

## PENGARUH PENAMBAHAN TEPUNG TERONG UNGU (*Solanum melongena* L.) TERHADAP KUALITAS FISIK BAKSO DAGING AYAM PETELUR AFKIR

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### INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung terong ungu (*Solanum melongena* L.) terhadap kualitas fisik bakso daging ayam petelur afkir. Perlakuan penambahan tepung terong ungu pada penelitian ini yaitu 0; 2,5; 5; dan 7,5% dengan lima kali replikasi. Parameter kualitas fisik yang diamati pada penelitian ini yaitu pH, daya ikat air, tekstur, warna, dan mikrostruktur bakso. Hasil uji pH, daya ikat air, tekstur, dan warna dianalisis statistik dengan analisis variansi pola searah dan diuji lanjut dengan *Duncan's Multiple Range Test* (DMRT). Hasil uji mikrostruktur dianalisis secara deskriptif. Hasil uji menunjukkan bahwa penambahan tepung terong ungu pada level yang berbeda berpengaruh nyata ( $P < 0,05$ ) terhadap pH berturut-turut  $6,89 \pm 0,04$ ;  $6,87 \pm 0,05$ ;  $6,96 \pm 0,04$ ; dan  $6,96 \pm 0,04$ ; daya ikat air berturut-turut  $39,77 \pm 0,21$ ;  $40,64 \pm 0,83$ ;  $41,26 \pm 0,82$ ; dan  $46,07 \pm 0,76$  %; kepadatan (*firmness*) berturut-turut  $1,22 \pm 0,11$ ;  $1,38 \pm 0,04$ ;  $1,54 \pm 0,13$  dan  $1,42 \pm 0,08$  mm/kg, kekerasan (*hardness*) berturut-turut  $19,34 \pm 1,16$ ;  $21,32 \pm 1,09$ ;  $22,53 \pm 1,15$ ; dan  $23,89 \pm 1,66$  mm/N; elastisitas (*springiness*) berturut-turut  $94,06 \pm 0,69$ ;  $93,53 \pm 0,77$ ;  $92,14 \pm 1,39$ ; dan  $93,42 \pm 0,54$  mm; kekenyalan (*chewiness*) berturut-turut  $1595,36 \pm 112,37$ ;  $1749,70 \pm 104,44$ ;  $1785,11 \pm 126,15$ ; dan  $1935,63 \pm 154,66$  mm/g; kecerahan (*lightness*) berturut-turut  $65,20 \pm 2,14$ ;  $63,76 \pm 1,29$ ;  $62,17 \pm 1,61$ ; dan  $60,69 \pm 1,87$ ; serta kekuningan (*yellowness*) berturut-turut  $18,76 \pm 0,25$ ;  $19,47 \pm 0,19$ ;  $21,39 \pm 0,24$ ; dan  $22,15 \pm 0,75$ . Hasil uji juga menunjukkan bahwa penambahan tepung terong ungu pada level yang berbeda tidak berpengaruh terhadap mikrostruktur bakso. Struktur agak kompak dan homogen serta terbentuk rongga yang lebih kecil dan beraturan. Kesimpulan dari penelitian ini yaitu bakso daging ayam petelur afkir dengan penambahan tepung terong ungu 2,5% memberikan kualitas fisik yang paling baik.

**Kata kunci:** Ayam petelur afkir, Bakso daging, Kualitas fisik, Tepung terong ungu

## THE EFFECT OF ADDITIONING PURPLE EGGPLANT FLOUR (*Solanum melongena* L.) ON THE PHYSICAL QUALITY OF CULLED LAYING CHICKEN MEATBALLS

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### ABSTRACT

This study examines the effect of additioning purple eggplant flour (*Solanum melongena* L.) on the physical quality of culled laying chicken meatballs. The additions of purple eggplant flour in this study was 0, 2.5, 5, and 7.5% with five replications. The physical quality parameters observed in this study are pH, water holding capacity, texture, color and microstructure of meatballs. The pH, water holding capacity, texture, and color results were analyzed statistically by One Way Anova with Duncan's Multiple Range Test (DMRT). The microstructure results was analyzed descriptively. The results showed that the addition of purple eggplant flour at different levels had a significant effect ( $P < 0.05$ ) on pH respectively  $6.89 \pm 0.04$ ,  $6.87 \pm 0.05$ ,  $6.96 \pm 0.04$ , and  $6.96 \pm 0.04$ ; water holding capacity respectively  $39.77 \pm 0.47$ ,  $40.64 \pm 1.85$ ,  $41.26 \pm 1.84$ , and  $46.07 \pm 1.71$  %; firmness respectively  $1.22 \pm 0.11$ ,  $1.38 \pm 0.04$ ,  $1.54 \pm 0.13$ , and  $1.42 \pm 0.08$  mm/kg; hardness respectively  $19.34 \pm 1.16$ ,  $21.32 \pm 1.09$ ,  $22.53 \pm 1.15$ , and  $23.89 \pm 1.66$  mm/N; springiness respectively  $94.06 \pm 0.69$ ,  $93.53 \pm 0.77$ ,  $92.14 \pm 1.39$ , and  $93.42 \pm 0.54$  mm; chewiness respectively  $1595.36 \pm 112.37$ ,  $1749.70 \pm 104.44$ ,  $1785.11 \pm 126.15$ , and  $1935.63 \pm 154.66$  mm/g; lightness respectively  $65.20 \pm 2.14$ ,  $63.76 \pm 1.29$ ,  $62.17 \pm 1.61$ , and  $60.69 \pm 1.87$ ; also yellowness respectively  $18.76 \pm 0.25$ ,  $19.47 \pm 0.19$ ,  $21.39 \pm 0.24$ , and  $22.15 \pm 0.75$ . The results also showed that the addition of purple eggplant flour at different levels had no effect on the microstructure of meatballs. The structure is rather compact and homogeneous also the cavities is smaller and more uniform. The conclusion of this study is that culled laying chicken meatballs with the addition of 2.5% purple eggplant flour provide the best physical quality.

**Key words:** Culled laying chicken, Meatballs, Physical quality, Purple eggplant flour