

BAB V KESIMPULAN DAN SARAN

KESIMPULAN

- Penambahan sorbitol 1 - 2,2% menghasilkan pengaruh serta hubungan yang sangat erat ($r > 0,8$) terhadap parameter pengujian *edible film*.
- Penambahan sorbitol 1 - 2,2% akan menurunkan nilai kuat tarik *edible film* dengan persamaan regresi $y = -186,18x + 530,69$. R^2 sebesar 0,9709 menunjukkan perubahan kuat tarik dipengaruhi 97,09% oleh sorbitol. Nilai $r = 0,9853$ menunjukkan hubungan antara penambahan sorbitol dengan kuat tarik sangat erat dan bersifat tidak searah. Intersep 530,69 menunjukkan apabila penambahan sorbitol 0% akan menghasilkan kuat tarik sebesar 530,69 kg/cm².
- Penambahan sorbitol 1 - 2,2% akan meningkatkan persen pemanjangan *edible film* dengan persamaan regresi $y = -7,7607x + 5,8938$. R^2 sebesar 0,9744 menunjukkan perubahan persen pemanjangan dipengaruhi 97,44% oleh sorbitol. Nilai $r = 0,9871$ menunjukkan hubungan antara penambahan sorbitol dengan persen pemanjangan sangat erat dan bersifat searah. Intersep 5,8938 menunjukkan apabila penambahan sorbitol 0% akan menghasilkan persen pemanjangan sebesar 5,89%.
- Penambahan sorbitol 1 - 2,2% akan meningkatkan nilai kadar air *edible film* dengan persamaan regresi $y = 3,9502x + 2,1777$. R^2 sebesar 0,9616 menunjukkan perubahan kadar air dipengaruhi 96,16% oleh sorbitol. Nilai $r = 0,9806$ menunjukkan hubungan antara penambahan sorbitol dengan kadar air sangat erat dan bersifat searah. Intersep 2,1777 menunjukkan apabila penambahan sorbitol 0% akan menghasilkan kadar air sebesar 2,17%.

- Penambahan sorbitol 1 – 2,2% akan meningkatkan permeabilitas uap air *edible film* dengan persamaan regresi $y = 9 \times 10^{-9}x - 5 \times 10^{-9}$. R^2 sebesar 0,8978 menunjukkan perubahan permeabilitas uap air dipengaruhi 89,78% oleh sorbitol. Nilai $r = 0,9475$ menunjukkan hubungan antara penambahan sorbitol dengan permeabilitas uap air sangat erat dan bersifat searah. Intersep -5×10^{-9} menunjukkan apabila penambahan sorbitol 0% akan menghasilkan permeabilitas uap air sebesar -5×10^{-9} g/m.h.Pa.
- Penambahan sorbitol 1 – 2,2% akan meningkatkan persen kelarutan *edible film* dengan persamaan regresi $y = 20,9240x + 17,4090$. R^2 sebesar 0,9740 menunjukkan perubahan persen kelarutan dipengaruhi 97,44% oleh sorbitol. Nilai $r = 0,9869$ menunjukkan hubungan antara penambahan sorbitol dengan persen kelarutan sangat erat dan bersifat searah. Intersep 17,4090 menunjukkan apabila penambahan sorbitol 0% akan menghasilkan persen kelarutan sebesar 17,41%.

SARAN

Perlu dilakukan penelitian lebih lanjut tentang ketahanan kemasan (*edible film*) saat diaplikasikan pada produk berkadar air tinggi serta alternatif cetakan yang lebih memadai.

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