

V. KESIMPULAN DAN SARAN

5.1. Kesimpulan

1. Perbedaan jenis enkapsulan yaitu HPMC dan *Gum Arabic* berpengaruh terhadap sifat fisikokimia bubuk buah jambu biji merah (*Psidium guajava* L.).
2. Perbedaan konsentrasi yang tersarang pada jenis enkapsulan HPMC dan *Gum Arabic* berpengaruh terhadap sifat fisikokimia bubuk buah jambu biji merah (*Psidium guajava* L.).
3. Kadar air bubuk jambu biji merah semakin menurun dengan semakin banyak penambahan HPMC (4,02-3,14%). Kadar air bubuk jambu biji merah semakin naik dengan semakin banyak penambahan *Gum Arabic* (3,81-4,27%).
4. Higroskopisitas bubuk jambu biji merah semakin menurun dengan semakin banyak penambahan HPMC (16,78-14,11%) dan dengan semakin banyak penambahan *Gum Arabic* (20,66-16,66%).
5. pH bubuk jambu biji merah dengan perbedaan enkapsulan berpengaruh secara nyata yaitu dengan penambahan HPMC berkisar 5,79-5,83 dan dengan penambahan *Gum Arabic* berkisar 5,20-5,24.
6. Total fenol bubuk jambu biji merah semakin menurun dengan semakin banyak penambahan HPMC (5172,7943-3341,9115 mg GAE/kg) dan dengan semakin banyak penambahan *Gum Arabic* (5361,3975-3957,3525 mg GAE/kg).
7. Aktivitas antioksidan bubuk jambu biji merah semakin menurun dengan semakin banyak penambahan HPMC (82,87-52,60%) dan dengan semakin banyak penambahan *Gum Arabic* (85,80-63,16%).
8. Pengujian warna bubuk buah jambu biji merah perbedaan enkapsulan berpengaruh secara nyata yaitu dengan penambahan HPMC menghasilkan nilai *lightness* berkisar 47,78-48,20; *redness* berkisar 22,08-22,28; *yellowness* 12,08-12,50; *chroma* 25,30-25,43; *hue* 28,53-29,53 dan dengan

penambahan *Gum Arabic* menghasilkan nilai *lightness* berkisar 50,03-50,43; *redness* berkisar 27,73-28,28; *yellowness* 11,30-11,65; *chroma* 30,08-30,45; *hue* 21,78-22,78.

9. Nilai L, a*, dan b* yang tidak berbeda nyata dengan perbedaan konsentrasi pada setiap enkapsulan memberikan pengaruh secara nyata terhadap derajat *hue*

5.2. Saran

Perlu dilakukan pengujian *control release* untuk mengetahui jumlah serta waktu yang diperlukan komponen bioaktif untuk dapat dilepaskan. Selain itu perlu dilakukan penelitian untuk mengaplikasikan bubuk buah jambu biji merah dalam berbagai macam olahan produk pangan.

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