

**PENGARUH KONSENTRASI *BLEACHING EARTH* (BE) TERHADAP
KADAR FOSFOR MINYAK *DEGUMMED BLEACHED PALM OIL*
(DBPO) DI PT SALIM IVOMAS PRATAMA TBK, JAKARTA UTARA,
DKI JAKARTA**

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ABSTRAK

Mahasiswa melakukan kegiatan magang di bagian *Quality Control* PT Salim Ivomas Pratama Tbk pada tanggal 18 Maret 2019 sampai 18 Juni 2019. Mahasiswa melakukan penelitian pengaruh konsentrasi *Bleaching Earth* (BE) terhadap kadar fosfor dalam minyak *Degummed Bleached Palm Oil* (DBPO). Penelitian ini dilatarbelakangi oleh kebutuhan penggunaan BE yang efisien dan optimal untuk menurunkan kadar fosfor minyak DBPO. Tujuan penelitian ini adalah untuk mengetahui pengaruh konsentrasi BE terhadap kadar fosfor dalam minyak DBPO, untuk mengetahui konsentrasi minimum BE yang mampu menurunkan kadar fosfor lebih rendah dari kadar fosfor CPO, dan mengetahui efektivitas BE pada proses *bleaching* menggunakan analisis regresi non linear model kuadrat. Penelitian ini dilakukan dengan menguji kadar fosfor minyak DBPO yang dibuat dari 100 gram minyak *Crude Palm Oil* (CPO) dengan sepuluh variasi konsentrasi BE yaitu 0,25%; 0,5%; 0,75%; 1%; 1,25%; 1,5%; 1,75%; 2%; 2,25%; dan 2,5%. Dari setiap konsentrasi, dilakukan tiga kali percobaan. Berdasarkan hasil penelitian, penambahan konsentrasi BE mempengaruhi kadar fosfor dalam minyak DBPO. Semakin besar konsentrasi BE yang diberikan, semakin kecil kadar fosfor dalam minyak DBPO. Konsentrasi minimum BE yang mampu menurunkan kadar fosfor lebih rendah dari kadar fosfor CPO yaitu pada konsentrasi 1%. Nilai *R Square* BE sebesar 0,983 menunjukkan bahwa BE memiliki efektivitas yang baik dalam menurunkan kadar fosfor dalam minyak DBPO.

Kata Kunci : PT Salim Ivomas Pratama Tbk, *Bleaching Earth*, kadar fosfor, DBPO

***THE EFFECT OF BLEACHING EARTH (BE) CONCENTRATION ON
PHOSPHORUS LEVELS IN DEGUMMED BLEACHED PALM OIL (DBPO)
AT PT SALIM IVOMAS PRATAMA TBK, NORTH JAKARTA, DKI
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ABSTRACT

Students carried out internships in the Quality Control section of PT Salim Ivomas Pratama Tbk on March 18, 2019 to June 18, 2019. Students conducted a research on the effect of Bleaching Earth (BE) concentration on phosphorus levels in Degummed Bleached Palm Oil (DBPO). This research was motivated by the need for efficient and optimal use of Bleaching Earth to reduce phosphorus levels on DBPO. The purpose of this study was to determine the effect of BE concentrations on phosphorus levels in DBPO oil, to determine the minimum BE concentration which was able to reduce phosphorus levels lower than CPO phosphorus levels, and to know the effectiveness of BE in the bleaching process using non linear regression quadratic models. This research was conducted by testing the phosphorus content of DBPO oil made from 100 grams of Crude Palm Oil (CPO) with ten variations of BE concentration, namely 0.25%; 0.5%; 0.75%; 1%; 1.25%; 1.5%; 1.75%; 2%; 2.25%; and 2.5%. From each concentration, three trials were carried out. Based on the results of the study, the addition of BE concentration affected the phosphorus levels in DBPO oil. The greater the BE concentration given, the smaller the phosphorus content in DBPO oil. The minimum BE concentration which was able to reduce phosphorus levels lower than the level of phosphorus CPO was at a concentration of 1%. Square R value of BE was 0.983 indicated that BE had good effectiveness in reducing phosphorus levels in DBPO oil.

Keyword : PT Salim Ivomas Pratama Tbk, Bleaching Earth, phosphorus level, DBPO