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An Operations Research Application in the Particleboard Industry

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Abstract: In this study, a model was used for the optimization of product mix (the amounts of each product in the mixture) in particleboard industry by using linear programming. A theoretical model was constructed in which operations research methods and linear programming were applied to the maximization of the profit of a particleboard mill (KÖYKOBİR) as the consumer of industrial wood. To this end, 1993-1994-1995-1996 production, sales, stock quantities and costs as well as data related to capacities of the chipping, drying, pressing, sanding and gluing units were processed. Moreover, processing times of every product at these units were calculated. The linear programming model to determine optimum stock quantity, sale, production of particleboard at eight different thicknesses planned to be produced in 1997 was solved by industrial Lindo program and the results are shown in the tables.

<u>Key Words:</u> Particleboard Industry, Production Planning, Linear Programming, Product Mix.

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