ISSN impreso: 0258-5936
ISSN digital: 1819-4087

Ministerio de Educación Superior. Cuba
Instituto Nacional de Ciencias Agrícolas
http://ediciones.inca.edu.cu

## Report of new cultivar

# INIVIT B-50, NEW SWEET POTATO (*Ipomoea batatas* (L.) LAM.) CULTIVAR FOR CUBAN AGRICULTURE

## Informe de nuevo cultivar

## INIVIT B-50, nuevo cultivar de boniato (*Ipomoea batatas* (L.) Lam.) para la agricultura cubana

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**ABSTRACT**. In Cuba it is necessary to continue working in the search for new sweet potato cultivars that are better adapted to climate variations, to obtain the proposed, hybridization method was used through manual crossings and subsequent selections, specially to drought, in different environment conditions (G x A, according its acronyms in Spanish). The INIVIT B-50 cultivar has excellent agronomic characteristics such as: a cycle of harvest between 110-120 days, low affectation by weevil (*Cylas formicarius* F.) and a potential yield of 58 t ha$^{-1}$ of tuberus roots.

*Key words*: breeding, precocity, yield, climate variations

**RESUMEN.** En Cuba resulta necesario continuar trabajando en la búsqueda de nuevos cultivares de boniato que estén mejor adaptados a las variaciones del clima. Para lograr este objetivo se utilizó el método de hibridación a través de cruzamientos dirigidos y selecciones posteriores en diferentes condiciones ambientales (G x A); haciendo énfasis en la tolerancia a la sequía. El cultivar INIVIT B-50 posee excelentes características agronómicas como ciclo de cosecha entre 110-120 días, bajo índice de afectación por tetuán (*Cylas formicarius* F.) y rendimiento potencial de raíces tuberosas de 58 t ha$^{-1}$.

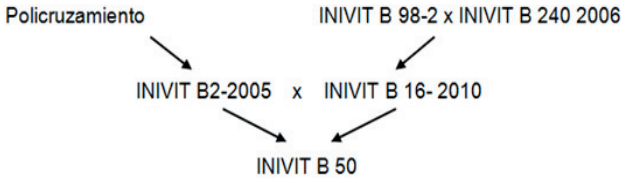
*Palabras clave*: mejoramiento, precocidad, rendimiento, variaciones del clima

## INTRODUCTION

Currently more than 95 % of the areas dedicated to the production of sweet potatoes in Cuba are planted with cultivars from the Genetic Improvement Program (PMG) of the Research Institute of Tropical Viands. However, none of these commercial cultivars, possess the characteristics for a suitable adaptation to the climate variations. In recent years the use of gene combinations has been intensified through interclonal and interspecific crosses with the aim of obtaining progenies with genes that are more tolerant to these abiotic factors, especially drought. The cultivar presented in this work has characteristics such as: precocity, high yield, tolerance to drought, as well as flavor, texture, cooking times and nutritional values. Interaction-genotype environment studies in six different localities during two years, under conditions of water stress, allowed to define this cultivar as tolerant to the drought, with a yield that exceeds in 4.5 t ha-1 to the best commercial clones. It is recommended to use this new cultivar in areas of the country where irrigation is not available for cultivation.

## PARENTS AND PEDIGREE

The selection was by individual way plant to plant. Stability in the evaluated characters in the different environments as high yield of tuberosic roots in cycle of 110 to 120 days, vegetative vigor and low rates of involvement by Cylas formicarius Fab were considered as selection criteria.




## DESCRIPTION OF THE CULTIVAR

Predominant color of tuberous root skin: red.
Predominant color of tuberous root mass: dark yellow
Dry mass: 24,1 %
Index of affectation by weevil (Cylas formicarius F.): low (<4,6 %)
Harvest cycle: 110-120 days.
Potential yield: 58 t ha-1


Foliage and (B) tuberous roots

**Figure. Cultivation of sweet potato INIVIT B 50**

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Received: June 30th, 2016 Accepted: October 28th, 2016