

V. KESIMPULAN DAN SARAN

5.1. Kesimpulan

1. Perlakuan M dan MC memiliki kadar total fenol dan antosianin yang tidak terdeteksi.
2. Penambahan tepung cangkang telur tidak memberikan pengaruh terhadap kadar total fenol dan total antosianin.
3. Penambahan ekstrak kubis merah dan tepung cangkang telur ayam pada *smart edible packaging* berpengaruh nyata terhadap aktivitas antioksidan, *water vapor transmission rate* (WVTR), kuat tarik, dan persen pemanjangan.
4. Penambahan ekstrak kubis merah dan tepung cangkang telur ayam pada *smart edible packaging* meningkatkan aktivitas antioksidan 11,6928-55,0611%, meningkatkan WVTR 144,7491-176,2164 g/m²/24jam, menurunkan kuat tarik 9,9952-4,4975 N/mm², dan meningkatkan persen pemanjangan 7,4820-41,2750%.
5. Penambahan bahan aktif ekstrak kubis merah dan tepung cangkang telur ayam pada *smart edible packaging* menghasilkan total fenol sebesar 289,8182-463,6818 mg GAE/100 g sampel dan total antosianin sebesar 14,9288-23,2114 mg cy-3-glu equivalent/100 g sampel.
6. Kemampuan *smart edible packaging* dalam aplikasinya menghasilkan perubahan warna *smart edible packaging* (ungu menjadi biru), warna daging ayam (putih menjadi coklat), aroma (segar menjadi tidak sedap), dan pH (peningkatan pH 5,95-7,03) daging ayam selama tiga hari penyimpanan.

5.2. Saran

Perlu dilakukan penelitian lebih lanjut mengenai bahan tambahan yang mampu meningkatkan fungsi perlindungan *smart edible packaging* dalam mempertahankan kualitas produk yang dikemas.

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