

## **PENGARUH PENAMBAHAN EKSTRAK UMBI DAHLIA (*Dahlia pinnata* L.) TERHADAP KUALITAS MISHTI DOI SUSU KAMBING**

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### **INTISARI**

*Mishti Doi* merupakan makanan tradisional khas India dan Bangladesh berupa yogurt dengan variasi gula karamel. Penelitian ini bertujuan untuk mengetahui kualitas tekstur, pH, keasaman, kadar air, *total solid*, brix, mikrobiologis, dan sensoris *mishti doi* susu kambing dengan penambahan ekstrak umbi dahlia. *Mishti doi* dibuat dengan cara memfermentasi susu dengan bakteri *Lactobacillus bulgaricus* dan *Streptococcus thermophilus* dalam kendi tanah dengan ditambahkan ekstrak umbi dahlia 0,65 dan 1,3% dan ditambahkan gula karamel. Sebagai kontrol *mishti doi* tanpa penambahan ekstrak umbi dahlia. Pengujian yang dilakukan meliputi nilai tekstur, sineresis, pH, keasaman, brix, kadar air, *Total Plate Count* Bakteri Asam Laktat, serta sensoris. Analisis data menggunakan *one way ANOVA* serta diuji lanjut dengan *Duncan's New Multiple Ranges Test* (DMRT). Hasil penelitian menunjukkan bahwa kualitas *mishti doi* dengan penambahan level ekstrak umbi dahlia berpengaruh nyata ( $P < 0.05$ ) terhadap nilai sineresis, pH, keasaman, kadar air, mikrobiologis, dan nilai sensoris (rasa dan aroma), namun tidak berpengaruh terhadap nilai tekstur dan nilai sensoris meliputi tekstur, warna, dan daya terima. Kualitas *mishti doi* dengan penambahan level ekstrak umbi dahlia meningkatkan nilai keasaman, *total solid*, *total plate count* bakteri asam laktat, sensoris rasa, sensoris aroma dan menurunkan nilai sineresis, pH, dan kadar air. Kualitas fisiko-kimia, mikrobiologis, dan sensoris *mishti doi* dengan penambahan ekstrak umbi dahlia sebesar 1,3% memiliki kualitas paling baik.

Kata kunci: *Mishti Doi*, Ekstrak umbi dahlia, Kualitas fisiko-kimia, Mikrobiologis, Sensoris.

## **EFFECT OF ADDITION OF DAHLIA (*Dahlia pinnata* L.) TUBER EXTRACT ON GOAT MILK'S MISHTI DOI QUALITIES**

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### **ABSTRACT**

Mishti Doi is an original traditional food from India and Bangladesh. It is set yogurt with caramel variation. The aim of this research was to know the qualities of physico-chemical, microbiological and sensory of goat's milk mishti doi by adding dahlia tuber extract. Mishti doi is made by fermenting milk with *Lactobacillus bulgaricus* and *Streptococcus thermophilus* bacteria in an earthen pot by adding 0.65 and 1.3% dahlia tuber extract and caramelized sugar. As a control of mishti doi without the addition of dahlia tuber extract. The experiments consist of texture, syneresis, pH, titratable acidity, brix, and water content qualities, Total Plate Count of Lactic Acid Bacteria and sensory test. The statistical analysis by one way ANOVA followed by Duncan's Multiple Range Test (DMRT) to separate among means with significance level at  $P < 0.05$ . The result of this research showed that mishti doi quality with adding dahlia tuber extract gave effect ( $P < 0.05$ ) toward the values of syneresis, pH, titratable acidity, water content, microbiology and sensory (flavor and odor) but it did not give affect toward the values of texture and sensory of color and overall preference. The quality of *mishti doi* with the addition of dahlia tuber extract increases the value of titratable acidity, total solid, total plate count lactic acid bacteria, taste sensory, odor sensory and lower the value of syneresis, pH, and water content. The physico-chemical, microbiological, and sensory qualities of *mishti doi* with the addition of 1.3% dahlia tuber extract had the best quality.

**Keywords :** *Mishti doi*, Dahlia tuber extract, Physico-chemical quality, Microbiology, Sensory.