

## ABSTRAK

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### KARAKTERISTIK FISIKOKIMIA, MIKROBIOLOGIS, DAN ORGANOLEPTIK YOGHURT DENGAN PENAMBAHAN BAHAN PANGAN SUMBER ANTIOKSIDAN

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(xii + 44 halaman; 1 gambar; 8 tabel; 2 lampiran)

Yoghurt adalah produk hasil fermentasi susu yang dibuat dengan cara menambahkan bakteri asam laktat yang memiliki banyak manfaat, salah satunya adalah menjaga kesehatan saluran pencernaan. Yoghurt dapat menjadi alternatif bagi penderita *lactose intolerance*, karena memiliki kandungan laktosa yang lebih sedikit. Proses fermentasi yoghurt akan menghasilkan rasa asam, sehingga pada umumnya yoghurt kurang digemari oleh konsumen. Penambahan bahan pangan sumber antioksidan, seperti buah dan sayur dapat memperbaiki cita rasa dan meningkatkan aktivitas antioksidan yoghurt. Tujuan dari kajian pustaka adalah mengetahui pengaruh penambahan bahan pangan sumber antioksidan terhadap karakteristik fisikokimia, mikrobiologi, dan organoleptik yoghurt. Penambahan bahan pangan sumber antioksidan, seperti anggur merah, wortel, kurma, sirsak, belimbing, dan naga merah dapat memengaruhi karakteristik fisikokimia, mikrobiologis, dan organoleptik yoghurt dibandingkan yoghurt tanpa penambahan bahan pangan sumber antioksidan. Penambahan bahan pangan sumber antioksidan meningkatkan viskositas dengan rentang 48,67-1817,33 cP, total asam 0,82-1,17%, aktivitas antioksidan 22,22-56,457%, dan total bakteri asam laktat  $4,70 \times 10^7$ - $4,90 \times 10^{15}$  CFU/mL. Sedangkan untuk warna, penambahan bahan pangan sumber antioksidan menurunkan nilai L\* dengan rentang 37,74-89,17, memengaruhi nilai a\* 4,80-48,67, nilai b\*-13,85-27,07, menurunkan nilai pH dengan rentang 3,85-4,61, dan menghasilkan yoghurt dengan warna, rasa, dan aroma yang agak disukai hingga disukai. Penambahan bahan pangan sumber antioksidan telah memenuhi seluruh standar mutu SNI dari yoghurt, kecuali untuk pH yoghurt yang ditambahkan dengan wortel.

Kata kunci : yoghurt, bahan pangan sumber antioksidan, aktivitas antioksidan

Referensi : 101 (2003-2021)

## **ABSTRACT**

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### **PHYSICOCHEMICAL, MICROBIOLOGICAL, AND ORGANOLEPTIC CHARACTERISTIC OF YOGHURT WITH THE ADDITION OF ANTIOXIDANT SOURCE FOOD INGREDIENTS**

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Yoghurt is a fermented milk product made by adding lactic acid bacteria which has many health benefits, one of which is maintaining a healthy digestive tract. Yoghurt can also be an alternative for people with lactose intolerance, because it contains less lactose. The yoghurt fermentation process will produce a sour taste, so that in general yoghurt is less favored by consumers. The addition of food ingredients as antioxidant source, such as fruits and vegetables, can improve the taste and increase the antioxidant activity of yoghurt. The purpose of this literature review was to determine the effect of adding food sources of antioxidants to the physicochemical, microbiological, and organoleptic characteristics of yoghurt. The addition of food ingredients as source of antioxidants, such as grapes, carrots, dates, soursop, star fruit, and red dragon can affect the physicochemical, microbiological, and organoleptic characteristics of yoghurt compared to yoghurt without any addition. The addition of food ingredients as sources of antioxidants increased the viscosity with a range of 48,67-1817,33 cP, total acid 0,82-1,17%, antioxidant activity 22,22-56,46%, and total lactic acid bacteria  $4,7 \times 10^7$ -  $4,9 \times 10^{15}$  CFU/mL. As for the color, the addition of food ingredients as sources of antioxidants reduces the L\* value with a range of 37,74-89,17, affects the a\* value from 4,80-48,67, the b\* value -13,85-27,07, lowers the pH. value with a range 3,85-4,61, and produces yoghurt with a slightly favorable to favorable color, taste, and aroma. The addition of food ingredients as sources of antioxidants produced yoghurts with quality in accordance of the Indonesian's National Standard (SNI), except for the pH value of yoghurt with carrot addition.

Keywords. : yoghurt, food ingredients as antioxidant source, antioxidant activity

References : 101 (2003-2021)