

# Report of new cultivar 'LPD-5 F<sub>1</sub>', FIRST HYBRID OF PEPPER (*Capsicum annuum* L.) FOR THE PROTECTED CULTIVATION SYSTEM

## Reporte de nuevo cultivar 'LPD-5 F<sub>1</sub>', primer híbrido de pimiento (*Capsicum annuum* L.) para el sistema de cultivo protegido

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**ABSTRACT.** 'LPD-5 F<sub>1</sub>', is the first hybrid of pepper for the System of Protected Cultivation (SCP), type Lamuyo, of big fruits, with good adaptation, productivity and resistant to potyvirus. This hybrid has been validated in the Institute and also with great acceptance in all the areas of the SCP of Cuba since 2001 positively, but it didn't go up to 2011 that was introduced completely, after beginning the production of their seed in IIHLD (Horticulture Research Institute "Liliana Dimitrova").

*Key words:* hybridization, potyvirus, production, yield

**RESUMEN.** 'LPD-5 F<sub>1</sub>', primer híbrido de pimiento para el Sistema de Cultivo Protegido (SCP), tipo Lamuyo, de frutos grandes, con buena adaptación, productividad y resistente a potyvirus. Ha sido validado en el Instituto y también con gran aceptación en todas las áreas del SCP desde 2001 positivamente, pero no fue hasta 2011 que se introdujo completamente, después de comenzar la producción de su semilla en IIHLD (Instituto de investigaciones Hortícolas "Liliana Dimitrova").

*Palabras clave:* hibridación, potyvirus, producción, rendimiento

### INTRODUCTION

In Cuba, the IIHLD introduced the protected crop technology. Once the SCP was established, the development of Cuban hybrids was the problem to be solved, for which the IIHLD included within its research lines the obtaining of cultivars with attributes of potyvirus resistance, high yield and adaptation to the tropics

### ORIGIN

This hybrid was obtained by the method of improvement by crossing (genealogical or pedigree) by simple hybridization between two lines with large fruits and with potyvirus resistance (PVY1-2, potato Y virus and TEV, tobacco etch virus), followed by selections and backcrossing. The individual selection was practiced in the first segregant F<sub>2</sub> generation, according to the size of the fruits. Visual resistance evaluation tests were performed according to the symptoms shown under natural infestation conditions. For its validation, a total of 900 plants of the hybrid were transplanted in the SCP, in a house model A-12 of 540 m<sup>2</sup>, in a typical Ferralitic Red eutric soil. Tests were carried out at optimal and non-optimal times, where the morphoagronomic and post-harvest characters were measured. This hybrid is registered in the Official List of Commercial Varieties of the MINAG, 2016.

### DESCRIPTION

Hybrid proposed with a cycle of 150 days and indeterminate growth. Compact plant, with a height of 108 cm, begins to bloom at 26 dat, and at 102 dat begins the ripening of its fruits. The other characteristics of the hybrid are summarized in the Table. It stands out the increase of the planted areas of pepper in 36.4 ha, due to the national production of 14.4 kg of seeds of this hybrid, which represented a decrease of 17.5 % in import, during the period 2011-2014, with savings to the country of 120.9 thousand convertible pesos (MCUC).

**Table 1. Main agroproductive characteristics of the Cuban pepper hybrid 'LPD-5 F<sub>1</sub>' of the IIHLD PMG**

Character	'LPD-5 F <sub>1</sub> '
Color of fruit	Green to red
Number of lobes	3-4
Number of fruits per plant	30-37
Average mass of the fruit	270-193 grams
Pericarp thickness	6-7 mm
Yield	12,5-14,7 kg/m <sup>2</sup> 50-70 t ha <sup>-1</sup>
Chemical composition	It has an acidity (0.04%), °Brix (4.3), pH of 6.5 and 188 mg/100g of vitamin C content.
Tolerance	Heat

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