

## DAFTAR PUSTAKA

- Aburto, N. J., Hanson, S., Gutierrez, H., Hooper, L., Elliott, P., & Cappuccio, F. P. (2013). Effect of increased potassium intake on cardiovascular risk factors and disease: systematic review and meta-analyses. *BMJ (Clinical Research Ed.)*, *346*, f1378–f1378. <https://doi.org/10.1136/bmj.f1378>
- Ahmad, S., Jafarzadeh, S., Ariffin, F., & Zainul Abidin, S. (2020). Evaluation of physicochemical, antioxidant and antimicrobial properties of chicken sausage incorporated with different vegetables. *Italian Journal of Food Science*, *32*(1), 75–90. <https://doi.org/10.14674/IJFS-1574>
- Alvizouri-Muñoz, M., Carranza-Madrigal, J., Herrera-Abarca, J. E., Chávez-Carbajal, F., & Amezcua-Gastelum, J. L. (1992). Effects of avocado as a source of monounsaturated fatty acids on plasma lipid levels. *Archives of Medical Research*, *23*(4), 163–167. <http://www.ncbi.nlm.nih.gov/pubmed/1308699>
- Ambrosiadis, J., Vareltzis, K. P., & Georgakis, S. A. (1996). Physical, chemical and sensory characteristics of cooked meat emulsion style products containing vegetable oils. *International Journal of Food Science & Technology*, *31*(2), 189–194. <https://doi.org/10.1111/j.1365-2621.1996.323-26.x>
- Andrés, S. C., Zaritzky, N. E., & Califano, A. N. (2009). Innovations in the development of healthier chicken sausages formulated with different lipid sources. *Poultry Science*, *88*(8), 1755–1764. <https://doi.org/10.3382/ps.2008-00495>
- Araújo, Í. B. S., Lima, D. A. S., Pereira, S. F., Paseto, R. P., & Madruga, M. S. (2020). Effect of storage time on the quality of chicken sausages produced with fat replacement by collagen gel extracted from chicken feet. *Poultry Science*, *Pre-proof*. <https://doi.org/10.1016/j.psj.2020.10.029>
- Baek, K. H., Utama, D. T., Lee, S. G., An, B. K., & Lee, S. K. (2016). Effects of Replacing Pork Back Fat with Canola and Flaxseed Oils on Physicochemical Properties of Emulsion Sausages from Spent Layer Meat. *J. Anim. Sci Anim. Sci*, *29*(6), 865–871.
- Barbut, S. (2015). Principles of Meat Processing. In *The science of poultry and meat processing* (pp. 13.1-13.89). Library and Archives Canada Cataloguing in Publication.
- Berruga, I., Vergara, H., & Gallego, L. (2005). Influence of packaging condition on microbial and lipid oxidation in lamb meat. *Small Ruminant Research - SMALL RUMINANT RES*, *57*, 257–264. <https://doi.org/10.1016/j.smallrumres.2004.08.004>
- Bloukas, J. G., & Paneras, E. D. (1993). Substituting Olive Oil for Pork

- Backfat Affects Quality of Low-Fat Frankfurters. *Journal of Food Science*, 58(4), 705–709. <https://doi.org/10.1111/j.1365-2621.1993.tb09339.x>
- Burdock, G. A., Carabin, I. G., & Griffiths, J. C. (2006). The importance of GRAS to the functional food and nutraceutical industries. *Toxicology*, 221(1), 17–27. <https://doi.org/10.1016/j.tox.2006.01.012>
- Chan, J. T. Y., Omana, D. A., & Betti, M. (2011). Functional and rheological properties of proteins in frozen turkey breast meat with different ultimate pH. *Poultry Science*, 90(5), 1112–1123. <https://doi.org/10.3382/ps.2010-01185>
- Chizzolini, R., Zanardi, E., Dorigoni, V., & Ghidini, S. (1999). Calorific value and cholesterol content of normal and low-fat meat and meat products - Antioxidants and Atherosclerotic Disease. In *Trends in Food Science and Technology* (Vol. 10). [https://doi.org/10.1016/S0924-2244\(99\)00034-5](https://doi.org/10.1016/S0924-2244(99)00034-5)
- Choe, J., & Kim, H.-Y. Y. (2019). Quality characteristics of reduced fat emulsion-type chicken sausages using chicken skin and wheat fiber mixture as fat replacer. *Poultry Science*, 98(6), 2662–2669. <https://doi.org/10.3382/ps/pez016>
- Choi, Y.-S., Choi, J.-H., Han, D.-J., Kim, H.-Y., Lee, M.-A., Kim, H.-W., Lee, J.-W., Chung, H.-J., & Kim, C.-J. (2010). Optimization of replacing pork back fat with grape seed oil and rice bran fiber for reduced-fat meat emulsion systems. *Meat Science*, 84(1), 212–218. <https://doi.org/10.1016/j.meatsci.2009.08.048>
- Choi, Y. S., Choi, J. H., Han, D. J., Kim, H. Y., Lee, M. A., Jeong, J. Y., Chung, H. J., & Kim, C. J. (2010). Effects of replacing pork back fat with vegetable oils and rice bran fiber on the quality of reduced-fat frankfurters. *Meat Science*, 84(3), 557–563. <https://doi.org/10.1016/j.meatsci.2009.10.012>
- Chorbadzhiev, P., Zsivanovits, G., Gradinarska, D., Danov, K., & Valkova-Jorgova, K. (2017). Improvement of texture profile attributes of cooked sausage type “Krenvirsh.” *Bulgarian Journal of Agricultural Science*, 23(2), 338–347.
- Clotilde Ella, K. L., Christian, N. A., Augustin, G., Aboubakar, D., BOUBA Armand, A., & Carl Moses, M. (2018). Production of chicken sausage (Cobb 500 (Smith, 1992)): characterisation of Physicochemical, microbiological and sensorial qualities. *International Journal of Scientific Research and Management*, 6(08), 2–9. <https://doi.org/10.18535/ijstrm/v6i8.ft01>
- Colmenero, F. J. (1996). Technologies for developing low-fat meat products. *Trends in Food Science & Technology*, 7(2), 41–48. [https://doi.org/10.1016/0924-2244\(96\)81327-6](https://doi.org/10.1016/0924-2244(96)81327-6)

- Colquhoun, D. M., Moores, D., Somerset, S. M., & Humphries, J. A. (1992). Comparison of the effects on lipoproteins and apolipoproteins of a diet high in monounsaturated fatty acids, enriched with avocado, and a high-carbohydrate diet. *The American Journal of Clinical Nutrition*, 56(4), 671–677. <https://doi.org/10.1093/ajcn/56.4.671>
- Cui, L., & Decker, E. A. (2016). Phospholipids in foods: Prooxidants or antioxidants? In *Journal of the Science of Food and Agriculture* (Vol. 96, Issue 1, pp. 18–31). John Wiley and Sons Ltd. <https://doi.org/10.1002/jsfa.7320>
- Duester, G. (2000). Families of retinoid dehydrogenases regulating vitamin A function: production of visual pigment and retinoic acid. *European Journal of Biochemistry*, 267(14), 4315–4324. <http://www.ncbi.nlm.nih.gov/pubmed/10880953>
- Faustman, C., Sun, Q., Mancini, R., & Suman, S. P. (2010). Myoglobin and lipid oxidation interactions: Mechanistic bases and control. In *Meat Science* (Vol. 86, Issue 1, pp. 86–94). Elsevier. <https://doi.org/10.1016/j.meatsci.2010.04.025>
- Foodstuff, F. and. (2003). *Food and Foodstuff - pH Values*. [https://www.engineeringtoolbox.com/food-ph-d\\_403.html](https://www.engineeringtoolbox.com/food-ph-d_403.html)
- Forrest, J. C., Aberle, E. D., Hedrick, H. B., Judge, M. D., & Merkel, R. A. (1975). Principles of meat science. *Principles of Meat Science*.
- Giese, J., & A. Cote, J. (2000). Defining Consumer Satisfaction. In *Academy of Marketing Science Review* (Vol. 4).
- Goldberg, I., & Rokem, J. S. (2009). Organic and Fatty Acid Production, Microbial. In *Encyclopedia of Microbiology* (pp. 421–442). Elsevier Inc. <https://doi.org/10.1016/B978-012373944-5.00156-5>
- Gómez, M., & Lorenzo, J. M. (2013). Effect of fat level on physicochemical, volatile compounds and sensory characteristics of dry-ripened “chorizo” from Celta pig breed. *Meat Science*, 95(3), 658–666. <https://doi.org/10.1016/j.meatsci.2013.06.005>
- Güemes-Vera, N., Zamora-Natera, J. F., & Soto, S. S. (2018). Frankfurter sausage texture is affected by using isolate, concentrate and flour of lupinus albus and pork skin proteins. *Food Research*, 2(3), 234–239. [https://doi.org/10.26656/fr.2017.2\(3\).290](https://doi.org/10.26656/fr.2017.2(3).290)
- Hemung, B. O., Benjakul, S., & Yongsawatdigul, J. (2013). PH-dependent characteristics of gel-like emulsion stabilized by threadfin bream sarcoplasmic proteins. *Food Hydrocolloids*, 30(1), 315–322. <https://doi.org/10.1016/j.foodhyd.2012.05.023>
- Holtz, R. W. (2009). In Vitro Methods to Screen Materials for Anti-aging Effects. In *Skin Aging Handbook* (pp. 329–362). Elsevier Inc.

<https://doi.org/10.1016/B978-0-8155-1584-5.50017-X>

- Hur, S. J., Park, G. B., & Joo, S. T. (2009). Effect of storage temperature on meat quality of muscle with different fiber type composition from Korean Native Cattle (Hanwoo). *Journal of Food Quality*, 32(3), 315–333. <https://doi.org/10.1111/j.1745-4557.2009.00259.x>
- Jaisut, N., Teerarak, M., Ngamyeesoon, N., & Pilasombut, K. (2018). Comparison of antioxidant properties in different herbal fresh sausages. *International Journal of Agricultural Technology*, 14(7), 1267–1278.
- Jiménez-Colmenero, F., Carballo, J., & Cofrades, S. (2001). Healthier meat and meat products: Their role as functional foods. In *Meat science* (Vol. 59, Issue 1). [https://doi.org/10.1016/S0309-1740\(01\)00053-5](https://doi.org/10.1016/S0309-1740(01)00053-5)
- Jo, K., Lee, J., & Jung, S. (2018). Quality Characteristics of Low-salt Chicken Sausage Supplemented with a Winter Mushroom Powder. *Korean Journal for Food Science of Animal Resources Korean J. Food Sci. An*, 38(4), 2234–2246. <https://doi.org/10.5851/kosfa.2018.e15>
- Jo, Y.-J., Kwon, Y.-J., Min, S.-G., & Choi, M.-J. (2015). Changes in Quality Characteristics of Pork Patties Containing Multilayered Fish Oil Emulsion during Refrigerated Storage. *Korean Journal for Food Science of Animal Resources*, 35(1), 71–79. <https://doi.org/10.5851/kosfa.2015.35.1.71>
- Keservani, R., Kesharwani, R., Vyas, N., Jain, S., Raghuvanshi, R., & Sharma, A. K. (2010). Nutraceutical and Functional Food as Future Food: A Review. In *Der Pharmacia Lettre* (Vol. 2).
- Lee, H. J., Jung, E. H., Lee, S. H., Kim, J. H., Lee, J. J., & Choi, Y. Il. (2015). Effect of replacing pork fat with vegetable oils on quality properties of emulsion-type pork sausages. *Korean Journal for Food Science of Animal Resources*, 35(1), 130–136. <https://doi.org/10.5851/kosfa.2015.35.1.130>
- Lerman-Garber, I., Ichazo-Cerro, S., Zamora-Gonzalez, J., Cardoso-Saldana, G., & Posadas-Romero, C. (1994). Effect of a High-Monounsaturated Fat Diet Enriched With Avocado in NIDDM Patients. *Diabetes Care*, 17(4), 311–315. <https://doi.org/10.2337/diacare.17.4.311>
- Mar, L., Angel, P., & Fern, J. (2020). Quality Properties of Chicken Emulsion-Type. *Foods*, 9(4), 1–10.
- Menrad, K. (2003). Market and Marketing of Functional Food in Europe. In *Journal of Food Engineering* (Vol. 56). [https://doi.org/10.1016/S0260-8774\(02\)00247-9](https://doi.org/10.1016/S0260-8774(02)00247-9)
- Mills, E. (2014). Functional. In *Encyclopedia of Meat Sciences* (pp. 7–11).

Elsevier Inc. <https://doi.org/10.1016/B978-0-12-384731-7.00107-0>

- Muguerza, E., Gimeno, O., Ansorena, D., Bloukas, J. G., & Astiasarán, I. (2001). Effect of replacing pork backfat with pre-emulsified olive oil on lipid fraction and sensory quality of Chorizo de Pamplona - a traditional Spanish fermented sausage. *Meat Science*, 59(3), 251–258. <http://www.ncbi.nlm.nih.gov/pubmed/22062779>
- Naveh, E., Werman, M. J., Sabo, E., & Neeman, I. (2002). Research Communication: Defatted Avocado Pulp Reduces Body Weight and Total Hepatic Fat But Increases Plasma Cholesterol in Male Rats Fed Diets with Cholesterol. *The Journal of Nutrition*, 132(7), 2015–2018. <https://doi.org/10.1093/jn/132.7.2015>
- O Bergh, B. (2019). *The Avocado and Human Nutrition. II. Avocados and Your Heart*.
- Ozturk, B., & McClements, D. J. (2016). Progress in natural emulsifiers for utilization in food emulsions. In *Current Opinion in Food Science* (Vol. 7, pp. 1–6). Elsevier Ltd. <https://doi.org/10.1016/j.cofs.2015.07.008>
- Qiao, M., Fletcher, D. L., Smith, D. P., & Northcutt, J. K. (2001). The Effect of Broiler Breast Meat Color on pH , Moisture , Water-Holding Capacity , and Emulsification Capacity. *Poultry Science*, 80(5), 676–680. <https://doi.org/10.1093/ps/80.5.676>
- Rodríguez-Carpena, J. G., Morcuende, D., & Estévez, M. (2011a). Partial Replacement of Pork Back-Fat by Vegetable Oils in Burger Patties: Effect on Oxidative Stability and Texture and Color Changes during Cooking and Chilled Storage. *Journal of Food Science*, 76(7), C1025–C1031. <https://doi.org/10.1111/j.1750-3841.2011.02327.x>
- Rodríguez-Carpena, J. G., Morcuende, D., & Estévez, M. (2011b). Avocado by-products as inhibitors of color deterioration and lipid and protein oxidation in raw porcine patties subjected to chilled storage. *Meat Science*, 89(2), 166–173. <https://doi.org/10.1016/j.meatsci.2011.04.013>
- Rodríguez-Carpena, J. G., Morcuende, D., & Estévez, M. (2012). Avocado, sunflower and olive oils as replacers of pork back-fat in burger patties: Effect on lipid composition, oxidative stability and quality traits. *Meat Science*, 90(1), 106–115. <https://doi.org/10.1016/j.meatsci.2011.06.007>
- Salleh, S. N., Fairus, A. A. H., Zahary, M. N., Bhaskar Raj, N., & Mhd Jalil, A. M. (2019). Unravelling the Effects of Soluble Dietary Fibre Supplementation on Energy Intake and Perceived Satiety in Healthy Adults: Evidence from Systematic Review and Meta-

- Analysis of Randomised-Controlled Trials. *Foods*, 8(1), 15. <https://doi.org/10.3390/foods8010015>
- Schillo, K. K., Leshin, L. S., Boling, J. A., & Gay, N. (1988). Effects of Endophyte-Infected Fescue on Concentrations of Prolactin in Blood Sera and the Anterior Pituitary and Concentrations of Dopamine and Dopamine Metabolites in Brains of Steers. *Journal of Animal Science*, 66(3), 713. <https://doi.org/10.2527/jas1988.663713x>
- Shin, D. J., Lee, H. J., Lee, D., Jo, C., & Choe, J. (2020). Fat replacement in chicken sausages manufactured with broiler and old laying hens by different vegetable oils. *Poultry Science*, 99(5), 2811–2818. <https://doi.org/10.1016/j.psj.2020.01.008>
- Song, D.-H., Kim, H.-W., Hwang, K.-E., Kim, Y.-J., Ham, Y.-K., Choi, Y.-S., Shin, D.-J., Kim, T.-K., Lee, J. H., Kim, C.-J., & Paik, H.-D. (2017). Impacts of Irradiation Sources on Quality Attributes of Low-salt Sausage during Refrigerated Storage. *Korean Journal for Food Science of Animal Resources*, 37(5), 698–707. <https://doi.org/10.5851/kosfa.2017.37.5.698>
- Sundeen, G. (2013). Processed Meats. *Canadian Institute of Food Science and Technology Journal*, 20(4), 193–195. [https://doi.org/10.1016/s0315-5463\(87\)71165-1](https://doi.org/10.1016/s0315-5463(87)71165-1)
- Takenaga, F., Matsuyama, K., Abe, S., Torii, Y., & Itoh, S. (2008). Lipid and fatty acid composition of mesocarp and seed of avocado fruits harvested at northern range in Japan. *Journal of Oleo Science*, 57(11), 591–597. <https://doi.org/10.5650/jos.57.591>
- Tangkham, W., & LeMieux, F. (2017). The Effects of Replacing Pork Fat with Cold-Pressed Coconut Oil on the Properties of Fresh Sausage. *Journal of Food Research*, 6(6), 83. <https://doi.org/10.5539/jfr.v6n6p83>
- Tong, L., Sasaki, S., McClements, D., & Decker, E. (2000). Mechanisms of the Antioxidant Activity of a High Molecular Weight Fraction of Whey. *Journal of Agricultural and Food Chemistry*, 48, 1473–1478. <https://doi.org/10.1021/jf991342v>
- Velasco, S., Cañeque, V., Lauzurica, S., Pérez, C., & Huidobro, F. (2004). Effect of different feeds on meat quality and fatty acid composition of lambs fattened at pasture. *Meat Science*, 66(2), 457–465. [https://doi.org/10.1016/S0309-1740\(03\)00134-7](https://doi.org/10.1016/S0309-1740(03)00134-7)
- Venturini, A. C., Cavenaghi, Â. D., Castillo, C. J. C., & Quiñones, E. M. (2011). Sensory and microbiological evaluation of uncured fresh chicken sausage with reduced fat content. *Ciencia e Tecnologia de Alimentos*, 31(3), 629–634. <https://doi.org/10.1590/S0101-20612011000300012>
- Walstra, P. (1999). Food emulsions: principles, practice, and techniques.

- Trends in Food Science & Technology*, 10(6–7), 241.  
[https://doi.org/10.1016/s0924-2244\(99\)00042-4](https://doi.org/10.1016/s0924-2244(99)00042-4)
- Whipple, G., Koochmaraie, M., Dikeman, M. E., & Crouse, J. D. (1990). Effects of high-temperature conditioning on enzymatic activity and tenderness of *Bos indicus longissimus muscle*<sup>2</sup>. *Journal of Animal Science*, 68(11), 3654–3662.  
<https://doi.org/10.2527/1990.68113654x>
- Wood, J. D., Richardson, R. I., Nute, G. R., Fisher, A. V., Campo, M. M., Kasapidou, E., Sheard, P. R., & Enser, M. (2004). Effects of fatty acids on meat quality: A review. *Meat Science*, 66(1), 21–32. [https://doi.org/10.1016/S0309-1740\(03\)00022-6](https://doi.org/10.1016/S0309-1740(03)00022-6)
- Wright, S. (2002). ANS 2002 – The Meat We Eat. In *The Meat We Eat* (Issue Period 8, pp. 0–3).
- Xiong, Y. L., Noel, D. C., & Moody, W. G. (1999). Textural and Sensory Properties of Low-Fat Beef Sausages with Added Water and Polysaccharides as Affected by pH and Salt. *Journal of Food Science*, 64(3), 550–554. <https://doi.org/10.1111/j.1365-2621.1999.tb15083.x>
- Yang, H.-S., Choi, S.-G., Jeon, J.-T., Park, G.-B., & Joo, S.-T. (2007). Textural and sensory properties of low fat pork sausages with added hydrated oatmeal and tofu as texture-modifying agents. *Meat Science*, 75(2), 283–289.  
<https://doi.org/10.1016/j.meatsci.2006.07.013>
- Yoneyama, S., Miura, K., Sasaki, S., Yoshita, K., Morikawa, Y., Ishizaki, M., Kido, T., Naruse, Y., & Nakagawa, H. (2007). Dietary Intake of Fatty Acids and Serum C-reactive Protein in Japanese. *Journal of Epidemiology*, 17(3), 86–92.  
<https://doi.org/10.2188/jea.17.86>
- Youssef, M., & Barbut, S. (2011). Fat reduction in comminuted meat products-effects of beef fat, regular and pre-emulsified canola oil. *Meat Science*, 87, 356–360.  
<https://doi.org/10.1016/j.meatsci.2010.11.011>
- Youssef, M. K. K., & Barbut, S. (2009). Effects of protein level and fat/oil on emulsion stability, texture, microstructure and color of meat batters. *Meat Science*, 82(2), 228–233.  
<https://doi.org/10.1016/j.meatsci.2009.01.015>
- Yum, H. W., Seo, J. K., Jeong, J. Y., Kim, G. D., Rahman, M. S., & Yang, H. S. (2018). The quality improvement of emulsion-type pork sausages formulated by substituting pork back fat with rice bran oil. *Korean Journal for Food Science of Animal Resources*, 38(1), 123–134. <https://doi.org/10.5851/kosfa.2018.38.1.123>
- Yuste, J., Mor-Mur, M., Capellas, M., Guamis, B., & Pla, R. (1999). Mechanically recovered poultry meat sausages manufactured

- with high hydrostatic pressure. *Poultry Science*, 78(6), 914–921. <https://doi.org/10.1093/ps/78.6.914>
- Zhu, Y., Guo, L., Tang, W., & Yang, Q. (2020). Beneficial effects of Jerusalem artichoke powder and olive oil as animal fat replacers and natural healthy compound sources in Harbin dry sausages. *Poultry Science*, Article in. <https://doi.org/10.1016/j.psj.2020.08.058>
- Züge, L. C. B., Maieves, H. A., Silveira, J. L. M., Silva, V. R. da, & Scheer, A. de P. (2017). Use of avocado phospholipids as emulsifier. *LWT - Food Science and Technology*, 79, 42–51. <https://doi.org/10.1016/j.lwt.2017.01.013>



## LAMPIRAN

### Lampiran 1. Hasil Analisis Ragam Nilai pH

#### Descriptive Statistics

Dependent Variable: pH

Jenis Alpukat	Level	Lama Penyimpanan	Mean	Std. Deviation	N
Mega Gaguana	5%	Hari 0	6.8067	.02517	3
		Hari 5	6.4467	.34152	3
		Hari 10	6.3800	.16371	3
		Hari 15	6.6000	.20664	3
		Hari 20	6.4900	.12288	3
		Total	6.5447	.22959	15
	10%	Hari 0	6.5700	.05568	3
		Hari 5	6.8533	.05859	3
		Hari 10	6.4967	.05859	3
		Hari 15	6.3700	.05292	3
		Hari 20	6.1933	.06658	3
		Total	6.4967	.23243	15
	15%	Hari 0	6.6433	.03055	3
		Hari 5	6.6233	.08963	3
		Hari 10	5.6833	.10116	3
		Hari 15	5.5967	.14154	3
		Hari 20	6.0133	.09713	3
		Total	6.1120	.47101	15
	Total	Hari 0	6.6733	.11034	9
		Hari 5	6.6411	.25142	9
		Hari 10	6.1867	.39392	9
		Hari 15	6.1889	.47285	9
		Hari 20	6.2322	.22515	9
		Total	6.3844	.37802	45
Mega Murapi	5%	Hari 0	6.6667	.29263	3
		Hari 5	6.5900	.27875	3
		Hari 10	6.2667	.10263	3
		Hari 15	6.4500	.18028	3
		Hari 20	6.4500	.18028	3
		Total	6.4847	.23302	15
	10%	Hari 0	6.8367	.09452	3
		Hari 5	6.6767	.10263	3
		Hari 10	6.3100	.30447	3
		Hari 15	6.0033	.06110	3
		Hari 20	6.0033	.06110	3
		Total	6.3660	.37720	15
	15%	Hari 0	6.6233	.03786	3
		Hari 5	6.5100	.11790	3
		Hari 10	6.3267	.12858	3
Hari 15		6.1367	.16166	3	
Hari 20		6.1367	.16166	3	
Total		6.3467	.23049	15	
Total	Hari 0	6.7089	.18313	9	
	Hari 5	6.5922	.17534	9	
	Hari 10	6.3011	.17510	9	
	Hari 15	6.1967	.23457	9	
	Hari 20	6.1967	.23457	9	

Total		Total	6.3991	.28855	45
		Hari 0	6.7367	.20096	6
		Hari 5	6.5183	.28965	6
	5%	Hari 10	6.3233	.13706	6
		Hari 15	6.5250	.19191	6
		Hari 20	6.4700	.13971	6
		Total	6.5147	.22933	30
		Hari 0	6.7033	.16170	6
		Hari 5	6.7650	.12227	6
	10%	Hari 10	6.4033	.22115	6
		Hari 15	6.1867	.20724	6
		Hari 20	6.0983	.11873	6
		Total	6.4313	.31494	30
		Hari 0	6.6333	.03266	6
		Hari 5	6.5667	.11237	6
	15%	Hari 10	6.0050	.36725	6
		Hari 15	5.8667	.32549	6
		Hari 20	6.0750	.13708	6
		Total	6.2293	.38339	30
		Hari 0	6.6911	.14780	18
		Hari 5	6.6167	.21177	18
Total	Hari 10	6.2439	.30153	18	
	Hari 15	6.1928	.36211	18	
	Hari 20	6.2144	.22380	18	
	Total	6.3918	.33446	90	

### Tests of Between-Subjects Effects

Dependent Variable: pH

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8.535 <sup>a</sup>	29	.294	12.429	.000
Intercept	3676.934	1	3676.934	155283.219	.000
J_Alpukat	.005	1	.005	.204	.653
Level	1.292	2	.646	27.274	.000
Hari	4.196	4	1.049	44.298	.000
J_Alpukat * Level	.563	2	.282	11.893	.000
J_Alpukat * Hari	.077	4	.019	.808	.525
Level * Hari	1.370	8	.171	7.230	.000
J_Alpukat * Level * Hari	1.034	8	.129	5.456	.000
Error	1.421	60	.024		
Total	3686.890	90			
Corrected Total	9.956	89			

a. R Squared = .857 (Adjusted R Squared = .788)

## Lampiran 2. Hasil Analisis Ragam Daya iris Sosis

## Descriptive Statistics

Dependent Variable: Daya iris sosis

Jenis Alpukat	Level	Lama Penyimpanan	Mean	Std. Deviation	N
Mega Gaguana	5%	Hari 0	.467	.0577	3
		Hari 5	.433	.1528	3
		Hari 10	.433	.0577	3
		Hari 15	.433	.0577	3
		Hari 20	.600	.0000	3
		Total	.473	.0961	15
	10%	Hari 0	.533	.0577	3
		Hari 5	.600	.1000	3
		Hari 10	.400	.1000	3
		Hari 15	.567	.0577	3
		Hari 20	.667	.0577	3
		Total	.553	.1125	15
	15%	Hari 0	.433	.0577	3
		Hari 5	.600	.1000	3
		Hari 10	.567	.0577	3
		Hari 15	.633	.0577	3
		Hari 20	.633	.0577	3
		Total	.573	.0961	15
	Total	Hari 0	.478	.0667	9
		Hari 5	.544	.1333	9
		Hari 10	.467	.1000	9
Hari 15		.544	.1014	9	
Hari 20		.633	.0500	9	
Total		.533	.1087	45	
Mega Mjurapi	5%	Hari 0	.533	.3215	3
		Hari 5	.567	.0577	3
		Hari 10	.533	.1155	3
		Hari 15	.600	.1000	3
		Hari 20	.600	.0000	3
		Total	.567	.1397	15
	10%	Hari 0	.567	.2082	3
		Hari 5	.533	.1528	3
		Hari 10	.533	.1155	3
		Hari 15	.600	.0000	3
		Hari 20	.400	.0000	3
		Total	.527	.1280	15
	15%	Hari 0	.367	.0577	3
		Hari 5	.500	.0000	3
		Hari 10	.533	.1155	3
Hari 15		.567	.0577	3	
Hari 20		.733	.1155	3	
Total		.540	.1404	15	
Total	Hari 0	.489	.2147	9	
	Hari 5	.533	.0866	9	
	Hari 10	.533	.1000	9	
	Hari 15	.589	.0601	9	
	Hari 20	.578	.1563	9	
	Total	.544	.1341	45	
Total	5%	Hari 0	.500	.2098	6
		Hari 5	.500	.1265	6
		Hari 10	.483	.0983	6

	Hari 15	.517	.1169	6
	Hari 20	.600	.0000	6
	Total	.520	.1270	30
10%	Hari 0	.550	.1378	6
	Hari 5	.567	.1211	6
	Hari 10	.467	.1211	6
	Hari 15	.583	.0408	6
	Hari 20	.533	.1506	6
	Total	.540	.1192	30
15%	Hari 0	.400	.0632	6
	Hari 5	.550	.0837	6
	Hari 10	.550	.0837	6
	Hari 15	.600	.0632	6
	Hari 20	.683	.0983	6
	Total	.557	.1194	30
Total	Hari 0	.483	.1543	18
	Hari 5	.539	.1092	18
	Hari 10	.500	.1029	18
	Hari 15	.567	.0840	18
	Hari 20	.606	.1162	18
	Total	.539	.1215	90

#### Tests of Between-Subjects Effects

Dependent Variable: Daya iris sosis

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.654 <sup>a</sup>	29	.023	2.050	.010
Intercept	26.136	1	26.136	2376.010	.000
J_Alpukat	.003	1	.003	.253	.617
Level	.020	2	.010	.919	.404
Hari	.177	4	.044	4.015	.006
J_Alpukat * Level	.076	2	.038	3.465	.038
J_Alpukat * Hari	.041	4	.010	.934	.450
Level * Hari	.179	8	.022	2.030	.058
J_Alpukat * Level * Hari	.158	8	.020	1.798	.095
Error	.660	60	.011		
Total	27.450	90			
Corrected Total	1.314	89			

a. R Squared = .498 (Adjusted R Squared = .255)

## Lampiran 3. Hasil Analisis Ragam Antioksidan

## Descriptive Statistics

Dependent Variable: Antioksidan (%)

Jenis Alpukat	Lama Penyimpanan (hari)	Level Penambahan (%)	Mean	Std. Deviation	N
Mega Gaguana	Hari 0	5%	70.00027	2.564687	9
		10%	67.88986	3.172042	9
		15%	73.22984	2.154956	9
		Total	70.37332	3.399460	27
	Hari 5	5%	69.49371	2.294244	9
		10%	70.68322	2.631535	9
		15%	72.84921	3.244004	9
		Total	71.00871	2.998680	27
	Hari 10	5%	68.31484	1.867133	9
		10%	72.43162	2.746445	9
		15%	77.04730	6.881412	9
		Total	72.59792	5.583591	27
Hari 15	5%	62.22836	6.917477	9	
	10%	70.71103	17.023651	9	
	15%	71.10501	1.898558	9	
	Total	68.01480	11.064154	27	
Hari 20	5%	68.56247	6.249908	9	
	10%	68.36285	3.029122	9	
	15%	62.67925	6.165190	9	
	Total	66.53486	5.853462	27	
Total	5%	67.71993	5.165506	45	
	10%	70.01572	7.854113	45	
	15%	71.38212	6.491916	45	
	Total	69.70592	6.719808	135	
Mega Murapi	Hari 0	5%	70.21433	4.616998	9
		10%	71.32297	4.249594	9
		15%	73.08203	1.824638	9
		Total	71.53978	3.819391	27
	Hari 5	5%	69.49372	1.723922	9
		10%	71.64449	1.943868	9
		15%	76.60016	4.108961	9
		Total	72.57945	4.057903	27
	Hari 10	5%	70.19956	3.250050	9
		10%	71.69250	3.157751	9
		15%	74.93719	.713809	9
		Total	72.27642	3.246039	27
Hari 15	5%	72.11750	3.655611	9	
	10%	68.07089	2.477455	9	
	15%	68.42204	1.643914	9	
	Total	69.53681	3.211122	27	
Hari 20	5%	65.12191	4.285990	9	
	10%	72.67918	2.279151	9	
	15%	71.35257	2.337658	9	
	Total	69.71789	4.494917	27	
Total	5%	69.42940	4.198541	45	
	10%	71.08201	3.220726	45	
	15%	72.87880	3.674190	45	
	Total	71.13007	3.952980	135	
Total	Hari 0	5%	70.10730	3.624756	18
		10%	69.60642	4.043917	18

	15%	73.15594	1.938517	18
	Total	70.95655	3.629320	54
	5%	69.49371	1.968632	18
Hari 5	10%	71.16385	2.298170	18
	15%	74.72468	4.076983	18
	Total	71.79408	3.621823	54
	5%	69.25720	2.748015	18
Hari 10	10%	72.06206	2.895973	18
	15%	75.99225	4.868526	18
	Total	72.43717	4.526526	54
	5%	67.17293	7.395537	18
Hari 15	10%	69.39096	11.879063	18
	15%	69.76353	2.207583	18
	Total	68.77580	8.105635	54
	5%	66.84219	5.491797	18
Hari 20	10%	70.52101	3.419657	18
	15%	67.01591	6.353846	18
	Total	68.12637	5.412995	54
	5%	68.57467	4.758671	90
Total	10%	70.54886	5.992720	90
	15%	72.13046	5.298681	90
	Total	70.41800	5.548593	270

#### Tests of Between-Subjects Effects

Dependent Variable: Antioksidan (%)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2933.665 <sup>a</sup>	29	101.161	4.540	.000
Intercept	1338847.423	1	1338847.423	60082.812	.000
J_ALPUKAT	136.903	1	136.903	6.144	.014
HARI	767.289	4	191.822	8.608	.000
LEVEL	571.278	2	285.639	12.818	.000
J_ALPUKAT * HARI	84.219	4	21.055	.945	.439
J_ALPUKAT * LEVEL	4.832	2	2.416	.108	.897
HARI * LEVEL	456.342	8	57.043	2.560	.011
J_ALPUKAT * HARI * LEVEL	912.803	8	114.100	5.120	.000
Error	5348.008	240	22.283		
Total	1347129.097	270			
Corrected Total	8281.673	269			

a. R Squared = .354 (Adjusted R Squared = .276)

## Lampiran 4. Hasil Analisis Ragam Oksidasi Lemak

## Descriptive Statistics

Dependent Variable: Nilai TBA

Jenis Alpukat	Level	Lama Penyimpanan	Mean	Std. Deviation	N
Mega Gaguana	5%	Hari 0	.25500	.000000	3
		Hari 5	.23233	.001528	3
		Hari 10	.25500	.001000	3
		Hari 15	.22733	.000577	3
		Hari 20	.25367	.002517	3
		Total	.24467	.012709	15
	10%	Hari 0	.20400	.000000	3
		Hari 5	.21367	.000577	3
		Hari 10	.24033	.002082	3
		Hari 15	.23133	.005774	3
		Hari 20	.24500	.001000	3
		Total	.22687	.016388	15
	15%	Hari 0	.19900	.000000	3
		Hari 5	.21433	.005132	3
		Hari 10	.19833	.000577	3
		Hari 15	.27133	.000577	3
		Hari 20	.24233	.001155	3
		Total	.22507	.029156	15
	Total	Hari 0	.21933	.026837	9
		Hari 5	.22011	.009558	9
		Hari 10	.23122	.025499	9
		Hari 15	.24333	.021272	9
		Hari 20	.24700	.005339	9
		Total	.23220	.022076	45
Mega Murapi	5%	Hari 0	.22833	.005508	3
		Hari 5	.26367	.016166	3
		Hari 10	.23700	.005196	3
		Hari 15	.19800	.000000	3
		Hari 20	.26200	.000000	3
		Total	.23780	.025946	15
	10%	Hari 0	.22200	.001000	3
		Hari 5	.21000	.000000	3
		Hari 10	.23800	.000000	3
		Hari 15	.28700	.000000	3
		Hari 20	.26267	.000577	3
		Total	.24393	.028813	15
	15%	Hari 0	.22367	.000577	3
		Hari 5	.19467	.005686	3
		Hari 10	.22233	.001528	3
		Hari 15	.26900	.003464	3
		Hari 20	.24633	.000577	3
		Total	.23120	.026020	15
Total	Hari 0	.22467	.004000	9	
	Hari 5	.22278	.032526	9	
	Hari 10	.23244	.008064	9	
	Hari 15	.25133	.040789	9	
	Hari 20	.25700	.008016	9	
	Total	.23764	.026859	45	
Total	5%	Hari 0	.24167	.015016	6

	Hari 5	.24800	.020000	6
	Hari 10	.24600	.010412	6
	Hari 15	.21267	.016071	6
	Hari 20	.25783	.004834	6
	Total	.24123	.020375	30
10%	Hari 0	.21300	.009879	6
	Hari 5	.21183	.002041	6
	Hari 10	.23917	.001835	6
	Hari 15	.25917	.030708	6
	Hari 20	.25383	.009704	6
	Total	.23540	.024612	30
15%	Hari 0	.21133	.013515	6
	Hari 5	.20450	.011811	6
	Hari 10	.21033	.013186	6
	Hari 15	.27017	.002563	6
	Hari 20	.24433	.002338	6
	Total	.22813	.027330	30
Total	Hari 0	.22200	.018815	18
	Hari 5	.22144	.023297	18
	Hari 10	.23183	.018357	18
	Hari 15	.24733	.031825	18
	Hari 20	.25200	.008374	18
	Total	.23492	.024598	90

#### Tests of Between-Subjects Effects

Dependent Variable: Nilai TBA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	.053 <sup>a</sup>	29	.002	123.215	.000
Intercept	4.967	1	4.967	335102.286	.000
J_Alpukat	.001	1	.001	44.996	.000
Level	.003	2	.001	87.181	.000
Hari	.014	4	.004	244.051	.000
J_Alpukat * Level	.002	2	.001	72.639	.000
J_Alpukat * Hari	.000	4	5.944E-005	4.010	.006
Level * Hari	.023	8	.003	197.924	.000
J_Alpukat * Level * Hari	.009	8	.001	79.119	.000
Error	.001	60	1.482E-005		
Total	5.021	90			
Corrected Total	.054	89			

a. R Squared = .983 (Adjusted R Squared = .976)



## Lampiran 5. Hasil Analisis Ragam Warna (Tingkat Kecerahan L\*)

## Descriptive Statistics

Dependent Variable: L

Jenis_Alpukat	Hari	Level	Mean	Std. Deviation	N	
Kontrol	0 hari	0%	74.9333	2.80358	3	
		Total	74.9333	2.80358	3	
	5 hari	0%	74.4167	2.03245	3	
		Total	74.4167	2.03245	3	
	10 hari	0%	73.4600	2.95249	3	
		Total	73.4600	2.95249	3	
	15 hari	0%	72.8567	1.04414	3	
		Total	72.8567	1.04414	3	
	20 hari	0%	73.4833	2.06403	3	
		Total	73.4833	2.06403	3	
	Total	0%	73.8300	2.07734	15	
		Total	73.8300	2.07734	15	
	Mega Gaguana	0 hari	5%	71.0100	.84664	3
			10%	70.4267	1.44922	3
			15%	74.8333	3.64248	3
Total			72.0900	2.88414	9	
5%			74.1567	.80786	3	
5 hari		10%	70.2233	3.41565	3	
		15%	74.7467	.89846	3	
		Total	73.0422	2.79582	9	
		5%	74.1567	.80786	3	
		10%	70.2233	3.41565	3	
10 hari		15%	74.7467	.89846	3	
		Total	73.0422	2.79582	9	
		5%	75.0867	1.17189	3	
		10%	70.9833	3.25603	3	
		15%	75.6167	.69616	3	
15 hari	Total	73.8956	2.81748	9		
	5%	74.2567	.64127	3		
	10%	71.4833	2.53528	3		
	15%	73.1433	.16921	3		
	Total	72.9611	1.78261	9		
20 hari	5%	73.7333	1.63126	15		
	10%	70.6680	2.51537	15		
	15%	74.6173	1.70179	15		
	Total	73.0062	2.59043	45		
	5%	73.6667	2.43422	3		
Mega Murapi	0 hari	10%	74.9500	2.01000	3	
		15%	75.3333	1.60126	3	
		Total	74.6500	1.92454	9	
		5%	71.6633	1.20972	3	
	5 hari	10%	74.2033	.22368	3	
		15%	74.9300	.56666	3	
		Total	73.5989	1.63248	9	
		5%	72.5233	2.27751	3	
	10 hari	10%	74.8933	1.03968	3	
		15%	75.3933	.50013	3	
		Total	74.2700	1.84187	9	
		5%	73.1400	3.24288	3	
	15 hari	10%	72.8133	3.40943	3	
		15%	74.2733	1.06978	3	
		Total	73.4089	2.50232	9	
5%		73.2000	.94175	3		
20 hari	10%	75.3567	.54501	3		
	15%	74.5333	1.94330	3		

Total	Total	74.3633	1.45892	9
	5%	72.8387	1.98425	15
	10%	74.4433	1.81675	15
	15%	74.8927	1.16463	15
	Total	74.0582	1.87870	45
	0%	74.9333	2.80358	3
	5%	72.3383	2.18501	6
	10%	72.6883	2.93160	6
	15%	75.0833	2.53134	6
	Total	73.5933	2.71729	21
	0%	74.4167	2.03245	3
	5%	72.9100	1.64665	6
	10%	72.2133	3.07226	6
	15%	74.8383	.67928	6
	Total	73.4771	2.19771	21
	0%	73.4600	2.95249	3
	5%	73.3400	1.77093	6
	10%	72.5583	3.41199	6
	15%	75.0700	.74054	6
	Total	73.6281	2.38736	21
	0%	72.8567	1.04414	3
5%	74.1133	2.42749	6	
10%	71.8983	3.14564	6	
15%	74.9450	1.09224	6	
Total	73.5386	2.43384	21	
0%	73.4833	2.06403	3	
5%	73.7283	.92424	6	
10%	73.4200	2.68154	6	
15%	73.8383	1.44971	6	
Total	73.6367	1.73060	21	
0%	73.8300	2.07734	15	
5%	73.2860	1.84184	30	
10%	72.5557	2.88687	30	
15%	74.7550	1.43962	30	
Total	73.5748	2.27234	105	

### Tests of Between-Subjects Effects

Dependent Variable: L

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	263.305 <sup>a</sup>	34	7.744	1.981	.008
Intercept	520122.372	1	520122.372	133022.685	.000
Jenis_Alpukat	24.901	1	24.901	6.368	.014
Hari	.913	4	.228	.058	.994
Level	75.284	2	37.642	9.627	.000
Jenis_Alpukat * Hari	22.682	4	5.671	1.450	.227
Jenis_Alpukat * Level	88.569	2	44.285	11.326	.000
Hari * Level	23.841	8	2.980	.762	.637
Jenis_Alpukat * Hari * Level	16.470	8	2.059	.527	.833
Error	273.702	70	3.910		
Total	568927.794	105			

Corrected Total	537.007	104			
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a. R Squared = .490 (Adjusted R Squared = .243)

### Lampiran 6. Hasil Analisis Ragam Warna (Tingkat Kemerahan a\*)

#### Descriptive Statistics

Dependent Variable: a

Jenis_Alpukat	Hari	Level	Mean	Std. Deviation	N	
Kontrol	0 hari	0%	3.7333	1.20711	3	
		Total	3.7333	1.20711	3	
	5 hari	0%	3.0717	.87375	3	
		Total	3.0717	.87375	3	
	10 hari	0%	.2383	.09170	3	
		Total	.2383	.09170	3	
	15 hari	0%	1.0817	1.33511	3	
		Total	1.0817	1.33511	3	
	20 hari	0%	.4333	.28919	3	
		Total	.4333	.28919	3	
	Total	0%	1.7117	1.66059	15	
		Total	1.7117	1.66059	15	
	Mega Gaguana	0 hari	5%	2.6250	.48767	3
			10%	4.6283	1.22821	3
			15%	1.8833	.46638	3
5 hari		Total	3.0456	1.41537	9	
		5%	2.5633	.56878	3	
		10%	4.2450	2.11289	3	
10 hari		15%	2.2067	1.14184	3	
		Total	3.0050	1.55295	9	
		5%	2.5633	.56878	3	
15 hari		10%	4.2450	2.11289	3	
		15%	2.2067	1.14184	3	
		Total	3.0050	1.55295	9	
20 hari		5%	.8917	.66989	3	
		10%	2.3883	1.65454	3	
		15%	.4837	.46858	3	
Total	Total	1.2546	1.26718	9		
	5%	1.0767	.28567	3		
	10%	.7533	.44143	3		
Total	15%	.9600	.65332	3		
	Total	.9300	.44264	9		
	5%	1.9440	.92975	15		
Total	10%	3.2520	2.05819	15		
	15%	1.5481	1.01133	15		
	Total	2.2480	1.57813	45		
Mega Murapi	0 hari	5%	4.8033	2.35033	3	
		10%	2.9233	.40940	3	
		15%	1.9827	1.22129	3	
	5 hari	Total	3.2364	1.82831	9	
		5%	3.7917	1.14685	3	
		10%	2.7333	.56600	3	
	10 hari	15%	1.5800	.37673	3	
		Total	2.7017	1.16709	9	
		5%	6.3883	8.50790	3	
	15 hari	10%	.7733	.96289	3	
		15%	.4287	.10247	3	
		Total	2.5301	5.16973	9	
	20 hari	5%	.5600	.42884	3	
		10%	2.6150	1.09347	3	
		15%	.8600	.73856	3	
Total	Total	1.3450	1.18549	9		
	5%	2.2767	.88352	3		

	10%	1.9167	.74509	3
	15%	1.0633	.77798	3
	Total	1.7522	.88119	9
	5%	3.5640	3.97415	15
Total	10%	2.1923	1.05619	15
	15%	1.1829	.84700	15
	Total	2.3131	2.56561	45
	0%	3.7333	1.20711	3
	5%	3.7142	1.93088	6
0 hari	10%	3.7758	1.24200	6
	15%	1.9330	.82860	6
	Total	3.2256	1.52886	21
	0%	3.0717	.87375	3
	5%	3.1775	1.05269	6
5 hari	10%	3.4892	1.61227	6
	15%	1.8933	.83433	6
	Total	2.8845	1.26991	21
	0%	.2383	.09170	3
	5%	4.4758	5.78553	6
10 hari	10%	2.5092	2.40257	6
	15%	1.3177	1.21413	6
Total	Total	2.4062	3.53965	21
	0%	1.0817	1.33511	3
	5%	.7258	.53485	6
15 hari	10%	2.5017	1.26043	6
	15%	.6718	.59034	6
	Total	1.2686	1.17926	21
	0%	.4333	.28919	3
	5%	1.6767	.88141	6
20 hari	10%	1.3350	.84024	6
	15%	1.0117	.64501	6
	Total	1.2114	.80957	21
	0%	1.7117	1.66059	15
	5%	2.7540	2.95308	30
Total	10%	2.7222	1.69528	30
	15%	1.3655	.93519	30
	Total	2.1993	2.06171	105

### Tests of Between-Subjects Effects

Dependent Variable: a

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	225.068 <sup>a</sup>	34	6.620	2.135	.004
Intercept	438.957	1	438.957	141.599	.000
Jenis_Alpukat	.095	1	.095	.031	.861
Hari	72.250	4	18.062	5.827	.000
Level	37.695	2	18.847	6.080	.004
Jenis_Alpukat * Hari	4.577	4	1.144	.369	.830
Jenis_Alpukat * Level	29.009	2	14.505	4.679	.012
Hari * Level	28.895	8	3.612	1.165	.332
Jenis_Alpukat * Hari * Level	33.519	8	4.190	1.352	.233
Error	217.000	70	3.100		

Total	949.939	105			
Corrected Total	442.069	104			

a. R Squared = .509 (Adjusted R Squared = .271)

Lampiran 7. Hasil Analisis Ragam Warna (Tingkat Kekuningan b\*)

**Descriptive Statistics**

Dependent Variable: b

Jenis_Alpukat	Hari	Level	Mean	Std. Deviation	N	
Kontrol	0 hari	0%	13.5333	1.24837	3	
		Total	13.5333	1.24837	3	
	5 hari	0%	13.0900	.29816	3	
		Total	13.0900	.29816	3	
	10 hari	0%	12.6933	.82513	3	
		Total	12.6933	.82513	3	
	15 hari	0%	13.5267	1.10247	3	
		Total	13.5267	1.10247	3	
	20 hari	0%	12.3900	1.14346	3	
		Total	12.3900	1.14346	3	
	Total	0%	13.0467	.95535	15	
		Total	13.0467	.95535	15	
	Mega Gaguana	0 hari	5%	16.4633	.66980	3
			10%	19.3067	.58791	3
			15%	22.1433	.77822	3
5 hari		Total	19.3044	2.52966	9	
		5%	17.0767	.42442	3	
		10%	19.3033	.60119	3	
10 hari		15%	20.9667	.39954	3	
		Total	19.1156	1.74138	9	
		5%	17.0767	.42442	3	
15 hari		10%	19.3033	.60119	3	
		15%	20.9667	.39954	3	
		Total	19.1156	1.74138	9	
20 hari		5%	16.1900	.80728	3	
		10%	18.7933	.40673	3	
		15%	20.8533	.68530	3	
Total	Total	18.6122	2.10182	9		
	5%	18.7900	1.10567	3		
	10%	18.4367	.97828	3		
Total	15%	20.0167	2.16385	3		
	Total	19.0811	1.49372	9		
	5%	17.1193	1.12226	15		
Total	10%	19.0287	.66997	15		
	15%	20.9893	1.16636	15		
	Total	19.0458	1.87868	45		
Mega Murapi	0 hari	5%	15.1100	1.12303	3	
		10%	16.0833	.72176	3	
		15%	18.1233	1.46487	3	
	5 hari	Total	16.4389	1.66001	9	
		5%	15.1767	.89969	3	
		10%	15.1600	.33779	3	
	10 hari	15%	16.5033	.81396	3	
		Total	15.6133	.91767	9	
		5%	14.0267	.76788	3	
	15 hari	10%	14.7000	1.47929	3	
		15%	15.3300	.65939	3	
		Total	14.6856	1.05915	9	
	Total	5%	14.5267	.96625	3	
		10%	14.5533	1.00620	3	
		15%	14.8433	1.07188	3	

Total	Total	14.6411	.89268	9	
	5%	14.6233	.82276	3	
	10%	13.9833	.51433	3	
	20 hari	15%	14.8033	.93629	3
		Total	14.4700	.77060	9
		5%	14.6927	.89422	15
	Total	10%	14.8960	1.05578	15
		15%	15.9207	1.56719	15
		Total	15.1698	1.29844	45
	0 hari	0%	13.5333	1.24837	3
		5%	15.7867	1.11058	6
		10%	17.6950	1.86107	6
	5 hari	15%	20.1333	2.43900	6
		Total	17.2519	2.84345	21
		0%	13.0900	.29816	3
	5 hari	5%	16.1267	1.21607	6
		10%	17.2317	2.31093	6
		15%	18.7350	2.51103	6
	10 hari	Total	16.7538	2.58216	21
		0%	12.6933	.82513	3
		5%	15.5517	1.76030	6
	10 hari	10%	17.0017	2.71608	6
		15%	18.1483	3.12560	6
		Total	16.2995	2.90193	21
	15 hari	0%	13.5267	1.10247	3
		5%	15.3583	1.21002	6
		10%	16.6733	2.42166	6
	15 hari	15%	17.8483	3.38872	6
		Total	16.1838	2.64407	21
		0%	12.3900	1.14346	3
20 hari	5%	16.7067	2.44297	6	
	10%	16.2100	2.53738	6	
	15%	17.4100	3.22137	6	
20 hari	Total	16.1490	2.91849	21	
	0%	13.0467	.95535	15	
	5%	15.9060	1.58650	30	
Total	10%	16.9623	2.27415	30	
	15%	18.4550	2.91320	30	
	Total	16.5276	2.76017	105	

### Tests of Between-Subjects Effects

Dependent Variable: b

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	733.445 <sup>a</sup>	34	21.572	25.644	.000
Intercept	24860.981	1	24860.981	29554.387	.000
Jenis_Alpukat	338.026	1	338.026	401.841	.000
Hari	15.591	4	3.898	4.634	.002
Level	98.413	2	49.206	58.496	.000
Jenis_Alpukat * Hari	9.077	4	2.269	2.698	.038
Jenis_Alpukat * Level	26.917	2	13.458	15.999	.000
Hari * Level	22.420	8	2.803	3.332	.003
Jenis_Alpukat * Hari * Level	4.854	8	.607	.721	.672

Error	58.884	70	.841	
Total	29474.359	105		
Corrected Total	792.329	104		

a. R Squared = .926 (Adjusted R Squared = .890)

### Lampiran 8. Hasil Analisis Ragam Stabilitas Emulsi

#### Descriptive Statistics

Dependent Variable: Terlepas

J_Alpukat	Hari	Level	Mean	Std. Deviation	N
Mega Gaguana	0 Hari	5%	4.27033	.238594	3
		10%	2.13516	.119297	3
		15%	1.42344	.079531	3
		Total	2.60964	1.290600	9
	5 Hari	5%	6.19886	2.066286	3
		10%	3.44381	1.578152	3
		15%	2.75505	1.192971	3
		Total	4.13257	2.129879	9
	10 Hari	5%	5.51010	1.192971	3
		10%	3.44381	1.578152	3
		15%	2.86984	.716886	3
		Total	3.94125	1.597861	9
	15 hari	5%	7.57638	1.192971	3
		10%	4.47695	.596486	3
		15%	3.21422	.397657	3
		Total	5.08919	2.064691	9
	20 hari	5%	8.26515	.000000	3
		10%	4.47695	.596486	3
		15%	3.21422	.397657	3
		Total	5.31877	2.304467	9
	Total	5%	6.36416	1.793202	15
		10%	3.59534	1.270868	15
		15%	2.69536	.890026	15
		Total	4.21829	2.069267	45
Mega Murapai	0 Hari	5%	4.40808	.477188	3
		10%	2.06629	.000000	3
		15%	1.37752	.000000	3
		Total	2.61730	1.396337	9
	5 Hari	5%	7.23200	1.033143	3
		10%	4.13257	1.033143	3
		15%	3.09943	.344381	3
		Total	4.82134	2.008070	9

	5%	7.57638	1.192971	3
	10%	4.47695	.596486	3
10 Hari	15%	2.98464	.397657	3
	Total	5.01266	2.144523	9
	5%	10.67581	.596486	3
	10%	5.68229	.516572	3
15 hari	15%	3.67340	.397657	3
	Total	6.67717	3.153694	9
	5%	11.02019	1.192971	3
	10%	5.51010	.596486	3
20 hari	15%	3.67340	.397657	3
	Total	6.73456	3.383494	9
	5%	8.18249	2.650514	15
	10%	4.37364	1.446225	15
Total	15%	2.96168	.918555	15
	Total	5.17260	2.853376	45
	5%	4.33920	.345756	6
	10%	2.10072	.084356	6
0 Hari	15%	1.40048	.056237	6
	Total	2.61347	1.304370	18
	5%	6.71543	1.566839	6
	10%	3.78819	1.251199	6
5 Hari	15%	2.92724	.807645	6
	Total	4.47695	2.039097	18
	5%	6.54324	1.555444	6
	10%	3.96038	1.207791	6
10 Hari	15%	2.92724	.522280	6
	Total	4.47695	1.915613	18
Total	5%	9.12610	1.895661	6
	10%	5.07962	.827590	6
15 hari	15%	3.44381	.435611	6
	Total	5.88318	2.711820	18
	5%	9.64267	1.687116	6
	10%	4.99353	.777722	6
20 hari	15%	3.44381	.435611	6
	Total	6.02667	2.901205	18
	5%	7.27333	2.408094	30
Total	10%	3.98449	1.395023	30



15%	2.82852	.898934	30
Total	4.69544	2.524332	90

### Tests of Between-Subjects Effects

Dependent Variable: Terlepas

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	522.579 <sup>a</sup>	29	18.020	24.269	.000
Intercept	1984.248	1	1984.248	2672.324	.000
J_Alpukat	20.491	1	20.491	27.597	.000
Hari	137.033	4	34.258	46.138	.000
Level	319.091	2	159.545	214.871	.000
J_Alpukat * Hari	7.177	4	1.794	2.416	.058
J_Alpukat * Level	9.381	2	4.691	6.317	.003
Hari * Level	25.693	8	3.212	4.325	.000
J_Alpukat * Hari * Level	3.713	8	.464	.625	.753
Error	44.551	60	.743		
Total	2551.379	90			
Corrected Total	567.130	89			

a. R Squared = .921 (Adjusted R Squared = .883)

Lampiran 9. Dokumentasi Penelitian.



## BIODATA PENULIS



Penulis lahir di Ujung Padang pada tanggal 26 April 1994, merupakan anak keempat dari enam bersaudara dari pasangan Bapak Andi Faharuddin dan Ibu Hj. Djamilah wadud. Pendidikan formal yang ditempuh oleh penulis berawal Taman Kanak-Kanak Bayangkari (1998-1999), Sekolah Dasar Negeri 3 Maros (1999-2005), Sekolah Menengah Pertama Buqatun Mubarakah (2005-2008) Makassar, dan Sekolah Menengah Kejuruan Negeri 1 Maros (2008-2011). Penulis Melanjutkan Pendidikan Strata Satu pada jurusan peternakan Universitas Hasanuddin, Makassar (2011-2015) dan Melanjutkan pada program magister, program Studi Ilmu dan Teknologi Peternakan, Fakultas Peternakan Universitas Hasanuddin (2017-2020).