crude fiber of sorghum tempe.
Keywords: Sorghum, Soybeans, Tempe, Protein Content, Crude Fiber

VARIASI PENCAMPURAN SORGUM *(Sorgum bicolor (L) Moench)* TERHADAP SIFAT FISIK, SIFAT ORGANOLEPTIK, KADAR PROTEIN DAN SERAT KASAR PADA PEMBUATAN TEMPE KEDELAI (*Glycibe max (L) Merril)*

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ABSTRAK

Latar Belakang: Tempe merupakan makanan hasil fementasi oleh kapang *Rhizopus sp*, berbentuk padatan kompak, berbau khas serta berwarna putih atau keabuan (BSN, 2012). Perlu diketahui bahwa Indonesa termasuk negara pengimpor kacang kedelei terbesar ke-10. Impor kacang kedelai selama periode tahun 2009-2013 mencapai 93,65 juta ton dan selama kurun waktu tersebut rata-rata pertahun meningkat 6,59% (Pusdatin, 2016). Alternatif yang dapat digunakan untuk menggantikan kacang kedelai untuk membuat tempe yaitu sorgum. Diketahui bahwa sorgum merupakan golongan serealia dan alternatif pangan lokal yang belum mendapat banyak perhatian bahkan oleh badan pusat statistik karena produksinya yang masih rendah. Meskipun sorgum memiliki kandungan tanin yang tinggi, diketahui bahwa pada saat fermentasi dengan bakteri *Rhizopus oligosporus* kadar tanin menurun sebesar 29,13% sampai 33,69%.
Tujuan Penelitian: Mengetahui pengaruh pencampuran sorghum terhadap sifat fisik, sifat organoleptik, kadar protein dan serat kasar pada pembuatan tempe kacang kedelai.
Metode Penelitian: Jenis penelitian adalah eksperimental murni, dengan metode RAS 4 variasi dan 2 kali ulangan. Pengujian sifat fisik dilakukan oleh peneliti, sifat organoleptik oleh panelis sebanyak 25 orang, kandungan gizi dilakukan di labiratorium Chem-Mix Pratama.
Hasil Penelitian: Ditinjau dari sifat fisik terdapat perbedaan antara warna, aroma, rasa dan tekstur tempe. Hasil analisis *Kruskal wallis* uji organoleptik diketahui terdapat perbedaan yang signifikan ($p<0,05$) dari segi warna, aroma, rasa dan tekstur tempe. Kandungan protein tertinggi yaitu tempe sorgum B, sedangkan serat kasar yaitu tempe sorgum D.
Kesimpulan: Ada pengaruh pencampuran sorgum terhadap sifat fisik, sifat organoleptik, kadar protein dan serat kasar tempe sorgum.
Kata Kunci: Sorgum, Kacang Kedelai, Tempe, Kadar Protein, Serat Kasar