CRITICAL ISSUES TO CONSIDER IN THE SELECTION OF CROPS IN A FOOD-BASED APPROACH TO IMPROVE VITAMIN A STATUS – BASED ON A SOUTH AFRICAN EXPERIENCE

MIEKE FABER¹, SUNETTE M. LAURIE², PAUL J. VAN JAARSVELD¹

¹Medical Research Council, South Africa; ²Agricultural Research Council – Roodeplaat Vegetable and Ornamental Plant Institute, South Africa

Abstract

Vitamin A deficiency is of public health significance in the developing world. Household food production of β-carotene-rich vegetables and fruit is a long-term strategy that can contribute to combating vitamin A deficiency. It is, however, important to grow food-crops to meet the nutritional needs of vulnerable populations taking into consideration the β-carotene content of foods and their potential contribution towards the vitamin A requirements of the target population. Although the focus is on vitamin A, β-carotene-rich vegetables and fruit do have the potential to contribute significantly towards dietary intake of various micronutrients other than vitamin A. Seasonality affects the availability of vegetables and fruit and a variety of both warm-weather and cool-weather crops should be planted to ensure year-round availability of β-carotene-rich vegetables and fruits. Focusing on both indigenous and exotic vegetables will further help to ensure year-round availability, particularly in terms of dark-green leafy vegetables. When promoting increased consumption of indigenous vegetables it is important that the promotion campaign is appropriate for the setting. When introducing new crops, such as the orange-fleshed sweet potato, the nutrient content as well as the sensory attributes of the food need to be considered as to ensure consumer acceptance. The paper will discuss the above-mentioned issues, using published and unpublished South African case studies as examples.

Key words: vitamin A; beta-carotene; home gardens; crop selection; seasonality; consumer acceptance