ABSTRAK

Penelitian ini bertujuan untuk menganalisis Pengaruh Tekanan *Screw Press* Terhadap Biji Pecah dan *Oil Losses* pada Stasiun Pressan di PT. Yaputra Alfa Palmindo. Pengujian dilakukan dengan pengambilan *sample* hasil pengepressan berdasarkan tekananya yaitu pada tekanan 38, 39, 40, 41, 42, 43, 44, dan 45. Kemudian dilakukan analisis biji pecah dan *oil losses,* setiap *sample* di lakukan analisis sebanyak 3 kali dan kemudian di tentukan rata-ratanya. Kemudin untuk mengetahui pengaruh tekanan *screw press* terhadap biji pecah dan *oil losses* digunakan metode regresi linear berganda. Rata-rata hasil analisis biji pecah pada setiap tekanan berturut-turut yaitu 4,04%, 5,41%, 6,24%, 8,18%, 10,50%, 12,93%, 15,87%, dan 18,24%. Sedangkan untuk rata-rata hasil analisis *oil losses* pada tekanan berturut-turut yaitu 7,99%, 7,58%, 6,68%, 5,78%, 5,17%, 4,68, 4,05, dan 3,43%. Dari hasil analisis menunjukkan terdapat pengaruh besarnya tekanan terhadap persentasi biji pecah dan *oil losses,* hal ini dapat dibuktikan dengan hasil uji t yaitu pada t hitung biji pecah > t tabel (2,753 > 1,943) yang artinya adanya pengaruh signifikan antara tekanan *screw press* terhadap persentasi biji pecah. Dan untuk -t hitung *oil losses* < -t tabel (-5,732 < -1,943) yang artinya adanya pengaruh signifikan antara tekanan *screw press* terhadap persentasi *oil losses.* Tekanan *screw press* yang optimal agar sesuai dengan standard perusahaan yaitu pada tekanan 40-41 bar yaitu dengan persentasi *oil losses* sebesar 5,78% dan persentasi biji pecah sebesar 8,18%.

Kata Kunci: *Screw press, Biji Pecah, Oil Losses, Regresi Linear Berganda*

ABSTRACT

This research aims to analyze the effect of screw press pressure on broken seeds and oil losses at the press station at PT. Yaputra Alfa Palmindo. Testing was carried out by taking samples from pressing results based on the pressure, namely at pressures 38, 39, 40, 41, 42, 43, 44, and 45. Then analysis of broken seeds and oil loss was carried out, each sample was analyzed 3 times and then found the average. Then, to determine the effect of screw press pressure on broken seeds and oil loss, the multiple linear regression method was used. The average analysis results for broken seeds at each pressure were 4.04%, 5.41%, 6.24%, 8.18%, 10.50%, 12.93%, 15.87%, and 18.24%. Meanwhile, the average oil loss analysis results at pressure are respectively 7.99%, 7.58%, 6.68%, 5.78%, 5.17%, 4.68, 4.05, and 3 .43%. The results of the analysis show that there is an influence of the amount of pressure on the percentage of broken seeds and oil loss. This can be proven by the results of the t test, namely at t count of broken seeds > t table (2.753 > 1.943) which means that there is a significant influence between screw press pressure on the percentage of seeds. broken. And for -t, calculate oil loss < -t table (-5.732 < -1.943), which means that there is a significant influence between screw press pressure on the oil loss percentage. The optimal screw press pressure to comply with company standards is 40-41 bar, with an oil loss percentage of 5.78% and a broken seed percentage of 8.18%.

***Keywords**: Screw press, Broken Beans, Oil Losses, Multiple Linear Regression*