

ABSTRACT

THE EFFECT OF TEMPERATURE AND DRYING DURATION OF JANTEN BANANAS (*Musa eumusa*) ON THE WATER CONTENT, COLOR AND SENSORY OF JANTEN BANANA FLOURS

By

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The importance of research on janten banana flour as a potential functional food. This study aims to determine the combination of temperature and drying time of janten banana drying on water content, yield, color and sensory of janten banana flour. The experimental design used in the research method is a Complete Randomized Block Design factorial with two factors and three replications. The first factor is the drying temperature (55 °C, 60 °C, and 65 °C), while the second factor is the drying time (16 hours, 20 hours, and 24 hours). The data obtained were analyzed for similarity of variance with the Bartlett test and additional data were tested with the Tuckey test, then the data were analyzed for variance to determine whether there was an effect between treatments. The data were further analyzed to determine the differences between treatments using orthogonal polynomial advanced tests at the 5% level. The results showed that the drying temperature of janten bananas had a very significant effect on water content, yield, color and sensory of janten banana flour. The drying time of janten bananas has a very significant effect on water content and sensory (color and aroma) and has a significant effect on the yield of janten banana flour. The best temperature and drying time of janten bananas The best janten bananas were treated at a temperature of 55 °C and a drying time of 16 hours which resulted in a water content of 8.41%, a yield of 29.10%, a degree of whiteness (Whiteness Meter) of 61.01% (slightly white), a color score of 4.53 (slightly white) and an aroma score of 4.16 (typical of bananas).

Keywords: janten bananas, drying temperature, drying time, janten banana flour

ABSTRAK

PENGARUH SUHU DAN LAMA PENGERINGAN PISANG JANTEN (*Musa eumusa*) TERHADAP KADAR AIR, WARNA DAN SENSORI TEPUNG PISANG JANTEN

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Pentingnya penelitian tepung pisang janten berpotensi sebagai pangan fungsional. Penelitian ini bertujuan untuk mengetahui kombinasi suhu dan lama pengeringan pengeringan pisang janten terhadap kadar air, rendemen, warna dan sensori tepung pisang janten. Rancangan percobaan yang digunakan pada metode penelitian yaitu Rancangan Acak Kelompok Lengkap secara factorial dengan dua faktor dan tiga kali ulangan. Faktor pertama adalah suhu pengeringan (55°C, 60°C, dan 65°C), sedangkan faktor kedua adalah lama pengeringan (16 jam, 20 jam, dan 24 jam). Data yang diperoleh dianalisis kesamaan ragamnya dengan uji Bartlett dan kenambahan data diuji dengan uji Tuckey, selanjutnya data dianalisis sidik ragam untuk mengetahui ada tidaknya pengaruh antar perlakuan. Data dianalisis lebih lanjut untuk mengetahui perbedaan antar perlakuan menggunakan uji lanjut polinomial ortogonal pada taraf 5%. Hasil penelitian menunjukkan bahwa suhu pengeringan pisang janten berpengaruh sangat nyata terhadap kadar air, rendemen, warna dan sensori tepung pisang janten. Lama pengeringan pisang janten berpengaruh sangat nyata terhadap kadar air dan sensori (warna dan aroma) dan berpengaruh nyata terhadap rendemen tepung pisang janten. Suhu dan lama pengeringan pisang janten terbaik pisang janten terbaik pada perlakuan suhu 55 °C dan lama pengeringan 16 jam yang menghasilkan kadar air sebesar 8,41%, rendemen sebesar 29,10%, derajat warna putih (*Whiteness Meter*) sebesar 61,01% (agak putih), skor warna 4,53 (agak putih) dan skor aroma 4,16 (khas pisang).

Kata kunci: pisang janten, suhu pengeringan, lama pengeringan, tepung pisang janten