

## DAFTAR PUSTAKA

- Addo, P.W., Agbenorhevi, J.K., Adu-Poku, D. 2018. Antinutrient Contents of Watermelon Seeds. *MOJ Food Process Technol.* 6(2): 237–239.
- Almeida, C.C., Maria, L.G.M., Bruno, R.C.C.L., Thiago, S.A., dan Carlos, A.C.J. 2015. In Vitro Digestibility of Commercial Whey Protein in Supplement. *Food Science and Technology.* 61: 7-11.
- Alonso, R., Aguirre, A., Marzo, F. 2000. Effects of Extrusion and Traditional Processing Methods on Antinutrients and in vitro Digestibility of Protein and Starch in Faba and Kidney Beans. *Food Chemistry.* 68: 159–165.
- Alonso, R., Orue, E., dan Marzo, F. 1998. Effects of Extrusion and Conventional Processing Methods on Protein and Antinutritional Factor Content in Pea Seeds. *Food Chemistry.* 63(4): 505-512.
- AOAC. 1995. Official Methods of Analysis of The Association of Official Analytical Chemistry. AOAC International. Virginia USA
- Ashok, P.K., dan Upadhyaya, K. 2012. Tannin are Astringent. *Journal of Pharmacognosy and Phytochemistry.* 1(3): 45-50.
- Ayatse, J.O., Eka O.U., Ifon, E.T. 1983. Chemical Evaluation of The Effect of Roasting On The Nutritive Value of Maize (*Zea mays*, Linn.). *Food Chemistry.* 12(2): 135–147.
- Berk, Z. 2009. Food Process Engineering and Technology. Academic Press Elsevier. New York
- Bulan D. R. dan Sebayang F. 2008. Pengaruh lama fermentasi terhadap kadar protein, lemak, komposisi asam lemak dan asam fitat pada pembuatan tempe. Thesis. Sekolah Pascasarjana Universitas Sumatera Utara.
- Chanchay, N. dan N. Poosaran. 2009. The Reduction of Mimosine and Tannin Contents in Leaves of *Leucaena leucocephala*. *Asian Journal of Food and Agro-Industry. Special Issue:* 137-144.
- Chanwitheesuk, A., Teerawutgulrag, A., dan Rakariyatham, N. 2005. Screening of antioxidant activity and antioxidant compounds of some edible plants of Thailand. *Food Chemistry.* 92(3): 491–497.
- Chen, X. Z., Feng, F., Liu, Q. H., dan Zhang, J. G. 2014. Degrading mimosine and tannins of *Leucaena leucocephala* by ensiling. *Applied Mechanics and Materials.* 618: 349–353.
- Choe, E., dan Min, D.B. 2007. Chemistry of Deep-Fat Frying Oils. *Journal of Food Science.* 72(5): 77-86.
- Chowtivannakul, P., B. Srichaikul. dan C. Talubmook, C. 2016. Antidiabetic and antioxidant activities of seed extract from *Leucaena leucocephala* (Lam.) de Wit. *Agriculture and Natural Resources.* 50(5):357-361.

- Chruscinska, E. 1999. Mimosine, an amino acid with maltol-type binding properties toward copper(II), oxovanadium(IV) and other metal ions. *Journal of Inorganic Biochemistry*. 75(3), 225–232
- Dai, Z., Zhenlong, W., Sichao, J., Guoyao, W. 2014. Analysis of Amino Acid Composition in Protein of Animal Tissues and Food as Pre-column O-Htadialdehyde Derivatives by HPLC with Fluorescence Detection. *Journal of chromatography B B* 964. Pp: 116-127.
- Dalzell, S.A., D.J. Burnett., J.E. Dowsett., V.E. Forbes. dan H.M. Shelton. 2012. Prevalence of Mimosine and DHP Toxicity in Cattle Grazing *Leucaena Leucocephala* Pastures in Queensland, Australia. *Animal Production Science*. 52(5):365-372.
- Dana, D., dan Saguy, S. 2001. Frying of Nutritious Foods: Obstacles and Feasibility. *Food Sci. Technol. Res.* 7 (4): 265-279.
- Daniel N. and Anthony E. 2011. Effect of Boiling And Roasting on Some Anti-Nutrient Factors of Asparagus Bean (*Vigna sesquipedalis*) Flour. *African Journal of Food Science and Technology* (ISSN: 2141-5455). 2(3): 075-078
- Demir, A. D., Celayeta, J. M. F., Cronin, K., & Abodayeh, K. 2002. Modelling of The Kinetics of Colour Change in Hazelnuts During Air Roasting. *Journal of Food Engineering*. 55(4), 283-292.
- Devi, V.N., Ariharan, V.N., dan Nagendra P.P. 2013. Nutritive Value and Potential Uses of *Leucaena Leucocphala* as Biofuel- A mini Review. *Research Journal of Pharmaceutical*. 4 (1): 515-521
- El-Moniem, G.M.A., Honke, J., dan Bednarska, A. 2000. Effect of Frying Various Legumes under Optimum Conditions on Amino Acids, in vitro Protein Digestibility, Phytate and Oligosaccharides. *Journal of The Science of Food and Agriculture*. 80: 57-62.
- Embaby, H.E. 2011. Effect of Heat Treatments on Certain Antinutrients and in vitro Protein Digestibility of Peanut and Sesame Seeds. *Food Sci. Technol. Res.* 17 (1), 31 – 38
- Fitriani, A. 2017. Karakteristik Organoleptik, Komponen Gizi dan Anti Gizi, Serta Nilai Cerna Protein In Vitro Biji Kabau (*Archidendron bubalinum*) Kukus, Rebus dan Goreng. Thesis. Pascasarjana Fakultas Teknologi Pertanian, Universitas Gadjahmada.
- Gemedede, H.F., dan Ratta, N. 2014. Antinutritional Factors in Plant Foods: Potential Health Benefits and Adverse Effects. *International Journal of Nutrition and Food Sciences*. 3(4): 284-289
- Habiba, R.A. 2002. Changes In Anti-Nutrients, Protein Solubility, Digestibility, and HCL-Extractability of Ash and Phosphorus In Vegetable Peas As Affected By Cooking Methods. *Food Chemistry* 77(2): 187-192
- Hamid, Thakur, N.S., Khumar, P. 2018. Anti-nutritional Factors, Their Adverse Effects and Need for Adequate Processing to Reduce Them in Food. *AgricINTERNATIONAL*. 4(1): 56-60.
- Harifah, C.S. 2017. Perubahan Zat Gizi, Senyawa Antigizi, Serta Nilai Cerna Protein Secara In Vitro Serta Profil Asam Amino Biji Lamtoro Gung (*Leucaena leucocephala*) Kukus Dan Rebus. Thesis. Pascasarjana Fakultas Teknologi Pertanian, Universitas Gadjahmada.

- Hidayat, C. 2017. Pemanfaatan Fitase sebagai Upaya Penanggulangan Asam Fitat dalam Ransum Ayam Pedaging. *Wartazoa*. 26(2):57-68.
- Honda, M.D., K.L. Ishihara., D.T. Pham. dan D. Borthakur. 2018. Identification of Drought-Induced Genes in Giant Leucaena (*Leucaena leucocephala* subsp. *glabrata*). *Trees*. 32(2):571-585.
- Hsu, H. W., Vavak, D. L., Satterlee, L. D. dan Miller, G. A. 1977. A Multienzyme Technique for Estimating Protein Digestibility. *J. Food Sci.* 42: 1269-73.
- Hur, S. J., Lim, B. O., Decker, E. A., dan McClements, D. J. 2011. In Vitro Human Digestion Models for Food Applications. *Food Chemistry*. 125(1), 1–12.
- Ilham, Z., Hamidon, H., Rosji, N. A., Ramli, N., dan Osman, N. 2015. Extraction and quantification of toxic compound mimosine from *Leucaena leucocephala* leaves. *Procedia Chemistry*. 16: 164–170.
- Ismarani. 2012. Potensi Senyawa Tannin dalam Menunjang Produksi Ramah Lingkungan. *Jurnal Agribisnis dan Pengembangan Wilayah*. 3(2): 1-8.
- Ismed. 2016. Analisis Proksimat Keripik Wortel (*Daucus carota* L.) pada Suhu dan Lama Penggorengan yang Berbeda Menggunakan Mesin *Vacuum Frying*. *Jurnal Teknologi Pertanian Andalas*. 20 (2): 25–32.
- Iwai, T., M. Takahashi., K. Oda., Y. Terada. dan K.T. Yoshida. 2012. Dynamic Changes in The Distribution of Minerals in Relation to Phytic Acid Accumulation during Rice Seed Development. *Plant Physiology*. 160(4):2007-2014.
- Jain, A.K., Kumar, S., dan Panwar, S.D.S. 2009. Antinutritional Factor and Their Detoxification in Pulses- A Review. *Journal Agriculture. Rev* 30 (1) : 64-70.
- Jasraj, K.D., dan Kiran, Bains. 2010. Effect of Household Cooking Methods on Nutritional and Antinutritional Factors in Green Cowpea (*Vigna unguiculata*) Pods. *J Food Science Technology* 47: 579-581.
- Kim, S., Kim, B., Kim, J., Shanmugavelan, P., Kim, H., Kim, S., Kim, S, Cho, Y., Choi, H., dan Park, K. (2014). Effect of Steaming, Blanching, and High Temperature/High Pressure Processing on the Amino Acid Contents of Commonly Consumed Korean Vegetables and Pulses. *Prev. Nutr. Food Sci.* 19(03): 220-226.
- Latief, R., Laga, A., & Alang, S. 2018. Studi Pembuatan Tepung Teripang dari Bahan Baku Teripang Pasir (*Holothuria Scabra*) Dengan Perlakuan Perbedaan Konsentrasi Garam dan Perbedaan Lama Perebusan: (Study of Sea Cucumber Flour Production from Sea Cucumber (*Holothuria scabra*) with Treatment of Differences of Salt Concentration and Old Boiling Differences). *Canrea Journal: Food Technology, Nutritions, and Culinary Journal*. 1(1): 1-10.
- Lopez, H.W., Fanny, L., Charles, C., dan Christian, R. 2002. Minerals and Phytic Acid Interaction: Is it a real problem for human nutrition?. *International Journal of Food Science and Technology*. No. 37: 727-739.
- Mahmud, M., Hermana., N.A. Zulfianto., R. Rozanna., Apriyantono., I. Ngadiarti., B. Hartati., Bernadus., dan Tinexcelly. 2009. Tabel Komposisi Pangan Indonesia (TKPI). PT Elex Media Komputindo. Jakarta.

- Makinde, F.M. 2016. Effects of Processing Treatments On Nutritional Quality Of Raw Almond (*Terminalia catappa* Linn.) Kernels. *Applied Science Research*. 7(1):1-7
- Mellema, M. 2003. Mechanism and Reduction of Fat Uptake in Deep-Fat Fried Foods. *Trends in Food Science and Technology*. 14 : 364 – 373.
- Meulen, U., Struck., Schulke., dan Harith, E.A.E. 1979. A Review on The Nutritive Value and Toxic Aspect of *Leucaena leucocephala*. *Journal Trop Anim Prod*. 4: 2. Pp: 113-127.
- Minekus, M., Alminger, M., Alvito, P., Ballance, S., Bohn, T., Bourlieu, C., ... Brodkorb, A. (2014). A Standardised Static In Vitro Digestion Method Suitable for Food – An International Consensus. *Food Funct*. 5(6), 1113–1124.
- Miyagi, A., & Ogaki, Y. 2014. Sensory Preferences Among General Japanese Consumers and Physicochemical Evaluation of Deep-Fried Peanuts. *Journal of the Science of Food and Agriculture*. 94(10), 2030–2039
- Morris, A., Barnett, A., dan Burrows, O. 2004. Effect of Processing on Nutrient Content of Foods. *Artikel*. 37 (3) : 160-164.
- Negi, V.S., J.P. Bingham., Q.X. Li. dan D. Borthakur. 2014. A Carbon-Nitrogen Lyase from *Leucaena Leucocephala* Catalyzes The First Step of Mimosine Degradation. *Plant Physiology*. 164(2):922-934
- Norton, T., dan Sun, D. 2008. Recent Advances in The Use of High Pressure as An Effective Processing Technique in The Food Industry. *Food Bioprocess Technology*. 1 : 2 – 34.
- Nursiwi, A., Ishartani, D., Sari, A. M., dan Nisyah, K. 2018. Study on *Leucaena leucocephala* Seed During Fermentation : Sensory Characteristic And Changes on Anti Nutritional Compounds and Mimosine Level. *IOP Conference Series: Earth and Environmental Science*. 102(1): 1-8.
- Olawoye, B.T., dan Saka, O.G. 2017. Effect of Different Treatments on I Vitro Protein Digestibility, Antinutrients, Antioxidant Properties and Mineral Composition of *Amaranthus viridis* Seed. *Cogent Food and Agriculture*. 3: 1-14
- Onyango, C.A., S.O. Ochanda., M.A. Mwasaru., J.K. Ochieng., F.M. Mathooko dan J.N. Kinyuru. 2013. Effects of Malting and Fermentation on Anti-Nutrient Reduction And Protein Digestibility Of Red Sorghum, White Sorghum And Pearl Millet. *Journal of Food Research*. 2(1):41-49
- Osman, M.A. and M. Gassem. 2013. Effects of Domestic Processing on Trypsin Inhibitor, Phytic Acid, Tannins and In Vitro Protein Digestibility of Three Sorghum Varieties. *Inter J Agric Tech*. 9(5):1187-1198.
- Osunbitan, S.O., K.A. Taiwo. dan S.O. Gbadamosi. 2015. Effect of Different Processing Methods on The Antinutrient Contents in Two Improved Varieties Of Cowpea. *Am. J. Res. Comm*. 3(4):74-87.
- Palupi NS, Zakaria FR, & Prangdimurti E. 2007. Module-learning ENBP: Pengaruh Pengolahan Terhadap Nilai Gizi Pangan. Departemen Ilmu dan Teknologi Pangan IPB, Bogor
- Pande, P.K., A. Kumar., S. Ravichandran., S. Naithani., V. Kothiyal., P.B.K. Kishore., A. Raturi., P. Gautam., S. Dobhal. dan S. Sharma. 2013. Genetic Analysis of Growth and

- Paredes-Lopez, O. dan Ordorica-Falomir, C. 1986. Production of Safflower Protein Isolates: Composition, Yield and Protein Quality. J. Sci. Food Agric. 37: 1097-1103.
- Prameswari H.A., Nursiwi, A., Zaman, M.Z., Ishartani, D., Sari, A.M. 2021. Changes in Chemical and Sensory Characteristics of Gunungkidul's Lamtoro (*Leucaena Leucocephala*) Tempeh during Extended Fermentation. IOP Conf. Ser.: Earth Environ. Sci. 828 012001
- Rachma, Y.A. 2021. Karakteristik Senyawa Gizi, Antigizi dan Kecernaan Protein Biji Lamtoro Mlanding [*Leucaena leucocephala* (Lam.) de Wit] secara In Vitro pada Proses Perkecambahan
- Rimac-Brcic, S., Lelas, V., Rade, D., dan Simundic, B. 2004. Decreasing of Oil Absorption in Potato Strips during Deep Fat Frying. Journal of Food Engineering. 64: 237–241.
- Roy A., Ghosh S., dan Kundagrami S. 2019. Food Processing Methods towards Reduction of Antinutritional Factors in Chickpea. Int.J.Curr.Microbiol.App.Sci 8(1): 424-432
- Sethi, P dan Kulkarni, P.R. 1993. In Vitro Protein Digestibility of *Leucaena leucocephala* Seed Kernels and Protein Isolate. Food Chemistry. 46: 159-162.
- Shimelis, A.E. dan Sudip K.R. 2007. Effect of processing on antinutrients and in vitro protein digestibility of kidney bean (*Phaseolus vulgaris* L.) varieties grown in East Africa. Food Chemistry. 103(1):161-172
- Slupski, J. 2010. Effect of Cooking and Sterilisation on The Composition of Amino Acids in Immature Seeds of Flageolet Bean (*Phaseolus vulgaris* L.) Cultivars. Food Chemistry. 121: 1171-1176.
- Soltan, Y.A., A.S. Morsy., R.C. Lucas. dan A.L. Abdalla. 2017. Potential of Mimosine of *Leucaena leucocephala* for Modulating Ruminal Nutrient Degradability and Methanogenesis. Animal Feed Science and Technology. 223:30-41.
- Sudarmadji, S., Bambang H, dan Suhardi. 1996. Analisis Bahan Makanan dan Pertanian. Edisi ke 2. Penerbit Liberty Yogyakarta. Yogyakarta.
- Sundari, D., Almasyhuri, dan Lamid, A. 2015. Pengaruh Proses Pemasakan terhadap Komposisi Zat Gizi Bahan Pangan Sumber Protein. Media Litbangkes. 25(4): 235-242.
- Wanasundera J. P. D. dan Ravindran G. 1992. Effects of Cooking on the Nutrient and Antinutrient Contents of Yam tubers (*Dioscorea alata* and *Dioscorea esculenta*). Food Chemistry. 45: 247-250
- Weerawatanakorn, M., Janporn, S., Ho, C., Chavasit, V. 2015. *Terminalia catappa* Linn Seeds as A New Food Source. Songklanakarin J. Sci. Technol. 37 (5), 507-514
- Wijayanti, I.E. 2017. Analisis Asam Amino pada Minyak Kelapa dengan Proses Pengasaman Menggunakan HPLC. EduChemia (Jurnal Kimia dan Pendidikan). 2 (1).
- Winarno, F.G. 2008. Kimia Pangan dan Gizi. Bogor: MBrio Press.
- Wood, J.F., dan Carter, P.M. 1983. Investigation into The Effects of Processing on The Retention of The Carotenoid Fraction of *Leucaena leucocephala* during Storage and

The effects of Processing on Mimosine Concentration. *Animal Feed Science and Technology*. 9 : 307-317

Yadav, L. dan Bhatnagar, V. 2017. Effect of Soaking and Roasting on Nutritional and Anti-Nutritional Components of Chickpea (PRATAP-14). *The Bioscan* 12 (2): 771-774

Zaidan, S., R. Debby. dan S. Abdillah. 2018. The effect of sauce of *L. leucocephala* seeds (*Leucaena leucocephala* [Lam.] De wit) on lowering blood glucose in hyperglycemic mice. *Asian Journal of Pharmaceutical and Clinical Research*. 11(1):70-72.