



FICARU 90. New mutant of Flor de Jamaica (*Hibiscus sabdariffa* L.)

FICARU 90. Nuevo mutante de Flor de Jamaica (*Hibiscus sabdariffa* L.)

 María Caridad González Cepero*,  Rodolfo Guillama Alonso,  Yanelis Camejo Serrano

Instituto Nacional de Ciencias Agrícolas (INCA), carretera San José-Tapaste, km 3½, Gaveta Postal 1, San José de las Lajas, Mayabeque, Cuba. CP 32 700.

ABSTRACT: From the seed irradiation Yerzy variety of *Hibiscus sabdariffa* with doses of 250 Gy of gamma rays ^{60}Co it was possible to identify a mutant with high productive potential that differed from the donor in the number of fruits, the height of the plant, the color and shape of leaves, flowers and fruits. Producers evaluated this mutant in different locations with very good acceptance.

Key words: Mutation, selection, irradiation, gamma rays.

RESUMEN: A partir de la irradiación de semillas de la variedad Yerzy de *Hibiscus sabdariffa*, con dosis de 250 Gy de rayos gamma de ^{60}Co fue posible identificar un mutante de alto potencial productivo que difería del donante en el número de frutos, la altura de la planta, el color y forma de hojas, flores y frutos. Dicho mutante fue evaluado en diferentes localidades con muy buena aceptación por parte de los productores.

Palabras clave: Mutación, selección, irradiación, rayos gamma.

INTRODUCTION

Flor de Jamaica (*Hibiscus sabdariffa* L.) is a drought-tolerant annual crop belonging to the Malvaceae family, cultivated in tropical and subtropical regions. It is in high demand due to its use in the preparation of various food products and its medicinal properties. In Cuba, this species was virtually unknown, and no Cuban varieties had been developed. Given its numerous applications and beneficial attributes, the National Institute of Agricultural Sciences initiated a mutation-breeding program aimed at developing Cuban varieties of this important species.

ORIGIN

FICARU 90 cultivar was developed through gamma irradiation of Yerzy variety seeds with a dose of 250 Gy using a ^{60}Co MPX-25 irradiator, operating at a dose rate of

11.3 Gy min^{-1} . Selection of high-yielding individual plants was carried out from the M2 to M5 generations, followed by multi-location evaluations in the provinces of Mayabeque, Matanzas, and Granma. Due to its favorable acceptance, the cultivar was subsequently characterized and was officially registered.

DESCRIPTION

FICARU 90 variety is a short-day photoperiodic plant. Its height ranges from 1.0 to 1.9 meters depending on the sowing month. The plant develops between 21 and 27 branches, with red-colored stems and light green pentalobed leaves. It produces yellow flowers and rounded red fruits with a closed apical end. Each plant yields between 170 and 210 fruits, with 36 seeds per capsule (Photo 1). This variety was registered officially in the National Cultivar List in 2023.

*Author for correspondence. caridad9450@gmail.com

Received: 26/08/2025

Accepted: 26/09/2025

Conflict of Interest: Authors declare no conflict of interest.

Author Contributions: Dr. María C. González Cepero was responsible for the genetic breeding program aimed at obtaining the variety, as well as its selection, introduction, and official registration. Mr. Rodolfo Guillama Alonso was in charge of fieldwork, seed production, and participated in the selection and introduction of the variety. Dr. Yanelis Camejo was responsible for introducing the variety in the province of Granma.

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial (BY-NC 4.0). <https://creativecommons.org/licenses/by-nc/4.0/>





Figure 1. Flower and calyces of FICARU 90