

PENGARUH PENAMBAHAN *SODIUM TRIPOLYPHOSPHATE* DAN RASIO UWI UNGU KUKUS – TEPUNG TERIGU TERHADAP SIFAT FISIKOKIMIA DAN TINGKAT KESUKAAN MI KERING

INTISARI

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penambahan *Sodium Tripolyphosphate* dan rasio uwi ungu kukus dengan tepung terigu terhadap sifat fisikokimia dan tingkat kesukaan mi kering. Potensi uwi ungu kukus adalah sebagai sumber karbohidrat, senyawa fenol, antosianin yang tinggi antioksidannya. Konsumsi uwi bermanfaat untuk kesehatan mikloflora usus dan sebagai antioksidan. Penambahan *Sodium Tripolyphosphate* (STPP) digunakan untuk mendapatkan tekstur adonan yang kenyal dan elastis. *Sodium Tripolyphosphate* (STPP) juga dapat mengikat air sehingga menurunkan aktivitas air (*Aw*) dan mencegah kerusakan mikrobiologis pada bahan pangan.

Pada penelitian ini dibuat mi berbahan baku tepung terigu yang disubstitusi dengan uwi ungu kukus (80:20%, 70:30%, 60:40%) dan konsentrasi STPP, adapun variasi konsentrasi STPP adalah 0,05%, 0,1%, dan 0,15%. Analisis yang dilakukan yaitu uji fisik (tekstur, warna), kimia (kadar air, kadar abu, kadar protein, total fenol, kadar antosianin, aktivitas antioksidan), dan uji kesukaan.

Perbandingan variasi *Sodium Tripolyphosphate* (STPP) dengan uwi ungu kukus menghasilkan produk mi kering yang disukai panelis dan berpengaruh nyata terhadap sifat fisik yaitu warna, tekstur, *cooking loss*, sifat kimia, kadar air, kadar abu, protein, total fenol, aktivitas antioksidan, antosianin dan uji kesukaan mi kering. Penilaian dari uji kesukaan dapat disimpulkan bahwa secara keseluruhan nilai yang terbaik didapatkan pada perlakuan Tepung terigu:uwi ungu kukus 70:30% STPP 0,1% yaitu dengan tekstur 2397,80 mJ, *cooking loss* 0,9909 %, kadar air 11,57 % bb, kadar abu 3,41 % bb, kadar protein 13,80 % bb, total fenol 26,35 mg EGA/g, kadar antosianin 5,01 mg/100g, dan aktivitas antioksidan 2,68 %RSA.

Kata kunci : Antosianin, antioksidan, mi kering, uwi ungu kukus.

THE EFFECT OF SODIUM TRIPOLYPHOSPHATE AND STEAMED PURPLE YAM-WHEAT FLOUR RATIO ON THE PHYSICO-CHEMICAL AND PREFERENCE LEVEL OF DRY NOODLES

ABSTRACT

The purpose of this study is to find out the effect of added Sodium Tripolyphosphate (STPP) and steamed purple yam with wheat flour ratio on the physicochemical properties and preference level for dry noodles. The steamed purple yam potentials are as the source of carbohydrate, phenol compound, and anthocyanin which is high in antioxidant. Purple yam consumption is good for intestinal microflora health and as antioxidant. The addition of Sodium Tripolyphosphate (STPP) is used to make the dough texture become chewy and elastic. That Sodium Tripolyphosphate (STTP) can also bind to water thereby reducing water activity (Aw) and preventing microbiological damage toward foodstuff.

This study, noodles made from wheat flour substituted with and steamed purple yam (80:20%, 70:30%, 60:40%) and the concentration of STTP, while variations in the concentration of STTP were 0.05%, 0.1%, and 0.15%. The analysis carried out were physical test (texture, color), chemistry (moisture content, ash content, protein content, total phenol, anthocyanin content, antioxidant activity), and sensory evaluation.

Comparison variations of Sodium Tripolyphosphate (STPP) with steamed purple yam resulted in dry noodle products favored by panelists and had a significant effect on physical properties, namely color, texture, and cooking loss, chemical properties, namely water content, ash content, protein, total phenol, antioxidant activity, anthocyanins, and sensory evaluation of dry noodles. The assessment of the preference test can be concluded that the overall best value is obtained in the treatment of the wheat flour:steamed purple yam 70:30% STPP 0.1%, namely with a texture of 2397.80 mJ, cooking loss 0.9909 %, water content 11.57% wb, ash content 3.41% wb, protein content 13.80% wb, total phenol 28.47 mg GAE/g, anthocyanin content 5.01 mg/100g, and antioxidant activity 2.08% RSA.

Keywords: anthocyanin, antioxidant, dry noodles, steamed purple yam