

**FACTORS INFLUENCING THE SUCCESS OF SMALL-SCALE  
IRRIGATION FARMERS IN NKOMAZI**

**(MPUMALANGA)**

**By**

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**ABSTRACT**

The purpose of the study was to identify the main factors influencing the small-scale production of sugar cane in Nkomazi, Mpumalanga province.

The study assesses the influence of some selected personal and environmental, and intervening factors on the adoption of recommended agricultural practices and farming success or production efficiency of small-scale sugar cane growers.

A total of 139 farmers were randomly drawn from two distinct districts of Komatipoort and Malelane in Nkomazi, which represented a 10% stratified sample. In the analysis of data, correlation, chi-square analysis, as well as multiple regressions analysis were used in order to identify the most important determinants associated with behavioural change and to calculate their contribution to the variance of farming success.

The results indicate that, the intervening variables tended to have the highest prediction value. They were found to explain 87,13% of the variance of behaviour associated with the production efficiency, while the independent variables had  $R^2$  of 0.50 thus contributing significantly less to the variance of farming success. Amongst the intervening variables, needs and knowledge were found to have the greatest effect on the farming success or dependent variables ( $P < 0,0001$ ). These findings imply that managerial skills or farming success of small-scale sugar cane farmers in Nkomazi is dependent on intervening variables. The intervening variables are the best prediction of decision making, practices adoption behaviour and farming success, so that they should be the focus of extension programs, and also the criteria for monitoring.

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