

BAB IX

KESIMPULAN DAN SARAN

IX.1. Kesimpulan

Berdasarkan Kerja Praktek yang telah dilakukan di PT. Lautan Natural Krimerindo (LNK), dapat disimpulkan bahwa:

- PT. Lautan Natural Krimerindo merupakan industri kimia yang bergerak di bidang pangan khususnya *non-dairy creamer* (NDC) dan telah beroperasi sejak 10 Juli 2012.
- Selain memproduksi *non-dairy creamer* (NDC) dengan nama Lautan Krimer dan Fibercreme, PT. Lautan Natural Krimerindo juga memproduksi *dairy creamer* dengan nama Lautan Premix dan Lautan Dairy.
- Secara keseluruhan, proses produksi di PT. Lautan Natural Krimerindo dibagi ke dalam dua proses utama, yaitu proses *wet mixing* (seluruh proses sebelum masuk ke *Spray Dryer*) dan proses *drying* (seluruh proses setelah masuk ke *Spray Dryer*).
- Dalam proses produksinya, PT. Lautan Natural Krimerindo mengutamakan keamanan pangan yang ditunjukkan dari lingkungan produksi yang higienis serta adanya uji kualitas produk secara fisika, kimia, dan biologi, serta mengutamakan keselamatan kerja yang ditunjukkan dari adanya divisi *Health, Safety, and Environment* (HSE).

IX.2. Saran

Dari keseluruhan kegiatan Kerja Praktek di PT. Lautan Natural Krimerindo (LNK), dapat dikatakan sudah berjalan dengan baik. Mahasiswa mendapatkan penjelasan yang rinci dan jelas mengenai dunia kerja, meliputi sistem kepegawaian, kegiatan usaha, pemasaran, uraian proses produksi, utilitas, dan lainnya. Setiap pembelajaran dan kegiatan juga dibimbing dengan baik dan rutin sehingga dapat berjalan dengan lebih terarah. Suasana kantor yang nyaman, keramahan karyawan, dan fasilitas yang memadai merupakan kelebihan tersendiri dalam melaksanakan Kerja Praktek secara kondusif. Untuk mengembangkan program Kerja Praktek di PT. Lautan Natural Krimerindo ke depannya, saran yang dapat diberikan kepada



pihak perusahaan adalah menyediakan fasilitas laptop tambahan, dimana setiap mahasiswa memperoleh satu buah laptop supaya mempermudah dan mempercepat proses pembelajaran dan pengerjaan tugas.



DAFTAR PUSTAKA

- Adams, A. (2019, Juli 16). *The Difference Between Non-Dairy and Dairy-Free*. Diambil kembali dari The Spruce Eats: <https://www.thespruceeats.com/non-dairy-and-dairy-free-differences-1000936>
- Ahmad, P. (2012, Agustus 8). *ResearchGate*. Diambil kembali dari ResearchGate: https://www.researchgate.net/post/What_is_the_chemical_formula_and_the_structure_of_casein2
- Beekmans, J. M., & Kim, C. J. (1997). Analysis of the Efficiency of Reverse Flow Cyclone. *The Canadian Journal of Chemical Engineering*, 55, 640-643.
- Berkeley Wellness. (2019). *Hydrogenated Oils*. Dipetik August 21, 2019, dari Berkeley Wellness, University of California: <https://www.berkeleywellness.com/healthy-eating/food/article/hydrogenated-oils>
- Clarke Energy. (2019). *Jenbacher Gas Engine*. Dipetik August 21, 2019, dari Clarke Energy, A Kohler Company: <https://www.clarke-energy.com/gas-engines/>
- Clarke, M. A., & Caballero, B. (2003). *Encyclopedia of Food Sciences and Nutrition 7th Edition*. Maryland: Academic Press.
- Davidson, I. (2018). *Biscuit, Cookie and Cracker Production - Chapter 12: Biscuit Cooling and Handling*. San Diego: Academic Press. doi:10.1016/B978-0-12-815579-0.00012-X
- Deeth, H. C., & Lewis, M. J. (2017). *High Temperature Processing of Milk and Milk Products*. Chichester: John Wiley & Sons.
- Dietz, P. W. (1981). Collection Efficiency of Cyclone Separators. *American Institute of Chemical Engineering Journal*, 27(6), 888-892.
- Dirgo, J., & Leith, D. (1985). Cyclone Collection Efficiency: Comparison of Experimental Results with Theoretical Predictions. *Aerosol Science and Technology*, 4(4), 401-415. doi:10.1080/02786828508959066
- Doyle, M. E., Mazzotta, A. S., Wang, T., Wiseman, D. W., & Scott, V. N. (2001). Heat Resistance of *Listeria monocytogenes*. *Journal of Food Protection*, 64, 410-429.
- EU Specialty Food Ingredients. (2019). *Stabilizer*. Dipetik August 21, 2019, dari EU Specialty Food Ingredients: <https://www.specialtyfoodingredients.eu/ingredients-and-benefits/group/stabilizers>
- Featherstone, S. (2015). *A Complete Course in Canning and Related Processes 14th Edition (Vol. 2)*. Cambridge: Woodhead Publishing.
- FiberCreme. (2017). *Tentang Kami*. Dipetik August 22, 2019, dari Ellenka FiberCreme: <https://fibercreme.com/tentang-kami/>
- FibreCreme. (2017). *Product*. Dipetik August 23, 2019, dari Ellenka FibreCreme: <https://fibercreme.com/products/?lang=en>

- Floch, M. H., Walker, W. A., & Ringel, Y. (2017). *The Microbiota in Gastrointestinal Pathophysiology*. Diambil kembali dari <https://app.dimensions.ai/details/publication/pub.1109626527>
- Food Additives. (2013). *Stabilizers*. Dipetik August 21, 2019, dari Food Additives: <http://www.foodadditivesworld.com/stabilisers.html>
- Food Safety Authority of Ireland. (2009, 3 18). *Trans Fatty Acids And Hydrogenated Vegetable Oils*. Dipetik August 21, 2019, dari Food Safety Authority of Ireland: https://www.fsai.ie/faq/trans_fatty_acids.html
- Gardiner, D. S. (1977). *United States Patent No. 4,046,926*.
- Goates, J. B. (1991). Heat-capacity measurements and thermodynamic functions of crystalline s-D-glucose at temperatures from 10 K to 340 K. *The Journal of Chemical Thermodynamics*, 23, 403-409.
- Goff, H. D. (2017). *The Dairy Science and Technology: Dairy Processing*. Canada: University of Guelph. Diambil kembali dari University of Guelph: <https://www.uoguelph.ca/foodscience/book-page/dairy-processing>
- Haynes, F. (2019, April 29). *Hydrogenated Oils and Trans Fats*. Dipetik August 2019, dari The Spruce Eats: <https://www.thespruceeats.com/do-hydrogenated-oils-contain-trans-fats-2246050>
- Helstad, S., & Saldivar, S. O. (2018). *Corn: Chemistry and Technology 3rd Edition*. Mexico: Woodhead Publishing.
- Hilsenrath, J. (1955). *Tables of Thermal Properties of Gases*. Washington: National Bureau of Standards.
- Hurst, J. E., & Harrison, B. K. (1992). Estimation of Liquid and Solid Heat Capacities using a Modified Kopp's Rule. *Chemical Engineering Communications*, 112, 21-30.
- Industrial Boiler & Mechanical. (2019). *FIRETUBE BOILER*. Dipetik August 21, 2019, dari Industrial Boiler & Mechanical: <http://www.industrialboiler.com/Boilers/Firetube-Boilers>
- Jay, J. M., Loessner, M. J., & Golden, D. A. (2005). *Modern Food Microbiology 7th Edition*. New York: Springer Science.
- Juneja, V. K., & Marmer, B. S. (1999). Lethality of Heat to Escherichia coli O157:H7: D- and z-value Determinations in Turkey, Lamb, and Pork. *Food Research International*, 23-28.
- Kagan, J. (2019, Mei 8). *Original Equipment Manufacturer (OEM)*. Diambil kembali dari Investopedia: <https://www.investopedia.com/terms/o/oem.asp>
- Kennedy, J., Blair, I. S., McDowell, D. A., & Bolton, D. J. (2005). An Investigation of the Thermal Inactivation of Staphylococcus aureus and the Potential for Increased Thermotolerance as a Result of Chilled Storage. *Journal of Applied Microbiology*, 99, 1229-1235.
- Lovett, J., Bradshaw, J. G., & Peeler, J. T. (1982). Thermal Inactivation of Yersinia enterocolitica in Milk. *Applied and Environmental Microbiology*, 44, 517-519.



- Mechanical Engineering Site. (2018). *Oil Free Vs Oil Lubricated Screw Compressor*. Dipetik August 21, 2019, dari Mechanical Engineering Site: <http://www.mechanicalengineeringsite.com/oil-free-vs-oil-lubricated-screw-compressor/>
- Menteri Ketenagakerjaan Republik Indonesia. (2016). *Keputusan Menteri Ketenagakerjaan Republik Indonesia Nomor 618 Tahun 2016 tentang Penetapan Standar Kompetensi Kerja Nasional Indonesia Kategori Industri Pengolahan Golongan Pokok Industri Makanan Bidang Keamanan Pangan*. Jakarta: Menteri Ketenagakerjaan Republik Indonesia.
- Muhlenchemie. (2014). *18.6 Emulsifier*. Dipetik August 21, 2019, dari Muhlenchemie: https://muehlenchemie.de/downloads-future-of-flour/FoF_Kap_18-6.pdf
- PT. Lautan Luas Tbk. (2015). *Tentang Kami*. Diambil kembali dari PT. Lautan Luas Tbk: <http://www.lautan-luas.com/id>
- PT. Lautan Natural Krimerindo. (2016). *Product*. Diambil kembali dari PT. Lautan Natural Krimerindo: <http://lautan-natural-krimerindo.com/product/>
- PT. Lautan Natural Krimerindo. (2017). *Company Profile - Bagian I: Sejarah, Arti Lambang, dan Kejadian Penting*. Mojokerto: PT. Lautan Natural Krimerindo.
- PT. Lautan Natural Krimerindo. (2017). *Company Profile - Bagian III: Visi, Misi, Nilai-Nilai Inti, Kebijakan Mutu, dan Keamanan Pangan*. Mojokerto: PT. Lautan Natural Krimerindo.
- Ramos, F. M., Oliveira, C. C., Soares, A. S., & Junior, V. S. (2016). Assessment of Differences Between Products Obtained in Conventional and Vacuum Spray Dryer. *Food Science and Technology*, 36(4), 724-729.
- Raschke, T. M. (2006). Water Structure and Interactions with Protein Surfaces. *Current Opinion in Structural Biology*, 16(2), 152-159. doi:10.1016/j.sbi.2006.03.002
- Rojas, E. E., Coimbra, J. S., & Romero, J. T. (2013). Therophysical Properties of Cotton, Canola, Sunflower, and Soybean Oils as a Function of Temperature. *International Journal of Food Properties*, 1620-1629. doi:10.1080/10942912.2011.604889
- Rule, D., Cole, R., Dettmers, D., Hamilton, D., Kazachki, G., Royal, R., . . . Nelson, C. (2017). *Ammonia as a Refrigerant*. Maryland: ASHRAE.
- Shuler, M. L., & Kargi, F. (2002). *Bioprocess Engineering Basic Concepts 2nd Edition*. New Jersey: Prentice Hall PTR.
- Sidley Chemical. (2013, July 2). *E469 Sodium Caseinate*. Dipetik August 21, 2019, dari Sidley Chemical: <http://www.visitchem.com/sodium-caseinate-e469/>
- Tajkarimi. (2007). *Salmonella sp.* California: California Department of Food and Agriculture. Diambil kembali dari https://www.cdffa.ca.gov/ahfss/Animal_Health/PHR250/.../25007Sal.pdf

- TetraPak. (2019). *Homogenizer*. Diambil kembali dari Dairy Processing Handbook: <https://dairyprocessinghandbook.com/chapter/homogenizers>
- Thermax Global. (2018). *ABOUT ABSORPTION COOLING*. Dipetik August 21, 2019, dari Thermax: <https://www.thermaxglobal.com/thermax-absorption-cooling-systems/about-absorption-cooling/>
- U.S. National Library of Medicine. (2019). *Sodium Stearoyl-2-Lactylate; Dipotassium Phosphate; Calgon*. Diambil kembali dari PubChem: <https://pubchem.ncbi.nlm.nih.gov>
- Wang, H. H., & Sun, D. W. (2004). Evaluation of the Oiling Off Property of Cheese with Computer Vision: Influence of Cooking Condition and Sample Dimensions. *Journal of Food Engineering*, 61(1), 57-66. doi:10.1016/S0260-8774(03)00187-0
- Wang, L. K., Pereira, N. C., & Hung, Y. T. (2004). *Air Pollution Control Engineering* (Vol. 1). Totowa , New Jersey: Humana Press Inc.
- XploreMR. (2019). *Non-Dairy Creamer Market: Global Industry Analysis 2013-2017 and Opportunity Assessment 2018-2028*. San Jose: Future Market Insights. Diambil kembali dari <https://www.xploremr.com/report/3698/non-dairy-creamers-market>
- Yaws, C. (1999). *Chemical Properties Handbook: Physical, Thermodynamics, Environmental Transport, Safety & Health Related Properties for Organic*. New York: McGraw-Hill Education.
- Yaws, C. L. (2003). *Yaws's Handbook of Thermodynamic and Physical Properties of Chemical Compounds*. New York: Knovel.
- Zhao, B. T. (2010). Development of a Dimensionless Logistic Model for Predicting Cyclone Separation Efficiency. *Aerosol Science and Technology*, 44, 1105-1112. doi:10.1080/02786826.2010.512027