

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh suhu terhadap kadar air pada crude palm oil di vacuum oil dryer di PT. Umbul Mas Wisesa. Pada penelitian ini, digunakan metode regresi linier dan rancangan acak lengkap (RAL). Penelitian ini dilakukan dengan satu kali pengulangan pada setiap percobaan, untuk menentukan data analisis kadar air pada CPO di vacuum oil dryer. Berdasarkan metode regresi linier yang telah dilakukan, diperoleh nilai koefisien sebesar 3,12 menunjukkan bahwa terjadi korelasi sangat sempurna antara suhu pengeringan (X) dan kadar air (Y). Nilai koefisien korelasi memiliki hubungan yang kuat (sangat sempurna) antara variabel X dan variabel Y yang berlawanan. Hal ini berarti bahwa semakin meningkatnya nilai variabel X (suhu) maka nilai dari variabel Y (kadar air) akan semakin menurun. Pada metode rancangan acak lengkap (RAL), diperoleh hasil bahwa $F_{hitung} 19,97 > F_{tabel} 5,14$, yang berarti H_0 ditolak dan H_1 diterima. Dapat disimpulkan bahwa perlakuan yang diberikan terhadap unit-unit percobaan memberikan pengaruh yang nyata, terhadap respon yang diamati atau percobaan masing-masing. Suhu yang diberikan berpengaruh nyata terhadap kadar air yang dihasilkan.

Kata Kunci : *Suhu, Kadar Air*

ABSTRACT

This study aims to determine the effect of temperature on the water content of crude palm oil in the vacuum oil dryer at PT. Umbul Mas Wisesa. In this research, linear regression method and completely randomized design (CRD) were used. This research was conducted with one repetition in each experiment, to determine the analysis data for water content in CPO in a vacuum oil dryer. Based on the linear regression method that has been carried out, a coefficient value of 3.12 is obtained indicating that there is a very perfect correlation between drying temperature (X) and moisture content (Y). The value of the correlation coefficient has a strong (perfect) relationship between the opposite variable X and Y variable. This means that as the value of variable X (temperature) increases, the value of variable Y (moisture content) will decrease. In the completely randomized design (CRD) method, the result is that F_{count} is $19.97 > F_{table}$ 5.14, which means that H_0 is rejected and H_1 is accepted. It can be concluded that the treatment given to the experimental units had a significant effect on the responses observed or each experiment. The temperature given has a significant effect on the resulting water content.

Keywords : *Temperature, Moisture Content*