

SIFAT FISIK DAN KIMIA SERTA TINGKAT KESUKAAN *NUGGET* AYAM BROILER DENGAN PENAMBAHAN BUBUK KUNYIT DAN *SODIUM TRIPOLYPHOSPHATE*

INTISARI

Daging ayam broiler mengandung lemak tinggi sehingga diperlukan pengolahan menjadi produk yang lebih sehat. *Nugget* merupakan jenis olahan daging restrukturisasi. Kadar lemak daging dan pengaruh penggorengan dapat meningkatkan asam lemak sehingga *nugget* mudah teroksidasi menghasilkan radikal bebas dan bau tengik. Oleh karena itu diperlukan antioksidan seperti bubuk kunyit untuk menghambat oksidasi. Selain itu produk daging restrukturisasi mengalami penurunan sifat kemampuan mengikat air yang dapat mempengaruhi tekstur. Tujuan penelitian ini adalah untuk menghasilkan *nugget* ayam dengan penambahan bubuk kunyit dan *sodium tripolyphosphate* yang disukai.

Penelitian ini terbagi menjadi 3 tahap yaitu pembuatan bubuk kunyit, *curing* daging dan pembuatan *nugget* ayam broiler. Metode yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan dua faktor yaitu penambahan bubuk kunyit (0,2%; 0,4%; 0,6%) dan STPP (0,1%; 0,2%). Analisis yang dilakukan meliputi sifat kimia (kadar air, lemak, asam lemak bebas (ALB), angka TBARS (*Thiobarbituric Acid Reactive Substance*), sifat fisik (daya ikat air atau WHC, warna, tekstur) dan tingkat kesukaan. Hasil yang diperoleh dilakukan analisa varian (ANOVA) pada tingkat kepercayaan 95%. Apabila beda nyata dilanjutkan dengan uji *Duncan Multiple Range Test*.

Hasil penelitian menunjukkan bahwa penambahan bubuk kunyit dan STPP tidak berpengaruh nyata pada kadar air, tekstur dan WHC dan berpengaruh nyata terhadap warna, asam lemak bebas dan angka TBARS. Kadar air *nugget* matang berkisar antara 52,90%-55,14% dan kadar air *nugget* mentah 62,70%-64,40%, tekstur 2,25-2,40 N dan WHC 0,52%-0,53%. Penambahan bubuk kunyit sebanyak 0,6% dapat menurunkan asam lemak bebas dan angka TBARS lebih besar dibandingkan dengan bubuk kunyit 0,2% dengan penurunan nilai asam lemak bebas pada *nugget* matang dari 0,032% menjadi 0,018%, pada *nugget* mentah dari 0,027% menjadi 0,013% dan penurunan angka TBARS *nugget* matang dari 0,94 menjadi 0,56 mg kg⁻¹ dan *nugget* mentah dari 0,41 mg kg⁻¹ menjadi 0,18 mg kg⁻¹. *Nugget* terbaik berdasarkan uji kesukaan terdapat pada penambahan bubuk kunyit 0,2% serta STPP 0,2% dengan kadar air 55,14%; alb 0,032%; angka TBARS 0,94 mg kg⁻¹; dan lemak 13,52%.

Kata kunci: *nugget*, oksidasi, warna, tekstur.

PHYSICAL AND CHEMICAL PROPERTIES AND PREFERENCE LEVEL OF BROILER CHICKEN NUGGET WITH ADDITION OF TURMERIC POWDER AND SODIUM TRIPOLYPHOSPHATE

ABSTRACT

Broiler chicken contains high fat so processing is needed in order to become a healthier product. Nugget is a kind of restructured ground meat that is spiced then covered with flour adhesive, smeared with bread flour, and fried and then spiced then covered with flour adhesive, smeared with bread flour, and fried and then refrigerated. Meat fat content and the effect of frying can increase fatty acids so that the nugget easily oxidize and produce free radicals and rancid odors. Therefore, antioxidant such as turmeric powder is needed to inhibit oxidation. In addition, restructured meat products have decreased properties of water holding capacity which may affect the texture. The purpose of this study is to produce chicken nuggets with the addition of the preferred turmeric and sodium tripolyphosphate (STPP) powder.

This study was divided into 3 stages, namely making turmeric powder, meat curing and making curing broiler chicken nuggets. The method used was Complete Randomized Design (CRD) with two factors, namely the addition of turmeric powder (0.2%; 0.4%; 0.6%) and STPP (0.1%; 0.2%). The analysis done included chemical properties (moisture content, fat, free fatty acid (ALB), TBARS (Thiobarbituric Acid Reactive Substance) numbers, physical properties (water holding capacity or WHC, color, texture) and level of preference. The results obtained were analyzed using analysis of variance (ANOVA) at 95% reliability level. If it shows significant differences, then continued by the Duncan Multiple Range Test.

The results showed that the addition of turmeric powder and STPP did not significantly affect water content, texture and WHC and significantly affected color, free fatty acids and TBARS number. The cooked nugget water content ranges from 52.90% -55.14% and raw nugget water content is 62.70% -64.40%, the texture is 2.25-2.40 N and WHC 0.52% -0.53 %. Addition of 0.6% turmeric powder can reduce free fatty acids and TBARS numbers greater than 0.2% turmeric powder with a decrease in the value of free fatty acids in cooked nuggets from 0.032% to 0.018%, on raw nugget from 0.027% to 0.013 %, and a decrease in the TBARS number of cooked nuggets from 0.94 to 0.56 mg kg⁻¹ and raw nuggets from 0.41 mg kg⁻¹ to 0.18 mg kg⁻¹. The best nugget based on the test of preference is in the addition of 0.2% turmeric powder and 0.2% STPP with 55.14% moisture content; alb 0.032%; TBARS number 0.94 mg kg⁻¹; and 13.52% fat.

Keywords: nuggets, oxidation, color, texture.