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

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

Report new cultivar
EDUAR LP-21. NEW RICE CULTIVAR (*Oryza sativa* L.) OBTAINED *In Vitro* ANTHER CULTURE TOLERANT LOW WATER

Informe de nuevo cultivar
EDUAR LP-21. Nuevo cultivar de arroz (*Oryza sativa* L.) obtenida por cultivo *in vitro* de antera, tolerante a los bajos suministros de agua

Elizabeth Cristo Valdés✉, María C. González and Noraida Pérez León

ABSTRACT. ABSTRACT. A new short cycle rice cultivar 8755, nominated(Eduar LP-21) was obtained through biotechnologic methods (culture in vitro of anthers)in The Basic Scientific Technological Unit from Los Palacios (UCTB), belonging to the National Institute of Agricultural Sciences (INCA). It presents excellent features in terms of grain yield, milling quality and pests resistance, as well as a good behavior to low water and fertilizer supplies conditions. With this new cultivar, UCTB expected to favor producers of rice in the farmer cooperative sector.

Key words: biotechnology, genotipes, drought tolerance

RESUMEN. En la Unidad Científico Tecnológica de Base de los Palacios (UCTB), perteneciente al Instituto Nacional de Ciencias Agrícolas (INCA), se obtuvo un nuevo cultivar de arroz de ciclo corto, 8735 (nominado "Eduar LP-21", obtenido mediante métodos biotecnológicos (cultivo *in vitro* de anteras), con excelentes características en cuanto a rendimiento de grano, calidad molinera y su resistencia a plagas, así como un buen comportamiento a las condiciones de bajos suministros de agua y fertilizante. Con este nuevo cultivar la UCTB espera favorecer a los productores de arroz del sector cooperativo campesino.

Palabras clave: biotecnología, genotipos, tolerancia a la sequía

INTRODUCTION

Rice (*Oryza sativa* L.) is one of the most commonly used cereals in the population feeding. Cuba has a consumption of 72 kg per capita per year; however, domestic production only meets 50 % of requirements, showing a substantial reduction in yields due to the effect of various biotic and abiotic factors, among which is the limited availability of water. That is why breeding programs aimed at obtaining rice cultivars for conditions of low water supplies and fertilizer with a higher productive potential and resistance to major pests are developed. The aim of this paper is to generalize a new short cycle cultivar, obtained in Cuba, through *in vitro* anther culture to conditions of low water supplies and fertilizer.

DESCRIPTION

In UCTB belongs to INCA a genetic breeding program was developed and its main objective was to diversify the varietal composition of rice culture. Eduard LP-21 short cycle cultivar was obtained using *in vitro* culture of F2 plant anther of the INCA LP-10/C4 153 hybrid combination and a further evaluation in superior trials of yields. Studies done in different localities of the cooperative sector have shown a good cultivar behavior in respect to the industrial and agricultural yield as well as its pest tolerance. Within its most important characteristics are: the tolerance to low water and nitrogen fertilizer supplies and its cycle. It presents stem height 67 cm, leaf length 31 cm, leaf width 1,6 cm, panicle length 26 cm, potential yield in shell during dry season 7,9 t ha^{-1} and rainy season 6,3 t ha^{-1}, 61 % of filled grain, fertile tillers 390 per m^2.

Instituto Nacional de Ciencias Agrícolas, gaveta postal 1, San José de las Lajas, Mayabeque, Cuba. CP 32 700.

✉ ecristo@inca.edu.cu

Received: July 22th, 2015
Accepted: November 2th, 2015