

**OPTIMALISASI PRODUKSI MINYAK GORENG KELAPA DENGAN
MODEL ANALISIS *LINEAR PROGRAMMING*
(PT. Lembah Karya Kota Padang Sumatera Barat)**

ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan aspek usaha dan menganalisa optimalisasi produksi minyak goreng kelapa pada PT. Lembah Karya. Metode yang digunakan adalah metode studi kasus. Data penelitian ini terdiri data primer dan data sekunder. Analisis data menggunakan model program linier dengan bantuan *software POM for Windows 3*. Hasil penelitian menunjukkan bahwa aspek usaha minyak goreng terdiri dari aspek operasional, aspek keuangan dan aspek pemasaran. Proses produksi minyak goreng terdiri dari tiga tahap, yaitu tahap netralisasi, tahap pemucatan dan tahap penghilang bau. Pada kondisi optimal perusahaan dapat meningkatkan produksi minyak goreng sebanyak 734.117,6 kg untuk jenis Minyak Goreng Arrow saja agar meningkatkan keuntungan sebanyak Rp. 2.100.987.000. Faktor produksi *netral tank*, *bleaching tank* dan tenaga kerja bersisa sedangkan *deodorizing tank* habis terpakai. Perusahaan dapat meningkatkan keuntungan sebesar Rp. 841.741,4 apabila ketersediaan *deodorizing tank* ditambah sebesar satu satuan. Keuntungan maksimal masih bisa dicapai perusahaan apabila keuntungan Minyak Goreng Arrow tidak diturunkan dari Rp 1.806,003/kg dan keuntungan Minyak Goreng Surya tidak dinaikkan dari Rp. 2.609,398/kg. Pada kondisi optimal, jumlah ketersediaan faktor produksi *netral tank*, *bleaching tank* dan tenaga kerja tidak boleh kurang dari 1.982,118 jam, 1.027,765 jam dan 10.938,35 jam sedangkan jumlah ketersediaan *deodorizing tank* hanya boleh berkisar dari 0 sampai 3.143,111 jam. Jumlah produksi Minyak Goreng Arrow tidak boleh lebih dari 734.117,6 kg sedangkan jumlah produksi Minyak Goreng Surya hanya boleh berkisar dari 0 sampai 313.680,4 kg. Disarankan perusahaan hendaknya meningkatkan produksi sebesar 19,54% dari produksi aktual agar keuntungan meningkat sebesar Rp. 528.433.599,57.

Kata kunci: *optimalisasi produksi, program linier, minyak goreng kelapa*

**PRODUCTION OPTIMIZATION OF COCONUT COOKING OIL
WITH LINEAR PROGRAMMING MODEL ANALYSIS
(PT. Lembah Karya Kota Padang, West Sumatra)**

ABSTRACT

The aims of this study are to describe the business aspects of PT. Lembah Karya and to analyze the optimization of its production. The method used for this study was the case study method. The data then were analyzed quantitatively using linear programming models. The result shows that the business aspects of cooking oils at PT. Lembah Karya consists of operational aspects, financial aspects and marketing aspects. Meanwhile cooking oil production process consists of three stages, namely the neutralization stage, the bleaching stage and deodorizing stage. The study finds that under optimal conditions, the company can increase the production of cooking oil as much as 734.117,6 kg that subsequently could increase the profits as much as Rp. 2.100.987.000. In this condition, production factors of neutralization tank, bleaching tank and labor not all were used, while the deodorization tank used up. Furthermore, the company can increase its profit as much as Rp. 841.741,4, when the availability of deodorization tank is added for one unit. The company can still achieve the maximum profit if they do not take the profit of Arrow Cooking Oils less than Rp. 1.806,003/kg and profits of Surya Cooking Oil more than Rp. 2.609,398/kg. Under optimal conditions, the availability of production factors of neutralization tank, bleaching tank and labor should not be less than 1.982,118 hour, 1.027,76 hours and 10.938,35 hours respectively. Meanwhile the amount of availability of deodorization tank should only in range of 0 to 3.143,111 hours. Moreover total production of Arrow Cooking Oil should not be more than 734.117,6 kg, while the total production of Surya Cooking Oil should only in range of 0 to 313.680,4 kg. Based on findings, the company should increase the production by 19,54% of actual production in order to increased the profits by Rp. 528.433.599,57.

Keywords: *production optimization, linear program, coconut cooking oil*