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STOCHASTIC GOAL PROGRAMMING (SGP)  
AND AGRICULTURAL SECTOR OF UNDERDEVELOPED  
COUNTRIES

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**Abstract**

In this paper, SGP is employed to determine the optimum distribution of an agricultural area, according to possible different crops.

SGP model is constructed, where, the size of production of each crop is a random variable. By using this model, the decision maker can determine the crops to be planted in summer and winter seasons, and which satisfy:

- (a) The government's policy,
- (b) Maximum product ,
- (c) Maximum revenue; and
- (d) Minimum cost.

Finally, a case study of certain area in Egypt is presented.

**Key Words:** Goal programming, probabilistic programming, decision maker, strategical crops; and random variables.

INTRODUCTION