

## INTRODUCTION

The tomato, a native of Tropical America, is one of the most widely used vegetables produced in the tropics. Macmillan, in his classic "Tropical Planting and Gardening" says that "Tomatoes can be grown with much success in the tropics, especially in rather dry districts and at medium elevations." In Trinidad the crop is widely grown in the dry season by the local people; the chief factor operating against wet season production being the higher prevalence of fungal pathogens and insects. Apart from occasional gluts during the dry season in Trinidad, there is usually a ready sale for the crop; indeed the local people are prepared to pay quite high prices for fruit of often inferior quality. Thus in January 1956 the price to the consumer was often 72¢ per lb. - indicating the esteem in which the fruit is held. Being a crop of high nutritive value, it's cultivation is to be encouraged wherever possible. In Trinidad there is room for improvement in cultural methods and in quality of produce. Investigations into tomato production in Trinidad, such as here described, are therefore justified, even though similar experiments in the past have failed to yield any conclusive results (due mainly to the crop being desiccated by diseases, such as Gray Leaf Spot, caused by Stemphyllium solani). Thus similar trials to the one here described were carried out by Smith in 1954 and Barrett in 1955 after Rombulow - Pearse (1953) had indicated that improvements could be made in the cultivation techniques of the peasant growers. However, it was thought that the effect of different plant raising methods on the establishment and behaviour of the tomato crop would repay further investigation; also, Smith in 1954 suggested that the effect of applying immediately available nutrient solutions ("starter solutions") at the time of transplanting should be studied under Trinidad dry conditions.

This paper describes two experiments laid out at the I.C.T.A. Market Garden in the dry season of 1956 to examine these questions.