Lampiran 1. Bagan alir penelitian

Mulai

Studi Pustaka

Pengumpulan Data

- Kadar Air
- ALB
- Rendemen

Penyusunan Control Chart Xbar-R dengan Minitab 14

Apakah Control Chart Terkendali?
(Proses Konsisten/Stabil)

Ya

Menetapkan Spesifikasi Konsumen

Analisis Kemampuan Proses

Tidak

Penelusuran Penyebab Khusus

Formulasi Problematika

Penyusunan Diagram Sebab Akibat

Selesai
Lampiran 2.

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Universitas Sumatera Utara
Lampiran 5. Daftar Nilai Koefisien Dalam Perhitungan Batas-batas Peta Kontrol X-Bar dan R serta Indeks Kapabilitas Proses

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Lampiran 6. Penjelasan Indeks Kemampuan Proses Kane (Cpk)

\[
CPL = \left(\frac{\bar{X} - LSL}{\frac{3}{d_2}}\right) \quad ; \quad CPU = \left(\frac{USL - \bar{X}}{\frac{3}{d_2}}\right)
\]

Keterangan:

LSL = Lower Spesification Limit
USL = Upper Spesification Limit
CPL = Capability Process Lower
CPU = Capability Process upper

1. Nilai LSL atau USL diperoleh dari standar pemasaran pabrik ke konsumen.
   - Untuk ALB nilai USL yang ditetapkan pada pabrik adalah sebesar 4,00 untuk dipasarkan.
   - Untuk kadar air nilai USL yang ditetapkan pada pabrik adalah sebesar 0,50 untuk dipasarkan.
   - Untuk rendemen nilai LSL yang ditetapkan pada pabrik adalah sebesar untuk dipasarkan. Untuk menghasilkan mutu yang baik, nilai rendemen yang diperoleh harus tinggi oleh karena itu nilai yang ditetapkan adalah nilai batas bawah agar rendemen tidak turun atau melewati batas standar yang diberikan.

2. Nilai X diperoleh dari rata-rata nilai Xbar
   - Nilai Xbar diperoleh dari hasil rata-rata nilai ALB dalam periode lima tahun yakni 2004 sampai 2008
   - Nilai Xbar dapat dilihat pada lampiran 2.
3. Nilai $d_2$ diperoleh dari tabel daftar nilai koefisien dalam perhitungan batas-batas peta-kontrol X-bar dan R serta indeks kapabilitas proses yang ditampilkan pada lampiran 5.

Untuk nilai $d_2$ ukuran contoh (n) adalah 5 karena batas penelitian menggunakan lima periode waktu yaitu dari tahun 2004 sampai 2008.

4. Nilai R diperoleh dari rata-rata range yang didapat dari data periode lima tahun. *Range*

merupakan jarak antara nilai pengukuran terbesar dan nilai pengukuran terkecil. Nilai R dapat dilihat pada lampiran 2.
Lampiran 9. Foto-foto penelitian