

## DAFTAR PUSTAKA

- Aaslyng, M.D. 2002. Quality Indicators for Raw Meat. 157–174. Meat Processing. J. P. Kerry, J. F. Kerry, and D. Ledward. Woodhead Publishing Ltd. Cambridge. U.K.
- Abdellah, A.M., K. E. N. A. Ishag and H.M. Omer. 2012. Assessing the sudanese standards and guidelines of edible oils: a case study of sunflower oil. American-Eurasian J. Agric. and Environ. Sci. 12 (5): 682-688.
- Aberle, E. D., J. C. Forrest., H. B. Hedrick., M. D. Judge and R. A. Merkel. 2001. Principles of Meat Science.4<sup>th</sup> edition. Hunt Pulb Co. USA.
- Adams, G. D., Cook, I., & Ward, K. R. 2015. The principles of freeze-drying. Cryopreservation and Freeze-Drying Protocols. 121-143.
- Agustina, K. K., P. H. sari dan I. K. Suada. 2017. Pengaruh perendaman pada infusa daun salam terhadap kualitas dan daya tahan daging babi. Buletin Veteriner Udayana. 9 (1): 34-41.
- Ajuyah A.O., T. W. Fenton, R. T. Hardin and J. S. Sim. 1993. Measuring lipid oxidation volatiles in meats. J Food Sci. 58:43-61.
- Alamsyah, D. dan D. Pratama. 2019. Segmentasi warna citra bunga daisy dengan algoritma k-means pada ruang warna Lab. Jurnal Buana Informatika. 10 (2): 153-163.
- Albarraci'n, W., I. C. Sa'nchez, R. Grau and J. M. Barat. 2011. Salt in food processing; usage and reduction: a review. International Journal of Food Science and Technology. 46: 1329-1336.
- Ali, S., G. Kang, H. Yang, J. Jeong, Y. Hwang, G. Park, and S. Joo. 2007. A comparison of meat characteristics between duck and chicken breast. Asian-Australasian J. Anim. Sci. 20:1002-1006.
- Alirezalu, K., J. Hesari, Z. Nemati, P. E. S. Munekata, F. J. Barba and J. M. Lorenzo. 2019. Combined effect of natural antioxidants and antimicrobial compounds during refrigerated storage of nitrite-free frankfurter-type sausage. Food Research International. 120: 839-850.
- Álvarez, D. and S. Barbut. 2013. Effect of inulin,  $\beta$ -Glucan and their mixtures on emulsion stability, color and textural parameters of cooked meat batters. Meat Sci. 94: 320–327.
- Amalia, F., N. S. Achyadi, A. D. S. 2016. Pengaruh grade teh hijau dan konsentrasi gula stevia (*Stevia rebaudiana bertonii* M.) terhadap karakteristik sirup teh hijau (*green tea*). 1-12.
- Ambarsari I., Qanytah, Sarjana. 2013. Perubahan aktivitas antioksidan pada bawang putih selama proses pengolahan dan penyimpanan. Buletin Teknologi Pascapanen Pertanian. 9 (2):64-73.
- AOAC. 1995. Official methods of analysis. Washington DC.
- AOAC. 2007. Official Method 2007.04 Fat, Moisture and Protein in Meat and Meat Product. Foss Foodscan TM Near-infrared (NIR) Spectrophotometer with

FOSS Artificial Neural Network (ANN) Calibration Model and Associated Database. AOAC International.

- Apriantini, A., D. Afriadi, N. Febriyani dan I. I. Arief. 2021. Fisikokimia, Mikrobiologi dan Organoleptik Sosis Daging Sapi dengan Penambahan Tepung Biji Durian (*Durio zibethinus Murr*). Ilmu Produksi dan Teknologi Hasil Peternakan. 9 (2): 79-87.
- Apriyani, M. 2019. Karakteristik Sensori dan Fisik Sosis Ikan Swanggi (*Priacanthus tayenus*) dengan Penambahan Pati Sagu (*Metroxylon* sp.) sebagai Bahan Pengisi. 2019. Skripsi. Fakultas Pertanian. Universitas Lampung. Bandar Lampung.
- Aqsha. G. E. L., E. Purbowati, dan A. N. Al-baari. 2011. Komposisi kimia daging kambing kacang, peranakan etawah dan kejobong jantan pada umur satu tahun. Skripsi. Fakultas Peternakan Universitas Diponegoro. Semarang.
- Archana, S. and J. Abraham. 2011. Comparative analysis of antimicrobial activity of leaf extracts from fresh green tea, commercial green tea and black tea on pathogen. Journal of Applied Pharmaceutical Science 1 (8): 149-15
- Arifan, F., S. Winarni, Wahyuningsih, I. Pudjihastuti and R. W. Broto. 2019. Total Plate Count (TPC) analysis of processed ginger on Tlogowungu village. In *International Conference on Maritime and Archipelago (ICoMA 2018)*. Atlantis Press. 377-379.
- Aronal, A. P., N. Huda, and R. Ahmad. 2012. Amino acid and fatty acid profiles of peking and muscovy duck meat. Int. J. Poult. Sci. 11:229–236.
- Astawan, M dan A. Kasih. 2008. Khasiat Warna Warni Makanan. Gramedia. Jakarta.
- Atma, Y. 2015. Studi penggunaan angkak sebagai pewarna alami pengolahan sosis daging sapi. 7 (2): 76-85.
- Aziz, N. S., N. S. Sofian-Seng, N. S. Mohd Razali, S. J. Lim and W. A. Mustapha. 2019. A review on conventional and biotechnological approaches in white pepper production. Journal of The Science of Food and Agriculture. 99 (6): 2665-2676.
- Badan Pengawas Obat dan Makanan. 2014. Pedoman Pemilihan Jenis Kemasan Pangan. Badan Pengawas Obat dan Makanan. Jakarta.
- Badan Pusat Statistik. 2023. Statistik Teh Indonesia 2022. Volume 16. Badan Pusat Statistik. Jakarta.
- Badan Standarisasi Nasional. 2008. SNI 2897:2008. Metode Pengujian Cemaran Mikroba dalam Daging, Telur, dan Susu serta Hasil Olahannya. Badan Standardisasi Nasional. Jakarta.
- Badan Standardisasi Nasional. 2013. SNI 37741:2013. Standar Nasional Indonesia Minyak Goreng. Badan Standardisasi Nasional. Jakarta.
- Badan Standarisasi Nasional. 2015. SNI 3820:2015. Sosis Daging. Badan Standardisasi Nasional. Jakarta.

- Bagheri, H., M. Y. A. Manap and Z. Solati. 2014. Antioxidant activity of *Piper nigrum* L. essential oil extracted by supercritical CO<sub>2</sub> extraction and hydro-distillation. *Talanta* 121: 220-228.
- Baldwin, I. T. 2010. Plant volatiles. *Current Biology*. 20 (9): R392-R397.
- Barbut, S. 2017. Ingredient addition and impacts on quality, health, and consumer acceptance. Pages 291–311 in *Poultry Quality Evaluation: Quality Attributes and Consumer Values*. Petracci, M., Berri, C., eds. Elsevier Ltd, United Kingdom.
- Barrett, D. M., J. C. Beaulieu, and R. Shewfelt. 2010. Color, flavor, texture, and nutritional quality of fresh-cut fruits and vegetables: Desirable levels, instrumental and sensory measurement, and the effects of processing. *Crit. Rev. Food Sci. Nutr.* 50: 369-389.
- Bartosikova, L., dan J. Necas. 2018. Epigallocatechin gallate: a review. *Veterinarni Medicina*. 63 (10): 443-467.
- Bashir, A., A. Waheed, F. S. Hamid, M. Bashir, S. Ali, N. Ahmed, N. Khan, S. Aslam, F. Ahmad, Q. Maroof, S. Mumtaz and H. Gul. 2019. Evaluation of Secondary Metabolites and Proximate Composition in Different Varieties of Green Tea. *J. Adv. Res. Biochem. Pharma*. 2 (2): 14-19.
- Berry, B. W., and M. E. Bigner-George. 2000. Factors affecting color properties of beef patties cooked on an outdoor gas grill. *J. Muscle Foods* 11:213–226.
- Bhat, Z. F., S. Kumar, and P. Kumar. 2015. Effect of aloe vera on the lipid stability and storage quality of chicken nuggets. *Nutr. Food Sci.* 45:54–67.
- Bhattacharyya, D., M. Sinhamahapatra and S. Biswas. 2013. Effects of packaging materials and methods on physical properties and food safety of duck sausage. *Int J Dev Res.* 3 (5): 032–040.
- Bimanto, H., Y. D. Wahyuni, D. T. Mutiarawati and L. H. Endarini. 2020. Phytochemical screening and in vitro antibacterial activity of green tea (*Camellia sinensis* L) extract against *Staphylococcus epidermidis*. *Health Nations*. 4(8): 261-266.
- Biswas, A. K., N. Kondaiah, A. S. R. Anjaneyulu, and P. K. Mandal. 2011. Causes, concerns, consequences and control of microbial contaminants in meat-A review. *Int. J. Meat Sci.* 1: 27-35.
- Biswas, M. K., C. Debnath, S. K. Das, A. K. Pramanik, S. Biswas, S. Ganguly and P. K. Praveen. 2017. Studies on some comminuted meat products prepared from spent chicken during storage at refrigeration and frozen temperatures under aerobic packaging conditions. *Indian J. Poult. Sci.* 52: 104.
- Boles, J. A. and P. J. Shand. 1998. Effect of comminution method and raw binder system in restructured beef. *Meat Sci.* 49: 297–307.
- Borch, E., M. L. Kant-Muermans, and Y. Blixt. 1996. Bacterial spoilage of meat and cured meat products. *Int. J. Food Microbiol.* 33:103–120.
- Bou. R., F. Guardiola, A. Grau, S. Grimpa, A. Manich, A. Barroeta and R. Codony. 2001. Influence of dietary fat source, alpha-tocopherol, and ascorbic acid

supplementation on sensory quality of dark chicken meat. Poult Sci. 80: 800-807.

- Breuninger, W. F., K. Piyachomkwan and K. Siroth. 2009. Tapioca/Cassava Starch: Production and Use. In Starch: Chemistry and Technology. Academic Press. 541-568. United States.
- Brewer, M. S., W. G. Ikins, and C. A. Z. Harbers. 1992. TBA values, sensory characteristics, and volatiles in ground pork during long-term frozen storage: Effects of packaging. J. Food Sci. 57:558–564.
- Buckle, K. A., R. A. Edwards., G.A. Fleet and M. Wooton. 1987. Ilmu Pangan. Terjemahan Purnomo, H. dan Adiono. Universitas Indonesia. Depok.
- Cabrera, C., R. Artacho and R. Giménez. 2006. Beneficial effects of green tea – a review. J. Am. Coll. Nutr. 25 (2): 79–99.
- Ceska, O., S. K. Chaudary, P. Warrington, M. J. Ashwood-Smith, G. W. Bushnell and G. A. Poulton. 1988. Coriandrin, a novel, highly photoactive compound isolated from *Coriandrum sativum*. Phytochem 27: 2083–2087.
- Charalampopoulos. D., R. Wang S. S. Pandiella and C. Webb. 2002. Application of Cereals and Cereal Components in Functional Food. International Journal of Microbiology 79: 131-111.
- Cho, S. H. and C. H. Chung. 2010. Quality characteristics of pork meat patties formulated with either steam-dried green tea powder or freeze-dried raw tea leaf powder. Korean Journal of Food and Cookery Science. 26 (5): 567-574.
- Choe, J., G. W. Kim and H. Y. Kim. 2019. Effects of green tea leaf, lotus leaf, and kimchi powders on quality characteristics of chicken liver sausages. Journal of Animal Science and Technology. 61 (1): 28-34.
- Choi, Y.-S., J.-H. Choi, D.-J. Han, H.-Y. Kim, M.-A. Lee, H.-W. Kim, J.-Y. Jeong, and C.-J. Kim. 2009. Characteristics of low-fat meat emulsion systems with pork fat replaced by vegetable oils and rice bran fiber. Meat Sci. 82: 266-271.
- Daglia, M. 2012. Polyphenols as antimicrobial agents. Curr. Opin. Biotechnol., 23: 174-181.
- Daud, A., Suriati dan Nuzulyanti. 2019. Kajian penerapan faktor yang mempengaruhi akurasi penentuan kadar air metode thermogravimetri. Lutjanus. 24 (2): 11-16.
- Desmond, E. 2006. Reducing salt: A challenge for the meat industry. Meat Sci. 74: 188- 196.
- Diederichsen, A. 1996. Coriander (*Coriandrum sativum* L.) Promoting the Conservation and Use of Underutilized and Neglected Crops 3, International Plant Genetic Resources Institute. Rome. 1-82.
- Ding, Y., H. Yu and S. Mou. 2002. Direct determination of free amino acids and sugars in green tea by anion exchange chromatography with pulsed amperometric detection. Journal of Chromatography. 982: 237-244.

- Direktorat Jenderal Peternakan dan Kesehatan Hewan. 2023. Statistik Peternakan dan Kesehatan Hewan 2020/Livestock and Animal Health Statistics 2023. Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI. Jakarta.
- Djordjevic, J., B. Pecanac, M. Todrovic, M. Dokmanovic, N. Glamoclija, V. Tadic and M. Z. Baltic. 2015. Fermented sausage casings. *Procedia Food Science*. 5: 69-72.
- Domínguez, R., M. Pateiro, M. Gagaoua, F. J. Barba, W. Zhang, and J. M. Lorenzo. 2019. A comprehensive review on lipid oxidation in meat and meat products. *Antioxidants* 8:1–31.
- Du, G., Z. Zhang, X. Wen, C. Yu, T. Calway, C. Yuan and C. Wang. 2012. Epigallocatechin Gallate (EGCG) is the most effective cancer chemopreventive polyphenol in green tea. *nutrients*. 4 (11): 1679-91.
- Edraki, M., I. M. Moghaddampourb, M. B. Keivani and M. Sheydaei. 2022. Characterization and antimicrobial properties of Matcha green tea. *Chem Rev Lett* .5: 76-8.
- Estévez, M., S. Ventanas and R. Cava. 2005. Protein oxidation in frankfurters with increasing levels of added rosemary essential oil: effect on color and texture deterioration. *Journal of Food Science*. 70 (7): 427-432.
- El-Nashi, H. B., A. F. A. K. Abdel Fattah, N. R. Abdel Rahman, and M. M. Abd ElRazik. 2015. Quality characteristics of beef sausage containing pomegranate peels during refrigerated storage. *Ann. Agric. Sci*. 60: 403-412.
- Evanuarini, H., I. Thohari dan A. R. Safitri. 2021. *Industri Pengolahan Telur*. UB Press. Malang.
- Fadiloglu, E. E. and O. E. Coban. 2018. Effects of chitosan edible coating enriched with sumac on the quality and the shelf life of rainbow trout (*Oncorhynchus mykiss*, Walbaum, 1792) fillets. *Journal of Food Safety*. 5 (2): 234-241.
- Fajar, Luh Putu Wrsiati, dan Lutfi Suhendra. 2018. Kandungan Senyawa Flavonoid dan Aktivitas Antioksidan Ekstrak Teh Hijau pada Perlakuan Suhu Awal dan Lama Penyeduhan. *Rekayasa dan Manajemen Agroindustri*. 6(3): 196–202.
- Fauzia, S. F. dan J. Djajadisastra. 2014. Uji aktivitas antioksidan dan kestabilan fisik sediaan krim ekstrak daun teh hijau dan krim ekstrak daun teh putih (*Camellia sinensis*. L) . *FF UI*, 1-19.
- Food and Agriculture Organization of The United Nations. 2022. *International Tea Market: Market Situation, Prospects and Emerging Issues*. Food and Agriculture Organization of The United Nations. Rome.
- Franks, Melanie, P. Lawrence, A. Abbaspourrad and Robin Dando. 2019. The influence of water composition on flavor and nutrient extraction in green and black tea. *Nutrients*. 11 (1).
- Ganhão, R., D. Morcuende and M. Estévez. 2010. Protein oxidation in emulsified cooked burger patties with added fruit extracts: Influence on colour and texture deterioration during chill storage. *Meat Science*. 85 (3): 402–409.

- Giaretta, E., A. Mordenti, A. Palmonari, N. Brogna, G. Canestrari, P. Belloni, D. Cavallini, L. Mammi, R. Cabbri, and A. Formigoni. 2019. NIRs calibration models for chemical composition and fatty acid families of raw and freeze-dried beef: a comparison. *Journal Food Composition and Analysis*. 83: 1-7.
- Gomez, J., N. Sanjuan, J. Bon, J. Arnau, and G. Clemente. 2015. Effect of Temperature on Nitrite and Water Diffusion in Pork Meat. *Journal of Food Engineering*. 149. 188 – 194.
- Graham H. N. 1992. Green tea composition, consumption, and polyphenol chemistry. *Preventive Medicine*. 21 (3): 334-350.
- Gultom, O. W., S. Lestari dan R. Nopianti. 2015. Analisis proksimat, protein larut air, dan protein larut garam pada beberapa jenis ikan air tawar Sumatera Selatan. *Jurnal Teknologi Hasil Perikanan*. 4 (2): 120-127.
- Habiburrohmah, D. dan A. Sukohar. 2018. Aktivitas Antioksidan dan Antimikrobia pada Polifenol Teh Hijau. *J Agromedicine Unila*. 5 (2): 587-591.
- Hariyadi, P. 2022. Tekstur: Tantangan Reformulasi Pangan Olahan. *Foodreview Indonesia*. 17(70): 22-29.
- Ham, Y. K., K. E. Hwang, D. H. Song, Y. J. Kim, D. J. Shin, K. I. Kim, H. J. Lee, N. R. Kim and C. J. Kim. 2017. Lotus (*Nelumbo nucifera*) rhizome as an antioxidant dietary fiber in cooked sausage: effects on physicochemical and sensory characteristics. *Korean. J. Food. Sci. Anim. Resour*. 37 (2): 219-227.
- Hamm, R. 1960. *Adv. Fd. Res*. 10. 355.
- Hasanah, S. Uswatun, S. Hamdani dan A. Firmansyah. 2012. Perbandingan kadar katekin dari beberapa jenis kualitas teh hitam (*Camellia sinensis* L. [o] kuntze) di pusat penelitian teh dan kina (PPTK) Gambung. *Indonesian Journal of Pharmaceutical Science and Technology*. (1): 7-12.
- Hashemi, A. and A. Jafarpour. 2016. Rheological and microstructural properties of beef sausage batter formulated with fish fillet mince. [\*J Food Sci Technol\*. 53\(1\):601-610.](#)
- Hatta, M. H., R. W. Idayanti dan N. Hidayah. 2022. Organoleptik paha itik magelang dengan perendaman sari belimbing wuluh (*Averrhoa Bilimbi* L.) pada konsentrasi berbeda. *JITP*. 10 (2): 46-51.
- Henning, S. S., P. Tsalibe and L. C. Hoffman. 2016. Physico-chemical properties of reduced-fat beef species sausage with pork back fat replaced by pineapple dietary fibres and water. *Food Science and Technology*. 74: 92-98.
- Heroniaty. 2012. Sintesis Senyawa Dimer Katekin Dari Ekstrak Teh hijau dengan Menggunakan Katalis Enzim Dari Kulit Bawang Bombay (*Allium cepa* L.). Tesis. Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Indonesia. Depok.
- Herz, E., P. Moll, C. Schmitt and J. Weiss. 2023. Binders in foods: Definition, functionality, and characterization. *Food Hydrocolloids*. 109077.



- Hidayah, N. 2016. Tingkat Kekerasan dan Daya Terima Sosis Jamur Kuping (*Auricularia auricula*) yang Disubstitusi Tepung Ampas Tahu. Skripsi. Fakultas Ilmu Kesehatan. Universitas Muhammadiyah Surakarta. Surakarta.
- Hidayat, N., R. Rusman, E. Suryanto dan A. Sudrajat. 2022. Pemanfaatan bawang dayak (*Eleutherine Palmifolia* (L) merr) sebagai sumber antioksidan alami pada nugget itik afkir. agriTECH. 42 (1): 30-38.
- Hong, J. Y., S. Theresa. J. L. Mao, L. Weisheng, L. M. Bing, M. N. Shu, F. M. John, E. T. Paul and S. Y. Chung. 2013. Metabolism of carcinogenic nitrosamines by rat nasal mucosa and effect of diallyl sulfide. AACR Journals. 51:1509-1514.
- Hui, Y. H., R. W. Nip, W. K. Nip, Rogers and O. A. Young. 2001. Meat science and applications. Marcell Dekker Inc. New York.
- Hur, S. J., S. Y. Lee, Y. C. Kim, I. Choi and G. B. Kim. 2014. Effect of fermentation on the antioxidant activity in plant-based foods. Food Chem. 160:346-356.
- Ibrahim, SK. 2007. Antimicrobial and antioxidant effects of sodium acetate, sodium lactate, and sodium citrate in refrigerated sliced salmon. Food Control. 18: 566-575.
- Imanningsih, N. 2012. Profil gelatinisasi beberapa formulasi tepung-tepungan untuk pendugaan sifat pemasakan. Penel Gizi Makan. 35 (1): 13-22.
- Indawati, I., M. Z. Safirany dan N. R. Hidayati. 2021. Analisis kualitatif dan kuantitatif kandungan nitrit dalam kornet yang dijual di pasar kota Cirebon. Journal of Pharmacopolium. 4 (1): 28 – 35.
- Indiarto, R., B. Nurhadi dan E. Subroto. 2012. Kajian karakteristik tekstur (*texture profil analysis*) dan organoleptik daging ayam asap berbasis teknologi asap cair tempurung kelapa. Jurnal Teknologi Hasil Pertanian. 5 (2):106-116.
- Indumathi, J., and R. B. Obula. 2015. Effect of different natural antioxidant extracts on the shelf life of functional chicken meat nugget. Int. J. Adv. Res. 3:820–828.
- Ismanto dan S. Subaihah. 2020. Sifat fisik, organoleptik dan aktivitas antioksidan sosis ayam dengan penambahan ekstrak daun sirsak (*Annona muricata* L.). Jurnal Ilmu Peternakan dan Veteriner Tropis. 10 (1): 45-54.
- Ishamri, Ismail, H. Nurul, and A. Fazilah. 2014. Quality characteristics of spent duck sausages containing surimi like material substitution during refrigerated storage. International Journal of Poultry Science 13 (4): 228-239.
- Iulietto, M. F., P. Sechi, E. Borgogni and B. T. Cenci-Goga. 2015. Meat spoilage: a critical review of a neglected alteration due to ropy slime producing bacteria. Ital. J. Anim. Sci. 14:316–326.
- ISO. 2020. Sensory analysis, Methodology, Texture profile (ISO 11036:2020).
- Jamwal, A., S. Kumar, Z. F. Bhat, A. Kumar, and S. Kaur. 2015. The quality and storage stability of chicken patties prepared with different additives. Nutr. Food Sci. 45: 728–739.

- Jirovetz L, Buchbauer G, Ngassoum MB and Geissler M, Aroma compound analysis of *Piper nigrum* and *Piper guineense* essential oils from Cameroon using solid-phase microextraction-gas chromatography, solid-phase microextraction-gas chromatography-mass spectrometry and olfactometry. *J Chromatogr A*. 976 (1-2): 265–275 (2002).
- Jayawardana, B. C., V. B. Warnasooriya, G. Thotawattage, V. Dharmasena and R. Liyanage. 2019. Black and green tea (*Camellia sinensis* L.) extracts as natural antioxidants in uncured pork sausages. *Journal of Food Processing and Preservation*. 43 (2). e13870.
- Jongberg, S., M. A. Tørngren, A. Gunvig, L. H. M. N. Lund, M.N. 2013. Effect of green tea or rosemary extract on protein oxidation in Bologna type sausages prepared from oxidatively stressed pork. *Meat Sci*. 93: 538–546.
- Jongberg, S., N. E Gislason, M. N. Lund, L. H. Skibsted and A. L. Waterhouse. 2011. Thiol-quinone adduct formation in myofibrillar proteins detected by LC-MS. *J. Agric. Food Chem*. 59 (28): 6900–6905.
- Juarez, M., S. Failla, A. Ficco, F. Pena, C. Aviles, O. Polvillo. 2010. Bufallo meat composition as affected by different cooking method. *Food and Bioproducts Processing*. 88(2): 145-148.
- Kar, A., 2014, *Farmakognosi dan Farmakobioteknologi*, Terjemahan. Manurung, J. Penerbit Buku Kedokteran EGC. Jakarta. 2 (2): 503-504.
- Kartasapoetra, G. 2004, *Budidaya Tanaman Berkhasiat Obat*. PT Rineka Cipta. Jakarta. 50-51.
- Kendrick, A. 2016. Coloring aqueous food types. Pages 163–177 in *Handbook on Natural Pigments in Food and Beverages: Industrial Applications for Improving Food Color*. Carle, R. dan R. Schweiggert. eds. Elsevier Ltd, United States of America.
- Khaira N., Misrahanum, R. Idroes, M. Bahi dan Khairan. 2016. Pengaruh kombinasi ekstrak petroleum eter bawang putih (*Allium sativum* L.) dengan vitamin C terhadap aktivitas *Candida albicans*. *Jurnal Natural*. 16 (1): 37-42.
- King, N. J. and R. Whyte. 2006. Does it look cooked? A Review of factors that influence cooked meat color. *J. Food Sci*. 71: 31-40.
- Kingchaiyaphum, W. and C. Rachtanapun. 2012. Antimicrobial and antioxidative activities of essential oils in chinese sausage (Kun-Chiang). *As. J. Food Ag-Ind*. 5 (2): 156-162.
- Kochhar S. P. 1993. Oxidative Pathway to The Taints and Offflavours. In: Saxby, M. J., Editor. *Food Taints and Offflavours*. Blackie Academic and Profesional. New York (US).
- Kokoszyński, D., H. Arpášová, C. Hrnčar, J. Žochowska-Kujawska, M. Kotowicz, and M. Sobczak. 2019. Carcass characteristics, chemical composition, physicochemical properties, texture, and microstructure of meat from spent Pekin ducks. *Poult. Sci*. 99:1232–1240.



- Kolhe, S.R., P. Borole and U. Patel. 2011. Extraction and evaluation of piperine from *Piper nigrum*. Internasional Journal of Applied Biology and Pharmaceutical Technology. 144-149.
- Koswara, S. 2009. Teknologi Praktis Pengolahan Daging. E Book Pangan. 1-24.
- Kramlich, R.V. 1971. Sausage product. The science of meat and meat product. J.F. Prince and B.S. Schweigert W.H. Freeman and Company. San Fransisco, USA.
- Kramlich, W. E., A. M. Pearson and F. W. Tauber. 1973. Processed Meat. The AVI Publishing Company. Westport.
- Kumar, R., S. Biswas, F. Sciences, D. Bhattacharyya, M. Ram, and V. Sing. 2014. Study on nuggets prepared from different ratios of spent duck and spent hen meat. Indian J. Poult. Sci. 49: 228–230.
- Kumar, Y., D. N. Yadav, T. Ahmad, and K. Narsaiah. 2015a. Recent trends in the use of natural antioxidants for meat and meat products. Compr. Rev. Food Sci. Food Saf. 14: 796–812.
- Kumar, V., M. K. Chatli, R. V. Wagh, N. Mehta, and P. Kumar. 2015b. Effect of the combination of natural antioxidants and packaging methods on quality of pork patties during storage. J. Food Sci. Technol. 52: 6230–6241.
- Kurniawan. C. 2021. Penerapan bahan baku berbasis clean label dalam teknologi pengolahan produk sosis ayam di Indonesia. Scientific Journal Widya Teknik. 20(1): 39-45.
- Lambert, J. D., R. J. Elias. 2010. The antioxidant and pro-oxidant activities of green tea polyphenols: a role in cancer prevention. Arch Biochem Biophys. 501 (1): 65–72.
- Lara, M. S., J. I. Gutierrez, M. Timón, and A. I. Andrés. 2011. Evaluation of two natural extracts (*Rosmarinus officinalis* L. and *Melissa officinalis* L.) as antioxidants in cooked pork patties packed in MAP. Meat Sci. 88:481–488.
- Laribi, B., K. Kouki, M. M. Hamdi and T. Bettaieb. 2015. Coriander (*Coriandrum sativum* L.) and its bioactive constituents. Fitoterapia.
- Lawrie R. A.1995. Ilmu Daging. Terjemahan Aminuddin, P. Penerbit Universitas Indonesia Press. Jakarta.
- Lawrie, R. A. 2003. Ilmu Daging. Universitas Indonesia Press. Jakarta.
- Lechowich, R. V. 1971. The Science of Meat and Products. 2<sup>nd</sup> ed. Editor: J. F. Price and B. S. Schweigert. W. H. Freeman and Co. San Fransisco. 230-286.
- Lee, L. S., S. H. Kim, Y. B. Kim, dan Y. C. Kim. 2014. Quantitative analysis of major constituents in green tea with different plucking periods and their antioxidant activity. Molecules. 19 (7): 9173–86.
- Lehninger, A. L. 1982. Dasar-dasar biokimia. PT Gelora Aksara Pratama. Jakarta
- Lishianawati, T. U., L. M. Yusiati and Jamhari. 2022. Antioxidant effects of black garlic powder on spent duck meat nugget quality during storage. Food Sci. Technol. 42: 1-8.

- Liu, D. C., R. T. Tsau, Y. C. Lin, S. S. Jan, and F. J. Tan. 2009. Effect of various levels of rosemary or Chinese mahogany on the quality of fresh chicken sausage during refrigerated storage. *Food Chem.* 117:106–113.
- Liviawaty, E. dan Afrianto, E. 2010. Penangana Ikan Segar. Proses Penurunan dan Cara Mempertahankan Kesegaran Ikan. Penerbit Widya Padjadjaran. Bandung.
- Lu'ck, E. and M. Pager. 2000. *Conservacio'n Qui'mica de los Alimentos: Caracter'sticas, Usos, Efectos.* 46–98. Zaragoza. Acribia.
- Lukman, I., N. Huda, and N. Ismail. 2009. Physicochemical and sensory properties of commercial chicken nuggets. *Asian J. Food Agro-Industry* 2: 171-180.
- Lund, M. N., M. S. Hviid and L. H. Skibsted. 2007. The combined effect of antioxidants and modified atmosphere packaging on protein and lipid oxidation in beef patties during chill storage. *Meat Science.* 76 (2): 226-233.
- Luo, Y., W. Xie, M. Xu and F. Luo. 2012. Effects of phytase and polyphenol oxidase treatments on in vitro iron bioavailability in faba bean (*Vicia faba* L.). *Journal of Food.* 10 (2): 165-171.
- Madane, P., A. K. Das, M. Pateiro, P. K. Nanda, S. Bandyopadhyay, P. Jagtap, F. J. Barba, A. Shewalkar, B. Maity, and J. M. Lorenzo. 2019. Drumstick (*Moringa oleifera*) flower as an antioxidant dietary fibre in chicken meat nuggets. *Foods.* 8: 307–325.
- Mahmood, T., N. Akhtar, H. M. S. Khan and T. Saeed. 2010. Outcomes of 3% green tea emulsion on skin sebum production in male volunteer. *Bosn. J. Basic Med. Sci. Udruzenje Basinicnih Med. Znan. Assoc. basic Med. Sci.* 10(3): 260-264.
- Mailhot, W. C. and J. C. Patton. 1988. Criteria of flour quality. In: Pomeranz, Y. ed. *Wheat Chemistry and Technology.* 3rd ed. American Association of Cereal Chemists. St Paul. Minnesota. 69-90.
- Maina, W. 2018. Analysis of the factors that determine food acceptability. *Pharma Innov. J.* 7: 253–257.
- Majid, A., T. W. Agustini dan L. Rianingsih. 2014. Pengaruh perbedaan konsentrasi garam terhadap mutu sensori dan kandungan senyawa volatil pada terasi ikan teri (*Stolephorus* sp.). *Jurnal Pengolahan dan Bioteknologi Hasil Perikanan.* 3 (2): 17-24.
- Manjhi, A., P. Tamboli and A. Chaurasiya. 2018. Effect of natural antioxidants on quality characteristics of enrobed Chevron meat ball under chilled or refrigeration (4±1°C) storage conditions. *Int. J. Curr. Microbiol. Appl. Sci.* 7:1274–1282.
- Mathlouthi, M. 2001. Water content, water activity, water structure and the stability of foodstuffs. *Food Control.* 12 (7): 409-417.
- Matitaputty, P. R., dan Suryana. 2010. Karakteristik daging itik dan permasalahan serta upaya pencegahan off-flavor akibat oksidasi lipida. *Wartazoa* 20: 130– 138.

- Meilgard, M., G. V. Cvilleand B. T. Carr. 2006. Sensory Evaluation Techniques Fourth Edition. CRC Press. USA
- Melis, M., and I. T. Barbarossa. 2017. Taste perception of sweet, sour, salty, bitter, and umami and changes due to L-arginine supplementation, as a function of genetic ability to taste 6-n-propylthiouracil. *Nutrients* 9:541–558.
- Midayanto, D., and Yuwono, S. 2014. Penentuan atribut mutu tekstur tahu untuk direkomendasikan sebagai syarat tambahan dalam standar nasional indonesia. *Jurnal Pangan dan Agroindustri*. 2: (4): 259-267
- Mills, J., A. Donnison, and G. Brightwell. 2014. Factors affecting microbial spoilage and shelf-life of chilled vacuum-packed lamb transported to distant markets: a review. *Meat Sci*. 98:71–80.
- Miloradovich, M. 1950. *Cooking with Herbs and Spices*. Dover Publications, New York.
- Min, K. dan T. K. Kwon. 2014. Anticancer effects and molecular mechanisms of epigallocatechin-3-gallate. *Integr Med Res*. 3(1): 16–24.
- Minolta, K. 2013. *Chroma Meter CR-400/410 Instruction Manual*. Konica Minolta, Inc, Japan.
- Mitrowihardjo, S. 2012. Kandungan Katekin Dan Hasil Pucuk Beberapa Klon Teh (*Camelia sinensis* (L.) O. Kuntze) Unggulan pada Ketinggian yang Berbeda di Kebun Pagilaran. Disertasi. Fakultas Pertanian UGM, Yogyakarta.
- Mizushige, T. k. Inoue and T. Fushiki. 2007. Why is fat so tasty? Chemical reception on fatty acid on the tongue. *J Nutr Sci Vitaminol*. 53: 1-4.
- Moawad, R. K., O. S. S. Mohamed and N. M. Abdelmaguid. 2020. Shelf-life evaluation of raw chicken sausage incorporated with green tea and clove powder extracts at refrigerated storage. *Plant Archives*. 20 (2): 8821-8830.
- Mondal, M. dan S. De. 2018. Enrichment of (–) Epigallocatechin Gallate (EGCG) from aqueous extract of green tea leaves by hollow fiber microfiltration: modeling of flux decline and identification of optimum operating conditions. *Separation and Purification Technology*. 206 (5): 107-17.
- Moskowitz, H. R. 1999. *Food Texture: Instrumental and Sensory Measurement*. Marcel Dekker Inc, New York.
- Mottram, D. S., and J. S. Elmore. 2003. Aroma. Pages 5174–5180 in *Encyclopedia of Food Sciences and Nutrition*. Caballero, B., Finglas, P., Toldra, F., eds. 2nd ed. Academic Press, United Kingdom.
- Moulia, M. N., R. Syarief, E. S. Iriani, H. D. Kusumaningrum dan N. E. Suyatma. 2018. Antimikroba Ekstrak Bawang Putih. *Pangan*. 27 (1): 55-66.
- Muliadi, D. 2015. pengaruh suhu dan waktu penyimpanan terhadap pertumbuhan bakteri staphylococcus aureus pada makanan soosis siap santap di Medan. Disertasi. Universitas Sumatera Utara. Medan.
- Mydin, M.A.O. 2017. Preliminary studies on the development of lime-based mortar with added egg white. *International Journal of Technology*. 8 (5): 800-810.

- Nadeem, M., F. M. Anjum, M. I. Khan, S. Tahseen, M. I. Khan and J. I. Sultan. 2013. Nutritional and medicinal aspects of coriander (*Coriandrum sativum* L.) A review. *British Food Journal*. 115 (5): 743-755.
- Namang, M. K. 2021. Pengaruh jenis tepung dan daging dada ayam boiler dari perlakuan kromanon deamina selama penyimpanan beku terhadap kualitas fisik dan kimia sosis. Doctoral dissertation. Universitas Katholik Soegijapranata Semarang.
- Namita, P., R. Mukesh and K. J. Vijay. 2012. *Camellia Sinensis* (Green Tea): A Review. *Global Journal of Pharmacology* 6 (2): 52-59.
- Naruki, S. dan S. Kanoni. 1992. Kimia dan teknologi hasil hewan. PAU pangan dan gizi. Universitas Gadjah Mada.
- Naveen, Z., B. R. Naik, B. V Subramanyam, and P. M. Reddy. 2016. Studies on the quality of duck meat sausages during refrigeration. *Springerplus* 5: 2016– 2032.
- Nico, M., P. H. Riyadi dan I. Wijayanti. 2014. Pengaruh penambahan karagenan terhadap kualitas sosis ikan kurisi (*Nemipterus* sp.) dan sosis ikan nila (*Oreochromis* sp.). *Jurnal Pengolahan dan Bioteknologi Hasil Perikanan*. 3 (2): 99-105.
- Nisa, A. K. dan A. K. Wardani. 2016. Pengaruh lama pengasapan dan lama fermentasi terhadap sosis fermentasi ikan lele (*Clarias gariepinus*). *Jurnal Pangan dan Agroindustri*. 4 (1): 367-376.
- Nishant, R., A. Jigisha, K. Navin and G. Pankaj. 2012. Green tea: A magical herb with miraculous outcomes. *IRJP*. 3 (5): 139-148.
- Novita, R., T. Sadjadi dan R. Mulyono. 2019. Level ekstrak nanas (*Ananas Comasus* L. Merr) dan lama perendaman terhadap kualitas daging itik afkir. *Jurnal peternakan Indonesia*. 21 (2);143-153.
- Nurmuhaimina, S. A., R. Maulia, I. Yuniarti, D. Umaningrum. 2009. Uji aktivitas antioksidan dari ekstrak campuran tumbuhan alang-alang (*Imperata Cylindrica*) dan lidah ular (*Hedyotis Corymbosa*) sebagai peredam radikal bebas asam linoleat. *Sains Terapan Kimia*. 2 (1): 85-93.
- Nurohim, N., N. Nurwantoro dan D. Sunarti. 2013. Pengaruh metode marinasi dengan bawang putih pada daging itik terhadap pH, daya ikat air, dan total coliform. *Animal Agriculture Journal*. 2 (1): 77-85.
- Ocano-Higuera, V., A. Martinez, R. Marquez, C. Rodriguez, Y. Castillo and R. Butos. 2011. Freshness assessment of ray fish in ice by biochemical, chemical, and physical methods. *Food Chemistry*. 125: 49-54.
- Onk, K., H. Yalcintan, M. Sari, S. A. Isik, A. Yakan, and B. Ekiz. 2019. Effects of genotype and sex on technological properties and fatty acid composition of duck meat. *Poult. Sci*. 98:491-499.
- O'Sullivan, M. G. 2011. The stability and shelf life of meat and poultry. Pages 793-816 in *Food and Beverage Stability and Shelf Life*. Kilcast, D., Su ubramaniam, P., eds. Woodhead Publishing Limited, Cambridge, England.

- Oteku, I. T., Igene, J. O., and Yessuf, I. M. 2006. An assessment of the factors influencing the consumption of duck meat in Southern Nigeria. *Pakistan Journal of Nutrition*. 5(5): 474-477.
- Pal, M., Y. Ayele, A. S. Patel, and F. Dulo. 2018. Microbiological and hygienic quality of Meat and Meat Products. *Baverage Food World* 45: 21–27.
- Paramita, D. N., and M. T. Wahyudi. 2011. Antibacteri effect of greantea (*Camellia sinensis*) to *Staphylococ aureus* in vitro. *Jurnal Medika Planta*. 1(3): 67-74.
- Park, W., and Y. Kim. 2009. Effect of garlic and onion juice addition on the lipid oxidation, total plate counts and residual nitrite contents of emulsified sausage during cold storage. *Korean J. Food Sci. Anim. Resour*. 29:612–618.
- Pateiro, M., R. Bermúdez, J. M. Lorenzo and D. Franco. 2015. Effect of Addition of Natural Antioxidants on the Shelf-Life of “Chorizo”, a Spanish Dry-Cured Sausage. *Antioxidant*. 4: 42-67.
- Peter, K.V. 2004. *Hand Book of Herbs and Spices*. Vol. 2. Woodhead Publishing Ltd. Cambridge.
- Pothitirat, W., M. T. Chomnawang, R. Supabphol and W. Gritsanapan. 2009. Comparison of bioactive compounds content, free radical scavenging and anti-acne inducing bacteria activities of extracts from the mangosteen fruit rind at two stages of maturity. *Fitoterapia* 80: 442–447.
- Prabpree, R. and R. Pongsawatmanit. 2011. Effect of tapioca starch concentration on quality and freeze-thaw stability of fish sausage. *Kasetsart J. Nat. Sci*. 45(2): 314-324.
- Prachayasittikula, V., S. Prachayasittikula, S. Ruchirawatb and V. Prachayasittikule. 2018. Coriander (*Coriandrum sativum*): a promising functional food toward the well-being. *Food Research International*. 105. 305-323.
- Pratama, M. 2017. Identifikasi atribut aroma dan rasa rempah dengan profiled test. *Jurnal Agroindustri Halal*. 3 (2): 126-132.
- Pulungan, A. F. 2019. Dampak pengawet nitrit pada daging olahan sosis terhadap kesehatan manusia. Deepublish.
- Purnamayanti, L. 2018. Pengaruh Penambahan Teh hijau (*Camelia sinensis*) dan Lama Penyimpanan Terhadap Total Mikroba, Angka Peroksida, Karakteristik Kimia, Fisik Dan Sensoris Sosis Domba. Tesis. Universitas Gadjah Mada. Yogyakarta.
- Purnamayanti, L., J. Jamhari, C. Hanim and A. Irawan. 2020. Physicochemical properties, oxidative stability, and sensory quality of lamb sausage added with green tea leaves (*Camelia sinensis*) powder. *Tropical Animal Science Journal*. 43 (1): 57-63.
- Purwosari, A. G dan C. A. N. Afifah. 2016. Pengaruh penggunaan jenis dan jumlah bahan pengisi terhadap hasil jadi sosis ikan gabus (*Channa striata*). *E Journal Boga*. 5 (1): 211-288.



- Qiao, Y., J. Huang, Y. Chen, H. Chen, L. Zhao, M. Huang, and G. Zhou. 2016. Meat quality, fatty acid composition and sensory evaluation of Cherry Valley, Spent Layer and Crossbred ducks. *Anim. Sci. J.* 88: 156–165.
- Raharjo. 2006. Kerusakan Oksidatif pada Makanan. Gadjah Mada University Press, Yogyakarta.
- Ratnaduhita, A., A. M. P. Nuhriawangsa dan L. R. Kartikasari. 2021. Aplikasi aktivitas antioksidan tepung gathot (singkong terfermentasi) dalam *edible film* sosis ayam di suhu ruang. *Livestock and Animal Research.* 19(2): 227-237.
- Rahman, M. H., M. S. Alam, M. M. Monir, and S M E Rahman. 2020. Effect of Moringa oleifera leaf extract and synthetic antioxidant on quality and shelf-life 71 of goat meat nuggets at frozen storage. *Int. J. Food Res.* 7:34-45.
- Ravindran, P. N. and J. A. Kallapurackal. 2012. Chapter 6: Black pepper, in *Handbook of herbs and spices*, 2nd ed. Woodhead Publishing Limited. Cambridge, United Kingdom. 62-110.
- Reddy, D. M., A. J. Babu, B. E. Rao, P. R. S. Moorthy, and S. Vani. 2017. Studies on the comparative effect of rosemary, green tea extracts and butylated hydroxy anisole on the keeping quality of chicken meat sausages during refrigeration storage. *Int. J. Curr. Microbiol. Appl. Sci.* 6:2144–2151.
- Risnajati, D. 2010. Pengaruh lama penyimpanan dalam lemari es terhadap pH, daya ikat air, dan susut masak karkas broiler yang dikemas plastik polyethylen. *Jurnal Ilmu-Ilmu Peternakan.* 8 (6): 309-315.
- Reygaert, W. C. 2014. The antimicrobial possibilities of green tea. *Front Microbiol.* 5: 1-8.
- Rohdiana, Dadan dan W. Tantan. 2004. Aktifitas Antioksidan Beberapa Klon Teh Unggulan. *Prosiding Seminar Nasional dan Kongres Perhimpunan Ahli Teknologi Pangan Indonesia (PATPI).* 17-18 Desember. Jakarta.
- Rohdiana, D. dan T. Widiantera. 2004. Aktivitas antioksidan beberapa klon teh unggulan. *Prosiding Seminar Nasional dan Kongres Perhimpunan Ahli Teknologi Pangan Indonesia (PATPI).* 17-18 Desember. Jakarta.
- Rosida, D. F., U. Sarofa dan R. C. Dewi. 2015. Karakteristik fisiko kimia sosis ayam dengan penggunaan konsentrat protein biji lamtoro gung (*Leucaena leucocephala*) sebagai emulsifier. *Jurnal Teknologi Pangan.* 9 (1).
- Rosmawaty, A. N., T. S. Pratamaningtyas dan A. Jumiono. 2022. Desain kebijakan pemasaran sosis daging ayam *edible casing* menuju industri 4.0 dengan menggunakan *interpretative structural modelling*. *Jurnal Governasi.* 8(1): 49-58.
- Sahib, N.G., F. Anwar, A. H. Gilani, A. Abdul-Hamid, N. Saari and K. M. Alkharfy. 2013. Coriander (*Coriandrum sativum* L.): A potential *Source* of high-value components for functional foods and nutraceuticals- a review. *Phytotherapy Research* 27(10), 1439-1456.
- Sajilata, M. G., P. R. Bajaj, dan R. S. Singhal. 2008. Tea polyphenols as nutraceuticals. *Comprehensive Reviews in Food Science and Food Safety.* 7(3): 229–54.



- Samuel, K. S., and N. Peerkham. 2020. Pearl millet protein bar: nutritional, organoleptic, textural characteristic, and in vitro protein and starch digestibility. [J Food Sci Technol.](#) 1(1): 1-7.
- Santhi, D., A. Kalaikannan and S. Sureshkumar. 2015. Factors influencing meat emulsion properties and product texture: A review. *Crit. Rev. Food Sci. Nutr.* 57: 2021–2027.
- Santoso, G., A. A. Karim, B. Maftuh, B and M. Murod. 2023. Kajian wawasan nusantara melalui *local wisdom* NRI yang mendunia dan terampil dalam lagu nasional dan daerah abad 21. *Jupetra.* 2 (1): 197-209.
- Sari, Y. K. dan A. C. Adi. 2017. Daya terima, kadar protein dan zat besi *cookies* substitusi tepung daun kelor dan tepung kecambah kedelai. *Jurnal Ilmiah Media Gizi Indonesia.* 12(1): 1-97.
- Schilling, M., A. Pham, J. Williams, Y. Xiong, N. Dhowlaghar, A. Tolentino, and S. Kin. 2018. Changes in the physiochemical, microbial, and sensory characteristics of fresh pork sausage containing rosemary and green tea extracts during retail display. *Meat Science.* 143: 199-209.
- Schmidt, G. R., R. F. Mawson and D. G. Siegel. 1981. Functionality of a protein matrix in communitied meat products. *Food Technology.* 35 (1): 235-237.
- Sembiring, E. N., B. Elya and R. Sauriasari. 2018. Phytochemical Screening, total flavonoid and total phenolic content and antioxidant activity of different parts of *Caesalpinia bonduc* (L.) Roxb. *Pharmacogn J.* 10 (1): 123-127.
- Seo, J. K., R. Parvin, D. G. Yim, M. A. Zahid, and H. S. Yang. 2019. Effects on quality properties of cooked pork sausages with *Caesalpinia sappan* L. extract during cold storage. *J. Food. Sci. Technol.* 56: 4946-4955.
- Sephton, P. S. 2011. Spatial arbitrage in sarawak pepper prices. *Can J Agric Econ.* 59: 405-416.
- Setyaningsih, D, A. Apriyantono dan M. P. Sari. 2010. *Analisa Sensori Industri Pangan dan Agro.* IPB Press. Bogor.
- Sharif, M. K., M. S. Butt, H. R. Sharif and M. Nasir. 2017. Sensory evaluation and consumer acceptability. *Handbook of food science and technology.* 10. 361-386.
- Sharma, S., V. Pathak, V. P. Singh, M. G. Awasthi, and S. K. Bharti. 2018. Comparative quality assessment of meat nuggets prepared from meat of different food animals. *Int. J. Livest. Res.* 8: 139–148.
- Sharma, H., S. K. Mendiratta, R. K. Agarwal and K. Gurunathan. 2020. Bio-preservative effect of blends of essential oils: natural anti-oxidant and anti-microbial agents for the shelf life enhancement of emulsion based chicken sausages. *J Food Sci Technol.* 57 (8): 3040–3050
- Shin, S. H. and W. S. Choi. 2021. Variation in significant difference of sausage textural parameters measured by texture profile analysis (TPA) under changing measurement conditions. *Food Science of Animal ReSources.* 41 (4): 739-.747.

- Sibuea, P. 2013. Antioksidan Senyawa Ajaib Penangkal Penuaan Dini. Sinar Harapan. Yogyakarta.
- Silva, J.G., Morais, H.A. & Silvestre, M.P.C. 2003. Comparative study of the functional properties of bovine globin isolates and sodium caseinate. 36 (1): 73-80.
- Silva, M. M. and F. C. Lidon. 2016. Food Preservatives – An Overview on Applications and Side Effects. Emirates Journal of Food and Agriculture. 28 (6): 366 – 373.
- Simanjuntak, K. 2012. Peran antioksidan flavonoid dalam meningkatkan kesehatan. Bina Widya. 23 (3): 135-140.
- Sinaga, A. S. 2019. Segmentasi ruang warna  $L^*a^*b$ . Jurnal Mentik Penusa. 3 (1): 43-46.
- Singh, R. P. Scientific principles of shelf life evaluation. In Man, C. M. D. and A. A. Jones (eds.). Shelf Life Evaluation of Foods. Blackir Academic and zprofessional, London.
- Silalahi, M., Indriyani dan Mursyid. 2021. Karakteristik sosis ayam dengan penambahan bubuk buah andaliman (*Zanthoxylum acanthopodium* DC) selama penyimpanan.
- Siregar, A. H. 2016. Pembuatan zat warna alam dari tumbuhan berasal dari daun. Bina Teknika. 12 (1): 103-110.
- Soekarto ST. 2013. Teknologi Penanganan dan Pengolahan Telur. Alfabeta. Bandung.
- Soeparno, 2015. Ilmu dan Teknologi Daging. Edisi kedua. Cetakan ke VI. Gadjah Mada University Press. Yogyakarta.
- Sohaib, M., F. M. Anjum, M. S. Arshad and U. U. Rahman. 2016. Postharvest intervention technologies for safety enhancement of meat and meat based products; a critical review. Sci Technol. 53 (1): 19-30.
- Soriano-Santos, J. 2010. Chemical composition and nutritional content of raw poultry meat. Pages 467–489 in Handbook of Poultry Science and Technology. Guerrero-Legarreta, I., Hui, Y.H., eds. John Wiley and Sons. Inc. New Jersey.
- Spence, C. 2023. Coriander (cilantro): A most divisive herb. International Journal of Gastronomy and Food Science. 33: 1-7.
- Srinivasan, K. 2007. Black pepper and its pungent principle-piperine: a review of diverse physiological effects. Crit Rev Food Sci Nutr. 47: 735–748.
- Stich, E. 2016. Food color and coloring food: Quality, differentiation and regulatory requirements in the european union and the united states. Pages 3–27 in Handbook on Natural Pigments in Food and Beverages: Industrial Applications for Improving Food Color. Carle, R., and R. M. Schweiggert. eds. Elsevier Ltd. United States of America.
- Steel, R. G. D. dan J. H. torrie. 1993. Prinsip dan Prosedur Statistika. Terjemahan Bambang Sumantri. Gramedia. Jakarta.

- Steinhaus, M and P. Schieberle. 2005. Characterization of odorants cusing an atypical aroma in white pepper powder (*Piper nigrum* L.) based on quantitative measurements and orthonasal breakthrough thresholds. J Agric Food Chem 53: 6049–6055.
- Sudarmadji, S., Bambang H., Suhardi. 1984. Prosedur Analisa Untuk Bahan Makanan dan Pertanian. Penerbit Liberty, Yogyakarta.
- Suharyanto, H. Nuraini, T. Suryati, I. I. Arief dan D. Sajuthi. 2019. Potensi ekstrak daun senduduk (*Melastoma malabathricum* L.) sebagai food additive pada sosis daging sapi. Jurnal Aplikasi Teknologi Pangan 8 (1): 1-12.
- Sujarwanta, R. O., Jamhari, E. Suryanti, R. Yuliatmo and A. H. Prayitno. 2019. Physicochemical and sensory characteristics of chicken nugget with curcuma (*Curcuma zanthorrhiza*) flour fortification. IOP Conf. Ser.: Earth Environ. Sci. 387. 012091.
- Sulmiyati, N. S. Said, D. U. Fahrodi, R. Malaka and F. Marrudin. 2019. The physicochemical, microbiology and sensory characteristics of kefir goat milk with different levels of kefir grain. Trop. Anim. Sci. J. 4292.152-158.
- Suman, S. P., M. N. Nair, P. Joseph, and M. C. Hunt. 2016. Factors influencing internal color of cooked meats. Meat Sci. 120:133–144.
- Sumarmono, J., and S. Wasito. 2010. Functional characteristics of spent duck meat for use in emulsion-type meat products. Anim. Prod. 12: 55–59.
- Sunitha, V., 2013. Nitrates in Groundwater: Health Hazards and Remedial Measures. Indian Journal of Advances in Chemical Science 1 (3): 164 – 170.
- Susilo, I. Tri, A. Darmawati, dan D. A. Purwanto. 2016. Optimasi prosedur ekstraksi produk teh hitam untuk penetapan kadar egcg menggunakan metode KCKT. Berkala Ilmiah Kimia Farmasi. 5(1): 1–5.
- Syahreeny, D., B. Abang, A. B. Zulkharnain, A. Ahmad and S. B. Awanghusaini. 2015. Enzymatic retting of *Piper nigrum* L. using commercial Pectinase (*Peelzyme*). J Chem Pharm Sci 8: 2115-2117.
- Syam, A., Soeparno dan Rusman. 2013. Efek lama stimulasi dan tegangan listrik terhadap komposisi kimia, kualitas fisik, dan sensori daging ayam petelur afkir. Buletin Peternakan. 37(1): 26-33.
- Szczesniak, A. S. 2002. Texture is asensory property. Food Quality and Preference. 13:215-225.
- Tanner, D. 2016. Impacts of storage on food quality. Pages 1–4 in Reference Module in Food Science. Elsevier Inc., New Zealand.
- Tauferova, A., B. Tremlova, J. Bednar, J. Golian, R. Zidek, and V. Vietoris. 2015. Determination of ketchup sensory texture acceptability and examination of determining factors as a basis for product optimization. Int. J. Food Prop. 18:660–669.
- Thankamani, V. L. and R. N. Giridhar. 2014. Fermentative production of white pepper using indigenous bacterial isolates. Biotechnol Bioprocess Eng 9: 435-439.

- Thohari, I., Mustakim, M. C. Padaga dan P. P. Rahayu. 2017. Teknologi Hasil Ternak. UB Press. Malang.
- Tomović, V., M. Jakanović, B. Šojić, S. Škaljac, and M. Ivić. 2017. Plants as natural antioxidants for meat products. IOP Conf. Ser. Earth Environ. Sci. 85:012030.
- Trombetta, M. F., S. Mattii, M. Pasquini, and A. Marina. 2009. Influence of diet and rearing system on heavy pig performance, carcass and quality. Italian Journal of Animal Science. 8(1): 23-35.
- USDA [United State Food and Drug Administration Center for Food Safety]. 2001. 4±1°C and Freeze Storage Chart. Washington, D.C.(UK): Applied Nutrition National Science Teachers Association.
- Utera, M., V. Parra and M. Estevez. 2014. Meat Sci. 96: 812.
- Vergiyana N. 2014. Karakteristik mikrobiologi dan kimia sosis ayam dengan penambahan khitosan dan angkak yang disimpan pada 4±1°C. Buletin Peternakan. 38 (3): 197-204.
- Vongsak, B., P. Sithisarn, S. Mangmool, S. Thongpraditchote, Y. Wongkrajang and W. Gritsanapan. 2013. Maximizing total phenolics, total flavonoids contents and antioxidant activity of Moringa oleifera leaf extract by the appropriate extraction method. Industrial Crops and Production. 44: 566-571.
- World Health Organization. 2011. Guidelines Drinking-Water Quality, Fourth Edition. Switzerland.  
[http://www.Who.int/water\\_sanitation\\_health/publications/2011/dwg](http://www.Who.int/water_sanitation_health/publications/2011/dwg).  
Diakses 30 Mei 2024.
- Wijayanti, I., J. Santoso dan A. M. Jacob. 2015. Karakteristik tekstur dan daya ikat air gel surimi ikan lele dengan penambahan asam tanat dan ekstrak fenol teh teroksidasi (*Texture Profile Analysis and Water Holding Capacity of Cat Fish Surimi Gel with Addition of Oxidised Phenolic Tea Extract and Tannic Acid*). Saintek Perikanan: Indonesian Journal of Fisheries Science and Technology. 10 (2): 84-90.
- Winarno, F. G. 1980. Kimia Pangan dan Gizi. Gramedia Pustaka Utama. Jakarta.
- Winarno, F. G. 2004. Kimia Pangan dan Gizi. Gramedia Pustaka Utama. Jakarta.
- Wirakusumah, E.S. 2000. Buah dan Sayur untuk Terapi. Penebar Swadaya, Jakarta.
- Wulandari, Z. 2018. Karakteristik lisozim dari telur unggas lokal sebagai pemanis. Disertasi Sekolah Pascasarjana IPB. Bogor.
- Xiong, Y. L. and W. B. Mikel. 2001. Meat and Meat Productions. Marcel Dekker Inc, USA.
- Xu, Y. Q., P. Yu, dan W. Zhou. 2019. Combined effect of pH and temperature on the stability and antioxidant capacity of Epigallocatechin Gallate (EGCG) in aqueous system. Journal of Food Engineering. 250 (1): 46–54.
- Yamanishi, T. 1999. Tea Flavor. In Jain N.K. (Ed). Global Advances in Tea Science. Aravali Book International Ltd., New Delhi.

- Yang, D., Y. Liu, M. Sun, L. Zhao, Y. Wang, X. Chen dan T. Xia. 2012. Differential gene expression in tea (*Camellia sinensis* L.) call with different morphologies and catechin contents. *Journal of Plant Physiology*. 169 (2): 163–175.
- Yang, H. J., J. H. Lee, M. Won and K. B. Song. 2016. Antioxidant activities of distiller dried grains with solubles as protein films containing tea extracts and their application in the packaging of pork meat. *Food Chemistry*. 196: 174–179.
- Yang, H. S., M. S. Ali, J. Y. Jeong, S. H. Moon, Y. H. hwang, G. B. Park and S. T. Joo. 2009. Properties of duck meat sausages supplemented with cereal flours. *Poultry Science*. 88 (7): 1452-1458.
- Yashin, A. Y., B. V. Nemzer, E. Combet, dan Y. I. Yashin. 2015. Determination of the Chemical Composition of Tea by Chromatographic Methods: A Review. *Journal of Food Research*. 4 (3): 56.
- Yogesh, K. and J. Ali. 2014. Antioxidant potential of thuja (*Thuja occidentalis*) cones and peach (*Prunus persia*) seeds in raw chicken ground meat during refrigerated ( $4 \pm 1$  °C) storage. *J. Food. Sci. Technol*. 51(8): 1547-1553.
- Yoon, J., S. M. Bae, S. H. Gwak and J. Y. Jeong. 2021. Use of green tea extract and rosemary extract in naturally cured pork sausages with white kimchi powder. *Food Sci Anim resour*. 41 (5): 840-854.
- Youssef, M. K. and S. Barbut. 2011. Effects of two types of soy protein isolates, native and preheated whey protein isolates on emulsified meat batters prepared at different protein levels. *Meat Sci*. 87:54-60.
- Yu, D., P. Li, Y. Xu, Q. Jiang and W. Xia. 2017. Physicochemical, microbiological, and sensory attributes of chitosan-coated grass carp (*Ctenopharyngodon idellus*) fillets stored at 4°C. *International Journal of Food Properties*. 20(2): 390-401.
- Yunita, M., Y. Hendrawan dan R. Yulianingsih. 2015. Analisis kuantitatif mikrobiologi pada makanan penerbangan (*Aerofood ACS*) Garuda Indonesia berdasarkan TPC (*Total Plate Count*) dengan *metode pour plate*. *Jurnal Keteknikan Pertanian Tropis dan Biosistem*. 3(3): 237-248.
- Zachariah, J. 2008. Report of Production of White Pepper Through Fermentation Technology.
- Zargar, F. A., S. Kumar, Z. F. Bhat, and P. Kumar. 2014. Effect of pumpkin on the quality characteristics and storage quality of aerobically packaged chicken sausages. *Springerplus* 3: 39–49.
- Zhang, L., Y. H. Lin, X. J. leng, M. Huang and G. H. Zhou. 2013. Effect of sage (*Salvia officinalis*) on the oxidative stability of Chinese-style sausage during refrigerated storage. *Meat Science*. 95: 145-150.
- Zulfahmi, M., Y. B. Pramono dan A. Hintono. 2013. Pengaruh marinasi ekstrak kulit nenas (*ananas comocus* l. merr) pada daging itik tegal betina afkir terhadap kualitaskeempukan dan organoleptik. *Jurnal Pangan dan Gizi*. 4 (8): 19-26.