

## ABSTRACT

### BOILING TIME EFFECT OF PUMPKIN SEEDS ON SENSORY PROPERTIES AND ANTIOXIDANT ACTIVITY IN FERMENTED YOGHURT DRINKS

By

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The purpose of this study was to determine the effect of boiling pumpkin seeds on the sensory properties and antioxidant activity of yoghurt. The study was structured using a  $4 \times 4$  Latin Rectangle Design (RBSL) with a factor of boiling time of pumpkin seeds as much as 4 treatment levels, 4 minutes (A), 5 minutes (B), 6 minutes (C), and 7 minutes (D). The data tested for similarity of variance using the Bartlett test and additional data were tested with the Tuckey test. Data analysis of variance was carried out to obtain an estimator of the error variance and determine the effect between treatments. The analysis was continued by using the Least Significant Difference (LSD) test at the 5% and 1% significance levels. The results showed that the boiling time of pumpkin seeds did not significantly affect the sensory properties of the texture with a value of (4.07-4.15), thick, aroma with a value of (4.07-4.13) yogurt scent, colour with a value of (3.08-3.19) slightly greenish, taste with a value of (4.05-4.22) sour, overall acceptance with a value of (3.7-3.95) which is slightly like, and antioxidant activity of yogurt with a value of (40.3%-45.3%). The antioxidant activity of yogurt with the addition of pumpkin seed extract has a higher value of 45,31% compared to the antioxidant activity of plain yogurt, which is 28,49%. Based on these results, the conclusion was that the boiling time of 4, 5, 6, and 7 minutes had no effect on the sensory properties and antioxidant activity of yogurt with the addition of pumpkin seed extract.

**Keywords:** *antioxidant activity, sensory properties, pumpkin seeds, and yogurt*

## ABSTRAK

### PENGARUH LAMA WAKTU PEREBUSAN BIJI LABU KUNING TERHADAP SIFAT SENSORI DAN AKTIVITAS ANTIOKSIDAN PADA MINUMAN FERMENTASI YOGHURT

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Tujuan penelitian adalah mengetahui pengaruh lama waktu perebusan biji labu kuning terhadap sifat sensori dan aktivitas antioksidan yoghurt. Penelitian disusun dengan menggunakan Rancangan Bujur Sangkar Latin (RBSL)  $4 \times 4$  dengan faktor lama waktu perebusan biji labu kuning sebanyak 4 taraf perlakuan yaitu 4 menit (A), 5 menit (B), 6 menit (C), dan 7 menit (D). Data yang didapatkan diuji kesamaan ragam dengan menggunakan uji Bartlett dan kementerian data diuji dengan uji Tuckey. Data dilakukan analisis ragam untuk mendapatkan penduga ragam galat dan mengetahui pengaruh antar perlakuan. Analisis dilanjutkan dengan menggunakan uji Beda Nyata Terkecil (BNT) pada taraf nyata 5% dan 1%. Hasil penelitian menunjukkan bahwa lama waktu perebusan biji labu kuning tidak berpengaruh nyata terhadap sifat sensori tekstur dengan nilai (4,07-4,15) yaitu kental, aroma dengan nilai (4,07-4,13) yaitu khas, warna dengan nilai (3,08-3,19) sedikit kehijauan, rasa dengan nilai (4,05-4,22) asam, penerimaan keseluruhan dengan nilai (3,7-3,95) yaitu agak suka, dan aktivitas antioksidan yoghurt dengan nilai (40,3%-45,3%). Aktivitas antioksidan yoghurt dengan penambahan sari biji labu kuning memiliki nilai yang lebih tinggi yaitu 45,31% dibandingkan aktivitas antioksidan yoghurt plain yaitu 28,49%. Berdasarkan hasil tersebut dapat disimpulkan bahwa lama waktu perebusan 4, 5, 6, dan 7 menit tidak memberikan pengaruh terhadap sifat sensori dan aktivitas antioksidan yoghurt dengan penambahan sari biji labu kuning.

**Kata kunci:** *Aktivitas antioksidan, biji labu kuning, sifat sensori, dan yoghurt*