

EVALUATION OF SOME CASSAVA (MANIHOT ESCULENTA GRANTZ.)
VARIETIES INTRODUCED BY TISSUE CULTURE

BY

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ABSTRACT

Fifty in vitro cassava (Manihot esculenta Grantz.) varieties produced by tissue culture were obtained from IRRT, San Carlos, California, USA. From those, only 12 varieties were well adapted to Egyptian climate. The acclimatization process and the experiment were carried out in the Vegetable Research Division, Agric. Res. Center, Giza, Egypt during 1984 and 1985. After 2 months the plants were transplanted into a well watered field in March 1984 for propagation to get enough cuttings for next season. Cuttings were obtained from 12 months old plants and were planted on ridges. The evaluation of the 12 varieties for some of the agronomic characters related to yield was undertaken in 1985. Data on growth and yield characters (8 months age) were recorded at harvest.

The tested varieties differed greatly in plant height, branching levels, number of leaves/plant, leaf area, petiole length and petiole colour. Tuber length ranged between 12 to 45 cm, tuber diameter between 2.5 and 6 cm, number of marketable tuber varied from zero to 11, tuber colour varied from white cream to dark brown, yield of leaves varied from 5 to 21.6 t/fad., tuber yield/plant reached a maximum of 4.4 kg for var. 12 and varieties number 7, 10 and 12 were the three leading with an average yield of about 19 t/fad. Root to top ratio ranged from 0.015 to 1.11. Content of HCN in tubers varied from 10 ppm to 218 ppm and HCN in leaves ranged from 143 to 514 ppm.

INTRODUCTION

Cassava is very recently introduced to the Egyptian agriculture on experimental level. As a new crop there will be the need to introduce early maturing, disease resistant and high yielding varieties. Studies are also needed