

DAFTAR PUSTAKA

- Abbas, K.A., Khalil, S.K. dan Hussin, A.S.M. (2010). Modified Starches and Their Usages in Selected Food Products: A Review Study. *Journal of Agricultural Science* 2(2): 90-100
- Abiodun, O.A. dan Akinoso, R. (2014). Physical and functional properties of trifoliolate yam flours as affected by harvesting periods and pre-treatment methods. *Food Processing and Technology* 5(2): 1-5.
- Abu-Salem, F.M. dan Abou-Arab, E.A. (2011). Physico-chemical properties of tempeh produced from chickpea seeds. *Journal of American Science* 7(7): 107-118.
- Ade, B. I. O., Akinwande, B. A., Bolarinwa, I. F. dand Adebisi, A.O. (2009). Evaluation of tigernut (*Cyperus esculentus*)-wheat composite flour and bread. *African Journal of Food Science* 2:087-091.
- Adebowale, K.O. dan Lawal, O.S. (2004). Comparative study of the functional properties of bambara groundnut (*Voandzeia subterranean*), jack bean (*Cavanalia ensiformis*) and mucuna bean (*Mucuna pruriens*). *Food Research International* 37: 355-365.
- Adha, H.M. (2012). Indeks glikemik dan beban glikemik sukun dengan berbagai macam pengolahan. *Skripsi*. Program Studi Gizi Kesehatan Fakultas Kedokteran UGM Yogyakarta
- Adiwijono dan Asdie, A.H. (1993). Dislipidemia pada diabetes mellitus tipe 2: patofisiologi dan pendekatan terapi. *Berkala Ilmu Kedokteran* 25(4): 189-201.
- Aggarwal, D., Sabikhi, L., Lamba, H., Chaudhary, N. dan Kapila, R. (2017). Whole grains and resistant starch rich, reduced-calorie biscuit diet as a hypoglycaemic, hypolipidaemic and insulin stimulator in streptozotocin-induced diabetic rats. *International Journal of Food Science and Technology* 52: 118–126.
- Akissoe, N., Hounhouigan, J., Mestres, C., dan Nago, M. (2003). How blanching and drying affect the colour and functional characteristics of yam (*Dioscorea cayenensis rotundata*) flour. *Food Chemistry* 82: 257-264.

- Akyildiz, A. dan Ocal, N. D. (2006). Effects of dehydration temperatures on colour and polyphenol oxidase activity of amasya and golden delicious apple cultivars. *Journal of the Science of Food and Agriculture* 86: 2363–2368.
- Al-Jada, D.N. dan Ahmad, M.N. (2014). Effect of dietary fats on the development of insulin resistance in relation to PPAR γ activation and leptin concentration in rats . *Journal of American Science* 10(8): 59-66.
- Allen, J.C., Corbitt, A.D., Maloney, K.P., Butt, M.S. dan Truong, V.D. (2012). Glycemic index of sweet potato as affected by cooking methods. *The Open Nutrition Journal* 6: 1-11
- Alvarez, E.E. dan Sánchez, P.G. (2006). Dietary Fibre. *J. Nutr. Hosp.* 21(Supl. 2) 60-71.
- Ambigaipalan, P., Hoover, R., Donner, E., Liu, Q., Jaiswal, S. dan Chibbar, R. (2011). Structure of faba bean, black bean and pinto bean starches at different levels of granule organization and their physicochemical properties. *Food Research International* 44: 2962–2974.
- Andersson, K. E. (2009). Cholesterol-lowering and anti-atherogenic effects of oats in mice. *PhD Thesis*. Vascular Physiology Department of Experimental Medical Science Medical Faculty Lund University, Sweden.
- Anggraeni, Y. (2015). Karakteristik roti tawar dengan substitusi tepung gayam (*Inocarpus edulis* Forts). Skripsi. Jurusan Teknologi Hasil Pertanian, Fakultas Teknologi Pertanian, Universitas Jember, Jember.
- Anwar, T.B. (2003). *Manfaat diet pada penanggulangan hiperkolesterolemi*. Digitized by USU digital library. <http://library.usu.ac.id/download/fk/gizi-bahri.pdf> [25/04/2016].
- AOAC. (1995). *Official methods of analysis of AOAC International*. 2 vols. 16th ed. Association of Analytical Communities. Arlington, VA, USA.
- Aparicio-Saguilan, A.A., Huicochea, E.F., Tovar, J.T., Meraza, F.G. dan Perez, L.A.B. (2005). Resistant starch rich-powders prepared by autoclaving of native and lintnerized banana starch: partial characterization. *Starch/Stärke Journal* 57: 405-412.
- Ardhi (2007). Karakteristik kimia fisik tepung gayam serta aplikasinya pada produk biskuit. *Skripsi*. Jurusan Teknologi Pangan, Fakultas Teknologi Industri, UPN, Jatim.

- Aremu, M.O., Olaofe, O. dan Akintayo, E.T. (2007). Functional properties of some Nigerian varieties of legume seed flours and flour concentration effect on foaming and gelation properties. *J. of Food Tech.* 5 (2): 109-115.
- Aryee, F., Oduro, I., Ellis, W. dan Afuakwa, J. (2006). The physicochemical properties of flour samples from the roots of 31 varieties of cassava. *Food Control* 17: 916-922.
- Arvidsson-Lenner, R. Asp, N.-G., Axelsen, M., Bryngelsson, S., Haapa, E., Karlstro, A.B., Raben, A., Sohlstro, A., Thorsdottir, I. dan Vessby, B. (2004). Glycaemic index: Relevance for health, dietary recommendations and food labelling. *Scandinavian Journal of Nutrition* 48(2): 84-94.
- Asbar, R. (2014). Peningkatan pati resisten tipe III pada tepung singkong modifikasi (mocaf) dengan perlakuan pemanasan-pendinginan berulang dan aplikasinya pada pembuatan mi kering. *Tesis*. Sekolah Pascasarjana Institut Pertanian Bogor
- Ashraf, S., Anjum, F.M., Nadeem, M. dan Riaz, A. (2012). Functional and technological aspects of resistant starch. *Pak J Food Sci* 22: 90-95.
- Ashwar, B.A., Gani, A., Wani, I.A., Shah, A., Masoodi, F.A. dan Saxena, D.C. (2016). Production of resistant starch from rice by dual autoclaving-retrogradation treatment: Invitro digestibility, thermal and structural characterization, *Food Hydrocolloids* 56: 108-117
- Asif-Ul-Alam, S.M., Islam, M.Z., Hoque, M.M. dan Monalisa, K. (2014). Effects of drying on the physicochemical and functional properties of green banana (*Musa sapientum*) flour and development of baked product. *American Journal of Food Science and Technology* 2(4): 128-133.
- Asp, N.-G., Johansson, C.-G., Hallmer, H. and Siljestrom, M. (1983). Rapid enzymatic assay of insoluble and soluble dietary fibre. *Journal of Agricultural and Food Chemistry* 31: 476-482.
- Asp, N.-G. dan Bjork, I. (1992). Resistant starch. *Trends in Food Science and Technology* 3: 111-114.
- Ayu, D.C. dan Yuwono, S.S. (2014). Pengaruh suhu blansing dan lama perendaman terhadap sifat fisik kimia tepung kimpul (*Xanthosoma Sagittifolium*). *Jurnal Pangan dan Agroindustri* 2(2): 110-120.

- Ayuningtyas, L.P., Harmayani, E. dan Pranoto, Y. (2015). Karakterisasi sifat fisik, kimia, dan prebiotik pati ubi jalar (*Ipomoea batatas*) varietas bestak hasil modifikasi autoclaving-cooling dan aplikasinya untuk pembuatan cookies. *Tesis*. S2 Ilmu dan Teknologi Pangan, FTP, UGM.
- Babu, A.S. dan Parimalavalli, R. (2012). Functional and chemical properties of starch isolated from tubers. *International Journal of Agricultural and Food Science* 2(3):77-80.
- Babu, A.S. dan Parimalavalli, R. (2013). Effect of autoclaving on functional, chemical, pasting and morphological properties of sweet potato starch. *Journal of Root Crops* 39(1): 78-83.
- Badan Standar Nasional Indonesia. (2009). *SNI 375-2009. Tepung Terigu Sebagai Bahan Makanan*. Badan Standar Nasional Indonesia, Jakarta.
- Badrunasar, A. (2013). Gayam (*Inocarpus fagifer* Forst.) dan manfaatnya. *Leaflet*. Balai Penelitian Teknologi Agroforestry. Jawa Barat.
- Bae, I. Y., Lee, S., Kim, S. M. dan Lee, H. G. (2009). Effect of partially hydrolysed oat β -glucan on the weight gain and lipid profile of mice. *Food Hydrocolloids* 23: 2016-2021.
- Balogopalan, C., Padmaja, G., Nanda, S.K., dan Moorthy, S.N. (1988). *Cassava in food, feed, and industry*. CRC Press, Baco Raton, Florida.
- Balasinska, B. (1998). Hypocholesterolemic effect of food dietary evening primerose (*Oenothera paradoxa*) cake extract in rats. *Food Chemistry* 63(4):453-459.
- Barret, K.E., Barman, S.M., Boitano, S. dan Brooks., H.L. (2010). *Ganong's Review of medical physiology*. 23th edition. Lange Medical Publication, San Fransisco, California.
- Battilana, P., Ornstein K., Minehira, K., Schwarz, J.M., Acheson, K., Schneiter, P., Burri, J., Jequier, E. dan Tappy, L. (2001). Mechanisms of action of β -glucan in postprandial glucose metabolism in healthy men. *Eur J Clin Nutr* 55: 327-333.
- Behall, K.M., Scholfield, D.J., Hallfrisch, J.G. dan Liljeberg-Elmståhl, H. (2006). Consumption of both resistant starch and glucan improves postprandial plasma glucose and insulin in women. *Diabetes Care* 29: 976-981,
- Belitz, H.D. dan W. Grosch. (1999). *Food Chemistry*. Springer Verlag, Berlin.

- Beysseriat, M., Decker, E. A. and McClements, D. J. 2006. Preliminary study of the influence of dietary fiber on the properties of oil-in-water emulsions passing through an in vitro human digestion model. *Food Hydrocolloids* 20: 800-809.
- Bjorck, I. dan Asp, N.G. (1994). Controlling the nutritional properties of starch in foods—A challenge to the food industry. *Trends in Food Science and Technology*. 5:213–218.
- Blazek, J. (2008). Role of amylose in structure-function relationship in starches from australian wheat varieties. *Thesis*. Faculty of Agriculture, Food and Natural Resources, The University of Sydney.
- Bonini, J.A., Anderson, S.M. dan Steiner, D.F. (1997). Molecular cloning and tissue expression of a novel orphan G protein-coupled receptor from rat lung. *Biochem. Biophys. Res. Comm.* 234: 190-193.
- Bonora, E., Targher, G., Alberich, M., Formentini, G., Calcaterra, F., Lombardi, S., Marini, F., Poli, M., Zenari, L., Raffaelli, A., Perbellini, S., Zenere, M.B., Saggiani, F., Bonadonna, R.C. dan Muggeo, M. 2002. Predictor of insulin sensitivity in Type 2 diabetes mellitus. *Diabet. Med.* 19: 525-542.
- Bourke, M. (1996). Edible indigenous nuts in Papua New Guinea: their potential for commercial development. The Australian New Crops Newsletter, 5 Jan 1996. <http://www.newcrops.uq.edu.au/newslett/ncnl5-3.htm>
- Bornet, F. (1993). Technological treatments of cereals: Repercussions on the physiological properties of starch. *Carbohydrates Polymers* 21(2-3): 195-203.
- Brand, J.C., Colagiuri, S., Crossman, S., Allen, A., Roberts, D.C. dan Truswell, A.S. (1991): Low-glycaemic index foods improve long-term glycaemic control in NIDDM. *Diabetes Care* 14: 95-101.
- Brouns, F., Bjorck, I., Frayn, K.N., Gibbs, A.L., Lang, V., Slama, G. dan Wolever, T.M.S. (2005). Glycaemic index methodology. *Nutrition Research Reviews*. 18(1):145-171.
- Buleon, A., Colonna, P., Planchot, V. dan Ball, S. (1998). Starch granules: structure and biosynthesis. *International Journal of Biological Macromolecules* 23: 85–112.

- Bureau of Nutritional Sciences. (2010). *Proposed Policy: Definition and Energy Value for Dietary Fibre*. Food Directorate, Health Products and Food Branch Health Canada.
- Buse, J. B., Yasuda, K., Lay, T. P., Seo, T. S., Olson, A. L., Pessin, J. E., Karam, J. H., Seino, S. dan Bell, G.I. (1992). Human GLUT4/muscle-fat glucose-transporter gene: characterization and genetic variation. *Diabetes* 41: 1436-1445.
- Caballero, B., Finglas, P.M. dan Toldr, F. (2016). *Encyclopedia of food and health*. Academic Press-Elsevier. Amsterdam.
- Calvo-Ochoa, E., Hernandez-Ortega, K., Ferrera, P., Morimoto, S. dan Arias, C. (2014). Short-term high-fat-and-fructose feeding produces insulin signaling alterations accompanied by neurite and synaptic reduction and astroglial activation in the rat hippocampus. *J Cereb Blood Flow Metab.* 34: 1001-1008.
- Camire, M.E. dan Dougherty, M.P. (2003). Raisin dietary fiber composition and in vitro bile acid binding. *J. Agric. Food Chem.* 51: 834-837.
- Campechano-Carrera, E., Corona-Cruz, A., Chel-Guerrero, L. dan Betancur-Ancona, D. (2007). Effect of pyrodextrinization on available starch content of Lima bean (*Paseolus lunatus*) starches. *Food Hydrocolloids* 21: 472-479.
- Canfora, E.E., Jocken, J.W. dan Blaak, E.E. (2015). Short-Chain fatty acids in control of body weight and insulin sensitivity. *Nature Rev. Endocrin* 11: 577-591.
- Capuano, E. (2017). The behavior of dietary fiber in the gastrointestinal tract determines its physiological effect. *Critical Reviews in Food Science and Nutrition* 57(16): 3543-3564.
- Castilho, F., Fontanari, G.G. dan Batistuta, J.P. (2010). Evaluation of some functional properties of sweet lupine flour (*Lupinus albus*) and pigeonpea (*Cajanus cajan* (L) Millsp) and its use in the production of ham. *Food Science and Technology* 30(1): 68-75.
- Cedo, L., Metso, J. dan Santos, D. (2015). Consumption of polyunsaturated fat improves the saturated fatty acid-mediated impairment of HDL antioxidant potential. *Molecular Nutrition and Food Research* 59: 1987-1996.
- Chambers, E.S., Viardot, A., Psichas, A., Morrison, D.J., Murphy, K.G., Zac-Varghese, S.E. *et al.* (2014). Effects of targeted delivery of propionate to the human colon on appetite regulation, body weight maintenance and adiposity in overweight adults. *Gut* [Published Online First] 0: 1-11.

- Chandra, S. dan Samsher. (2013). Assessment of functional properties of different flours. *African Journal of Agricultural* 8(38): 4849-4852.
- Chaplin, M. (2008). Starch. Available From: URL: <http://www.lsbu.ac.uk/water/hysta.html>. [28/11/2014].
- Charles, A.L., Chang, Y.H., Ko, W.C., Sriroth, K. dan Huang, T.C. (2005). Influence of amylopectin structure and amylose content on the gelling properties of five cultivars of cassava starches. *J. Agric. Food Chem.* 53(7): 2717-2725.
- Charlton-Menys, V. dan Durrington, P. N. (2007). Human cholesterol metabolism and therapeutic molecules. *Experimental Physiology-Review Article* 93(1): 27-42.
- Chau, C.F. dan Cheung, P.C.K. (1997). Functional properties of flours prepared from three Chinese indigenous legume seeds. *Food Chem.* 61: 429-433.
- Chau C.F., Wang Y.T., dan Wen Y.L. (2007). Different micronization methods significantly improve the functionality of carrot insoluble fibre. *Food Chem.*, 100(4): 1402-1408.
- Cheftel, J.C., Cuq, J.L. dan Lorient, D. (1985). Amino acid, peptide and protein. *Dalam: O. R. Fennema (ed). Food chemistry*. 3rd edition. Marcell Dekker Inc, New York.
- Chen, J. J., Lii, C.Y. dan Lu, S. (2003). Physicochemical and morphological analyses on damaged rice starches. *Journal of Food and Drug Analysis* 4: 283-289.
- Chou, C., Yen, T. dan Li, C. (2014). Effects of different cooking methods and particle size on resistant starch content and degree of gelatinization of a high amylose rice cultivar in Taiwan. *Journal of Food, Agriculture & Environment* 12(2): 6-10.
- Ciampelli, M., Leoni, F., Cucinelli, F., Mancuso, S., Panunzi, S. dan De Gaetano, A. (2005). Assessment of insulin sensitivity from measurements in the fasting state and during an oral glucose tolerance test in polycystic ovary syndrome and menopausal patients. *J Clin Endocrinol & Metabol* 90: 1398-1406.
- Cieslik, E., Kopec, A. dan Pisulewski, P.M. (2005). Effects of fructooligosaccharides and Long Chain Inulin on Serum Lipids in Rats. *Polish Journal of Food and Nutrition Sciences* 55(4): 437-441.

- Collado, L.S., Mabesa, L.B., Oates, C.G. dan Corke, H. (2001). Bihon-type of noodles from heat-moisture treated sweetpotato starch. *Journal Food Science* 66(4): 604-609.
- Coman, C. dan Socaciu, C. (2012). Docking of phytochemicals to the peroxisome proliferator - activated receptor - gamma. *Bulletin UAS VM Agriculture* 69(2): 236-242.
- Cui, S.W., Qiang, L. dan Shery, X.X. (2005). Starch modification and application. Dalam: Cui, S.W (ed.). *Food carbohydrate: chemistry, physical properties and application*. CRC Press, Boca Raton.
- Cummings, J. dan Mann, J. (2009). Carbohydrates. Dalam: Mann, J. dan Truswell, A.S. (eds.). *Essentials of Human Nutrition*. New York: Oxford University Press.
- Damardjati, D.S., Widowati, S., Wargiono, J. dan Purba, S. (2000). Potensi dan pendayagunaan sumber daya bahan pangan lokal sereal, umbi-umbian dan kacang-kacangan untuk penganekaragaman pangan. Makalah pada Lokakarya Pengembangan Pangan Alternatif. Pusat Penelitian dan Pengembangan Pangan. Di Jakarta tanggal 24 Oktober 2000.
- Damat. (2009). Sintesis dan karakterisasi fisik, kimia dan fisiologis pati-garut butir. *Disertasi*. Program pascasarjana. FTP UGM.
- Danielsson, H. dan Sjovall, J. (1985). *Sterol and bile acids*. Elsevier Science Publisher Biomedical Division. Amsterdam-New York-Oxford.
- Daramola, B., dan Osanyinlusi, S., A. (2006). Production, characterization, and application of banana (*Musa spp*) flour in whole maize. *African Journal of Biotechnology* 5(10) : 992-995.
- Debet, M.R. dan Gidely, M.J. (2007). Why do gelatinized starch granules not dissolve completely? Roles for amylose, protein, and lipid in granule “ghost” integrity. *Journal of Agriculture and Food Chemistry* 55: 4752-4760.
- DeFronzo, R.A dan Tripathy, D. (2009). Skeletal muscle insulin resistance is the primary defect in type 2 diabetes. *Diabetes Care* 2: S157-S163.
- de la Rosa-Millan, J., Agama-Acevedo, E., Osorio-Diaz, P. dan Bello-Perez, L.A. (2014). Effect of cooking, annealing and storage on starch digestibility and physicochemical characteristics of unripe banana flour. *Revista Mexicana de Ingeniería Química* 13(1): 151-163.

- Demigne, C., Morand, C. dan Levrat, M.A. (1995). Effect of propionate on fatty acid and cholesterol synthesis and acetate metabolism in isolated rat hepatocyte. *Br. J. Nutr.*, 74: 209-219.
- Dias, A.R.G., Zavareze, E.D.R, Spier, F., de Castro, L.A.S. dan Gutkoski, L.C. (2010). Effects of annealing on the physicochemical properties and enzymatic susceptibility of rice starches with different amylose contents. *Food Chemistry* 123(3): 711-719.
- Dobiasova, M. dan Frohlich, J. (2001). The plasma parameter log (TG/HDL) as an atherogenic index: correlation with lipoprotein particle size and esterification rate in apoB-lipoprotein-depleted plasma (FER HDL). *Clinical Biochemistry* 34:583-588.
- Dobiasova, M. (2006). AIP-atherogenic index of plasma as a significant predictor of cardiovascular risk: from research to practice. *VnitrLek* 52(1):64–71.
- Dubuc, G.R., Phinney, S.D., Stern, J.S. dan Havel, P.J. (1998). Changes of serum leptin and endocrine and metabolic parameters after 7 days of energy restriction in men and women. *Metabolism* 47: 429-434.
- Dupuis, J.H., Liu, Q. dan Yada, R.Y. (2014). Methodologies for Increasing the resistant starch content of food starches: A Review. *Comprehensive Reviews in Food Science and Food Safety* 13: 1219-1234.
- Elleuch, M., Bedigian, D., Roiseux, O., Besbes, S., Blecker, C. dan Attia, H. (2011). Dietary fibre and fibre-rich by-products of food processing: Characterisation, technological functionality and commercial applications: A review. *Journal of Food Chemistry* 124: 411-421.
- Eliasson, A.C. (1980) Effect of water content on the gelatinization of wheat starch. *Starch/Stärke* 32:270–272
- Eliasson, A.C. (2004). Starch in Food: Structure, Function, and Applications. Woodhead Publishing, CRC Press. Cambridge, England.
- Eltayeb, A.R.S.M., Ali, A.O., Abou-Arab, A. dan Abu-Salem, F.M. (2011). Chemical composition and functional properties of flour and protein isolate extracted from Bambara groundnut (*Vigna subterranean*). *African Journal of Food Science* 5(2): 82-90.
- Englyst, H.N. dan Cummings, J.H. (1987). Resistant Starch, a new food component: a classification of starch for nutritional purposes. *Dalam: Morton, I.D. (Ed.)*,

Cereals in A European Context, hal 221-233. Chichester: First European Conference on Food Science & Technology, Ellis Horwood.

Englyst, H.N., Kingman, S.M. dan Cummings, J.H. (1992). Classification and measurement of nutritionally important starch fractions. *Eur J Clin Nutr.* 46 (2): S33-50.

Epriliati, I. (2002). Isolasi dan karakterisasi sifat fisik, kimia, dan fungsional pati gayam (*Inocarpus edulis* Forst). *Tesis*. Program Pasca Sarjana IPB, Bogor.

Erukainure, O.L., Osaretin, A.T., Ebuehi, Adeboyejo, F.O, Okafor, E.N., Muhammad, A. dan Elemo, G.N. (2013). Fiber-enriched biscuit enhances insulin secretion, modulates b-cell function, improves insulin sensitivity, and attenuates hyperlipidemia in diabetic rats. *PharmaNutrition* 1: 58-64.

Escarpa, A., Gonzalez, M.C., Manas, E., Garcia-Diz, L. dan Saura-Calixto, F. (1996). Resistant starch formation: Standardization of a high-pressure autoclave process. *J. Agr. Food Chem.* 44: 924-928.

Eskin, N.A.M. (1990). *Biochemistry of foods*. 2nd edition. Academic Press, Inc. California.

Eerlingen, R.C., Crombez, M. dan Delcour, J.A. (1993). Enzyme-resistant starch. Quantitative and qualitative influence of incubation time and temperature of autoclaved starch on resistant starch formation. *Cereal Chem.* 70(3): 339-44.

Ezeocha, V.C., Omodamiro, R.M., Oti, E. dan Chukwu, G.O. (2011). Development of trifoliate yam: Cocoyam composite flour for fufu production. *Journal of Stored Products and Postharvest Research* 2: 184-188.

Faridah, D.N. (2011). Perubahan karakteristik kristalin pati garut (*maranta arundinaceae* l.) dalam pengembangan pati resisten tipe III. *Disertasi*. Sekolah Pascasarjana Institut Pertanian Bogor.

Faridah, D.N., Rahayu, W.P. dan Apriyadi, M.S. (2013). Modifikasi pati garut (*Marantha arundinacea*) dengan perlakuan hidrolisis asam dan siklus pemanasan-pendinginan untuk menghasilkan pati resisten tipe 3. *Jurnal Teknologi Industri Pertanian* 23 (1): 61-69.

Fasasi, O.S., Adeyemi, I.A. dan Fagbenro, O.A. (2005). Proximate composition and multienzyme in vitro protein digestibility of maize-tilapia flour blends. *Journal of Food Technology* 3: 342-345.

Fatchuri, A. dan Wijayatiningrum, F.N. (2009). Modifikasi Cassava starch dengan proses oksidasi sodium hypochlorite untuk industri kertas. *Makalah Seminar*

Penelitian Jurusan Teknik Kimia, Fakultas Teknik, Universitas Diponegoro, Semarang.

Federer, W.T. (1967). *Experimental design, theory and application*. Oxford and IBH Publishing Co. New Delhi, India.

Fennema O.R. (1996). *Food Chemistry*. 3rd edition. Marcel Dekker, Inc. New York.

Foster-Powell, K.F., Holt, S.H.A. dan Brand-Miller, J.C. (2002). International table of glycemic index and glycemic load values: 2002. *Am J Clin Nutr*. 76: 55-56.

Freeland KR, Wilson C, dan Wolever T. (2010). Adaptation of colonic fermentation and glucagon-like peptide-1 secretion with increased wheat fibre intake for 1 year in hyperinsulinaemic human subjects. *Br J Nutr*. 103: 82–90.

Fushimi, T., Suruga, K., Oshima, Y., Fukiharu, M., Tsukamoto, Y. dan Goda, T. (2006). Dietary acetic acid reduces serum cholesterol and triacylglycerols in rats fed a cholesterol-rich diet. *Br. J. Nutr*. 95: 916-924.

Gao, Z., Yin, J., Zhang, J., Ward, R.D., Martin, R.J., Lefevre, M., Cefalu, WT. dan Ye, J. (2009). Butyrate improves insuline sensitivity and increase energy expenditure in mice. *Diabetes* 58(7): 1509-1517.

Gelencser, T. (2009). Comparative study of resistant starches and investigations of their application in starch-based products (bread and pasta). *PhD thesis*. Department of Applied Biotechnology and Food Science, Faculty of Chemical and Bioengineering, Budapest University of Technology and Economics.

Gelling, R.W., Overduin, J., Morrison, C.D., Morton, G.J., Frayo, R.S., Cummings, D.E. (2004). Effect of uncontrolled diabetes on plasma ghrelin concentrations and ghrelin-induced feeding. *Endocrinology* 145: 4575-4582.

Goni, I., Garcia-Diz, L., Manas, E. dan Saura-Calixto, F. (1996). Analysis of resistant starch: method for foods and food products. *J. Food Chemistry* 56 (4): 445-449.

Granner, D.K. (2003). Hormon pankreas dan traktus gastrointestinal. *Dalam: Murray, R.K., Granner, D.K., Mayes, P.A., dan Rodwell, V.W. Biokimia Harper*. Edisi 25. hal. 582 – 593. EGC, Jakarta.

Guha, M., Umesh, S.S., Reddy, S.Y. dan Malleshi, N.G. (2011). Functional properties of slow carbohydrate digestible rice produced adapting

hydrothermal treatment. *International Journal of Food Properties* 14(6): 1305-1317.

Gustiar, H. (2009). Sifat fisiko-kimia dan indeks glikemik produk *cookies* berbahan baku pati garut (*Maranta arundinacea* L.) termodifikasi. *Skripsi*. Fakultas Teknologi Pertanian Institut Pertanian Bogor.

Ha, A.W., Han, G.J. dan Kim, W.K. (2012). Effect of retrograded rice on weight control, gut function, and lipid concentrations in rats. *Nutrition Research and Practice* 6(1): 16-20.

Han, K., Sekikawa, M., Shimada, K., Sasaki, K., Ohba, K. dan Fukushima, M. (2004). Resistant starch fraction prepared from kintoki bean affects gene expression of genes associated with cholesterol metabolism in rats. *Exp. Biol. Med.* 229: 787-792.

Handoko, T.T. (2010). Pengaruh lama perendaman empulur dan konsentrasi $\text{Na}_2\text{S}_2\text{O}_5$ (*Natrium metabisulfit*) terhadap karakteristik mutu pati sagu (*Metroxylon* sp.). *Skripsi*. Fakultas Teknologi Pertanian Institut Pertanian Bogor.

Hanim, A.B.M., Chin, N.L. dan Yusof, Y.A. (2014). Physico-chemical and flowability characteristics of a new variety of Malaysian sweet potato, VitAto Flour. *International Food Research Journal* 21(5): 2099-2107.

Haralampu, S.G. (2000). Resistant starch-a review of the physical properties and biological impact of RS3. *Carbohydr Polym.* 41(3): 285-292.

Harijono, Estiasih, T., Sunarharum, W.B. dan Suwita, I.K. (2012). Efek hipoglikemik polisakarida larut air gembili (*Dioscorea esculenta*) yang diekstrak dengan berbagai metode. *Jurnal Teknologi dan Industri Pangan* 23(1): 1-8.

Harmayani, E., Kumalasari, I.D. dan Marsono, Y. (2011). Effect of arrowroot (*Maranta arundinacea* L.) diet on the selected bacterial population and chemical properties of caecal digesta of Sprague Dawley rats. *International Research Journal of Microbiology* 2(8): 278-284.

Haryadi. (2011). Teknologi modifikasi tepung kasava. *Agritech* 31(2): 86-92.

Herawati, H. (2011). Potensi pengembangan produk pati tahan cerna sebagai pangan fungsional. *Jurnal Litbang Pertanian*. 30(1): 31-39

Heslet, L. (2004). *Kolesterol*. Kesaint Blanc, Jakarta.

- Heyne, K. (1987). *Indonesian useful plants*. 1st edition. Jakarta, Indonesia: Research and Development Board, Ministry of The Forestry Republic of Indonesia.
- Hidayati, N. (2014). Pembuatan maltodekstrin dari pati gayam (*Inocarpus fagiferus* Forst) dan aplikasinya untuk mikroenkapsulasi asap cair. *Skripsi*. Prodi Teknologi Pangan dan Hasil Pertanian UGM, Yogyakarta
- Higgins, J.A., Higbee, D.R., Donahoo, W.T., Brown, I.L., Bell, M.L. dan Bessesen, D.H. (2004). Resistant starch consumption promotes lipid oxidation. *Nutr. Metabolism* 1: 8.
- Hirata, A., Maeda, N., Hiuge, A., Hibuse, T., Fujita, K., Okada, T., Kihara, S., Funahashi, T. dan Shimomura, I. (2009). Blockade of mineralocorticoid receptor reverses adipocyte dysfunction and insulin resistance in obese mice. *Cardiovascular Research* 84:164-172.
- Hoover, R., Swamidas, G. dan Vasanthan, T. (1993). Studies on the physicochemical properties of native, defatted, and heat moisture treated pigeon pea (*Cajanus cajan* T) starch. *Carbohydr. Res.* 246:185–203
- Hoover, R. (2001). Composition, molecular structure, and physicochemical properties of tuber and root starches: a review. *Carbohydr. Polym.* 45: 253-267.
- Hoover, R., Hughes, T., Chung, H. J. dan Liu, Q. (2010). Composition, molecular structure, properties, and modification of pulse starches: A review. *Food Research International* 43: 399-413.
- Hutching, J.B. (1999). *Food colour and appearance*. 2nd edition. An Aspen Publ. Inc., Gaithersburg, Maryland.
- Iswari, R.S. (2017). *Perbaikan fraksi lipid serum tikus putih hiperkolesterolemi setelah pemberian jus dari berbagai olahan tomat*. Jurusan Biologi Fakultas MIPA, Universitas Negeri Semarang. <http://download.portalgaruda.org/article.php?article> [27 Febr 2017].
- Itam, E.H., Itam, A.H., Odey, M.O., Ejemot-Nwadiaro, R., Asenye, M.E. dan Ezike, N.N. (2012). Effect of processing method on the glycemic index of some carbohydrate staples (*Manihot esculanta*, *Ipomoea batata* and *Dioscorea rotundata*) in both normal and diabetic subjects. *Annals of Biological Research*. 3(12): 5507-5510.

- Jacobs, H. and J.A. Delcour. (1998). Hydrothermal modifications of granular starch with retention of the granular structure: Review. *J. Agric. Food Chem.* 46(8): 2895–2905.
- Jagannadham, K., Parimalavalli, R. dan Babu, A.S. (2014). Effect of autoclaving on chemical, functional and morphological properties of chickpea (*Cicer arietinum* L.) starch. *Online International Interdisciplinary Research Journal* 4(Special issue): 287-294
- Jagannadham, K. dan Parimalavalli, R. (2016). In-vitro digestibility and functional properties of chickpea resistant starch. *Indian Journal of Science* 23(77): 42-49.
- Jagannadham, K., Parimalavalli, R. dan Babu, S.A. (2017). Effect of triple retrogradation treatment on chickpea resistant starch formation and its characterization. *J Food Sci Technol.* 54(4): 901:908.
- Jane, J.L. (2004). *Starch structure and properties*. CRC press CLC. England.
- Jariyah, Mulyani dan Setya, P.P. (2013). Kajian nutrisi crackers tepung gayam. *J. Rekapangan* 7(1): 76-90
- Jenkins, D.J.A., Wolever, T.M.S., Taylor, R.H., Barker, H., Fielden, H., Baldwin, J.M., Bowling, A.C., Newman, H.C., Jenkins, A.L. dan Goff, D.V. (1981). Glycemic index of foods: a physiological basis for carbohydrate exchange. *American Journal of Clinical Nutrition.* 34: 362-366.
- Jenkins, D.J.A., Kendall, C.W.C., Augustin, L.S.A., Franceschi, S., Hamidi, M., Marchie, A., Jenkins, A.L. dan Axelsen, M. (2002). Glycemic Index: overview of implications in health and disease. *Am. J. Clin.Nutr.* 76: 266S-273S.
- Jenkins, P. J. dan Donald, A. M. (1998). Gelatinization of starch: A combined SAXS/WASX/DSC and SANS study. *Carbohydr. Res.* 308: 133–147.
- Jimenez, M. dan Garcia-Carmona, F. (1999). Oxidation of the flavonol quercetin by polyphenol oxidase. *Journal of Agricultural Food Chemistry* 47: 56-60.
- Jobling, S. (2004). Improving starch for food and industrial applications. *Current Opinion in Plant Biology* 7: 210-218.
- Juliano, B.O. (1971). A simplified assay for milled rice amylose. *Cereal Science Today* 16: 334-338.

- Karim A.A., Norziah M.H. dan Seow, C.C. (2000). Methods for study of starch retrogradation. *Food Chem.* 71: 9-36.
- Kaur, M. dan Singh, N. (2007). Characterization of protein isolates from different Indian chickpea (*Cicer arietinum* L.) cultivars. *Food Chem.* 102(1): 366-374.
- Kaur, M. dan Sandhu, K.S. (2010). In vitro digestibility, structural and functional properties of starch from pigeon pea (*Cajanus cajan*) cultivars grown in India. *Food Research International* 43: 263-268.
- Kahlon, T. S., dan Smith, G. E. (2007). In vitro binding of bile acids by bananas, peaches, pineapple, grapes, pears, apricots and nectarines. *Food Chemistry* 101: 1046-1051.
- Keenan, M.J., Zhou, J., McCutcheon, K.L., Raggio, A.M., Bateman, H.G. dan Todd, E. (2006). Effects of resistant starch, a non-digestible fermentable fiber, on reducing body fat. *Obesity* 14(9): 1523-1534.
- Keenan, M.J., Martin, R.J., Raggio, A.M., McCutcheon, K.L., Brown, I.L. dan Birkett, A. (2012). High-amylose resistant starch increases hormones and improves structure and function of the gastrointestinal tract: a microarray study. *J Nutrigenet Nutrige* 5(1):26-44.
- Kemenkes RI. (2013). *Penyajian pokok-pokok hasil Riset Kesehatan Dasar Tahun 2013*. Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI, Jakarta.
- Kendall, C.W., Emam A, Augustin LS, dan Jenkins DJ. (2004). Resistant starches and health. *J. AOAC Int.* 87(3):769-74.
- Khalil, A.M., Rehman, S., Jameel, S., Din, N., Ashfaquallah dan Riaz, M. (2005). Prevalence of diabetic dyslipidemia in 120 patients of type 2 Diabetes Mellitus. *J. Med. Sci.* 13:128-31.
- Khasanah, A.U. (2009). Pengaruh perlakuan pramasak dengan perebusan dan pengukusan terhadap sifat kimia dan fisik tepung sukun (*Artocarpus altilis*) yang dihasilkan. *Skripsi*. Prodi Teknologi Pangan dan Hasil Pertanian UGM, Yogyakarta
- Kibar, A.A., Gonenc, dan Us, F. (2009). Gelatinization of waxy, normal, and high amylose corn starches. *Journal of Food Technology* 4(3):02-10.
- Kinsella, L. E. (1976). Functional properties of the protein in foods: A survey. *Journal of Food Science and Nutrition* 7: 219-280.

- Kirtishanti, A., Budiono, R., Ratih, dan Isfandiari, F. (2008). Efek ekstrak daun mengkudu terhadap jumlah protein glut4 pada tikus putih hiperglikemik. *Jurnal Farmasi Indonesia* 4(2): 55-62.
- Klok, M.D., Jakobsdottir, S., dan Drent, M.L. (2006). The role of leptin and ghrelin in regulation of food intake and body weight in humans: a review. *Obes Rev.* 8(1): 21-34.
- Kulkarni, K.D., Govinden, N. dan Kulkarni, D. (2008). Production and use of raw potato flour in Muaritian traditional foods. *Journal of Science and Food Agricultural* 17(2): 162-168.
- Kurniawati, E. (1998). Pemanfaatan tepung gayam (*Inocarpus edulis* Forst.) untuk pembuatan biskuit dalam rangka penganeekaragaman pangan. *Skripsi*. Jurusan Gizi Masyarakat dan Sumberdaya Keluarga, Fakultas Pertanian, IPB, Bogor, Indonesia.
- Lai, H.M. (2001). Effects of hydrothermal treatment on the physicochemical properties of pre-gelatinized rice flour. *Food Chemistry* 72: 455-463.
- Lamberts, L., Gomand, S.V., Derycke, V. dan Delcour, J.A. (2009). Presence of amylose crystallinities in parboiled rice. *J. Agric. Food Chem.* 57(8): 3210-3216.
- Lang, V. dan France, D.V. (2004). Development of a range of industrialised cereal-based foodstuffs, high in slowly digestible starch. *Dalam Eliasson, A.C. (2004). Starch in Food: Structure, Function, and Applications*. Woodhead Publishing, CRC Press. Cambridge, England.
- Larsen, H.N., Rasmussen, O.W., Rasmussen, P.H., Alstrup, K.K., Biswas, S.K., Tetens, I., Thilsted, S.H. dan Hermansen, K. (2000). Glycemic index of parboiled rice depends on the severity of processing: study in type 2 diabetic subjects. *European Journal of Clinical Nutrition* 54(5): 380-385.
- Lattimer, J.M. dan Haub, M.D. (2010). Effects of dietary fiber and its components on metabolic health. *Nutrients* 2: 1266-1289
- Lee, J.H., Ah-Ra, C., Joo, Y.H., Dong, J.P. dan Seung, T.L. (2012). Physical properties of wheat flour composites dry-coated with microparticulated soybean hulls and rice flour and their use for low-fat doughnut preparation. *J Cereal Sci.* 56: 636-643.

- Lehmann, U., Jacobasch, G. dan Schmiedl, D. (2002). Characterization of resistant starch type III from banana (*Musa acuminata*). *J Agricultural and Food Chemistry* 50: 5236-5240.
- Lehmann, U., Rossler, C., Schmiedl, D. dan Jacobasch, G. (2003). Production and physicochemical characterization of resistant starch type III derived from pea starch. *Nahrung/Food* 47 (1): 60-63.
- Lehninger, A. L. (1982). *Principles of biochemistry*. 2nd edition. Worth Publishers, Inc. New York, US.
- Lewis, G., Schrire, B., Mackinder, B. and Lock, M. (2005). *Legumes of the world*. The Royal Botanic Gardens, Kew.
- Lindeboom, N., Chang, P.R. dan Tyler, R.T. (2004). Analytical, biochemical, and physicochemical aspect of starch granule size with emphasis on small granula starches: A Review. *Starch/Stärke* 56: 89-99.
- Lorlowhakarn, K. dan Naivikul, O. (2006). Modification of rice flour by heat moisture treatment (hmt) to produce rice noodles. *Kasetsart J. (Nat. Sci.)* 40 (Suppl.): 135-143.
- Losel, D. dan Claus, R. (2005). Dose-dependent effects of resistant potato starch in the diet on intestinal skatole formation and adipose tissue accumulation in the pig. *Journal of Veterinary Medicine, A: Physiology, Pathology, Clinical Medicine*. 52: 209–212
- Lubijarsih, M.A. (2001). Pengaruh berbagai proses pengolahan terhadap kadar pati resisten (Resistant Starch) dan nilai indeks glikemik uwi (*Dioscorea alata* Linn). *Tesis*. S2 Ilmu dan Teknologi Pangan UGM.
- Ma, Z. Boye, J.I., Simpson, B.K., Prasher, S.O., Monpetit, D. dan Malcolmson, L. (2011). Thermal processing effects on the functional properties and microstructure of lentil, chickpea, and pea flours. *Food Research International* 44: 2534-2544.
- Mark, A. dan Lieberman, M. (2013). *Mark's basic medical biochemistry: a clinical approach*. Wolter Kluwer Health/Lippincott Williams and Wilkins. Philadelphia.
- Mahmoud, N.M.O. (2004). Effect of autoclaving on solubility and functional properties of chickpea (*Cicer areitinum* L) flour. *Thesis*. Department of Food Science and Technology, Faculty of Agriculture, University of Khartoum.

- Manthey, F.A., Hareland, G.A. dan Huseby, D.J. (1999). Soluble and insoluble dietary fiber content and composition in oat. *Cereal Chemistry* 76(3): 417-420.
- Marlett, J.A. (1997). Sites and mechanisms for the hypocholesterolemic actions of soluble dietary fiber sources. *Adv. Exp. Med. Biol.* 427: 109-121.
- Marsono, Y. (1998). Resistant starch: pembentukan, metabolisme dan aspek gizinya. *Agritech* 18(4): 29-35.
- Marsono, Y. dan Topping, D.L. (1993). Complex carbohydrates in Australian rice products. *Food Science and Technology (LWT)* 26: 364-370.
- Marsono, Y. (1999). Perubahan kadar resistant starch (RS) dan komposisi kimia beberapa pangan kaya karbohidrat dalam pengolahan. *Agritech* 19(3): 124-127.
- Marsono, Y. Wiyono, P. dan Noor, Z. (2002). Indeks glisemik kacang-kacangan. *Jurnal Teknologi dan Industri Pangan* 13(3): 211-216.
- Marsono, Y. (2002a). Indeks glisemik umbi-umbian. *Agritech* 22(1): 13-16.
- Marsono, Y. (2002b). Pengaruh pengolahan terhadap pati resisten pisang kepok (*Musa paradisiaca* fa. *typica*) dan pisang tanduk (*Musa paradisiaca* fa. *corniculata*). *Agritech* 22(2): 56-59.
- Marsono, Y. (2002c). Sifat hipoglisemik dan hipolipidemik kacang kapri (*Pisum sativum* LINN) dan kedelai (*Glicine max* MERR) pada tikus Sprague Dawley diabetik induksi alloksan. *Agritech* 22(4): 137-143.
- Marsono, Y., Wiyono, P. dan Noor, Z. (2003). Penentuan Indeks Glisemik kacang-kacangan, faktor determinan dan uji efek hipoglisemiknya. *Laporan penelitian*. Penelitian Hibah Bersaing IX perguruan tinggi tahun anggaran 2001-2003. Lembaga Penelitian UGM, Yogyakarta.
- Marsono, Y. (2004). *Serat pangan dalam perspektif ilmu gizi*. Pidato Pengukuhan Guru Besar. UGM, Yogyakarta.
- Marsono, Y., Wiyono, P. dan Utama, Z. (2005). Indeks glikemik produk olahan garut (*Maranta arundinacea* LINN) dan uji sifat fungsionalnya pada model hewan coba. *Laporan penelitian*. Proyek RUSNAS Diversifikasi Pangan Pokok Tahun 2005, KEMRISTEK RI dan SEAFast Center IPB.

- Marsono, Y., Wiyono, P. dan Utama, Z. (2006). Pengembangan produk pangan berbasis tepung garut dan ubi jalar sebagai makanan fungsional untuk penderita diabetes: penentuan indeks glikemik dan uji sifat hipoglikemik. *Laporan penelitian*. Proyek RUSNAS Diversifikasi Pangan Pokok 2006, KEMRISTEK RI dan SEAFast Center IPB.
- Marsono, Y. (2016). The role and mechanism of resistant starch (RS) in reducing plasma glucose concentration. *Dalam* Epriliati, I., Kuswardani, I., Ingani, A.W., Marsono, Y., Rahayu, E.S., Otunola, E.T., Sopade, P.A., Ristiari, S. dan Chukeatirote, E. (eds). *Proceeding International Food Conference 2016: Innovation of food technology to improve food security and health*. Universitas Katolik Widya Mandala Surabaya, 20-21 October 2016.
- Maskan, M. (2001). Kinetics of colour change of kiwi fruits during hot air and microwave drying. *Journal of Food Engineering* 48: 169-175.
- Mbaeyi-Nwaoha, I.E dan Onweluzo, J.C. (2013). Functional properties of sorghum (*S. Bicolour* L.)-pigeon pea (*Cajanus cajan*) flour blends and storage stability of a flaked breakfast formulated from blends. *Pak. J. of Nut.* 12(4): 382-397.
- Miao, M., Zhang, T. dan Jiang, B. (2009). Characterizations of kabuli and desi chickpea starches cultivated in China. *Food Chemistry* 113: 1025–1032.
- Michael, A. A. dan Wilson, P.W. (1997). Relationship between hunter colour values and b-carotene contents in white-fleshed African sweet potatoes (*Ipomoea batatas* Lam). *J. of the Sci. of Food and Agric.* 73: 301-306.
- Milasinovic, M.S., Radasavljevic, M.M. dan Dokic, L.P. (2010). Effects of autoclaving and Pullulanase debranching on the resistant starch yield of normal maize starch. *J Serb Chem Soc.* 75: 449-458.
- Mir, J. A., Srikaeo, K. dan García, J. (2013). Effects of amylose and resistant starch on starch digestibility of rice flours and starches. *International Food Research Journal* 20(3): 1329-1335.
- Moreira, R., Chenlo, F., Torres, M.D., Rama, B. dan Arufe, S. (2015). Air drying of chopped chestnuts at several conditions: effect on colour and chemical characteristics of chestnut flour. *Int. Food Res. J.* 22(1): 407-413.
- Murano, P.S. (2003). *Understanding food science and technology*. Wadsworth/Thompson Learning. USA

- Murdiati, A. (1983). Pemanfaatan buah tanaman keras (gayam) sebagai sumber karbohidrat. *Laporan penelitian*. Universitas Gadjah Mada. Yogyakarta, Indonesia.
- Murphy, M., Douglass, J.S. dan Birkett, A. (2008). Resistant Starch Intakes in the United States. *JADA* 108:67-78.
- Mustikaningrum, F. (2011). Pengaruh pratanak kacang kapri (*Pisum sativum axiphium* L.) terhadap kadar serat pangan dan pati resisten serta sifat hipoglikemiknya pada tikus diabetik induksi alloksan. *Tesis*. Jurusan Ilmu dan Teknologi Pangan. Fak Teknologi Pangan. UGM.
- Naraya, S. dan Moorthy. (2002). Physicochemical and functional properties of tropical tuber starches: a review. *J. Starch* 54: 559-592.
- Naz, S. (2002). *Enzymes and food*. Oxford University Press, New York.
- Ngatijan. (2006). *Metode Laboratorium dalam Toksikologi*. Bagian Farmakologi dan Toksikologi Fakultas Kedokteran Universitas Gadjah Mada, Yogyakarta.
- Niba, L.L., Bokonga, M.M., Jackson, E.L., Schlimme, D.S. dan Li, B.W. (2001). Physicochemical properties and starch granular characteristics of flour from various *Manihot esculenta* (cassava) genotypes. *Journal of Food Science* 67 (5): 1701-1705.
- Ningsih, R.W. dan Pangesthi, L.T. (2013). Pengaruh proporsi tepung terigu dan tepung gayam (*Inocarpus endulis*) terhadap tingkat kesukaan chiffon cake. *Ejournal Boga* 2(1): 219-225.
- Niroumand, S.H., Khajedaluee, M., Khadem-Rezaiyan, M., Abrishami, M., Juya, M., Khodae, G.H. dan Dadgarmoghaddam, M. (2015). Atherogenic Index of Plasma (AIP): a marker of cardiovascular disease. *Med J Islam Repub Iran* 29: 1-9.
- Njintang, Y.N. dan Mbofung, C.M.F. (2006). Effect of precooking time and drying temperature on the physicochemical characteristics and in-vitro carbohydrate digestibility of taro flour. *LWT-Food Science Technology* 39: 684 –691.
- Noviasari, S., Kusnandar, F., Setiyono, A. dan Budijanto, S. (2015). Beras analog sebagai pangan fungsional dengan indeks glikemik rendah. *J. Gizi Pangan* 10(3): 225-232.
- Nugent, A.P. (2005). Health properties of resistant starch. *Br. Nutr. Foundation Nutr. Bull.* 30: 27–54.

- Nurhayati, Jenie, B.S.L., Widowati, S. dan Kusumaningrum, H.D. (2014). Komposisi kimia dan kristalinitas tepung pisang termodifikasi secara fermentasi spontan dan siklus pemanasan bertekanan-pendinginan. *Agritech* 34(2): 146-150.
- Offia-Olua, B.I. (2014). Chemical, functional and pasting properties of wheat (*Triticum spp*)-Walnut (*Juglans regia*) flour. *Food and Nutrition Sciences* (5): 1591-1604.
- Oladeji, B.S., Akanbi, T.C. dan Gbadamosi, O.S. (2013). Comparative studies of physico-chemical properties of yam (*Discorea rotundata*), cocoyam (*Collocasia taro*), breadfruit (*Artocarpus artilis*) and plantain (*Musa parasidiaca*) instant flours. *African Journal of Food Science* 7(8): 210-215.
- Oladele, A. K. dan Aina J. O. (2007). Chemical composition and functional properties of flour produced from two varieties of tiger nut (*Cyperus esculentus*). *African Journal of Biotechnology* 6 (21): 2473-2476.
- Okorie, P.A., Okoli, E.C. dan Ndie, E.C. (2011). Functional and pasting properties of lesser known Nigerian yams as a function of blanching time and particle size. *Advance Journal of Food Science and Technology* 3: 404-409.
- Okwari, O.O., Nneli, R.O. dan Osim, E.E. (2010). Effect of aqueous fruit extract of *Xylopiia Aethiopica* on intestinal fluid and glucose transfer in rats. *Nig. J. Physiol. Sci.* 25: 181-186.
- Onyango, C. (2016). Starch and modified starch in bread making: A review. *African Journal of Food Science* 10(12): 344-351.
- Ovando-Martínez, M., Whitney, K., Reuhs, B.L., Doehlert, D.C. dan Simsek, S. (2013). Effect of hydrothermal treatment on physicochemical and digestibility properties of oat starch. *Food Research International* 52: 17-25.
- Ozturk, S., Koksel, H., dan Kahraman, K. (2009). Effect of debranching and heat treatments on formation and functional properties of resistant starch from high-amylose corn starches. *European Food Research and Technology* 229: 115-125.
- Padmaja, G., Balagopalan, C., Moorthy, S.N. dan Potty, V.P. (1996). Yuca rava and yuca porridge: the functional properties and quality of two novel cassava products. *Cassava Flour and Starch: Progress in Research and Development*: 323-330

- Palupi, HT., Zainul, A. dan Nugroho, A.M. (2011). Pengaruh pre gelatinisasi terhadap karakteristik tepung singkong. *Teknologi Pangan* 1(1): 1-14.
- Patria, A., Husna, N.E., Lubis, Y.M. dan Novita, M. (2013). Physically modified of sweet potato flour (*Ipomea batatas*) by variation of steaming time and drying method. *Proceedings of The 3rd Annual International Conference Syiah Kuala University (AIC Unsyiah) 2013*. In conjunction with The 2nd International Conference on Multidisciplinary Research (ICMR) 2013 October 2-4, 2013, Banda Aceh, Indonesia.
- Pauku, RL. (2006). *Inocarpus fagifer* (Tahitian chestnut). *Species profiles for Pacific Island Agroforestry*. Ver. 2.1. April 2006. www.tradionaltree.org.
- Perry, P.A. dan Donald, A.M. (2002) The effect of sugars on the gelatinisation of starch. *Carbohydrate Polymers* 49: 155–165.
- Persatuan Ahli Gizi Indonesia. (2009). *Tabel Komposisi Pangan Indonesia (TKPI)*. PT. Elex Media. Komputindo, Jakarta.
- Poul, L.E., Loison, C., Struy, S., Springael, J., Decobecq, M., Brezillon, S., Dupriez, V., Vassart, G., Damme, J.V., Parmentier, M., dan Detheux, M. 2003. Functional characterization of human receptors for short chain fatty acids and their role in polymorphonuclear cell activation. *The Journal of Biological Chemistry* 278(28): 25481–25489.
- Popov-Raljić, J.V. dan Lalicic-Petronijević, J.G. (2009). Sensory properties and colour measurements of dietary chocolates with different compositions during storage for up to 360 days. *Sensors* 9: 1996-2016.
- Price, P.A. (2008). *Glycemic Matrix Guide to Low GI and GL Eating*. Infinity Publishing. 1094 New Dehaven St. Suite 100. West Conshohocken. Pennsylvania, United States.
- Puspasari, F.M. (2012). Pemanfaatan tepung kimpul (*Xanthosoma sagittifolium*) terfermentasi sebagai bahan baku pembuatan beras tiruan (kajian proporsi tepung kimpul terfermentasi : tepung mocaf). *Skripsi*. THP FTP UB. Malang.
- Rahim, A., Haryadi, Cahyanto, M.N. dan Pranoto, Y. (2012). Structure and functional properties of resistant starch from butyrylated arenga starches. *African Journal of Food Science* 6(12): 335-343.
- Raja, M.K.C. and Shindu, P. (2000). Properties of starch-treated arrowroot (*Marantha arundinacea*) starch. *J. Starch*. 52: 471-476.

- Rakhmawati, Rimbawan dan Amalia, L. (2011). Nilai indeks glikemik berbagai produk olahan sukun (*Artocarpus altilis*). *Jurnal Gizi dan Pangan* 6(1): 28–35.
- Ranhotra, G.S., Gelroth, J.A. dan Eisenbraun, G.J. (1991). High-fiber white flour and its use cookie products. *Cereal Chem.* 68(4): 432-434.
- Raso, G.M., Simeoli, R., Russo, R., Iacono, A., Santoro, A., Paciello, O., Ferrante, M.C., Canani, R.B., Calignano, A., and Meli, R. (2013). Effects of sodium butyrate and its synthetic amide derivative on liver inflammation and glucose tolerance in an animal model of steatosis induced by high fat diet. *PLOS ONE* 8(7): 1-13.
- Ratnayake, W. S., dan Jackson, D. S. (2006). Gelatinization and solubility of corn starch during heating in excess water: new insights. *Journal of Agricultural and Food Chemistry* 54(10): 3712-3716.
- Reddy, C.K., Suriya, M. dan Haripriya, S. (2013). Physico-chemical and functional properties of resistant starch prepared from red kidney beans (*phaseolus vulgaris*. L) starch by enzymatic method. *Carbohydrate Polymers* 95:220-226.
- Reeves, P.G., Nielsen, F.H. dan Fahey Jr, G.C. (1993). AIN-93 purified diets for laboratory rodents: final report of the American Institute of Nutrition Ad Hoc Writing Committee on the reformulation of the AIN-76A rodent diet. *Journal of Nutrition, Committee Report*: 1939-1951
- Richana, N. dan Sunarti, T.C. (2004). Karakterisasi sifat fisikokimiatepung umbi dan tepung pati dari umbi ganyong, suweg, ubikelapa dan gembili. *Jurnal Pasca Panen* 1(1): 29-37.
- Robertson, M.D., Bickerton, A.S., Dennis, A.,L., Vidal, H. dan Frayn, K.N. (2005). Insuline sensitivity effects of dietary RS and effects on skeletal muscle and adipose tissue metabolism. *Am. J. Clin Nutr.* 82(3): 559-567.
- Rosida dan Yulistiani, R. (2011). Pengaruh Proses Pengolahan terhadap Kadar Pati Resisten Sukun (*Artocarpus altilis* Park). *Rekapangan* 5(1): 55-63.
- Rosida, Harijono, Estiasih, T. dan Sriwahyuni, E. (2016). Hypoglycemic Effect of Modified Water Yam flour (*Dioscorea alata*) on diabetic Wistar rats (*Rattus norvegicus*). *Journal of Food and Nutrition Research* 4(1): 20-25.
- Sadler, M. (2011). Food, glycaemic response and health. *ILSI Europe Concise Monograph Series* 2011:1-30.

- Sajilata, M.G., Singhai, R.S. dan Kulkani, P.R. (2006). Resistant Starch—a Review. *CRFSFS: Comprehensive Reviews in Food Science and Food Safety* 5:6-17.
- Sankhon, A., Yao, W.R., Wang, H., Qian, H. dan Sangare, M. (2012). The yield improvement of resistant starches from Africa locust (*Parkia biglobosa*): the influence of heat-moisture, autoclaving-cooling and cross-linking treatments. *American Journal of Food Technology* 7(7): 386-397.
- Sanni, L.O., Adebawale, A.A., Filani, T.A., Oyewole, O.B. dan Westby, A. (2006). Quality of flash and rotary dried fufu flour. *J. Food Agric. Environ.* 4(3 and 4): 74-78.
- Sayar, S., Jannink, J., dan White, P. J. (2005). In vitro bile acid binding of flours from oat lines varying in percentage and molecular weight distribution of β -Glucan. *Journal of Agriculture and Food Chemistry* 53: 8797-8803.
- Schneeman, B.O. and Janet, T. (1994). Dietary fiber. *Dalam: Shils, M.E., James. A.O., Moshe. S. (Eds). Modern nutrition in health and disease.* 8th edition volume 1. Lea and Febiger, Philadelphia.
- Schwimmer. (1981). Sources book of food enzymology. *The Avi Pub.Co. Inc.*, Westport, Connecticut.
- Setyowati, N., Priyono, S.H., Utami, N.W., Susilanti, S.B., dan Wawo, A.H. (2010). Fisiologi propagasi dan pengembangan gayam (*Inocarpus fagiferus*) sebagai alternatif pangan. *Laporan penelitian.* LIPI, Cibinong.
- Setiarto, R.H.B., Jenie, B.S.L., Faridah, D.N. dan Saskiawan, I. (2015). Kajian peningkatan pati resisten yang terkandung dalam bahan pangan sebagai sumber prebiotik. *Jurnal Ilmu Pertanian Indonesia* 20(3): 191-200.
- Shahzadi, N., Butt, M.S., Rehman, S.U. dan Sharif, K. (2005). Chemical characteristics of various composite flours. *International Journal of Agriculture and Biology* 7(1): 105-108.
- Shamai, K., Peled, H.B. dan Shimon, E. (2003). Polymorphism of resistant starch type III. *J Carbohydrate Polymer* 54: 363-369.
- Shaw, J.E., Sicree, R.A. dan Zimmet, P.Z. (2010). Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Research and Clinical Practice* 87: 4–14.
- Shin, M., Woo, K. dan Seib, P. A. (2003). Hot-water solubilities and water sorptions of resistant starch at 25°C. *Cereal Chemistry* 80: 564–566.

- Sibt-e-Abbas, M., Butt, M. S., Sultan, M. T., Sharif, M. K., Ahmad, A. N. dan Batool, R. (2015). Nutritional and functional properties of protein isolate extracted from defatted peanut flour. *International Food Research Journal* 22(4): 1533-1537.
- Simsek, S. dan El, S.N. (2012). Production of resistant starch from taro (*Colocasia esculenta* L. Schott) corm and determination of its effects on health by in vitro methods. *Carbohydrate Polymers* 90: 1204-1209.
- Singh, J., Singh, N., Sharma, T. dan Saxena, S. (2003). Physicochemical, rheological and cookie making properties of corn and potato flours. *Food Chemistry* 83 (3): 387-393.
- Sone, H., Nakagami, T., Nishimura, R., Tajima, N. dan MEGA Study Group. (2016). Comparison of lipid parameters to predict cardiovascular events in Japanese mild-to-moderate hypercholesterolemic patients with and without type 2 diabetes: Subanalysis of the MEGA study. *Diabetes Research and Clinical Practice* 113: 14–22.
- Soral-Smietana, M., Wronkowska, M. dan Amarowicz, R. (2000). Health-promoting function of wheat or potato resistant starch preparations obtained by physico-biochemical process. *Dalam: Barsby T.L., Donald A.M., and Frazier P.J. (Eds). Starch advances in structure and function.* Churchill College, Cambridge
- Soto, R.A.G., Escobedo, R.M., Sanchez, H.H., Rivera, M.S. dan Perez, L.A.B. (2007). The influence of time and storage temperature on resistant starch formation from autoclaved debranched banana starch. *International Food Research Journal* 40: 304-310.
- Srichuwong, S. (2006). Starches from different plant origins: from structure to physicochemical properties. *PhD thesis.* Mie University, Japan.
- Srikaeo, K. dan Sangkhiaw, J. (2014). Effects of amylose and resistant starch on glycaemic index of rice noodles. *LWT - Food Science and Technology* 59: 1129-1135.
- Srikaeo, K. dan Singchai, J. (2016). Effects of konjac glucomannan and resistant starch on *in vitro* lipid digestion of non-dairy creamers. *International Food Research Journal* 23(4): 1403-1408.
- Stamler, J., Vaccaro, O. dan Neaton, J. D. (1993). Diabetes, other risk factors, and 12-gr cardiovascular mortality for men screened in the multiple risk factor intervention trial. *Diabetes care* 16: 434-444.

- Stevens, G., Mascarenhas, M. dan Mathers, C. (2009). Global health risks: progress and challenges. *Bull World Health Organ* 87: 646.
- Sugiyono. (2006). *Statistik untuk penelitian*. CV Alfabeta, Bandung.
- Sunarti, T.C., Richana, N., Kasim, F., Purwoko dan Budiyo, A. (2007). Karakterisasi sifat fisiko kimia tepung dan pati jagung varietas unggul nasional dan sifat penerimaannya terhadap enzim dan asam. *Laporan penelitian*. Departemen Teknologi Industri Pertanian. Fakultas Teknologi Pertanian, IPB, Bogor.
- Suriani, A.I. (2008). Mempelajari pengaruh pemanasan dan pendinginan berulang terhadap karakteristik sifat dan fungsional pati garut (*Marantha arundinacea*) termodifikasi. *Skripsi*. Institut Pertanian Bogor.
- Szkudelski, T. (2001). The mechanism of alloxan and streptozotocin action in β cells of the rat pancreas. *Physiol. Res.* 50: 537-546.
- Parkinson, S. (1773). A journal of a voyage to the south seas, in His Majesty's ship the Endeavour. London.
- Tabata, S., Yoshimitsu, S., Hamachi, T., Abe, H., Ohnaka, K. dan Kono, S. (2009). Waist circumference and insulin resistance: a cross-sectional study of Japanese men. *BMC Endocrine Disorders* 9:1-7.
- Tam, L.M., Corke, H., Tan, W.T., Li, J. dan Collado, L.S. (2004). Production of bihon-type noodle from maize starch differing in amylose content. *J Cereal Chemistry* 81(4): 475-480.
- Tester, R.F. dan Morrison, W.R. (1990). Swelling gelatinization of cereal starches. I. Effect of amylopectin, amylose and lipids. *Cereal Chemistry* 67: 551-557.
- Tester, R.F., Karkalas, J. dan Qi, X. (2004). Starch – composition, fine structure and architecture. *J Cereal Sci.* 39:151-165.
- Tharanathan, R.N. dan Mahadevamma, S. 2003. Grain legumes - a boon to human nutrition. *Trends Food Sci Technol* 14:507-518.
- Tharise, N., Julianti, E. dan Nurminah, M. (2014). Evaluation of physico-chemical and functional properties of composite flour from cassava, rice, potato, soybean and xanthan gum as an alternative of wheat flour. *International Food Research Journal* 21(4): 1641-1649.

- The British Nutrition Foundation. (1990). *Complex carbohydrates in foods*. The report of the British Nutrition Foundation's Task Force. Chapman and Hall, London.
- Thilagavathi, T., Banumathi, P., Kanchana, S. dan Ilamaran, M. (2015). Effect of heat moisture treatment on functional and phytochemical properties of native and modified millet flours. *Plant Archives* 15(1): 15-21.
- Thomas, D.J. dan Atwell, W.A. (1999). *Starches*. Eagan press, St. Paul Minnesota USA.
- Tovar, J., Melito, C., Herrera, E., Rascon, A. dan Perez, E. (2002). Resistant starch formation does not parallel syneresis tendency in different starch gels. *Food Chemistry* 76: 455-459
- Unger, R.H. dan Foster, D.W. (1985). Diabetes mellitus. Dalam Wilson, J.D. dan Foster, D.W. (eds). *William textbook of endocrinology*, 7th. Ed. W.B. Saunder Co. Philadelphia.
- Unnikrishanan, K.R. dan Bhattacharya, K.R. (1981). Swelling and solubility behavior of parboiled rice flour. *Journal of Food Technology* 16: 403-408.
- Vander, A.J., Dorothy, L. dan James, S. (2001). *Human physiology: the mechanisms of body function*. 8th edition. McGraw-Hill Higher Education, Boston, MA.
- Vijayaraghavan, K. (2010). Treatment of dyslipidemia in patients with type 2 diabetes. *Lipids in Health and Disease* 9: 1-12.
- Wahjuningsih, S.B., Marsono, Y., Paseptianga, D. dan Haryanto, B. (2016a). Resistant starch content and glycaemic index of sago (*Metroxylon spp.*) starch and red bean (*Phaseolus vulgaris*) based analogue rice. *Pakistan Journal of Nutrition* 15 (7): 667-672.
- Wahjuningsih, S.B., Marsono, Y., Paseptianga, D. dan Haryanto, B. (2016b). Hypoglycemic effect of sago starch (*Metroxylon spp.*) and red bean (*Phaseolus vulgaris*)-based analogue rice on diabetic rats. *1st International Conference on Biodiversity, Food Security, and Health*. Universitas Gadjah Mada. 22-23 November 2016.
- Waliszewski, K.N., Aparicio, M.A., Perez, L.A.B. dan Monroy, J.A. (2003). Changes of banana starch by chemical and physical modification. *Carbohydrate Polymers* 52: 237-242.

- Wandansari. (2016). Karakterisasi fisik, kimia, dan fungsional tepung komposit dari ganyong (*Canna edulis*) dan kara pedang (*Canavalia ensiformis*). *Skripsi*. Program Studi Ilmu dan Teknologi Pangan. Fakultas Pertanian. Universitas Sebelas Maret, Surakarta.
- Wang, Y., Zhang, L., Li, X. dan Gao, W. (2011). Physicochemical Properties of Starches from Two Different Yam (*Dioscorea Opposita* Thunb.) Residues. *Brazilian Archives of Biology and Technology* 54(2): 243-251.
- Wang, S., Li, C., Copeland, L., Niu, Q. dan Wang, S. (2015). Starch Retrogradation: A Comprehensive Review. *Comprehensive Reviews in Food Science and Food Safety* (14): 568-585
- Vanhoutte, T., Preter, V.D., Brandt, E.D., Verbeke, K., Swings, J. dan Huys, G. (2006). Molecular monitoring of the fecal microbiota of healthy human subjects during administration of lactulose and *Saccharomyces boulardii*. *Applied And Environmental Microbiology* 72(9): 5990-5997.
- Weitkunat, K., Schumann, S., Petzke, K.J., Blaut, M., Loh, G. dan Klaus, S. (2015). Effects of dietary inulin on bacterial growth, short-chain fatty acid production and hepatic lipid metabolism in gnotobiotic mice. *The Journal of Nutritional Biochemistry* 26: 929-937.
- Widowati, S., Herawati, H., Mulyani, E.S., Yuliwardi, F. dan Muhandri, T. (2014). Pengaruh perlakuan *heat moisture treatment* (hmt) terhadap sifat fisiko kimia dan fungsional tepung beras dan aplikasinya dalam pembuatan bihun berindeks glikemik rendah. *J. Pascapanen* 11(2): 59-66.
- Winata, A. Y. 2001. Karakterisasi tepung sukun (*Artocarpus altilis*) pramasak hasil pengeringan drum serta aplikasinya untuk substitusi tepung terigu pada pembuatan roti manis. *Skripsi*. Fakultas Teknologi Pertanian, IPB, Bogor.
- Winarno, F.G. 2004. *Kimia pangan dan gizi*. PT.Gramedia Pustaka Utama, Jakarta.
- Wirakartakusumah, M.A., Kamaruddin, A. dan Syarif, A.M. (1992). *Sifat Fisik Pangan*. Depdikbud PAU Pangan dan Gizi. PT Gramedia. Jakarta.
- Wisse, B. dan Zieve, D. (2016). *Insulin C-peptide test*. MedlinePlus Health. U.S. National Library of Medicine. <https://medlineplus.gov/ency/article/003701.htm>. [10 Februari 2017].
- Wolever, T.M.S. (2006). *The glycemic index: a physiological classification of dietary carbohydrate*. Oxfordshire, CAB International.

- Wolever, T.M.S., Jenkins, D.J.A., Jenkins, A.L. dan Josse, R.G. (1991). The glycemic index: methodology and clinical implications. *Am. J. of Clin. Nutr.* 54: 846-854.
- Wolever, T.M.S., Jenkins, D.J.A., Jenkins, A.L. dan Josse, R.G. (1991): The glycemic index: methodology and clinical implications. *Am. J. Clin. Nutr.* 54: 846-854.
- Wolever, T.M.S., Katzman-Relle, L., Jenkins, J.L., Vuksan, V., Josse, R.G. dan Jenkins, D.J.A. (1994). Glycemic index of 102 complex carbohydrate foods in patients with diabetes. *Nutrition Research* 14: 651-669.
- Wong, J.M.W. dan Jenkins, D.J.A. (2007). Carbohydrate digestibility and metabolic effects. *J. Nutr.* 137: 2539S–2546S
- Wronkowska, M., Smietana, M.S., Krupa, U. dan Biedrzycka, E. (2006). In vitro fermentation of new modified starch preparations-changes of microstructure and bacterial end-products. *Enzyme and Microbial Technology* 40(1): 93-99.
- Wurzburg, O.B. 1989. *Modified Starches: Properties and Uses*. CRC Press, Boca Raton, Florida.
- Yadav, B.S., Sharma, A. dan Yadav, R.B. (2009). Studies on effect of multiple heating/cooling cycles on the resistant starch formation in cereals, legumes and tubers. *International Journal of Food Sciences and Nutrition* 60:1: 258-272.
- Yadav, B.S., Yadav, R.B. dan Kumar, M. (2011). Suitability of pigeon pea and rice starch and their blends for noodle making. *LWT-Food Sci and Techn.* 44(6): 1415-1421.
- Yamada, Y., Hosoya, S., Nishimura, S., Tanaka, T., Kajimoto, Y., Nishimura, A. dan Kajimoto, O. (2005). Effect of bread containing resistant starch on postprandial blood glucose le-vels in humans. *Biosci Biotechnol Biochem* 69(3): 559-566.
- Yuanita, L., Suyono dan Sanjaya, I.G.M. (2011). The binding of cholic acid by hemicellulose and pectin of yard-long bean [*Vigna sesquipedalis* (L.) Fruhw]. *Journal of Food Science and Engineering* 1: 348-353.
- Yuliwardi, F., Syamsira, E., Hariyadi, P. dan Widowati, S. (2014). Pengaruh dua siklus *autoclaving-cooling* terhadap kadar patiresisten tepung beras dan bihun yang dihasilkannya. *Pangan* 23(1): 43-52.

- Yusasrini, N.L.A., Darmayanti, L.P.T. dan Yusa, N.M. (2015). Efek hipoglikemik diet rumput laut *Gracilaria* sp. dan *Caulerpa* sp. pada tikus diabetes induksi alloxan. *Laporan penelitian*. Program Studi Ilmu dan Teknologi Pangan, Fakultas Teknologi Pertanian Universitas Udayana.
- Yuwono, T. (1987). Pengaruh cofeina terhadap kelarutan dan ketersediaan hayati o-etoksibenzamida pada tikus jantan. *Disertasi*. Ilmu Teknologi Bandung.
- Z. (1774). Die pflanzen der insel outahitee mit anmerkungen erläutert von Z. Der Naturforscher 4: 220–258. Dalam Adema, F. (2007). Notes on Malesian fabaceae (Leguminosae–Papiliono-ideae): The genus *Inocarpus*. *Blumea* 52: 401–407.
- Zabar, S., Shimoni, E. dan Peled, H.B. (2008). Development of nanostructure in resistant starch type III during thermal treatments and cycling. *J macromol Biosci*. 8: 163-170.
- Zakir, S., Sarwar, M., Allen, J.C., Butt, M.S. dan Allen, H. (2005). Effect of sweet potato on insulin efficiency of normal and diabetic subjects in Pakistan. *Eur. J. Sci. Res*. 10: 87-97.
- Zaragoza, E.F., Navarrete, M.J.R., Zapata, E.S. dan Álvarez, J.A.P. (2010). Resistant starch as functional ingredient: A review. *Food Research International* 43: 931-942.
- Zavareze, E.R., Regina, C.S., Castro, L.A.S., Schirmer, M.A. dan Renato, A.G.D. (2010). Effect of heat-moisture treatment on rice starch of varying amylose content. *J. of Food Chem*. 121(2): 358-365.
- Zeuthen, P., Cheftel, J.C., Erikson, C., Jul, M., Leniger, H., Linko, P., Varela, G. dan Vos, G. (1984). *Thermal Processing and quality of foods*. Elsevier Applied Science publ., London.
- Zhang, M., Lu, X.Y., Li, J., Xu, Z.G., Chen, L. (2008). The characterization of high-fat diet and multiple low-dose streptozotocin induced type 2 diabetes rat model. *Exp. Diabetes Res*. 23: 1-9.
- Zhao, X.H. dan Lin, Y. (2009). The impact of coupled acid or pullulanase debranching on the formation of resistant starch from maize starch with autoclaving–cooling cycles. *Eur. Food Res. Technol*. 230:179–184
- Zhiqiang, L., Y. Xiao-su and F. Yi (1999). Effect of bound water on thermal behaviours of native starch, amylose and amylopectin. *Starch/Starke* 11(12): 406-410.

- Zhou, J., Martin, R.J., Tulley, R.T. dan Raggio, A.M. (2008). Dietary resistant starch upregulated total GLP-1 and PYY in a sustained day long manner through fermentation in rodents. *Am J Physiol Endocrinol Metab* 295:1160-1166.
- Zi-Ni, T., Rosma, A., Karim, A. A. dan Liong, M.T. (2015). Functional properties of resistant starch type-III from *Metroxylon sagu* as affected by processing conditions. *Pertanika J. Trop. Agric. Sci.* 38(3): 399-412.
- Zuwariah, I. dan Aziah, A.A.N. (2009). Physicochemical properties of wheat breads substituted with banana flour and modified banana flour (Ciri-ciri fizikokimia roti gandum yang diganti dengan tepung pisang dan tepung pisang terubah suai). *J. Trop. Agric. and Fd. Sc.* 37(1): 33-42.