

## RINGKASAN

Kacang tanah dapat dibuat menjadi susu non-diary (susu kacang tanah). Kacang tanah tidak memiliki kandungan laktosa, sehingga dapat dikonsumsi oleh penderita laktosa intoleran. Namun, susu kacang tanah memiliki antioksidan dan kestabilan emulsi yang rendah. Hal tersebut dapat diatasi dengan penambahan jahe emprit dan CMC (*Carboxyl Methyl Cellulose*).

Penelitian ini bertujuan untuk mengetahui pengaruh dari penambahan bubuk jahe emprit dan CMC terhadap sifat fisikokimia susu kacang tanah. Penelitian ini menggunakan Rancangan Acak Kelompok. Faktor yang digunakan adalah konsentrasi bubuk jahe emprit yaitu 0,3; 0,5; 0,7% dan konsentrasi CMC yaitu 0; 0,1; 0,2; 0,3%. Variabel yang dianalisis adalah pH, warna, viskositas, total padatan terlarut, kestabilan emulsi, protein terlarut, total fenol, dan antioksidan. Data dianalisis dengan ANOVA (uji F) pada taraf 5%. Data yang menunjukkan hasil signifikan akan dianalisis menggunakan DMRT (*Duncan's Multiple Range Test*) dan selanjutnya dianalisis menggunakan uji efektivitas.

Hasil analisis uji menunjukkan bahwa penambahan bubuk jahe emprit berpengaruh nyata terhadap pH, warna L\*, warna a\*, viskositas, total padatan terlarut, kadar lemak, protein terlarut, antioksidan, kestabilan emulsi (30 jam) dan fenol. Penambahan CMC berpengaruh nyata terhadap pH, viskositas, warna L\*, warna b\*, total padatan terlarut, protein terlarut, gula reduksi, kestabilan emulsi (30 dan 36 jam) dan fenol. Penambahan bubuk jahe emprit tidak berpengaruh nyata terhadap warna b\* dan gula reduksi. Penambahan CMC tidak berpengaruh nyata terhadap warna a\*, lemak dan kestabilan emulsi (24 jam). Penambahan bubuk jahe emprit meningkatkan pH, viskositas, total padatan terlarut, protein terlarut, warna a\*, warna b\*, aktivitas antioksidan, total fenol, lemak, dan gula reduksi. Penambahan CMC akan meningkatkan pH, viskositas, total padatan terlarut, protein terlarut, total fenol, warna b\*, aktivitas antioksidan, kestabilan emulsi, dan lemak, sedangkan hasil uji efektivitas untuk perlakuan terbaik pada penelitian ini adalah penambahan bubuk jahe emprit sebesar 0,7% dan CMC sebesar 0,3%. Penambahan bubuk jahe emprit dan CMC dapat meningkatkan nilai fungsional dan kestabilan emulsi susu kacang tanah.

## SUMMARY

*Peanuts can be processed into non-dairy milk (peanut milk). Peanut milk doesn't contain any lactose, therefore can be consumed by lactose intolerant patient. However, peanut milk had low antioxidant and emulsion stability. The problems can be solved with addition of ginger (emprit) and CMC (Carboxyl Methyl Cellulose).*

*The research is purpose to determine the effect of ginger (emprit) powder and CMC addition on physicochemical characteristics of the peanut milk. Research is conducted experimentally using randomized group design, factor use ginger (emprit) powder concentrations of 0,3; 0,5; 0,7% and CMC concentration of 0;0,1; 0,2; 0,3%. Variables analysed pH, color, viscosity, TSS (Total Suspended Solid), emulsion stability, dissolved protein, total phenol, and antioxidant activity. Data analyzed with ANOVA (F test) at 5 % level. If the data significant, followed with DMRT analyzed (Duncan's Multiple Range Test) and effectiveness test.*

*Research of the study show that there is significant result addition ginger (emprit) powder to pH, color L\*, color a\*, viscosity, total suspended solid, fat, dissolved protein, antioxidant activity, emulsion activity (30 hours) and phenol. CMC has significant result to pH, color L\*, color b\*, total suspended solid, dissolved protein, reducing sugar, emulsion stability (30 and 36 hours) and phenol. Emprit ginger powder hasn't significant result to color b\*, emulsion activity (24 and 36 hours) and reducing sugar. CMC hasn't significant result to color a\*, fat and emulsion stability (24 hours). Addition ginger (emprit) powder increase pH, viscosity, total suspended solid, dissolved protein, phenol, color a\*, antioxidant activity, fat, reducing sugar, and color b\*. Addition CMC increase pH, viscosity, total suspended solid, dissolved protein, phenol, color L\*, color b\*, antioxidant activity, emulsion stability, and fat. The best treatment alternative is sample by adding emprit ginger powder 0,5% and CMC 0,3%. Addition ginger (emprit) powder and CMC increase functional value and emulsion stability.*

