



New cassava cultivar (*Manihot esculenta*, Crantz) 'INIVIT Y-2022'

Nuevo cultivar de yuca (*Manihot esculenta*, Crantz) 'INIVIT Y-2022'

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ABSTRACT: The cassava breeding program at the Institute of Tropical Root and Tuber Crops Research (INIVIT, according its acronyms in Spanish) pursues different research objectives, with the aim to develop and evaluate of hybrids of different crops. As a result of this process, the cultivar 'INIVIT Y-2022' was obtained, which shows favorable agrop productive response and excellent culinary attributes. This cultivar is currently being introduced in different producing regions of the country.

Key words: hybrids, plant breeding, polycross.

RESUMEN: El programa de mejora genética de la yuca en el Instituto de Investigaciones de Viandas Tropicales (INIVIT) desarrolla diversas líneas de investigación, con el objetivo de obtener y evaluar híbridos de diferentes cultivos. Como resultado de este proceso, se ha obtenido el cultivar 'INIVIT Y-2022', que presenta una respuesta agroprodutiva favorable y excelentes atributos culinarios. Este cultivar se encuentra en fase de introducción en diversas localidades productoras del país.

Palabras clave: híbridos, mejora genética, policruzamiento.

INTRODUCTION

The Cassava genetic breeding program of the Institute of Research on Tropical Root Crops (INIVIT), in combination with the conservation of the crop's plant genetic resources, has allowed the consolidation of a strong and continuous breeding program. As a result of this process, the cultivar 'INIVIT Y-2022' has been obtained, evaluated, and recommended. This cultivar is distinguished by its good morphoagronomic performance, tolerance to the main pests affecting the crop, and excellent culinary quality. After successfully passing the participatory evaluation phases, genotype-environment interaction trials, and validation under production conditions, the cultivar demonstrated phenotypic stability, adaptability, and high yield potential. Currently, its multiplication and technology transfer are being promoted in the main producing regions of the country.

ORIGIN AND DESCRIPTION

The cultivar 'INIVIT Y-2022' originates from a polycross, with female parent CMC-40. It has erect stems, moderate branching (>3 stems), and medium first branching height (0.50-1.00 m). Stem color is dark brown, with intermediate thickness (9-13 cm), and height >2.3 m. Foliage is green, with red petioles that are long (>21 cm) and inclined upward; lobes are simple and irregularly shaped. Limb-petiole and petiole-stem insertion are red. It produces both male and female flowers. Storage roots: >9 per plant, with smooth texture, asymmetric arrangement, and conical-cylindrical shape. Short peduncle, dark brown outer skin, pinkish bark, and white flesh. The bark separates easily. Roots have medium length (30-35 cm) and diameter (6-7 cm). Excellent culinary quality. Potential yield (8 months): 37 t ha⁻¹; agricultural yield: 24 t ha⁻¹. Dry matter content: 31.2 % (Figure 1).

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(A) petioles, leaves, and apex; (B) stem; (C) root subepidermis (bark); (D) root epidermis (skin); (E) flesh color; (F) storage root architecture of the whole plant

Figure 1. Morphological characteristics of the 'INIVIT Y-2022' cultivar