DAFTAR PUSTAKA

Abilmazhinov, Y., Bekeshova, G., Nesterenko, A., Dibrova, Z., Ermolaev, V., Ponomarev, E., & Vlasova, V. (2023). A Review on The Improvement of Extruded Food Processing Equipment: Extrusion Cooking in Food Processing. *Food Science and Technology*, *43*. https://doi.org/10.5327/FST.80621

Adekola, K. A. (2015). Predictive equations and response surface analysis for sorghum grain extrudate. *Agricultural Engineering International: CIGR Journal*, *17*(4), 247–256. https://cigrjournal.org/index.php/Ejounral/article/view/3057

Adem, M., J.A, S., Worku, A., & Neela, S. (2020). Optimization of lupine (Lupinus albus L.) composition, feed moisture content and barrel temperatures for best quality maize based extruded snack food. *Nutrition and Food Science*, *50*(5), 853–869. https://doi.org/10.1108/NFS-07-2019-0219/FULL/PDF

Agarwal, S., Singh Chauhan, E., & Ekta Singh Chauhan, C. (2019). Extrusion processing: The effect on nutrients and based products. *The Pharma Innovation Journal*, *8*(4), 464–470. www.thepharmajournal.com

Alam, M. R., Scampicchio, M., Angeli, S., & Ferrentino, G. (2019). Effect of hot melt extrusion on physical and functional properties of insect based extruded products. *Journal of Food Engineering*, *259*, 44–51. https://doi.org/10.1016/J.JFOODENG.2019.04.021

Alam, M. S., Kaur, J., Khaira, H., & Gupta, K. (2016). Extrusion and Extruded Products: Changes in Quality Attributes as Affected by Extrusion Process Parameters: A Review. *Critical Reviews in Food Science and Nutrition*, *56*(3), 445–473. https://doi.org/10.1080/10408398.2013.779568

Al-Hashemi, H. M. B., & Al-Amoudi, O. S. B. (2018). A review on the angle of repose of granular materials. *Powder Technology*, *330*, 397–417. https://doi.org/10.1016/J.POWTEC.2018.02.003

Ali, H., Ahmad, F., & Iqbal, Z. (2014). Estimation of tannins in different sorghum varieties and their effects on nutrient digestibility and absorption of some minerals in caged white leghorn layers. *International Journal of Agriculture & Biology*, *16*, 217–221. http://www.fspublishers.org

ASABE. (2006). *Method of Determining and Expressing Fineness of Feed Materials by Sieving*. ASABE Standards.

A'Yunin, N. A. Q., Atmadja, T. F. A. G., Aini, N., & Haryanti, P. (2022). Characterisation of Polishing Frequency for Three Varieties of Sorghum Grain in Java, Indonesia. *International Journal of Food Science*, *2022*. https://doi.org/10.1155/2022/2949665

Berk, Z. (2009). Extrusion. *Food Process Engineering and Technology*, 333–350. https://doi.org/10.1016/B978-0-12-373660-4.00015-6

Beta, T., & Ndolo, V. U. (2018). Postharvest technologies. *Sorghum and Millets: Chemistry, Technology, and Nutritional Attributes*, 69–84. https://doi.org/10.1016/B978-0-12-811527-5.00004-6

Bilge, G., Sezer, B., Eseller, K. E., Berberoglu, H., Koksel, H., & Boyaci, I. H. (2016). Ash analysis of flour sample by using laser-induced breakdown

spectroscopy. *Spectrochimica Acta Part B: Atomic Spectroscopy*, *124*, 74–78. https://doi.org/10.1016/J.SAB.2016.08.023

Bisharat, G. I., Oikonomopoulou, V. P., Panagiotou, N. M., Krokida, M. K., & Maroulis, Z. B. (2013). Effect of extrusion conditions on the structural properties of corn extrudates enriched with dehydrated vegetables. *Food Research International*, *53*(1), 1–14. https://doi.org/10.1016/J.FOODRES.2013.03.043

BPS. (2022). *Pola Konsumsi Makanan (Persen), 2020-2022*. https://rembangkab.bps.go.id/indicator/5/131/1/pola-konsumsi-makanan.html

BPS Kab. Rote Ndao. (2024). *Produksi Tanaman Sorgum (Ton), 2021-2022*. https://rotendaokab.bps.go.id/indicator/53/300/1/produksi-tanaman-sorgum.html

Brnčić, M., Tripalo, B., Ježek, D., Semenski, D., Drvar, N., & Ukrainczyk, M. (2006a). Effect of twin-screw extrusion parameters on mechanical hardness of direct-expanded extrudates. *Sadhana - Academy Proceedings in Engineering Sciences*, *31*(5), 527–536. https://doi.org/10.1007/BF02715911/METRICS

Brnčić, M., Tripalo, B., Ježek, D., Semenski, D., Drvar, N., & Ukrainczyk, M. (2006b). Effect of twin-screw extrusion parameters on mechanical hardness of direct-expanded extrudates. *Sadhana - Academy Proceedings in Engineering Sciences*, *31*(5), 527–536. https://doi.org/10.1007/BF02715911/METRICS

BSN. (2015). *Makanan ringan ekstrudat*. SNI 2886:2015. https://akses-sni.bsn.go.id/viewsni/baca/6161

Byaruhanga, Y. B., Kassozi, V., Wafoyo, R., Mugoya, C., & Masiga, C. (2014). Properties of extrudates from sorghum varieties. *African Crop Science Journal*, *22*, 829–836. https://www.ajol.info/index.php/acsj/article/view/108466

Camire, M. E. (2012). Nutritional Changes during Extrusion Cooking. Dalam M. Maskan & A. Altan (Ed.), *Advances in Food Extrusion Technology* (hlm. 87–94). CRC Press.

Carvalho, C. W. P., Takeiti, C. Y., Onwulata, C. I., & Pordesimo, L. O. (2010). Relative effect of particle size on the physical properties of corn meal extrudates: Effect of particle size on the extrusion of corn meal. *Journal of Food Engineering*, *98*(1), 103–109. https://doi.org/10.1016/J.JFOODENG.2009.12.015

Cheng, H., Wang, H., Ma, S., Xue, M., Li, J., & Yang, J. (2022). Development of a water solubility model of extruded feeds by utilizing a starch gelatinization model. *International Journal of Food Properties*, *25*(1), 463–476. https://doi.org/10.1080/10942912.2022.2046055

Choton, S., Gupta, N., Dogra Bandral, J., & Anjum, N. (2020). *Extrusion technology and its application in food processing: A review*. https://doi.org/10.22271/tpi.2020.v9.i2d.4367

Coradi, P. C., Nunes, M. T., Bellochio, S. D. C., Camilo, L. J., & Teodoro, P. E. (2022). Effects of drying temperatures and storage conditions on the levels of lipids and starches in corn grains for yield ethanol industry. *Biofuels*, *13*(6), 745–754. https://doi.org/10.1080/17597269.2021.1904674

Da, W. (2012). *Advances in Food Extrusion Technology* (M. Maskan & A. Altan, Ed.). CRC Press Taylor & Francis Group. https://books.google.co.id/books?hl=id&lr=&id=6uYcGJTv1YcC&oi=fnd&pg=PR2&dq=extrusion+food+technology&ots=kRi2Hu50Kh&sig=FW6IF3KrURl9krsGH2mV4dnl2-M&redir_esc=y#v=onepage&q=extrusion%20food%20technology&f=false

Devi, N. L., Shobha, S., Tang, X., Shaur, S. A., Dogan, H., & Alavi, S. (2013). Development of protein-rich sorghum-based expanded snacks using extrusion technology. *International Journal of Food Properties*, *16*(2), 263–276. https://doi.org/10.1080/10942912.2011.551865

Ding, Q. B., Ainsworth, P., Plunkett, A., Tucker, G., & Marson, H. (2006). The effect of extrusion conditions on the functional and physical properties of wheat-based expanded snacks. *Journal of Food Engineering*, *73*(2), 142–148. https://doi.org/10.1016/J.JFOODENG.2005.01.013

Dwinata, V. F. S., Karyadi, J. N. W., Susanti, D. Y., Samodra, A. S., Mahanani, R. S., Rahmawati, D. K., & Sinuhaji, P. F. P. (2024). Physical characteristics of extrudate with treatment composition ratio of mixed corn grits-soybean flour and extruder barrel temperature. *IOP Conference Series: Earth and Environmental Science*, *1290*(1), 012009. https://doi.org/10.1088/1755-1315/1290/1/012009

Falcone, R. G., & Philips, R. D. (2016). Effects of Feed Composition, Feed Moisture, and Barrel Temperature on the Physical and Rheological Properties of Snack-like Products Prepared from Cowpea and Sorghum Flours by Extrusion. *Journal of Food Science*, *53*(5), 1464–1469. https://doi.org/10.1111/J.1365-2621.1988.TB09300.X

Filli, K. B., & Jiddere, G. (2016). Physicochemical properties of Sorghum malt and Bambara Groundnut Based extrudates. *J. Food Sci. Techol. Nepal*, *9*, 2016. https://www.researchgate.net/publication/309681827

Gandhi, N., Singh, B., Sharma, S., & Kaur, G. (2018). Assessing effect of extrusion processing conditions on colour and viscosity of corn starch using response surface analysis. *Agricultural Research Journal*, *55*(4), 729. https://doi.org/10.5958/2395-146X.2018.00132.1

García-Lara, S., & Serna-Saldivar, S. O. (2018). Corn History and Culture. *Corn: Chemistry and Technology, Third Edition*, 1–18. https://doi.org/10.1016/B978-0-12-811971-6.00001-2

Gulati, P., Brahma, S., & Rose, D. J. (2020). Impacts of extrusion processing on nutritional components in cereals and legumes: Carbohydrates, proteins, lipids, vitamins, and minerals. *Extrusion Cooking*, 415–443. https://doi.org/10.1016/B978-0-12-815360-4.00013-4

Haryo, R., Setiarto, B., Widhyastuti, N., Saskiawan, I., Mikrobiologi, B., Penelitian, P., & Lembaga, B. (2016). Pengaruh Fermentasi Fungi, Bakteri Asam Laktat dan Khamir terhadap Kualitas Nutrisi Tepung Sorgum. *agriTECH*, *36*(4), 440–449. https://doi.org/10.22146/AGRITECH.16769

Helmick, H., Tonner, T., Hauersperger, D., Okos, M., & Kokini, J. L. (2023). Comparison of the specific mechanical energy, specific thermal energy, and functional properties of cold and hot extruded pea protein isolate. *Food*

Research International, *174*, 113603. https://doi.org/10.1016/J.FOODRES.2023.113603

Hood-Niefer, S. D., & Tyler, R. T. (2010). Effect of protein, moisture content and barrel temperature on the physicochemical characteristics of pea flour extrudates. *Food Research International*, *43*(2), 659–663. https://doi.org/10.1016/J.FOODRES.2009.09.033

Jafari, M., Koocheki, A., & Milani, E. (2017). Effect of extrusion cooking on chemical structure, morphology, crystallinity and thermal properties of sorghum flour extrudates. *Journal of Cereal Science*, *75*, 324–331. https://doi.org/10.1016/J.JCS.2017.05.005

Jin, Z., Wang, M., Wu, F., Cai, H. Y., Jin, W. P., Sun, W., Chen, X., Li, F., Wang, Z., & Shen, W. Y. (2020). Effect of Extrusion on The Total Antioxidant Capacity and Free Phenolic Compounds of Wheat Bran by Response Surface Methodology. *Italian Journal of Food Science*, *32*(2), 386–398. https://doi.org/10.14674/IJFS-1626

Jung, J., Huang, X., Liu, H., Ma, Y., Mai, S., & Li, C. (2022). *Effects of Extrusion on Starch Molecular Degradation, Order-Disorder Structural Transition and Digestibility-A Review*. https://doi.org/10.3390/foods11162538

Kazemzadeh, M. (2012). Introduction to Extrusion Technology. Dalam *Advances in Food Extrusion Technology* (hlm. 1–22). CRC Press.

Kebede, L., Worku, S., Bultosa, G., & Yetneberek, S. (2010). Effect of extrusion operating conditions on the physical and sensory properties of tef (Eragrostis tef [Zucc.] Trotter) flour extrudates. *Ethiopian Journal of Applied Science and Technology*, *1*(1), 27–38.

Łatuszyńska, A., & Stetinensia, F. O. (2013). Multiple-Criteria Decision Analysis Using TOPSIS Method for Interval Data in Research Into The Level of Information Society DEVELOPMENT. *olia Oeconomica Stetinensia*, *13*(2), 63–76. https://doi.org/10.2478/foli-2013-0015

Li, L. lu, Ming, B., Xue, J., Gao, S., Wang, K. ru, Xie, R. zhi, Hou, P., & Li, S. kun. (2021). Difference in corn kernel moisture content between pre- and post-harvest. *Journal of Integrative Agriculture*, *20*(7), 1775–1782. https://doi.org/10.1016/S2095-3119(20)63245-2

Liu, L., Li, S., Zhong, Y., Li, Y., Qu, J., Feng, J., Xu, S., Zhang, R., Xue, J., & Guo, D. (2017). Nutritional, physical and sensory properties of extruded products from high-amylose corn grits. *Emirates Journal of Food and Agriculture*, *29*(11), 846–855. https://doi.org/10.9755/EJFA.2017.V29.I11.1494

Llopart, E. E., Drago, S. R., De Greef, D. M., Torres, R. L., & González, R. J. (2014). Effects of extrusion conditions on physical and nutritional properties of extruded whole grain red sorghum (sorghum spp). *International Journal of Food Sciences and Nutrition*, *65*(1), 34–41. https://doi.org/10.3109/09637486.2013.836737

Maddineni, S., Battu, S. K., Morott, J., Majumdar, S., Murthy, S. N., & Repka, M. A. (2014). Influence of Process and Formulation Parameters on Dissolution and Stability Characteristics of Kollidon® VA 64 Hot-Melt Extrudates. *AAPS PharmSciTech*, *16*(2), 444–454. https://doi.org/10.1208/S12249-014-0226-4/FIGURES/10

Magallanes López, A. M., & Simsek, S. (2021). Pathogens control on wheat and wheat flour: A review. *Cereal Chemistry*, *98*(1), 17–30. https://doi.org/10.1002/CCHE.10345

Maranatha, E. B. (2010). *Penentuan Formulasi Terbaik dan Flavor yang Sesuai untuk Ekstrudat Campuran Jagung (Zea mays) dan Sorgum Putih (Sorgum bicolor L.)* [Skripsi, Universitas Katolik Soegijapranata]. http://repository.unika.ac.id/id/eprint/8636

Marston, K., Khouryieh, H., & Aramouni, F. (2016). Effect of heat treatment of sorghum flour on the functional properties of gluten-free bread and cake. *LWT - Food Science and Technology*, *65*, 637–644. https://doi.org/10.1016/J.LWT.2015.08.063

Maskan, Medeni., & Altan, Aylin. (2012). *Advances in food extrusion technology*. CRC Press. https://books.google.com/books/about/Advances_in_Food_Extrusion_Technology.html?hl=id&id=6uYcGJTv1YcC

Mba, J. C., Paes, L. T., Viana, L. M., Ferreira, A. J. C., Queiroz, V. A. V., Martino, H. S. D., Azevedo, L., de Carvalho, C. W. P., Felisberto, M. H. F., & de Barros, F. A. R. (2023). Evaluation of the Physical, Chemical, Technological, and Sensorial Properties of Extrudates and Cookies from Composite Sorghum and Cowpea Flours. *Foods 2023, Vol. 12, Page 3261*, *12*(17), 3261. https://doi.org/10.3390/FOODS12173261

McGinnis, M. J., & Painter, J. E. (2020). Sorghum: History, Use, and Health Benefits. *Nutrition Today*, *55*(1), 38–44. https://doi.org/10.1097/NT.0000000000000391

Montanari, D., Agostini, A., Bonini, M., Corti, G., & Del Ventisette, C. (2017). The Use of Empirical Methods for Testing Granular Materials in Analogue Modelling. *Materials 2017, Vol. 10, Page 635*, *10*(6), 635. https://doi.org/10.3390/MA10060635

Mount, E. M. (2017). Extrusion Processes. *Applied Plastics Engineering Handbook: Processing, Materials, and Applications: Second Edition*, 217–264. https://doi.org/10.1016/B978-0-323-39040-8.00012-2

Mugabi, R., Byakika, S., & Mukisa, I. M. (2022). Effects of Feed Moisture Content, Soybean Ratio and Barrel Temperature on Physical and Functional Properties of Extruded Maize-Soybean Flour Blends. *Tanzania Journal of Science*, *48*(2), 447–459. https://doi.org/10.4314/TJS.V48I2.19

Muindi, E. M., Mulinge, J., Kadzo Kazungu, F., Mwende Muindi, E., & Mulinge, J. M. (2023). Overview of Sorghum (Sorghum bicolor. L), its Economic Importance, Ecological Requirements and Production Constraints in Kenya. *International Journal of Plant & Soil Science*, *35*(1), 62–71. https://doi.org/10.9734/IJPSS/2023/v35i12744

Narbutaite, V., Makaravicius, T., Juodeikiene, G., & Basinskiene, L. (2008). The effect of extrusion conditions and cereal types on the functional properties of extrudates as fermentation media. *Proceedings of the 3rd Baltic Conference on Food Science and Technology*, 60–63.

Navaneetha, E., & Lakshmi, A. A. (2023). Cold extrusion on bulk materials: A review. *Materials Today: Proceedings*. https://doi.org/10.1016/J.MATPR.2023.09.168

Nayak, B., Berrios, J. D. J., Powers, J. R., & Tang, J. (2011). Effect of Extrusion on the Antioxidant Capacity and Color Attributes of Expanded Extrudates Prepared from Purple Potato and Yellow Pea Flour Mixes. *Journal of Food Science*, *76*(6), C874–C883. https://doi.org/10.1111/J.1750-3841.2011.02279.X

Niefer, S. D. H., & Tyler, R. T. (2010). Effect of protein, moisture content and barrel temperature on the physicochemical characteristics of pea flour extrudates. *Food Research International*, *43*(2), 659–663. https://doi.org/10.1016/J.FOODRES.2009.09.033

Offiah, V., Kontogiorgos, V., & Falade, K. O. (2019). Extrusion processing of raw food materials and by-products: A review. *Critical Reviews in Food Science and Nutrition*, *59*(18), 2979–2998. https://doi.org/10.1080/10408398.2018.1480007

Oliveira, L. C., Alencar, N. M. M., & Steel, C. J. (2018). Improvement of sensorial and technological characteristics of extruded breakfast cereals enriched with whole grain wheat flour and jabuticaba (Myrciaria cauliflora) peel. *LWT*, *90*, 207–214. https://doi.org/10.1016/J.LWT.2017.12.017

Ortiz, J. A. R., de Carvalho, C. W. P., Ascheri, D. P. R., Ascheri, J. L. R., & de Andrade, C. T. (2010). Effect of sugar and water contents on non-expanded cassava flour extrudates. *Food Science and Technology*, *30*(1), 205–212. https://doi.org/10.1590/S0101-20612010000100030

Pathania, S., Singh, B., Sharma, S., & Sharma, V. (2013). Optimization of extrusion processing conditions for preparation of an instant grain base for use in weaning foods. *Smita Singla / International Journal of Engineering Research and Applications (IJERA)*, *3*, 1040–1049. https://www.researchgate.net/publication/310450137

Pezzali, J. G., Suprabha-Raj, A., Siliveru, K., & Aldrich, C. G. (2020). Characterization of white and red sorghum flour and their potential use for production of extrudate crisps. *PLoS ONE*, *15*(6 June). https://doi.org/10.1371/JOURNAL.PONE.0234940

Prabha, K., Ghosh, P., S, A., Joseph, R. M., Krishnan, R., Rana, S. S., & Pradhan, R. C. (2021a). Recent development, challenges, and prospects of extrusion technology. *Future Foods*, *3*, 100019. https://doi.org/10.1016/J.FUFO.2021.100019

Prabha, K., Ghosh, P., S, A., Joseph, R. M., Krishnan, R., Rana, S. S., & Pradhan, R. C. (2021b). Recent development, challenges, and prospects of extrusion technology. *Future Foods*, *3*, 100019. https://doi.org/10.1016/J.FUFO.2021.100019

Pusat Data dan Sistem Informasi Pertanian. (2022). *Statistik Konsumsi Pangan Tahun 2022*. Sekretariat Jendral Kementrian Pertanian. https://satudata.pertanian.go.id/assets/docs/publikasi/Buku_Statistik_Konsumsi_2022.pdf

Rashwan, A. K., Yones, H. A., Karim, N., Taha, E. M., & Chen, W. (2021). Potential processing technologies for developing sorghum-based food products: An update and comprehensive review. *Trends in Food Science & Technology*, *110*, 168–182. https://doi.org/10.1016/J.TIFS.2021.01.087

Riaz, M. N. (2019). Food Extruders. *Handbook of Farm, Dairy and Food Machinery Engineering*, 483–497. https://doi.org/10.1016/B978-0-12-814803-7.00019-1

Rodríguez, M. N. S., & Cassab, G. I. (2021). Primary Root and Mesocotyl Elongation in Maize Seedlings: Two Organs with Antagonistic Growth below the Soil Surface. *Plants 2021, Vol. 10, Page 1274*, *10*(7), 1274. https://doi.org/10.3390/PLANTS10071274

Rokey, G. J., Plattner, B., & De Souza, E. M. (2010). Feed extrusion process description. *Revista Brasileira de Zootecnia*, *39*(SUPPL. 1), 510–518. https://doi.org/10.1590/S1516-35982010001300055

Rolandelli, G., García-Navarro, T., García-Pinilla, S., Farroni, A. E., Fidel Gutiérrez-López, G., & Del Pilar Buera, M. (2020). *Microstructural characteristics and physical properties of corn-based extrudates affected by the addition of millet, sorghum, quinoa and canary seed flour*. https://doi.org/10.1016/j.foostr.2020.100140

Sang, Y., Bean, S., Seib, P. A., Pedersen, J., & Shi, Y. C. (2008). Structure and functional properties of sorghum starches differing in amylose content. *Journal of agricultural and food chemistry*, *56*(15), 6680–6685. https://doi.org/10.1021/JF800577X

Seth, D., Badwaik, L. S., & Ganapathy, V. (2015). Effect of feed composition, moisture content and extrusion temperature on extrudate characteristics of yam-corn-rice based snack food. *Journal of Food Science and Technology*, *52*(3), 1830–1838. https://doi.org/10.1007/S13197-013-1181-X/TABLES/5

Shah, F. U. H., Sharif, M. K., Ahmad, Z., Amjad, A., Javed, M. S., Suleman, R., Sattar, D. E. S., Amir, M., & Anwar, M. J. (2022). Nutritional characterization of the extrusion-processed micronutrient-fortified corn snacks enriched with protein and dietary fiber. *Frontiers in Nutrition*, *9*, 1062616. https://doi.org/10.3389/FNUT.2022.1062616/BIBTEX

Shallal, M. R., Jabar, A., Ibrahim, K., Alomari, A., Hidayah, N., Adiandri, R. S., Rahayu, E., & Nugraha, S. (2019). Evaluation of Corn Grits Quality from Farmer-Scale Trial Production. *IOP Conference Series: Earth and Environmental Science*, *309*(1), 012064. https://doi.org/10.1088/1755-1315/309/1/012064

Silva, I. C. V., Damasceno-Silva, K. J., Hashimoto, J. M., de Carvalho, C. W. P., Ascheri, J. L. R., Galdeano, M. C., & de Moura Rocha, M. (2023). Effect of different processing conditions to obtain expanded extruded based on cowpea. *Brazilian Journal of Food Technology*, *26*, 2022052. https://doi.org/10.1590/1981-6723.05222

Singh, B., Sharma, C., & Sharma, S. (2020). *Fundamentals of extrusion processing* (hlm. 1–46). OSF. https://doi.org/10.31219/OSF.IO/XQA5N

Singha, P., Singh, S. K., Muthukumarappan, K., & Krishnan, P. (2018). Physicochemical and nutritional properties of extrudates from food grade

distiller's dried grains, garbanzo flour, and corn grits. *Food Science & Nutrition*, *6*(7), 1914–1926. https://doi.org/10.1002/FSN3.769

Słowí, M., Miazek, J., Dasiewicz, K., & Chmiel, M. (2021). The Effect of the Addition of Fiber Preparations on the Color of Medium-Grounded Pasteurized and Sterilized Model Canned Meat Products. *Molecules*, *1*(26). https://doi.org/10.3390/molecules26082247

Sun, Q., Han, Z., Wang, L., & Xiong, L. (2014). Physicochemical differences between sorghum starch and sorghum flour modified by heat-moisture treatment. *Food Chemistry*, *145*, 756–764. https://doi.org/10.1016/J.FOODCHEM.2013.08.129

Tadesse, S. A., Beri, G. B., & Abera, S. (2019). Chemical and sensory quality of sorghum-based extruded product supplemented with defatted soy meal flour. *Cogent Food & Agriculture*, *5*(1). https://doi.org/10.1080/23311932.2019.1653617

Tadesse, S. A., Bultosa, G., & Abera, S. (2019). Functional and physical properties of sorghum-based extruded product supplemented with soy meal flour. *Cogent Food and Agriculture*, *5*(1). https://doi.org/10.1080/23311932.2019.1707608

Taylor, J. R. N. (2018). Sorghum and millets: Taxonomy, history, distribution, and production. *Sorghum and Millets: Chemistry, Technology, and Nutritional Attributes*, 1–21. https://doi.org/10.1016/B978-0-12-811527-5.00001-0

The State of Snacking. (2022). *2022 Global Consumer Snacking Trends Study*. https://www.mondelezinternational.com/stateofsnacking/

Tiwari, A., & JHA, S. K. (2017). Extrusion cooking technology: Principal mechanism and effect on direct expanded snacks – An overview. *International Journal of Food Studies*, *6*(1), 113–128. https://doi.org/10.7455/ijfs/6.1.2017.a10

Tumwine, G., & Asiimwe, A. (2019a). Effect of barrel temperature and blending ratio on the sensory and physical properties of cassava-extruded snacks. *Cogent Food & Agriculture*, *5*(1). https://doi.org/10.1080/23311932.2019.1633795

Tumwine, G., & Asiimwe, A. (2019b). Effect of barrel temperature and blending ratio on the sensory and physical properties of cassava-extruded snacks. *Cogent Food & Agriculture*, *5*(1). https://doi.org/10.1080/23311932.2019.1633795

USDA. (2018). *Sorghum grain, Sorghum flour, whole-grain. FoodData Central. U.S. Department of Agriculture*. https://fdc.nal.usda.gov/fdc-app.html#/food-details/169716/nutrients

Wang, B., Dong, Y., Fang, Y., Gao, W., Kang, X., Liu, P., Yan, S., Cui, B., & Abd El-Aty, A. M. (2022). Effects of different moisture contents on the structure and properties of corn starch during extrusion. *Food Chemistry*, *368*, 130804. https://doi.org/10.1016/J.FOODCHEM.2021.130804

Wang, Q., Sivakumar, K., & Mohanasundaram, S. (2022). Impacts of extrusion processing on food nutritional components. *International Journal of System Assurance Engineering and Management*, *13*(1), 364–374. https://doi.org/10.1007/S13198-021-01422-2/TABLES/5

Wang, S., Gu, B. J., & Ganjyal, G. M. (2019). Impacts of the inclusion of various fruit pomace types on the expansion of corn starch extrudates. *LWT*, *110*, 223–230. https://doi.org/10.1016/J.LWT.2019.03.094

Widodo, S., Triastono, J., Sahara, D., Pustika, A. B., Kristamtini, Purwaningsih, H., Arianti, F. D., Praptana, R. H., Romdon, A. S., Sutardi, Widyayanti, S., Fadwiwati, A. Y., & Muslimin. (2023). Economic Value, Farmers Perception, and Strategic Development of Sorghum in Central Java and Yogyakarta, Indonesia. *Agriculture 2023, Vol. 13, Page 516*, *13*(3), 516. https://doi.org/10.3390/AGRICULTURE13030516

Wittek, P., Karbstein, H. P., & Emin, M. A. (2021). Blending Proteins in High Moisture Extrusion to Design Meat Analogues: Rheological Properties, Morphology Development and Product Properties. *Foods 2021, Vol. 10, Page 1509*, *10*(7), 1509. https://doi.org/10.3390/FOODS10071509

Yacu, W. A. (2012). Extruder Selection, Design, and Operation for Different Food Applications. Dalam *Advances in Food Extrusion Technology* (hlm. 23–68). CRC Press.

Yadav, Dr. K. C., Karhale, H. B., & Singh, Prof. (Dr.) M. (2023). Food Extrusion: A Highly Popular Technology to Process. *Indian Journal of Food Engineering*, *2*(3), 1–8. https://doi.org/10.54105/IJFE.C1005.062323

Yağcı, S., & Göğüş, F. (2012). Quality control parameters of extrudates and methods for determination. *Advances in Food Extrusion Technology*, 297–326. http://earsiv.kmu.edu.tr/xmlui/handle/11492/2253

Zarei, M., Amirkolaei, A. K., Trushenski, J. T., Sealey, W. M., Schwarz, M. H., & Ovissipour, R. (2022). Sorghum as a Potential Valuable Aquafeed Ingredient: Nutritional Quality and Digestibility. *Agriculture 2022, Vol. 12, Page 669*, *12*(5), 669. https://doi.org/10.3390/AGRICULTURE12050669

Zurak, D., Kljak, K., & Grbeša, D. (2020). The composition of floury and vitreous endosperm affects starch digestibility kinetics of the whole maize kernel. *Journal of Cereal Science*, *95*, 103079. https://doi.org/10.1016/J.JCS.2020.103079