

RINGKASAN

Penelitian ini bertujuan untuk menganalisis kadar *losses kernel* pada proses produksi kelapa sawit melalui unit *dry Shell*, dengan mempertimbangkan peran sistem pemisahan seperti *claybath* dan *fiber cyclone*. *Kernel losses* merupakan indikator efisiensi dalam proses pemecahan dan pemisahan inti sawit. Sampel diambil dari hasil proses pemisahan cangkang kering dan dianalisis untuk mengetahui sisa *kernel* yang masih terikut. Hasil menunjukkan bahwa kadar *losses kernel* yang terdeteksi masih berada dibawah batas maksimal yang ditetapkan pabrik yaitu untuk unit *dry Shell* sebesar 1,5%, *Claybath* sebesar 3% dan *fiber Cyclone* sebesar 1%, sehingga proses dinyatakan berjalan efisien. Unit pemisahan seperti LTDS, *fiber cyclone*, dan *claybath* berperan penting dalam menekan angka *losses*. Dengan demikian, dapat disimpulkan bahwa kadar *losses kernel* masih sesuai standar, namun monitoring rutin dan perawatan alat tetap diperlukan untuk menjaga kestabilan mutu dan efisiensi proses.

SUMMARY

This study aims to analyze the level of kernel losses in the palm oil production process through the dry Shell fraction, by considering the role of separation systems such as claybath and fiber cyclone. Kernel losses are an indicator of efficiency in the process of breaking and separating palm kernels. Samples were taken from the results of the dry Shell separation process and analyzed to determine the remaining kernels that were still included. The results showed that the levels of kernel losses detected were still below the maximum limit set by the factory, namely for the dry Shell unit of 1.5%, Claybath of 3% and Fiber Cyclone of 1%, so that the process was declared efficient. Separation units such as LTDS, fiber cyclone, and claybath play an important role in reducing the number of losses. Thus, it can be concluded that the levels of kernel losses are still in accordance with the standard, but routine monitoring and equipment maintenance are still needed to maintain quality stability and process efficiency.

