

BAB VI KESIMPULAN

6.1. Kesimpulan

- Jenis beras dan variasi waktu pengukusan yang tersarang tidak berpengaruh nyata terhadap kadar air tepung pregelatinisasi.
- Jenis beras tidak berpengaruh terhadap daya serap air tepung pregelatinisasi. Variasi waktu pengukusan berpengaruh nyata terhadap daya serap air tepung pregelatinisasi.
- Jenis beras dan variasi waktu pengukusan yang tersarang dalam jenis beras berpengaruh nyata terhadap kadar gula reduksi, kadar pati, dan *paste properties* tepung pregelatinisasi.
- Kadar gula reduksi kedua tepung semakin meningkat, kadar pati semakin berkurang seiring dengan semakin lama pengukusan karena pati terhidrolisa oleh panas. Suhu pembentukan pasta, waktu pembentukan pasta pada kedua jenis tepung semakin meningkat. Viskositas maksimum, *breakdown viscosity*, *setback viscosity*, *final viscosity* ketan hitam cenderung menurun, sedangkan pada beras merah cenderung tidak banyak berubah.

6.2. Saran

Pregelatinisasi berpengaruh terhadap sifat fisikokimia tepung, sehingga perlu dilakukan penelitian lebih lanjut untuk mengetahui aplikasi penggunaan tepung pregelatinisasi tersebut pada produk yang dengan mempertimbangkan karakteristik produk yang diinginkan.

DAFTAR PUSTAKA

- Arsdel, W.B.V. 1973. *Food Dehydration*. Westport: The AVI Publishing Company, Inc.
- Asmarajati, T. 1999. Pengaruh Blanching dan Suplementasi Bekatul Terhadap Kualitas Cookies. *Skripsi*. Fakultas Pertanian UNSOED, Purwokerto. http://www.google.co.id/url?sa=t&rct=j&q=asmarajati%2C%20pengaruh%20blanching%20dan%20suplementasi%20bekatul%20terhadap%20kualitas%20cookies&source=web&cd=2&ved=0CQQFjAB&url=http%3A%2F%2Fpepitaharyanti.files.wordpress.com%2F2010%2F11%2Fskripsi_ryan.pdf&ei=WHyVT_TLFsLGmQXsmI3RAQ&usg=AFOjCNE8jpVDva4DhYEF4jGaF4wNSuktA&cad=rja (16 April 2012).
- Baah, D. F. 2009. Characterization of Water Yam (*Dioscorea atalata*) for Existing and Potensial Food Products. *Thesis*. Faculty of Biosciences Kwame Nkrumah University, Nigeria. <http://www.google.co.id/url?sa=t&rct=j&q=baah2C20characterization&source=web&cd=3&sqi=2&ved=0CDEQFjAC&url=http%3A%2F%2Fdspace.knust.edu.gh%3A8080%2Fjspui%2Fbitstream%2F123456789%2F616%2F1%2FFaustina%2520Dufie%2520Baah.pdf&ei=vHyVT8rkBfGmQWvgo3cAQ&usg=AFOjCNFu627FmgWPRJgCk27MRSQxjs4G6Q&cad=rja> (16 april 2012).
- Beta, T. and H. Corke. 2001. Noodle Quality as Related to Sorghum Starch Properties. *J. Cereal Chemistry*. (78):417-420.
- BeMiller, James and Roy Whistler. 2009. *Starch: Chemistry and Technology*. USA: Academic Press.
- Chang, Te-Tzu and Eliseo A. Bardenas. 1965. The Morphology and Varietal Characteristics of The Rice Plant. *Technical Bulletin*, 10-11.
- Damardjati, D.S., S. Widowati, J. Wargiono, dan S. Purba. 2000. Potensi Dan Pendayagunaan Sumber Daya Bahan Pangan Lokal Serealia, Umbi-umbian, dan Kacang-kacangan untuk Penganekaragaman Pangan. *Makalah pada Lokakarya Pengembangan Pangan Alternatif*. Jakarta, 24 Oktober 2000. 24 hal.

- Department of Biotechnology India.2000.*Biology of Rice*.India: Ministry of Environment and Forest India.
- Direktorat Gizi Departemen Kesehatan RI. 2009. *Daftar Komposisi Bahan Pangan*. Jakarta: Bhratara.
- Elliasson, A.C. 2004. *Starch in Food. Structure, Function and Application*. Woodhead Publishing Limited. CRC Press, New York.
- Ensminger, A, M.E. Ensminger, J. E. Konlade, and J.R.K. Robson. *Food and Nutrition Encyclopedia*. USA: CRC Press, Inc.
- Fennema. 1995. *Food Chemistry*. New York: Marcel Dekker.
- Gage,S.H.2011. *The Microscope: An Introduction to Microscopic Method and the Histology*. Chicago: Biblio Bazaar.
- Gaonkar,Anilkumar G. And Andrew Mcpherson.2006.*Ingredient Interaction Effect on Food Quality 2nd Edition*.Boca Raton: CRC Press.
- Haros, M., O. E. Perez, and C. M. Rosell. 2003. Effect of steeping corn with lactic acid on starch properties. *Cereal Chemistry*. 81(1):10-14.
- Harper, J. M. 1981. *Extrusion of Foods*. Boca Raton: CRC Press, Inc.
- Hui, Y.H. 1992. *Encyclopedia Of Food Science And Technology*. Canada: John Wiley and Sons, Inc.
- Hung, P.V. and N. Morita. 2005. Physicochemical properties and enzymatic digestibility of starch from edible canna (*Canna edulis*) grow in Vietnam. *Carbohydrate Polymers*, 61:314-321.
- Indrasari,Siti D.,E.Y.Purwani,P.Wibowo and Jumali.2010.Glycemic Indices of Some Rice Varieties, *Journal of Agriculture*.,3(1),9-16.
- Inglett, G.E. 1970. *Corn:Culture, Processing, Products*.Westport, Connecticut: The Avi Publishing Company Inc.
- Jane, Jay-Lin.2004.*Starch:Structure and Properties*.New York: CRC Press.

- Kibar, A.A., Gonenc, and F.Us. 2009. *Gelatinization of Waxy, Normal, and High Amylose Corn Starches*. *Journal of Food Technology*, 4(3), 02-10.
- Kristantini dan Heni. 2009. Potensi Pengembangan beras Merah Sebagai Plasma Nutfah Yogyakarta. *Jurnal Litbang Pertanian*, 28(3), 88-95.
- Larry, D., Guru Hari Singh, Bryan Jarel, Peter Hynding. 2008. *Flake Cereal or Chip and Method for Making Same*. <http://www.archpatent.com/patentFullText.htm?patentId=20080181991&lastUrlType=searchResults&sKey=32b9eae6-b60a-4058-9cb1-d0d211ff540c> (10 Februari 2012)
- Morrison, W.R. and R. F. Tester. 1994. Properties of damaged starch granules. IV. Composition of ball-milled wheat starches and of fractions. *J. Cereal Science*. 20:69-77.
- Murphy, P. 2009. *Handbook of Hydrocolloids*. Manchester: Woodhead Publishing.
- Nielsen, Suzanne S. 2009. *Food Analysis 4th edition*. London: Springer Science Business Media.
- Purwani, E.Y., Widaningrum, R. Thahir and Muslich. 2006. Effect of heat moisture of sago starch on its noodle quality. *Indonesian Journal of Agricultural Science*. 7(1):8-14.
- Qiang Liu. 2005. *Understanding Starches and Their role in Foods*. London: Taylor and Francis Group.
- Rosmisari, A. 2006. Review: Tepung jagung komposit, pembuatan dan pengolahannya. *Prosiding Seminar Nasional Teknologi Inovatif Pascapanen Pengembangan Pertanian*. BPPPT, Bogor.
- Suardi, Suarni dan A. Prabowo. 2002. Teknologi Sederhana Prosesing Sorgum sebagai Bahan Pangan. *Prosiding Seminar Nasional Balai Pengkajian Teknologi Pertanian Sulawesi Selatan*. Hlm. 112-116.
- Suarni, M. Aqil, and I.U. Firmansyah. 2008. Starch characterization of several maize varieties for industrial use in Indonesia. *Paper of the Asian Regional Maize Workshop (ARMW)*, Makassar.

- Sudarmadji, S., B. Haryono, dan Suhardi. 1996. *Analisa Bahan Makanan dan Hasil Pertanian*. Yogyakarta: Liberty.
- Tam, L.M., H. Corke, W.T. Tan, J. Li, and L.S. Collado. 2004. Production of bihon-type noodle from maize starch differing in amyloza content. *J. Cereal Chemistry*. 81(4):475-480.
- Techawipharat, J. 2007. Effect of Hydrocolloids on Physicals and Rheological Properties of Rice Starch. *Thesis*. Faculty of Graduate Studies Mahidol University, Bangkok. http://www.google.co.id/url?sa=t&rct=j&q=techawiparat%2C%20effect%20of%20hydrocolloids%20on%20physicals%20and%20rheological%20properties%20of%20rice%20starch&source=web&cd=1&sig=2&ved=0CDIQFjAA&url=http%3A%2F%2Fwww.li.mahidol.ac.th%2Fethesis%2Fscience.php&ei=gH2VT7DJaaImQWs0ZzXAQ&usg=AFQjCNGrGY_4kQL6GnXbvmDq4UBxGY8ApA&cad=rja (16 april 2012)
- United States Departement of Agriculture (USDA) Natural Resources Conservation Service.2012.*Classification for Kingdom Plantae Down to Species Oryza punctata*.<http://plants.usda.gov/java/ClassificationServlet?source=display&classid=ORPU13> (27 Maret 2012)
- Wadcharat, C., T. Masubon and O. Naivikul. 2006. Characterization of pregelatinized and heat moisture treated rice flours. *Kasetsart J.* 40(Suppl):144-153.
- Zipcode Zoo Species Identifier.2012.*Oryza glutinosa-Taxonomy*.http://zipcodezoo.com/Plants/O/Oryza_glutinosa/Default.asp.(27 Maret 2012)