

## ABSTRACT

**Refani Fadli Rahman. B.2110029.** Sensory, Chemical, and Antioxidant Activity Characteristics of Egg Roll Cake with Added Javanese Turmeric (*Curcuma xanthorrhiza* Roxb) Powder. Supervised by Aminullah and Distya Riski Hapsari.

Javanese turmeric is one of the Indonesian herbs with antioxidant pharmacological effects. The antioxidant activity of Javanese turmeric is classified as strong. The use of Javanese turmeric as a food ingredient is not optimal because of its pungent aroma and bitter taste. This study aims to investigate the effect of the ratio of wheat flour to Javanese turmeric powder on the sensory characteristics, chemical properties and antioxidant activity of egg roll cakes. The research method used was RAL (Completely Randomized Design) with four treatment levels, namely the ratio of wheat flour to Javanese turmeric powder of 28:2, 26:4, 24:6 and 22:8. The addition of Javanese turmeric powder was able to increase the moisture content, curcumin content and antioxidant activity in egg roll cakes, but decreased the sensory acceptability of the product. As the concentration of turmeric flour increased, the color of the egg roll cakes became darker yellow, the aroma of turmeric became stronger, the texture tended to be non-crispy, the bitter taste of turmeric became more dominant, and the bitter aftertaste became stronger and more frequent. The higher addition of Javanese turmeric powder made the egg roll cake unpalatable to the panelists. During the process of making the egg roll cakes, the curcumin content decreased by 4.79% - 6.50%. The best treatment for egg roll cakes based on the de Garmo method is the addition of 2% Javanese turmeric powder. The egg roll cake with the best treatment has a water content of 3.91%, curcumin content of 0.00311 g/g (0.31%) and antioxidant activity of 5.04%.

**Keywords:** *Curcuma xanthorrhiza* Roxb, *egg roll*, sensory characteristics, snack

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**Refani Fadli Rahman. B.2110029.** Karakteristik Sensori, Kimia, dan Aktivitas Antioksidan Kue *Egg Roll* dengan Penambahan Tepung Temulawak (*Curcuma xanthorrhiza* Roxb). Dibawah bimbingan Aminullah dan Distya Riski Hapsari.

Temulawak merupakan salah satu herbal Indonesia yang memiliki efek farmakologis antioksidan. Aktivitas antioksidan dalam temulawak tergolong kuat. Pemanfaatan temulawak sebagai bahan pangan belum optimal karena memiliki aroma tajam dan rasa yang pahit. Tujuan dari penelitian adalah untuk mempelajari pengaruh rasio tepung terigu dan tepung temulawak terhadap karakteristik sensori, karakteristik kimia, dan aktivitas antioksidan pada kue *egg roll*. Metode penelitian yang diterapkan yakni RAL (Rancangan Acak Lengkap) dengan empat taraf perlakuan yaitu rasio tepung terigu dan tepung temulawak sebesar 28:2, 26:4, 24:6, dan 22:8. Penambahan tepung temulawak mampu meningkatkan kadar air, kadar kurkumin dan aktivitas antioksidan pada kue *egg roll*, tetapi menurunkan tingkat penerimaan sensori pada produk. Konsentrasi tepung temulawak yang meningkat, membuat warna kue *egg roll* mengarah ke arah kuning pekat, aroma temulawak semakin menguat, tekstur cenderung mengarah ke tidak renyah, rasa pahit temulawak semakin dominan, serta *aftertaste* getir semakin kuat dan semakin sering dirasakan. Penambahan tepung temulawak yang semakin tinggi membuat kue *egg roll* tidak disukai oleh panelis. Selama proses pembuatan kue *egg roll* membuat kadar kurkumin mengalami penurunan sebesar 4,79% - 6,50%. Perlakuan terbaik pada kue *egg roll* berdasarkan metode de Garmo adalah dengan rasio penambahan tepung temulawak 2%. Kue *egg roll* dengan perlakuan terbaik memiliki kadar air sebesar 3,91%, kadar kurkumin sebesar 0,00311 g/g (0,31%), dan aktivitas antioksidan sebesar 5,04%.

Kata kunci: *Curcuma xanthorrhiza* Roxb, *egg roll*, karakteristik sensori, camilan