

BAB IV

KESIMPULAN DAN SARAN

4.1. Kesimpulan

1. Penambahan susu dan perlakuan spray drying tidak mempengaruhi kemampuan antioksidan dari asam klorogenat pada kopi biasa.
2. Penambahan susu pada kopi yang diperkaya asam klorogenat diperkirakan tidak akan mempengaruhi kemampuan antioksidan dari asam klorogenat pada kopi tersebut
3. Jumlah susu yang dapat ditambahkan adalah maks 25 % dari total bubuk kopi yang diseduh berdasarkan penelitian penambahan susu pada kopi biasa.

4.2. Saran

1. Penelitian lebih lanjut diperlukan untuk mengetahui kemungkinan penambahan susu dalam kopi yang diperkaya asam klorogenat untuk membuktikan bahwa sebenarnya penambahan susu pada kopi jenis apapun tidak mempengaruhi kapasitas asam klorogenat sebagai antioksidan dalam kopi.
2. Penelitian lain juga dapat dilakukan untuk mengetahui berapakah jumlah maksimum susu yang dapat ditambahkan tetapi tetap dapat mempertahankan aktivitas antioksidan serta mekanisme asam klorogenat pada kopi yang diperkaya asam klorogenat.

DAFTAR PUSTAKA

- Anonimous¹. 2009. *Coffee Market Report*. Available at : <http://dev.ico.org/documents/cmr-0809-e.pdf> (15 September 2009)
- Anonimous². 2009. *About Coffee*. Available at : <http://www.cosic.org/coffee-and-health/about-coffee> (4 September 2009)
- Anonimous³. 2009. *Coffee Consumption*. Available at: http://www.worldmapper.org/worldmapper_1038_coffee_consumption_ver2.pdf (29 Agustus 2009)
- Anonimous⁴,2009. *Harvesting coffee*. Available at : <http://www.coffeeresearch.org/agriculture/harvesting.htm> (18 September 2009)
- Anonimous⁵,2009. *How Coffee Works:Red Cherry to Green Bean*. Available at : <http://recipes.how-stuffworks.com/coffee4.htm> (13 September 2009).
- Anonimous⁶,2009. *How Coffee Works:Processing Cherries*. Available at : <http://recipes.how-stuffworks.com/coffee5.htm> (13 September 2009).
- Anonimous⁷.2009: The Effect of Chlorogenic Acid Enriched Coffee (Coffee Shape) on Weight When Used in Overweight People, Independent Market Research on Juni 2009
- Anonimous⁸, 2009. *Flow chart showing key wet and dry processing steps for coffee cherries, and final processing steps for green coffee*. Available at : http://www.coffee-ota.org/grafico_en.htm (16 September 2009)
- Clarke, R.J. 1985. Green coffee processing, pp. 230-250. dalam M.N. Clifford and K.C. Wilson, eds. *Coffee Botany Biochemistry and Production of Beans and Beverage*. West Port, CN. AVI Publishing Co., Inc
- Dupas, C.J, A.C.Marsset-Baglieri, C.S. Ordonaud., F.M.G Ducept., MN Maillard.:*Coffee Antioxidant Properties: Effects of Milk Addition and Processing Conditions.* *J of Food Science 2006 :71:S253-S258*

- Jones, S.B. 1987. *Plant Systematics 2nd ed.* Singapore : Mc Graw-Hill
- Moridani M.Y, H.Scobie, A. Jamshidzadeh, P. Salehi, P.J. O'Brien :Caffeic Acid, Chlorogenic Acid, and Dihidrocaffeic Acid Metabolism:Glutathione Conjugate Formation. *DMD* 29:1432-1439,2001
- Rawel, Harshadrai M., Meidtner K., Kroll J : Binding of Selected Phenolic Compound to Proteins. *J. Agric. Food Chem.* 2005, 53, 4228-4235
- Ramalakshmi,A, I.R.Kubra, I.J.M Rao: Physiochemical Characteristic of Green Coffee: Comparison of Graded and Defective Beans. *J of Food Science* 2007 :72:S333-S337
- Rivelli D.P, V.V da Silva, C.D. Ropke, D.V. Miranda, R.L. Almeida, T.C.H. Sawada, S.B de Moraes Baros : Simultaneous Determination of Chlorogenic Acid and Caffeine in Hydroalcoholic and Aqueous Extracts of *Ilex paraguariensis* by HPLC and Correlation with Antioxidant Capacity of the Extracts by DPPH Reduction. *Brazillian J.of Pharm Sci.* vol 43,n.2, abr/jun, 2007
- Scarpellino, R. and Soukup, R.J. 1993. Key flavor from heat reactions of food ingredients. dalam Acree, T.E. and Teranishi, R. eds. *Flavor Science*. Washington, DC. American Chemical Society.
- SSA O.Dellalibera, Lemaire.B, Lafay S :Svetol, Green Coffee Extract, Induces Weight Loss and Increases the Lean to Fat Mass Ratio in Volunteers with Overweight Problem.*J Nutr* 2006, under press
- Thom, E: The effect of Chlorogenic Acid Enriched Coffee on Glucose Absorption in Healthy volunteers and its effect on Body Mass When Used Long-Term in Overweight and Obese People. *J Int Medical Research* 2007:35: 900-908
- Votavova .L,M. Voldrich, R. Svecik, H. Cizkova, J. Mlejnecka, M. Stolar, dan T. Fleisman : Change of Antioxidant Capacity of Robusta Coffee During Roasting. *Czech, J.Food Sci.Special Issue.* Vol 27, 2009
- Wrigley, Gordon. 1988. *Coffee.* Singapore:Longman Singapore Production (Pte) Ltd.

Widodo. 2003. *Teknologi Proses Susu Bubuk*. Yogyakarta: Lacticia Press

Walstra, Pieter dan Jennes,R.1984. *Dairy Chemistry and Physic*. Kanada : John Wiley and Sons.Inc

Yukawa, G.S, Mune M., Otani H., Liang X.M, Iwahashi .H, Sakamoto W.: Effect of Coffee Consumption on Oxidative Susceptibility of Low-Density Lipoproteins and Serum Lipid in Humans. *Biochem(Moscow)* vol 69 , no 1, 2004. pp 70-74