

**Socio-Economic Constraints Affecting the Cultivation of Tropical Legumes by
Smallholder Farmers in Vhembe District (Limpopo Province, South Africa)**

By

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ABSTRACT

Tropical legumes have the ability to raise household income and improve household food security for smallholder farmers in developing nations like South Africa. They are crops that may also be combined with other staple crops to give farmers high yields. Tropical legumes (like Pigeonpea, Bambara groundnut, Cowpea and Soyabean) also offer natural nitrogen fertilizers that give nutrients to the soil which in the long run reduce the cost of applying chemical nitrogenous fertilizers. This study was conducted to analyse the socio-economic constraints affecting the cultivation of tropical legumes by smallholder farmers in Vhembe district, Limpopo Province, South Africa. The specific objectives were as follows: (i) to describe the socio-economic factors of smallholder farmers, (ii) to identify and compare the factors separating farmers producing above average from below average using multivariate analysis, (iii) to isolate factors that can be assigned to legume farmers producing above average and below average and (iv) to make recommendations to stakeholders on factors to improve the cultivation. The study employed proportional representation to select a sample size of 120 smallholder farmers from a population of 350. Primary data was collected using designed questionnaires and was captured in SPSS. Descriptive statistics and discriminant analysis were used to analyse primary data. Descriptive statistics was used to describe the socio-economic factors of smallholder farmers while discriminant analysis was used to compare factors separating farmers producing above average grain yield and below average grain yield, and to isolate two groups of farmers, that is, farmers producing above average grain yield and farmers producing below average grain yield. The socio-economic factors of smallholder farmers that were found to be important were: seasonal production of legumes, legumes cultivation, types of seeds cultivated, types of training, training attendance, access to capital for purchasing equipment, effect of market price, farming equipment, access to extension service, benefits of cultivating legumes, access to communal land, and access to permission to occupy. P-values were used to compare factors of the groups. There were significant level at 1% for type of training, training attendance, farming equipment, access to communal land and access to permission to occupy. Significant level at 5% for cultivation of legumes, variety of legumes, types of seeds, access to capital for equipment, effect of market price, and benefits of cultivating legumes. Access to extension services and other species of legumes were significant at 10%

level. The study found that factors that contribute most in discriminating or separating farmers who produced above average from those who produced below average were: type of training, training attendance, farming equipment and access to communal land. It was recommend that those factors that contributed to above average production of legumes should be considered in the cultivation of legumes to achieve maximum yield and profit.

Keywords: constraints, cultivation, discriminant analysis, legumes, smallholder farmers.