



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis L.*), KEDELAI (*Glycine max*), DAN TEPUNG
TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

DAFTAR PUSTAKA

- Adrianto, R., Wiraputra, D., Jyoti, M. D., and Andaningrum, A. Z. 2020. Rendemen, Aroma, Rasa, Penampilan Keju Lunak Dari Susu Sapi Dengan Penambahan Rennet Dan Starter Bal Yoghurt Biokul. *Jurnal Agritechno*, 13 (2): 120-126. DOI: /10.20956/at.v13i2.359
- Aguilar, F., Frutos, M. J., and Crebelli, R. 2017. Re-evaluation of oxidised starch (E 1404), monostarch phosphate (E 1410), distarch phosphate (E 1412), phosphated distarch phosphate (E 1413), acetylated distarch phosphate (E 1414), acetylated starch (E 1420), acetylated distarch adipate (E 1422), hydroxypropyl starch (E 1440), hydroxypropyl distarch phosphate (E 1442), starch sodium octenyl succinate (E 1450), acetylated oxidised starch (E 1451) and starch aluminium octenyl succinate (E 1452) as food additives. *EFSA Journal*, 15 (10): 4911. DOI: 10.2903/j.efsa.2017.4911.
- Anisha, G. S., dan Prema, P. 2008. Reduction of Non-digestible Oligosaccharides in Horse Gram and Green Gram Flours Using Crude α -Galactosidase from *Streptomyces griseoloalbus*. *Food Chemistry* 106, 1175–1179.
- Anonim. 1992. *Standar Nasional Indonesia. 01-2987-1992. Mie Basah*. Jakarta: Badan Standardisasi Nasional.
- Anonim. 2020. *Standar Nasional Indonesia 8896. Keju Mozzarella*. Jakarta: Badan Standardisasi Nasional.
- Association of Official Analytical Chemists International. 2000. *Official methods of analysis of the AOAC (18th ed.)*. Washington, DC: Author.
- Association of Official Analytical Chemists International. 2005. *Official Method of Analysis of the AOAC*. 14th ed. Virginia: AOAC Inc.
- Association of Official Analytical Chemists International. 2006. *Association of Official Analytical Chemists, (Vol. II 17th edition) of AOAC International*. Washington, DC, USA.
- Bachmann, H. P. 2001. Cheese analogues: a review. *International Dairy Journal*, 11: 505–515.
- Badem, A. dan Ucar, G. 2016. Cheese Analogues. *Journal of Food and Dairy Technology*, 4 (3): 44-48.
- BeMiller, J. N. 2007. *Carbohydrate chemistry for food scientists* (2nd ed.). MN: AACC International Press.



- Biliaderis, C. G. 2009. *Structural transitions and related physical properties of starch*. In J. N. BeMiller, & R. Whistler (Eds.), *Starch: Chemistry and technology* (third ed., pp. 293–372). London: Elsevier - Academic Press.
- Campo, V. L., Kawano, D. F., Junior, D. B. S., and Carcalho, I. I. 2009. Carrageenans: Biological Properties, Chemical Modifications and structural Analysis. *Carbohydrate Polymer*, 77 : 167-180.
- Chandra, M. V. and Shamasundar, B. A. 2015. Texture profile analysis and functional properties of gelatin from the skin of three species of fresh water fish. *International Journal of Food Properties*. 18:1, 572-58.
- Chatakanonda, P., Varavinit, S., and Chinachoti, P. 2000. Relationship of gelatinization and recrystallization of cross-linked rice to glass transition temperature. *Cereal Chem*, 77: 315-319.
- Cui, S. W. 2005. *Food carbohydrates: chemistry, physical properties, and applications*. Boca Raton, FL: CRC Press.
- Cui, S. W., Liu, Q., and Xie, S. X. 2005. Starch Modification and Applications. *Carbohydr Polym*, p. 50. DOI: 10.1201/9780203485286.ch8
- Darini, M. T., dan Kusdiarti, L. 2017. Pertumbuhan dan Hasil Koro Pedang Putih (*Canavalia ensiformis L.*) pada Pemberian Macam Inokulan Rhizobium dan Dosis Urea di Lahan Pasir. *Jurnal Agroteknologi*, 01 (2): 113–122.
- Dave, R. I., Sharma, P., and McMahon, D. J. 2003. Melt and rheological properties of Mozzarella cheese as affected by starter culture and coagulating enzymes. *Lait*, 83(1): 61-77.
- Doss, A., Pugalenthhi, M., Vadivel, V. G., Subhashini, G., dan Anitha Subash, R. 2011. Effects of Processing Technique on The Nutritional Composition and Antinutrients Content of Under-utilized Food Legume *Canavalia ensiformis* L.DC. *International Food Research Journal*, 18(3), 965–970.
- Duke, J.A. 1981. *Handbook of Legumes of World Economic Importance*. United States Department of Agriculture. Beltsville, Maryland.
- Erna. 2004. Pengaruh Proses Pengeringan terhadap Sifat Fisiko-Kimia Tepung Kecambah Kedelai (*Glicine max (L) Merril*) Hasil Germinasi dengan Perlakuan Pendahuluan Xanthan Gum Sebagai Elisitor Fenolik Antiokidan. *Skripsi*. Fakultas Teknologi Pertanian. Institut Pertanian Bogor. Bogor.
- Faridah, D. N. dan Thonthowi, A. 2020. Karakterisasi Fisik Pati Tapioka Modifikasi Gabungan Hidroksipropilasi dengan Fosfat-Ikat Silang. *Jurnal Mutu Pangan*, 7(1): 30-37. DOI: 10.29244/jmp.2020.7.1.30.



- Fitri, R. Y. 2016. Kajian Perbandingan Sari Kacang Koro Pedang dan Susu Sapi dalam Pembuatan Keju Cottage. *Tugas Akhir*, Fakultas Teknik. Universitas Pasundan. Bandung.
- Fitriani, A. A. N. dan Astuti, N. 2013. Pengaruh proporsi tepung jagung dan mocaf terhadap kualitas jamof rice instan ditinjau dari sifat organoleptik. *E-Jurnal Boga dan Gizi*, 2(3): 34-43.
- Fox, P. F., Guinee, T. P., Cogan, T. M., and McSweeney, P. L. H. 2000. *Fundamentals of Cheese Science*. Maryland: Aspen Publisher, Inc.
- Fox, P. F., McSweeney, P. L. H., Cogan, T. M., and Guinee, T. P. 2004. *Pasteurized processed cheese and substitute/imitation cheese products*. In: *Cheese: chemistry, physics and microbiology, Major cheese groups*. London : Academic Press, Elsevier Ltd.
- Fukushima, D. 2011. *Handbook of Food Proteins // Soy proteins*. Cambridge: Woodhead Publishing. Pp: 210–232. DOI: 10.1533/9780857093639.210.
- Gaman, P.M & K. B. Sherrington. (1992). *The Science of Food, An Introduction to Food Science, Nutrition and Microbiology 2nd Edition*. (Terjemahan Pengantar Ilmu Pangan, Nutrisi dan Mikrobiologi. Diterjemahkan oleh Murdijati Gardjito, Sri Naruki, Agnes Murdiati, Sardjono). Gadjah Mada University Press. Yogyakarta.
- Gilang, R., Affandi, D. R., and Ishartani, D. 2013. Karakteristik Fisik dan Kimia Tepung Koro Pedang (*Canavalia ensiformis*) dengan Rasio Perlakuan Pendahuluan. *Jurnal Teknoscains Pangan*, 2 (3): 34-42.
- Gutiérrez, T. J., Morales, N. J., Pérez, E., Tapia, M. S., and Famá, L. 2015. Physicochemical properties of edible films derived from native and phosphated cassava starches. *Food Packaging and Shelf Life*, 3: 1–8. DOI: 10.1016/j.fpsl.2014.09.002.
- Gunasekaran, S., and M. M. Ak. 2003. *Measuring cheese stretchability*. Pages 377–397 in *Cheese Rheology and Texture*. CRC Press, Boca Raton, FL.
- Haryoto. 2000. *Tempe Benguk*. Kanisius: Yogyakarta.
- Hasan, S. M. and Abdolgader, R. A. 2012. Study of Weak Acid Preservatives and Modified Atmosphere Packaging (MAP) on Mold Growth in Modal Agar System. *Food and Nutrition Sciences*, 3 (6): 802-809. DOI: 10.4236/fns.2012.36108.
- Hawari, T., Nizardo, N. M., and Saefudin, E. 2020. Physicochemical properties and digestibility of modified tapioca starch, a double modification with heat



moisture treatment and crosslinking. *Proceedings of the 6th International Symposium on Current Progress in Mathematics and Sciences 2020, ISCPMS 2020*, Depok. <https://scholar.ui.ac.id/en/publications/physicochemical-properties-and-digestibility-of-modified-tapioca-> [Diakses pada 24 Maret 2022].

Heinrich, M., Barnes, J., Gibbons, S., Williamson, E.M. 2004. *Fundamental of Pharmacognocny and Phytotherapy*. Philadelpia: Elsevier.

Herawati, H. 2008. Peluang pengembangan alternatif produk modified starch dari tapioka. *Seminar Nasional Pengembangan Kacang-kacangan dan Umbi-umbian*, Surakarta, 7 Agustus 2008.

Herawati, H. 2012. Teknologi Proses Produksi Food Ingredient dari Tapioka Termodifikasi. *Jurnal Litbang Pertanian*, 31(2) : 68-76.

Hicsasmaz, Z., Shippelt, L., and Rizvi, S.S.H. 2004. Evaluation of Mozzarella Cheese Stretchability by the Ring-and-Ball Method. *Journal of Dairy Science*, 87 (7): 1993-1998.

Hildebrand, D.F. 1989. Lipooxygenases. *Physiol. Plant*, 76: 249-253.

Hutkins, R. W. 2006. *Microbiology and Technology of Fermented Foods*. Iowa: Blackwell Publishing.

Indiarto, R. B., Nurhadi, dan Subroto, E. 2012. Kajian karakteristik tesktur (*texture profil analysis*) dan organoleptik daging ayam asap berbasis teknologi asap cair tempurung kelapa. *Jurnal Teknologi Hasil Pertanian*, 5(2): 106-116.

Indrayati, F., Utami, R., dan Nurhartadi, E. 2013. Pengaruh Penambahan Minyak Atsiri Kunyit Putih (*Kaempferia rotunda*) Pada *Edible Coating* Terhadap Stabilitas Warna dan ph Fillet Ikan Patin yang Disimpan pada Suhu Beku. *Jurnal Teknosains Pangan*, 2 (4): 25-31. ISSN: 2302-0733.

Ingredion. 2016. Product Data Sheet PURITY™ D. <https://www.ingredion.com/emea/en-uk/ingredient/purity-d-06430301.html#> [Diakses pada 05 Maret 2022].

Irudayaraj, J., Chen, M., McMahon, D.J. 1999. Texture development in cheddar cheese during ripening. *Canadian Agricultural Engineering*, 41(4): 253-258.

Iswara, J. A., Julianti, E., Nurminah, M. 2019. Karakteristik Tekstur Roti Manis Dari Tepung, Pati, Serat dan Pigmen Antosianin Ubi Jalar Ungu. *Jurnal Pangan dan Agroindustri*, 7 (4): 12-21.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis* L.), KEDELAI (*Glycine max*), DAN TEPUNG TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Jiang, S., Cai, W., and Xu, B. 2013. Food quality improvement of soy milk made from short-time germinated soybeans. *Foods*, 2:198-212. DOI: 10.3390/foods2020198. ISSN 2304-8158.
- Johnson, M. 2000. The Melt and Stretch of Cheese. *Wisconsin Center for Dairy Research*, 12 (1).
- Kahraman, K., Koksel, H., Ng, P. K. W. 2015. Optimisation of the reaction conditions for the production of cross-linked starch with high resistant starch content. *Food Chemistry*, 174: 173–179. DOI: 10.1016/j.foodchem.2014.11.032.
- Kalaminasih, D dan Pangesthi, L. T. 2013. Pengaruh Proporsi Kacang Koro Sayur (*Phaseolus lunatus*) dan Kacang Koro Pedang (*Canavalia ensiformis* L) Terhadap Mutu Organoleptik Tempe Koro. *e-jurnal Boga*, 2: 104 – 113.
- Kamath, R., Basak, S., and Gokhale, J. 2022. Recent trends in the development of healthy and functional cheese analogues-a review. *LWT-Food Science and Technology*, 155: 112991. DOI: 10.1016/j.lwt.2021.112991.
- Kanchana, 2016 . Glycine Max (L.) Merr. (Soybean). *Journal of Pharmacy and Pharmaceutical Science*, 5(1): 356- 371.
- Kanetro, B. 2017. *Teknologi Pengolahan dan Pangan Fungsional Kacang-kacangan*. Yogyakarta: Plantaxia.
- Kao, F. J., Su, N. W., Lee, M. H. 2003. Effect of calcium sulfate concentration in soy milk on the microstructure of firm tofu and the protein constitutions in tofu whey. *Jornal of Agricultural and Food Chemistry*, 51(21): 6211-6216.
- Kartika, I. 2019. Pengaruh Penambahan Sukrosa Pada Fermentasi Sari Koro Pedang Putih (*Canavalia ensiformis* L) Terhadap Pertumbuhan Bakteri Asam Laktat dan Produksi Asamnya. *Skripsi*. Fakultas Teknologi Pertanian. Universitas Gadjah Mada. Yogyakarta.
- Keskin, E. and Dag, T. 2020. Identity of cheese: a research on the cheeses of the Aegean Region in Turkey. *Journal of Ethnic Foods*, 7 (25): 1-9. DOI: 10.1186/s42779-020-00062-4.
- Konte, M. 1999. *Le lait et les produits laitiers. Développement de systèmes de productions intensives en Afrique de l'ouest*. Université de Nouakchott (R.I.M) Faculté des Sciences et Technologies des aliments, B. P. 5026. ISRA/ URV – LNERV/FEVRIER : 2-25.
- Korma, S. A., Alahmad, K., Niazi, S., Ammar, A. F., Zaaboul, F., amd Zhang, T. 2016. Chemically Modified Starch and Utilization in Food Stuffs. *International*



Journal of Nutrition and Food Sciences, 5(4): 264-272. DOI:
10.11648/j.ijnfs.20160504.15

Kou, T., and Gao, Q. 2018. New insight in crosslinking degree determination for crosslinked starch. *Carbohydrate Research*, 458-459: 13-18. DOI: 10.1016/j.carres.2018.01.009

Larmond, E. 1976. *The Texture Profile dalam Rheology and Texture in Food Quality*. eds. The AVI Publishing Company Inc., Wesport, Connecticut.

Lawal, O. S. and Adebawale, K. O. 2005. Physicochemical characteristics and thermal properties of chemically modified jack bean (*Canavalia ensiformis*) starch. *Carbohydrate Polymers*, 60: 331-341. DOI : 10.1016/j.carbpol.2005.01.011

Liu, K. 1997. *Soybeans Chemistry, Technology and Utilizatiton*. Chapman and hall, New York.

Lukiwati, D. R. dan Prawiradiputra, B. R. 2014. *Peluang Koro Pedang Sebagai Pangan, Pakan, dan Tanaman Obat*. Prosiding Seminar Hasil Penelitian Tanaman Aneka Kacang dan Umbi. pp. 908-916.

Makfoeld, D. 1989. Kajian tentang Glukosida - Sianogenik pada Rebung. *Laporan Penelitian*. UGM. Yogyakarta.

Maria, Gabrielle. 2020. Pengembangan Keju Mozzarella Analog Menggunakan Berbagai Tipe Kacang dan Minyak Nabati. *Skripsi*. Fakultas Sains dan Teknologi. Universitas Pelita Harapan. Banten.

Martinez-Martinez, M. and Velez-Ruiz, J. F. 2019. Development and Physicochemical Characterization of a Functional Mozzarella Cheese Added with Agavin. *Journal of Food Science and Nutrition Research*, 2(2): 87-107. DOI: 10.26502/jfsnr.2642-11000012.

McAthy, Karen. 2017. *The Art of Plant-Based Cheesemaking: How to craft real, cultured, non-dairy cheese*. Gabriola Island: New Society Publishers.

Mc Mahon, D. J. 1996. *Measuring Stretch of Mozzarella Cheese*. Page 19 in Proc. 12th Biennial Cheese Ind. Conf. Logan: Utah State University.

Meilgaard, M. C., Carr, B. T., and Civille, G. V. 1999. *Sensory Evaluation Techniques Third Edition*. New York: CRC Press.

Mirnawati dan Seveline. 2019. Preferensi Beberapa Jenis Pati Dalam Penggunaannya sebagai *Edible Coating*. *Jurnal Bioindustri*, 02 (01): 285-294.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis L.*), KEDELAI (*Glycine max*), DAN TEPUNG TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Morales, F., and Van Boekel, M. 1998. A study on advanced Maillard reaction in heated casein/sugar solutions: Colour formation. *International Dairy Journal*, 8(10–11): 907–915. DOI: 10.1016/S0958-6946(99)00014-X.
- Mounsey, J. S., & O'Riordan, E. D. 2001. Characteristics of imitation cheese containing native starches. *Journal of Food Science*, 66(4): 586–591. DOI: 10.1111/j.13652621.2001.tb04606.x.
- Mounsey, J. S., & O'Riordan, E. D. 2007. Characteristics of imitation cheese containing native or modified rice starches. *Food Hydrocolloids*, 22(6): 1160–1169. DOI: /10.1016/j.foodhyd.2007.06.014.
- Mounsey, J. S., & O'Riordan, E. D. 2008. Modification of imitation cheese structure and rheology using pre-gelatinised starches. *European Food Research and Technology*, 226(5): 1039–1046. DOI: 10.1007/s00217-007-0629-5.
- Mourad, G., Bettache, G., and Samir, M. 2014. Composition and nutritional value of raw milk. *Issues in Biological Sciences and Pharmaceutical Research*, 2 (10): 115-122. DOI: 10.15739/ibspr.005.
- Mumba, P.P., Chilera, F., and Alinafe, G. 2004. The effect of the length of soaking time on trypsin inhibitor, crude protein and phosphorus contents of soybeans (*Glycine max*). *International Journal of Consumer Studies*, 28(1): 49-54. DOI: 10.1111/j.1470-6431.2004.00333.x
- Murdiati, A., Anggrahini, S., Supriyanto, Alim, A. 2015. Peningkatan Kandungan Protein Mie Basah dari Tapioka dengan Subtitusi Tepung Koro Pedang Putih (*Canavalia ensiformis L.*). *Agritech*, Vol. 35 No.3.
- Ningrum, A., Anggrahini, S., and Setyaningsih, W. 2019. Valorization of Jack Bean as Raw Material for Indonesian Traditional Food Tempeh and Its Functional Properties. *Journal of Applied Sciences*, 19: 56-61.
- Noronha, N., Duggan, E., Ziegler, G. R., O'Riordan, E. D., & O'Sullivan, M. 2008. Inclusion of starch in imitation cheese: Its influence on water mobility and cheese functionality. *Food Hydrocolloids*, 22(8): 1612–1621. DOI: 10.1016/j.foodhyd.2007.11.007.
- Nugroho, P., Dwiloka, B., and Rizqiati, H. 2018. Rendemen, Nilai pH, Tekstur, dan Aktivitas Antioksidan Keju Segar dengan Bahan Pengasam Ekstrak Bunga Rosella Ungu (*Hibiscus sabdariffa L.*). *Jurnal Teknologi Pangan*, 2 (1): 33–39.
- Oboh, H.A., M. Muzquiz, C. Burbano, C.Cuadrado, M.M. Pedrosa, G. Ayet dan A.U. Osagie. 2000. Effect of Soaking, Cooking and Germination on The



Oligosaccharide Content of Selected Nigerian Legume Seeds. *Plant Foods for Human Nutrition* 55: 97-100.

One Green Planet. 2018. Global Plant-Based Cheese Market to Reach \$3.9 Billion by 2024. <https://www.onegreenplanet.org/vegan-food/global-plant-based-cheese-market-expanding/> [Diakses pada 23 Maret 2022].

Orskov, K. E., Christensen, L. B., Wiking, L., Hannibal, T., and Hammershoj, M. 2021. Imitation cheese – New insights to relations between microstructure and functionality. *Food Structure*, 29 (100206): 1-10. DOI: 10.1016/j.foostr.2021.100206.

Oyeyinka, A. T., Odukoya, J. O., and Adebayo, Y. S. 2019. Nutritional composition and consumer acceptability of cheese analog from soy and cashew nut milk. *Journal of Food Processing and Preservation*, pp. 1-6. DOI: 10.1111/jfpp.14285.

Parker, Tom. M. S. 1997. *Public Health Goal for Cyanide in Drinking Water, Pesticide and Environmental Toxicology Section Office of Environmental Health Hazard Assessment California Environmental Protection Agency*.

Pastorino, A. J., Hansen, C. L., and McMahon, D. J. 2003. Effect of salt on structure-function relationships of cheese. *Journal of Dairy Science*, 86 (1): 60-64.

Pathak, J. 2007. *Taste of Nepal*. New York: Hippocrene Books, Inc.

Plant Based Foods Association. 2018. Retail Sales Data 2018. <https://www.plantbasedfoods.org/marketplace/retail-sales-data-2018/> [Diakses pada 23 Maret 2022].

Prabowo, I. D. P., Widjanarko, S. B., Yuwono, S. S. 2018. Pengaruh Metode Perendaman Kedelai (*Glycine Max*) Terhadap Karakteristik Pektin. *Jurnal Teknologi Pertanian*, 19 (2): 117-124.

Pratama, P. G. 2021. Pengaruh Lama Perendaman dan Suhu Perebusan Terhadap Karakteristik Kimia Dan Sensoris Sari Kedelai. *Skripsi*. Fakultas Pertanian. Universitas Sriwijaya. Palembang.

Pratiwi, H. dan Hakim, A. 2013. Perilaku Impor Susu di Indonesia. *Telaah Bisnis*, 14 (1): 53-70.

Priadi, G., Setiyingrum, F., Afati, F., Syarieff, R. 2018. Pemanfaatan modified cassava flour dan tepung tapioka sebagai bahan pengisi keju cedar olahan. *Jurnal Litbang Industri*, 8 (2): 67 – 76. DOI: 10.24960/jli.v8i2.4050.67-76.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis* L.), KEDELAI (*Glycine max*), DAN TEPUNG TAPIOKA TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.

Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Purwanti, A. 2018. Pengenalan Pembuatan Susu Sehat Bernutrisi Dari Kedelai Untuk Berwirausaha Di Dusun Blawong Ii Trimulyo Jetis Kabupaten Bantul. *Jurnal Inovasi Proses*, 3 (2): 83-89.
- Putro, Novita N.L., Joek, H.A., Ignatius, S. 2015. Kajian kadar HCN dan Karakteristik Pati pada Tepung Koro Pedang (*Canavalia ensiformis*) Berdasarkan Waktu Perendaman Biji Dalam Air Panas dan Larutan Natrium Bikarbonat (NaHCO₃). *Jurnal TeknologiPangan dan Gizi*. 14 (2) : 78-82.
- Qiu, L., Hu, F., and Peng, Y. 2013. Structural and mechanical characteristics of film using modified corn starch by the same two chemical processes used in different sequences. *Carbohydrate Polymers*, 91 (2): 590-596.
- Reijnders, L. and Soret, S. 2003. Quantification of the environmental impact of different dietary protein choices. *Am J Clin Nutr*, 78:664S–8S.
- Riaz, M. N. 2016. *Reference Module in Food Science: Snack Foods, Processing*. , (), –. doi:10.1016/b978-0-08-100596-5.00160-8.
- Rickard, S.E., and Thompson, L.U. 1997. *Interactions and biological effects of phytic acid*. In: Antinutrients and phytochemicals in food. Shaidi, F. (ed). American Chemical Society, Washington, DC. pp: 294-312.
- Rogers, A. 2005. *No More Diets (A Guide to Healthy Eating)*. Australia: Lulu Publishing.
- Sabate, J. and Soret, S. 2014. Sustainability of plant-based diets: back to the future. *The American Journal of Clinical Nutrition*, 100: 476S-482S. DOI: 10.3945/ajcn.113.071522.
- Sang-Kab, K., Seung-Hyun, C., Hyun-Wook, C., Jae-Heung, K., Wooki, K., Dae-Ok, K, Byung-Yong, K., and Moo-Yeol, B. 2015. Retrogradation Kinetics of Cross-linked and Acetylated Corn Starches under High Hydrostatic Pressure. *Food Sci. Biotechnol*, 24(1): 85-90. DOI 10.1007/s10068-015-0013-3.
- Santoso, 2005, Teknologi Pengolahan Kedelai, Fakultas Pertanian Universitas Wdyagama, Malang.
- Sarastani, D., Suwarna, T., & Apriyanto, A. 2002. Aktivitas antioksidan ekstrak dan fraksi ekstrak biji atung. *Jurnal Teknologi dan Industri Pangan*, 13(2): 149-156.
- Selle, P.H., Cowieson, A.J.,and Ravindran, V. 2009. Consequences of calcium interactions with phytate and phytase for poultry and pigs. *Livestock Science*, 124 (1-3): 126–141.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis* L.), KEDELAI (*Glycine max*), DAN TEPUNG
TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Shah, N., Mewada, R. K., and Mehta, T. 2016. Crosslinking of starch and its effect on viscosity Behaviour. *Rev Chem Eng*, 32(2): 265–270. DOI: 10.1515/revce-2015-0047
- Shahidi, F. 1997. *Natural Antioxidant, Chemistry, Health Effect and Application*. AOCS Press. Illinois.
- Shaliha, L. A., Abduh, S. B. M., Hintono, A. 2017. Aktivitas antioksidan, tekstur, dan kecerahan ubi jalar ungu (*Ipomoea batatas*) yang dikukus pada berbagai lama waktu pemanasan. *Jurnal Aplikasi Teknologi Pangan*. 6:4, 141-160.
- Silva, S. S., Fernandes, E. M., Pina, S., Silva-Correia, J., Vieira, S., Oliveira, J. M., and Reis, R. L. 2017. *Comprehensive Biomaterials II // 2.11 Polymers of Biological Origin*. Guimarães: PT. Government Associated Laboratory. Pp: 228–252. DOI:10.1016/B978-0-12-803581-8.10134-1.
- Singh, J., Kaur, L., and McCarthy, O. J. 2007. Factors influencing the physico-chemical, morphological, thermal and rheological properties of some chemically modified starches for food applications-A review. *Food Hydrocolloids*, 21 (1): p.1-a. 22.
- Smith, A.K. dan Circle, S.J. 1972. *Soybean Chemistry and Technology*. Connecticut: The AVI Publishing Co.
- Soekarto, S.T. 1990. *Penilaian Organoleptik untuk Industri Pangan dan Hasil Pertanian*. Jakarta: Bharata Karya Aksara.
- Stevenson, D. G., Doorenbos, R. K., Jane, J. I., and Inglett, G. E. 2006. Structures and Functional Properties of Starch From Seeds of Three Soybean (*Glycine max* (L.) Merr.) Varieties. *Starch/Stärke*, 58: 509–519. DOI: 10.1002/star.200600534.
- Sudarmadji, S., B. Haryono dan Suhardi. 1997. *Prosedur Analisa Untuk Bahan Makanan dan Pertanian Edisi Ketiga*. Yogyakarta: Liberty.
- Suga, K. K., Aini, N., and Setyawati, R. 2020. Pengaruh Konsentrasi STPP dan Lama Perendaman terhadap Karakteristik Pati Kimpul Termodifikasi Ikatan Silang. *Agrointek*, 14 (2): 199-212. DOI: 10.21107/agrointek.v14i2.6262
- Suharsi, T. K., Surahman, M., Rahmatani, S. F. 2013. Effect of Planting Space and Prunning on Seed Production and Seed Quality of Jack Bean (*Canavalia enziformis*). *Jurnal Ilmu Pertanian Indonesia*, 18:172-177.
- Sumner, J. B., Gralén, N., Eriksson-Quensel, I. B. 1983. The molecular weights of urease, canavalin, concanavalin B. *Science*., 87: 395–396.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis* L.), KEDELAI (*Glycine max*), DAN TEPUNG TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Susanti, I., Hasanah, F., Siregar, N.C., dan Supriatna, D. 2013. Potensi Kacang Koro Pedang (*Canavalia ensiformis* DC) sebagai Sumber Protein Produk Pangan. *Jurnal Riset Industri*, 7 (1): 1-13.
- Syah, D., Sitanggang, A., Faradila, R. H. F., Trisna, V., Karsono, Y., and Septianita, D. A. The influences of coagulation conditions and storage proteins on the textural properties of soycurd (tofu). *CyTA Journal of Food*, 13(2): 259-263.
- Szczesniak, A. S., and Kleyn, D. H. 1963. *Consumer Awareness of Texture and Other Food Attributes Food Technology*. London.
- Szczesniak, A. S. 2002. Texture is a sensory property. *J Food Quality and Preference*, 13(2): 215-225.
- Tampubolon, S.D.R. 2004. Pengaruh konsentrasi kalsium karbonat dan lama perendaman kedelai (*Glycine max*) terhadap mutu tahu. *Jurnal Penelitian Bidang Ilmu Pertania*, 2(3): 17-24.
- Taufik, Epi. 2019. Rancangan Induk Industri Susu: Peluang & Tantangannya. *Foodreview Indonesia*, 14 (6): 28-32.
- Technavio. 2020. Vegan Cheese Market by Source, Variant, and Geography - Forecast and Analysis 2020-2024. <https://www.technavio.com/report/vegan-cheese-market-industry-analysis> [Diakses pada 23 Maret 2022].
- Tjokrodikoesomo, P. S. 1986. *HFS dan Industri Ubi Kayu Lainnya*. Jakarta: PT. Gramedia.
- Trinh, T. and Glasgow, S. 2012. *On The Texture Profile Analysis Test*. Auckland: Institute of Food Nutrition and Human Health, Massey University.
- Udedibie, A. B. I. 1990. Nutritional evalution of jackbean (*Canavalia ensiformis*) for the Nigerian poultry industry. *AMBIO*, 19: 361–365.
- Utsumi, S., Matsumura, Y., and Mori, T. 1997. Structure-function relationships of soy proteins in Damodaran, S. and Paraf, A. *Food Proteins and their Applications*. New York: Marcel Dekker. 257–291.
- Vadivel, V., Cheong, J. N., and Biesalski, H. K. 2012. Antioxidant and type II diabetes related enzyme inhibition properties of methanolic extract of an underutilized food legume, *Canavalia ensiformis* (L.) DC: Effect of traditional processing methods. *LWT-Food Sci. Technol.*, 47: 255-260.
- Velde, F. V. D. and Ruiter, G. A. D. 2005. *Carageenan*. In : Polysaccharides and polyamides in the food industry. Vol 1. Weinheim : Wiley-VCH Verlag GmbH and Co. KGaA.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis L.*), KEDELAI (*Glycine max*), DAN TEPUNG TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Wahyuni, Y., Hidayat, T. dan Martha, C. W., 2015. Pembuatan Aplikasi Pengolahan Citra Digital Pemilihan Biji Kacang Kedelai Bagi Petani Kedelai Untuk Diterapkan Didesa Tumpang Kabupaten Malang. *Seminar Nasional Teknologi*. Malang: Institut Teknologi Nasional Malang, pp.535–543.
- Wang, X., Huang, L., Zhang, C., Deng, Y., Xie, P., Liu, L., Cheng, J. 2020. Research advances in chemical modifications of starch for hydrophobicity and its applications: a review. *Carbohydrate Polymers*, 240, Article 116292.
- Wahyuningsih, S. B. dan Saddewisasi, W. 2013. Pemanfaatan koro pedang pada aplikasi produk pangan dan analisis ekonominya. *Riptek*, 7(2): 1–10.
- Wang, H. H., and Sun, D. W. 2002. Melting characteristics of cheese: analysis of effects of cooking conditions using computer vision technology. *Journal of Food Engineering*, 51: 305-310.
- Wang, J. and Li, L. 2012. Comparative study of chemical composition and texture profile analysis between camembert cheese and chinese sufu. *Biotechnology Frontier*, 1(1): 1-8.
- Wang, Y., Li, Y., Han, J., Li, Y., and Zhang, L. 2017. Effect of Melting Point on the Physical Properties of Anhydrous Milk Fat. *IOP Conference Series: Materials Science and Engineering* 274. doi:10.1088/1757- 899X/274/1/012072.
- Widiantara, T., Kastaman, R., Setiasih, I. S., dan Muhaemin, M. 2016. Reduction Model of Cyanide and Protein Content on The Jackbeans Using CMS Method (Circulation Mixing System). In *International Conference “Food for A Good Life” at: Jakarta, Indonesia*. Jakarta, Indonesia.
- Winarno, F. G. 2002. *Kimia Pangan dan Gizi*. Jakarta: PT. Gramedia Pustaka Utama.
- Winarsi, H. 2005. *Isoflavon*. Yogyakarta: Universitas Gadjah Mada Press.
- Wongsagonsup, R., Pujchakarn, T., Jitrakbumrung, S., Chaiwat, W., Fuongfuchat, A., Varavinit, S., Dangtip, S., and Suphantharika, M. 2014. Effect of cross-linking on physicochemical properties of tapioca starch and its application in soup product. *Carbohydrate Polymers*, 101: 656–665. DOI: 10.1016/j.carbpol.2013.09.100.
- Wulandari, D. A. 2004. Fortifikasi Tepung Tulang Rawan Ayam Pedaging pada Pembuatan Susu Kedelai Bubuk Sebagai Sumber Kalsium. *Skripsi*. Fakultas Peternakan. Institut Pertanian Bogor. Bogor.
- Wurzburg, O. B. 1986. Cross-linked starches. In O. B. Wurzburg (Ed.), *Modified starches: Properties and uses* (pp. 41–53). FL: CRC Press.



UNIVERSITAS
GADJAH MADA

PENGARUH KORO PEDANG PUTIH (*Canavalia ensiformis L.*), KEDELAI (*Glycine max*), DAN TEPUNG
TAPIOKA
TERMODIFIKASI TERHADAP KARAKTERISTIK FISIK DAN SENSORIS ANALOG KEJU MOZZARELLA
MELLINIA MAYA M, Dr. Andriati Ningrum, S.T.P., M.Agr.; Dr. Manikharda, S.T.P., M.Agr.
Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Yan, H. and Zhengbiao, G. U. 2010. Morphology of modified starches prepared by different methods. *Food Research International*, 43 (3): 767-772.

Yanuarto, Nururrozi, A. dan Indarjulianto, S. 2016. Fitat dan fitase : dampak pada hewan ternak. *Jurnal Ilmu-Ilmu Peternakan*, 26(3): 59-78.

Yudiono, Kukuk. 2020. Peningkatan Daya Saing Kedelai Lokal terhadap Kedelai Impor sebagai Bahan Baku Tempe melalui Pemetaan Fisiko-Kimia. *Agrointek*, 14 (1): 57-66. DOI: 10.21107/agrointek.v14i1.6311.

Yuliana, Nur. 2016. Pengaruh Varietas Kedelai dan Penambahan Rennet terhadap Sifat Fisikokimia Keju Kedelai. *Skripsi*. Fakultas Teknologi Pertanian. Institut Pertanian Bogor. Bogor.

Zhang, B., Tao, H., Wei, B., Jin, Z., Xu, X., and Tian, Y. 2014. Characterization of different substituted carboxymethyl starch microgels and their interactions with lysozyme. *PLoS One*, 9: e114634.