

## **ABSTRACT**

*As oil palm agribusiness company, PT. AMS through its subsidiary, PT. Asiatic Persada aims to increase the company's profits from sales of CPO and Kernel processed in PMKS Sei Kandang. PMKS Sei Kandang has constraints availability of raw materials fresh fruit bunch (FFB) is not optimal. For the optimal solution, this study tries to resolve with the concept of linear programming (LP) where there are three variables was observed that the objective function is maximum benefit for the company, the decision variables (including the selling price of CPO and Kernel, FFB cost for supply and cost processing) and variable constraints of limited resources to achieve the objective function (there are six variables : FFB availability, mill processing capacity, quotas purchasing FFB, amount workers processing, the extraction of CPO and Kernel. From the analysis LP, PMKS Sei Kandang have a average shortage availability of raw materials TBS every month and in addition can be known the effect of the limited resources to attainment profit company.*

**Keywords: optimization, linear programming, CPO, kernel, FFB**



## ABSTRAK

Sebagai perusahaan agribisnis perkebunan kelapa sawit, PT. AMS melalui anak perusahaan yaitu PT. Asiatic Persada bertujuan untuk meningkatkan keuntungan perusahaan dari penjualan CPO dan Kernel yang diolah di PMKS Sei Kandang. PMKS Sei Kandang memiliki kendala ketersediaan bahan baku TBS (Tandan Buah Segar) belum optimal. Dalam upaya mencari solusi optimal, penelitian ini mencoba menyelesaikan dengan konsep linear programming (LP) dimana ada 3 variabel yang diamati yaitu fungsi tujuan yaitu keuntungan maksimal bagi perusahaan, variabel keputusan (meliputi harga jual CPO dan PK, biaya pengadaan TBS kebun dan luar serta biaya pengolahan) dan variabel kendala sebagai keterbatasan sumberdaya untuk mencapai fungsi tujuan (ada 6 variabel : ketersediaan TBS, kapasitas olah pabrik, kuota pembelian TBS luar, jumlah tenaga kerja pengolahan, rendemen CPO, dan rendemen kernel. Dari analisis optimalisasi pendekatan LP, kondisi PMKS Sei Kandang rata-rata mengalami kekurangan bahan baku TBS setiap bulannya dan dapat diketahui pengaruh sumberdaya terbatas yang dimiliki perusahaan terhadap pencapaian keuntungan.

***Kata kunci : optimalisasi, linear programming, CPO, kernel, TBS***

