

**EFEKTIVITAS SARI JERUK LEMON (*Citrus limon L.*)
SEBAGAI PENGGANTI CUKA DAN PEMBERI AROMA
TERHADAP KARAKTERISTIK NATA DE KATUL**

RATNI KUMALA SARI

1911122002



Dosen Pembimbing:

Purnama Dini Hari, S.T.P., M.Sc

Cesar Welya Refdi, S.T.P., M.Si

**DEPARTEMEN TEKNOLOGI PANGAN DAN HASIL PERTANIAN
FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS ANDALAS
2023**

Efektivitas Sari Jeruk Lemon (*Citrus limon* L.) sebagai Pengganti Cuka dan Pemberi Aroma terhadap Karakteristik *Nata de Katul*

Ratni Kumala Sari, Purnama Dini Hari, Cesar Welya Refdi

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan sari jeruk lemon terhadap karakteristik *Nata de Katul* dan untuk mengetahui konsentrasi sari jeruk lemon yang paling efektif sebagai pengganti cuka dan pemberi aroma terhadap *Nata de Katul* berdasarkan penerimaan panelis. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan 3 ulangan. Perlakuan pada penelitian ini adalah penambahan sari jeruk lemon dengan konsentrasi A (kontrol), B (1%), C (2%), D (3%), dan E (4%). Data dianalisis secara statistik dengan menggunakan ANOVA dan jika berbeda nyata maka analisis data dilanjutkan dengan uji *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5%. Hasil penelitian menunjukkan bahwa penambahan sari jeruk lemon pada *Nata de Katul* memberikan pengaruh nyata terhadap hasil analisis pH media sebelum fermentasi, total asam tertitrasi media sebelum fermentasi, total gula reduksi media sebelum fermentasi, total gula reduksi media sisa fermentasi, total mikroba media sisa fermentasi, serat kasar, kekerasan, rendemen, ketebalan, dan organoleptik (aroma, rasa, dan kekenyalan). Namun tidak berpengaruh nyata terhadap hasil analisis pH media sisa fermentasi, total asam tertitrasi media sisa fermentasi dan organoleptik (warna). Penambahan sari jeruk lemon paling efektif berdasarkan karakteristik *Nata de Katul* yang dihasilkan dan penilaian sensori terbaik adalah perlakuan D (3%) dengan nilai pH media sebelum fermentasi sebesar 4,16, pH media sisa fermentasi 3,05, total asam tertitrasi media sebelum fermentasi 0,74, total asam tertitrasi media sisa fermentasi 1,16, total gula reduksi media sebelum fermentasi 6,62%, total gula reduksi media sisa fermentasi 1,11%, total mikroba media sisa fermentasi $1,3 \times 10^4$ CFU/ml, serat kasar 3,55%, kekerasan 1,11 N/cm², rendemen 41,33%, dan ketebalan 1,30 cm, organoleptik warna 3,70 (suka), aroma 3,95 (suka), rasa 3,95 (suka), dan kekenyalan 3,80 (suka).

Kata Kunci : sari jeruk lemon, *Nata de Katul*, fermentasi

**Effectiveness of Lemon Juice (*Citrus limon* L.) as a Acetid Acid Replacement
and Aroma Contributor to the Characteristics of *Nata de Katul***

Ratni Kumala Sari, Purnama Dini Hari, Cesar Welya Refdi

ABSTRACT

This study aims to determine the effect of lemon juice addition on the characteristics of *Nata de Katul* and to determine the most effective concentration of lemon juice as a acetid acid replacement and aroma contributor to the characteristics of *Nata de Katul* based on panelist acceptance. This study used a Completely Randomized Design (CRD) with 5 treatments and 3 replications. The treatments used was the addition of lemon juice with concentrations of A (control), B (1%), C (2%), D (3%), and E (4%). Data were analyzed statistically using ANOVA and if significantly different, the data analysis was continued with Duncan's New Multiple Range Test (DNMRT) at the 5% level. The results showed that the addition of lemon juice to *Nata de Katul* had a significant effect on the results of the analysis of pH media before fermentation, total titratable acid of media before fermentation, total reducing sugar of media before fermentation, total microbial of media after fermentation, total reducing sugar of media after fermentation, crude fiber, texture, yield, thickness, and organoleptic (aroma, taste, and chewiness). However, it did not significantly effect the results of the analysis pH of media after fermentation, total titratable acid of media after fermentation and organoleptic (color). The most effective addition of lemon juice based on the characteristics and the best sensory assessment is treatment D (3%) with pH value of media before fermentation 4.16, pH of media after fermentation 3.05, total titratable acid of media before fermentation 0.74, total titratable acid of media after fermentation 1.16, total reducing sugar of media before fermentation 6.62%, total reducing sugar of media after fermentation 1.11%, total microbial of media after fermentation 1.3×10^4 CFU/ml, crude fiber 3.55%, hardness 1.11 N/cm², yield 41.33%, thickness 1.30 cm, organoleptic color 3.70 (like), aroma 3.95 (like), taste 3.95 (like) and chewiness 3.80 (like).

Keywords : lemon juice, *Nata de Katul*, fermentation