

## **ABSTRACT**

### **THE EFFECT OF ADDING WHITE RICE BRAN FLOUR AND DRAGON FRUIT PEEL FLOUR ON WATER CONTENT, HARDNESS AND SENSORY CRACKERS**

**BY**

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Rice bran and dragon fruit peel are by-products of agricultural processing that contain nutrients, bioactive components and fiber that can be added to bakery products such as crackers. The purpose of the research was to obtain a formulation of white rice bran flour and red dragon fruit peel flour that produces crackers with the best chemical, physical and sensory properties according to SNI 2973: 2018. The study was prepared with a Complete Group Randomized Design (RAKL) with 5 treatments and 4 repeats consisting of 5 levels of wheat flour ratio: white rice bran flour: red dragon fruit peel flour, namely 100%:0%:0% (K0/control), 80%:4%:16% (K1), 80:8%:12% (K2), 80%:12%:8% (K3), and 80%:16%:4% (K4). The parameters observed were moisture content, hardness, sensory (texture, taste, aroma, color, overall acceptance), crackers were best tested for acid insoluble ash content, protein, acid number, crude fiber and dietary fiber. The data obtained were analyzed for homogeneity with the Bartlett test, six material with the Tukey test, analyzed for variance (ANARA), and further tests with BNT 5%. The results showed that the best treatment was K4 (wheat flour 80%: rice bran flour 16%: dragon fruit peel flour 4%) with a moisture content of 3.30%, hardness value 4.21 N, texture score 4.48% (crunchy), taste score 3.90% (slightly bitter), aroma score 4.19% (not rancid), color score 4.16% (like) and overall acceptance score 3.39% (somewhat like), and has an acid insoluble ash content of 0.08%, protein content 7.38%, acid content 7.90 (mg KOH/g), crude fiber content 4.47% and food fiber content 7.03%.

**Keywords:** crackers, dragon fruit peel, rice bran

## ABSTRAK

### PENGARUH PENAMBAHAN TEPUNG BEKATUL BERAS PUTIH DAN TEPUNG KULIT BUAH NAGA TERHADAP KADAR AIR, KEKERASAN DAN SENSORI *CRACKERS*

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Bekatul dan kulit buah naga merupakan produk hasil samping pengolahan pertanian yang memiliki kandungan gizi, komponen bioaktif, dan serat yang dapat ditambahkan kedalam produk *bakery* seperti *crackers*. Tujuan penelitian mendapatkan formulasi tepung bekatul beras putih dan tepung kulit buah naga merah yang menghasilkan *crackers* dengan sifat kimia, fisik dan sensori terbaik sesuai SNI 2973:2018. Penelitian disusun dengan Rancangan Acak Kelompok Lengkap (RAKL) dengan 5 perlakuan dan 4 kali ulangan yang terdiri dari 5 taraf perbandingan tepung terigu : tepung bekatul beras putih : tepung kulit buah naga merah yaitu 100%:0%:0% (K0/kontrol), 80%:4%:16% (K1), 80:8%:12% (K2), 80%:12%:8% (K3), dan 80%:16%:4% (K4). Parameter yang diamati yaitu kadar air, kekerasan, sensori (tekstur, rasa, aroma, warna, penerimaan keseluruhan), *crackers* terbaik diuji kadar abu tak larut asam, protein, bilangan asam, serat kasar dan serat pangan. Data yang diperoleh dianalisis kehomogenannya dengan uji Bartlett, kemenambahan dengan uji Tukey, dianalisis sidik ragam (ANARA), dan uji lanjut dengan BNT 5%. Hasil penelitian menunjukkan bahwa perlakuan terbaik yaitu pada K4 (tepung terigu 80% : tepung bekatul 16% : tepung kulit buah naga 4%) dengan kadar air sebesar 3,30%, nilai kekerasan 4,21 N, skor tekstur 4,48% (renyah), skor rasa 3,90% (agak pahit), skor aroma 4,19% (tidak tengik), skor warna 4,16% (suka) dan skor penerimaan keseluruhan 3,39% (agak suka), serta memiliki kadar abu tak larut asam 0,08%, kadar protein 7,38%, kadar bilangan asam 7,90 (mg KOH/g), kadar serat kasar 4,47% dan kadar serat pangan 7,03%.

**Kata kunci** : bekatul, *crackers*, kulit buah naga merah