

ABSTRAK

PENGARUH SUBSTITUSI SARI JAGUNG MANIS (*Zea mays L. Var. Saccharata Sturtev*) TERHADAP NILAI pH, TOTAL BAKTERI ASAM LAKTAT DAN SIFAT ORGANOLEPTIK PADA YOGHURT

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Latar Belakang: Sari Jagung Manis mengandung gula yang diduga dapat menstimulasi pertumbuhan serta meningkatkan aktivitas bakteri asam laktat (BAL). Tujuan: penelitian ini bertujuan untuk mengetahui pengaruh penambahan sari jagung manis terhadap nilai pH, total BAL dan sifat organoleptic pada yoghurt. Metode: Rancangan percobaan untuk pengujian nilai pH, total BAL, Viskositas adalah rancangan acak lengkap (RAL) dengan 3 kelompok perlakuan dan 2 ulangan apabila terdapat pengaruh perlakuan dilanjutkan dengan one way anova dan jika tidak berdistribusi normal dilanjutkan dengan kruskal wallis. Uji sifat organoleptic menggunakan metode uji organoleptic dengan 30 panelis agak terlatih. Perlakuan yang diterapkan adalah pengaruh penambahan sari jagung manis sebanyak 30% (F1), 50% (F2) dan 70% (F3). Hasil: penelitian menunjukkan Nilai pH 4.10 – 4.23; total BAL 199.0 – 165.5 x 10⁷ (CFU/ml). Penambahan sari jagung manis (30%, 50% dan 70%) memberikan pengaruh yang sangat signifikan ($P < 0,05$) terhadap tekstur, aroma, warna dan rasa. sedangkan total BAL dan pH menunjukkan pengaruh yang tidak signifikan ($P > 0,05$). Kesimpulan: dari penelitian ini adalah yoghurt dengan penambahan sari jagung manis sebesar 70% memiliki kualitas yang paling baik.

Kata kunci: bakteri asam laktat, organoleptic, pH, sari jagung manis, pH, yoghurt

ABSTRACT

THE EFFECT OF SWEET CORN EXTRACT (*Zea mays L. Var. Saccharata Sturtev*) SUBSTITUTION ON pH-VALUE, TOTAL LACTIC ACID BACTERIA AND ORGANOLEPTIC PROPERTIES OF YOGHURT

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Background: Sweet corn juice contains sugar which is considered to stimulate growth and increase the activity of lactic acid bacteria (LAB). **Objective:** The purpose of this study was to determine the effect of sweet corn extract substitution on pH values, total LAB and organoleptic properties of yoghurt. **Methods:** The experimental design for testing pH values and total LAB was a completely randomized design (CRD) with three groups of treatments and two replications if there was an effect of treatment followed by one way ANOVA and not normally distributed. Then continued with Kruskal Wallis. Organoleptic properties was tested using an organoleptic test method with 30 semi trained panellists. The treatment applied was the effect of adding sweet corn extract as much as 30% (F1), 50% (F2) and 70% (F3). **Results:** The results showed that value of pH were 4.10 - 4.23; total LAB was 119.0 – 165.5 x 10⁷ CFU / ml. The addition of sweet corn juice (30%, 50% and 70%) had a very significant effect (P <0.05) on the quality of texture, aroma, colour and taste. But it didn't significantly affect total LAB and pH (P > 0.05). **Conclusion:** This study concluded that yoghurt with the addition of sweet corn extract by 70% had the best quality. **Keywords:** *lactic acid bacteria, organoleptic, pH, sweet corn extract, yoghurt.*