

Breeding of Bitter Gourd Cultivar ‘Kaohsiung No.1’

Huang, Hsiang-Yi^{1,2} and Ching-Hsiang Hsieh²

Abstract

Bitter gourd ‘Kaohsiung No.1-Evergreen’ is an F₁ hybrid cultivar, bred from MS041 (female) and MS047 (male) self-lines. This cultivar has plenty branches, strong vigor and fruit bearing. Fruits set on son and grandson vines. It takes 30±3.8 days from transplanting to the first female flowering in spring-summer planting and 47±3 days in autumn-winter planting. The first female flower blooms at the 18-25th node of son vines. Fruit is long and green. Fruit shoulder is flat, with pearl-liked wart on surface, and middle bitter taste in pulp. The average fruit length and width are 39.9±1.8 cm and 5.8±0.3 cm, respectively, and average fruit weight is 550±39.6 g. The parents of ‘Kaohsiung No.1’ were propagated and then selfed as pure lines since 2005. They were crossed in spring planting of 2008. Line trails were performed in spring and autumn plantings of 2009. Eight hybrid lines fitted the breeding goals with middle fruit size (500-700 g), chilling tolerance, non-astringent and good taste were selected. The selected line was used in regional trials which were carried out in spring planting of 2010. The hybrid line, MH97059 (original accession code of Kaohsiung No. 1), showed middle fruit size, high yield in autumn-winter planting, middle bitter taste and non-astringent taste was selected to release. The breeder right was applied on September, 2011 and completed in 2012.

Key words: bitter gourd, F₁ hybrid variety, breeding

¹ Associate Researcher, Kaohsiung District Agricultural Research and Extension Station, COA., ROC.

² Ph. D. candidate and Professor of Institute of Plant Science, National Pingtung University of Science and Technology, Pingtung, Taiwan, ROC.