

Homegarden food production and diet composition in rural Limpopo Province, South Africa

W. Beushausen, M.P. Hoffmann, K.K. Ayisi., T. Bringhenti, R.P. Rötter

In Limpopo province, South Africa, food insecurity remains a constant struggle for the rural population and many people suffer from vitamin A, iron and zinc deficiency caused by unbalanced diets. It has been hypothesized that homegarden systems show a high degree of resilience in times of climatic variability and enhance food security by increasing the availability of micronutrient rich foods. Currently, little is known about the role that homegardens play with regard to diet composition in rural Limpopo.

Therefore, the objectives of this study were to analyze the food security situation in the study area as well as to quantify the contribution of homegardens to dietary diversity.

Semi-structured interviews were conducted in 130 households of six representative rural villages located within the same climatic region. Each interview started with filling in a previously tested questionnaire and ended with an assessment of the homegarden, whereby the plant species diversity was captured. A total of six food security indicators with different recall periods were calculated.

The Household Food Insecurity Access Scale (HFIAS) categorized 41% of the surveyed households as severely food insecure. In contrast to the food accessibility situation, the quality of diets was found to be adequate. As the Food Consumption Score (FCS) analysis revealed, 87% of the households showed acceptable dietary patterns with regard to consumed food groups. Homegardens were a considerable source for dark green leafy vegetables (67% of households obtained those from their garden), as well as for fruits, nuts and legumes (36%, 35% and 33% respectively). On average, homegarden production accounted for 15% of the households' dietary diversity. Among the identified fruits and vegetables, there was a variety of food plants known for their superior nutritional content like moringa (*Moringa oleifera* Lam.), jute mallow (*Corchorus olitorius* L.) or brown ivory (*Berchemia discolor* (Klotzsch) Hemsl.). Households who obtained fruits from their homegarden showed a significantly higher consumption frequency (5.2 days per week) than households who acquired them from elsewhere (3.6 days per week).

This study demonstrates the positive effect of homegardening on healthy diets for the rural poor in Limpopo Province.

Keywords: food security, homegarden, nutrition, dietary diversity