

DAFTAR ISI

| | |
|---|------|
| HALAMAN JUDUL..... | i |
| HALAMAN PENGESAHAN..... | ii |
| HALAMAN PERNYATAAN | iii |
| KATA PENGANTAR | iv |
| DAFTAR ISI..... | vii |
| DAFTAR GAMBAR | x |
| DAFTAR TABEL..... | xi |
| DAFTAR LAMPIRAN..... | xii |
| INTISARI..... | xiii |
| ABSTRACT..... | xiii |
| BAB I PENDAHULUAN | 1 |
| 1.1 Latar Belakang | 1 |
| 1.2 Rumusan Masalah | 12 |
| 1.3 Batasan Penelitian | 12 |
| 1.4 Tujuan Penelitian..... | 13 |
| 1.5 Manfaat Penelitian..... | 13 |
| BAB II TINJAUAN PUSTAKA..... | 14 |
| 2.1 Kelapa Sawit..... | 14 |
| 2.2 <i>Crude Palm Oil</i> | 18 |
| 2.2.1. Komposisi <i>crude palm oil</i> | 19 |
| 2.2.2. Standar kualitas <i>crude palm oil</i> | 19 |
| 2.2.3. Manfaat <i>crude palm oil</i> | 20 |
| 2.3 Pengendalian Kualitas | 21 |
| 2.4 <i>Six Sigma</i> | 23 |

| | | |
|------------------------------------|---|----|
| 2.5 | Siklus <i>Define, Measure, Analysis, Improve, dan Control</i> (DMAIC) | 25 |
| 2.5.1. | <i>Define</i> | 25 |
| 2.5.2. | <i>Measure</i> | 26 |
| 2.5.3. | <i>Analyze</i> | 27 |
| 2.5.4. | <i>Improve</i> | 27 |
| 2.5.5. | <i>Control</i> | 28 |
| 2.6. | Alat Bantu dalam <i>Six Sigma</i> | 28 |
| 2.6.1. | Diagram SIPOC | 28 |
| 2.6.2. | <i>Critical to Quality</i> (CTQ)..... | 30 |
| 2.6.3. | Diagram Pareto..... | 31 |
| 2.6.4. | Diagram <i>Ishikawa</i> | 31 |
| 2.6.5. | <i>Failure Mode and Effect Analysis</i> (FMEA) | 32 |
| 2.7. | Penelitian Terdahulu..... | 33 |
| BAB III METODOLOGI PENELITIAN..... | | 36 |
| 3.1 | Objek Penelitian | 36 |
| 3.2 | Tempat dan Waktu Penelitian | 36 |
| 3.3. | Ruang lingkup dan tahapan penelitian | 36 |
| 3.3.1. | Ruang lingkup | 36 |
| 3.3.2. | Tahapan penelitian | 37 |
| 3.4. | Jenis dan Cara Pengumpulan Data | 44 |
| 3.5. | Analisis Data | 45 |
| 3.5.1. | Penerapan metode <i>Six Sigma</i> DMAIC | 45 |
| 3.5.2. | Penentuan ketidaksesuaian atribut kualitas dan faktor penyebabnya 45 | |
| 3.5.3. | Penilaian kinerja dan rumusan perbaikan. | 47 |

| | |
|--|-----|
| BAB IV HASIL DAN PEMBAHASAN | 53 |
| 4.1. Profil Perusahaan..... | 53 |
| 4.2. Penentuan Ketidaksesuaian Atribut Kualitas | 61 |
| 4.2.1. Atribut kualitas CPO | 61 |
| 4.2.2. Tahap <i>define</i> | 63 |
| 4.2.2.1. Diagram SIPOC (<i>Supplier, Input, Process, Output, Customer</i>) | 63 |
| 4.2.2.2. Identifikasi <i>Critical to Quality</i> | 66 |
| 4.3. Evaluasi Kinerja Produksi dan Penyusunan Rekomendasi Perbaikan ... | 67 |
| 4.3.1. Tahap <i>measure</i> | 67 |
| 4.3.1.1. Analisis pengukuran nilai <i>sigma</i> | 68 |
| 4.3.1.2. Penentuan tingkatan kinerja produksi | 68 |
| 4.3.2. Tahap <i>analyze</i> | 69 |
| 4.3.2.1. Diagram pareto | 69 |
| 4.3.2.2. Diagram Ishikawa | 71 |
| 4.3.3. Tahap <i>improve</i> | 89 |
| 4.3.3.1. Tahapan proses produksi dan mode kegagalan..... | 89 |
| 4.3.3.2. Hasil nilai <i>severity, occurrence, dan detection</i> | 90 |
| 4.3.3.3. Pemberian Rekomendasi Perbaikan | 95 |
| BAB V KESIMPULAN DAN SARAN..... | 104 |
| 5.1. Kesimpulan..... | 104 |
| 5.2. Saran | 104 |
| DAFTAR PUSTAKA | 105 |
| LAMPIRAN..... | 109 |