

V. KESIMPULAN DAN SARAN

5.1. Kesimpulan

Berdasarkan hasil penelitian, maka dapat disimpulkan sebagai berikut:

1. Bahan aktif yang ditambahkan dalam formulasi *smart edible film packaging* yaitu ekstrak bunga rosela berpengaruh nyata terhadap nilai total fenol, antosianin, aktivitas antioksidan, WVTR, *tensile strength*, dan *elongation at break* dari *smart edible film packaging*.
2. Penurunan konsentrasi bahan aktif ekstrak bunga rosela pada *smart edible film packaging* akan menurunkan kadar total fenol (365,0490196-173,7745098 mg GAE/100 g sampel), kadar total antosianin (1,5801-3,6065 mg cy-3-glu-eq/100 g sampel), aktivitas antioksidan (43,75-69,02%) WVTR (150,1977- 206,7423 g/m²/24 jam) dan persen pemanjangan (9,59-1,52%).
3. Penurunan konsentrasi bahan aktif ekstrak bunga rosela pada *smart edible film packaging* akan meningkatkan nilai kuat tarik (2,29025-4,427 N/mm²).
4. Penyimpanan udang selama hari ke-0, 1, 2, 3 terjadi peningkatan pH udang dan perubahan warna *smart edible film packaging* dari merah menjadi kuning kecokelatan dengan intensitas warna yang berbeda-beda.

5.2. Saran

1. Perlu dilakukan penelitian lebih lanjut mengenai uji mikroba seperti angka lempeng total (ALT) pada *smart edible film packaging* untuk membuktikan keefektifan antimikroba yang terdapat pada bahan aktif yang ditambahkan pada *smart edible film packaging*.
2. Perlu dilakukan penelitian lebih lanjut mengenai kandungan antioksidan pada *smart edible film packaging* yang berpotensi sebagai pengawet pada produk pangan yang dikemasnya.

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