

DAFTAR PUSTAKA

- Astuti, E. S. (2017). *Analisis Korelasi dan Regresi*. Graha Ilmu.
- Badan Standardisasi Nasional (BSN). (1987). "*Standar Nasional Indonesia untuk Minyak Sawit Mentah (CPO)*." Jakarta: BSN.
- Badan Standardisasi Nasional. (2006). "*Standar Nasional Indonesia untuk Minyak Sawit Mentah (CPO)*." Jakarta: BSN.
- Bariyah, N. (2017). "*Peranan Industri Kelapa Sawit dalam Perekonomian Indonesia*." *Jurnal Agribisnis Indonesia*.
- Gesteiro, E., Guijarro, L., Sánchez-Muniz, F. J., Vidal-Carou, M. C., Troncoso, A., Venanci, L., Jimeno, V., Quilez, J., Anadón, A., & González-Gross, M. (2019). "*Palm Oil and Its Health Effects: What We Know So Far*." *Journal of Food and Nutrition Research*.
- Gunstone, F. D. (2002). "*Vegetable Oils in Food Technology: Composition, Properties, and Uses*." Blackwell Publishing.
- Gunstone, F. D., Harwood, J. L., & Dijkstra, A. J. (2007). *The Lipid Handbook with CD-ROM* (3rd ed.). CRC Press.
- Hamzah, Z., Basri, H., & Ahmad, S. (2020). Non-significant correlation between ALB CPO and broken nut losses: The influence of technical processing and agronomic factors in oil palm fruit production. *Journal of Agricultural Science*, 8(3), 45-52.
- Indonesian Palm Oil Association (GAPKI). (2022). "*Sustainable Palm Oil Production and Its Impact on Global Markets*."
- Ishikawa, K. (1985). "*What is Total Quality Control? The Japanese Way*." Prentice Hall.
- Juran, J. M., & Godfrey, A. B. (1999). "*Juran's Quality Handbook*." McGraw-Hill Education.
- Lai, O. M., Tan, C. P., & Akoh, C. C. (2012). *Palm Oil: Production, Processing, Characterization, and Uses*. AOCS Press.
- Malaysian Palm Oil Board (MPOB). (2015). "*Palm Oil Quality and Its Influence on Product Stability*." MPOB Annual Report.
- Montgomery, D. C. (2021). "*Introduction to Statistical Quality Control*." John Wiley & Sons.
- Nambiappan, B., Ismail, A., Hashim, Z., Ismail, N., Omar, N., Salleh, K. M., ... & Kushairi, A. (2015). *Malaysia: 100 years of resilient palm oil economic performance*. *Journal of Oil Palm Research*, 27(1), 1-30.
- O'Brien, R. D. (2008). *Fats and Oils: Formulating and Processing for Applications*. CRC Press.
- Ong, S., Tan, Y. A., & Lee, K. T. (2011). Factors affecting oil losses in condensate during palm oil processing. *Journal of Food Engineering*, 104(2), 303-309.
- Sampaio, K. A., Sampaio, K. A., Eberlin, M. N., & Lanças, F. M. (2011). Influence of postharvest processing conditions on the quality and composition of palm oil. *Food Research International*, 44(7), 1936-1941. Sampaio, K. A., Sampaio, K. A., Eberlin, M. N., & Lanças, F. M. (2011). Influence of postharvest processing conditions on the quality and composition of palm oil. *Food Research International*, 44(7), 1936-1941.
- Serrano, M., Lopez, J., Martinez, R., & Gomez, F. (2020). *Optimization of Palm Oil Extraction Process: Impact on Productivity and Quality*. *Journal of Food Engineering*, 276, 109692.
- Sharma, V., Tan, Y. A., Abdullah, W. N. W., Hassan, M. A., Abdullah, D. K., &

- Mokhtar, M. N. (2018). "*Factors Affecting the Quality and Yield of Crude Palm Oil.*" *Journal of Oil Palm Research*.
- Syamsuddin, M., Setiawan, A., & Indriyani, F. (2021). Importance of monitoring and controlling ALB levels during CPO processing to maintain product quality. *Journal of Oil Palm Research*, 29(1), 45-58.
- Tambunan, Tulus T. (2006). "Perekonomian Indonesia: *Beberapa Masalah Penting.*" Ghalia Indonesia, Jakarta.
- Tan, Y. A., Abdul Aziz, A. R., & Chong, M. F. (2020). *Palm Oil Extraction from Palm Fruit: Process and Separation Techniques.* *Journal of Oil Palm Research*, 32(2), 179-191.
- Wawan, S., Santoso, B., Rahmawati, A., Nugroho, T. D., & Wiryawan, H. (2017). "*Masalah dan Tantangan dalam Pengolahan Minyak Sawit Mentah (CPO).*" *Jurnal Teknologi Pertanian*.

LAMPIRAN

Lampiran 1. Perhitungan *Individual Control Chart* dan MR

a. Perhitungan *Individual Control Chart* ALB CPO

Hari	Kadar ALB CPO (%)	Xbar	UCL	LCL
1	6.3	6.62	8.35	4.89
2	7.56	6.62	8.35	4.89
3	6.4	6.62	8.35	4.89
4	6.75	6.62	8.35	4.89
5	6.32	6.62	8.35	4.89
6	6.21	6.62	8.35	4.89
7	6.81	6.62	8.35	4.89

Rata-rata X bar :

$$\bar{X} = \frac{\sum Xi}{n}$$

$$\bar{X} = \frac{6.3+7.56+6.4+6.75+6.32+6.21+6.81}{7}$$

$$\bar{X} = \frac{46.35}{7}$$

$$\bar{X} = 6.62$$

Rata-rata *Moving Range* (MR^-):

$$MR^- = \frac{\sum MRi}{n-1}$$

$$MR^- = \frac{1.26+1.16+0.35+0.43+0.11+0.60}{6}$$

$$MR^- = \frac{3.91}{6}$$

$$MR^- = 0.65$$

Batas kendali (*Control limit*) :

Upper Control Limit (UCL):

$$UCL = \bar{X} + 2.66 \times MR$$

$$UCL = 6.62 + 2.66 \times 0.65$$

$$UCL = 6.62 + 1.73$$

$$UCL = 8.35$$

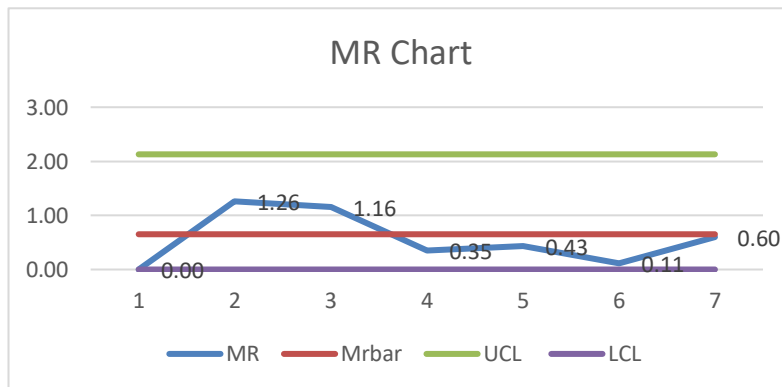
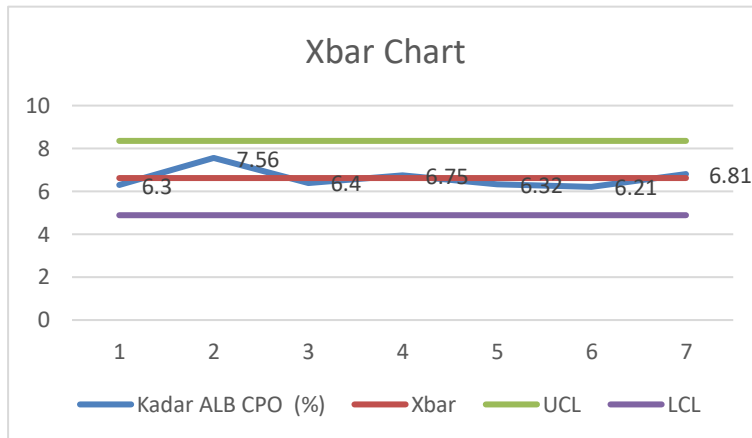
Lower Control Limit (LCL):

$$LCL = \bar{X} - 2.66 \times MR$$








$$LCL = 6.62 - 1.73$$

$$LCL = 4.89$$

b. Pembuatan Grafik *Individual Control Chart* dan MR



Lampiran 2. Pengolahan CPO menjadi TBS

	
<p>1. Penyortian TBS sebelum diolah</p>	<p>2. Penimbangan TBS sebelum dimasukkan ke sterilizer</p>
	
<p>3. Proses perebusan TBS di sterilizer</p>	<p>4. Proses Pemipilan TBS di Thresher</p>
	
<p>5. Proses Pelumatan buah di digester</p>	<p>6. Proses pengepresan di presser</p>
	
<p>6. Proses analisis ALB</p>	