

Breeding of *Annona* ‘Taitung No. 3’

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Abstract

Sugar apple and atemoya in *Annona* are important economic fruit trees in Taiwan. The fruit quality of the main cultivars is excellent, but some fruit characters still need to be improved, such as ‘Taitung No. 2’ fruits before harvest were easily cracking in the low temperature environment, and the atemoya fruit in the summer season, has a post-harvest fruit cracking phenomenon, which can only produce winter fruit, etc. Therefore, our breeding target was to selection with the weather resistance of excellent variety, ‘Taitung No.3’ was breeding in 2018, and the product name is called ‘Green Treasure’ . The new cultivar ‘Taitung No. 3’ was a hybrid variety, that cross between atemoya of ‘Gefner’ and sugar apple of ‘Taitung No.1’ in 2007, and the variety right was obtained in 2018. This variety of plant grows strong and the tree poses open, the fruit is triangular conical, and the average winter fruit is 818 g, summer fruit is 527.2g, mature peel is yellow-green, peel scales large diamond, scaly yellow-green; fruit would be soft ripened after harvest 4-6 days. The flesh color is white, soft and juicy on taste, the average content of soluble solids was 23.4°Brix. The seeds were oval, tan and average single seed weight 0.29g. The new variety have strong tolerance to high temperature and low temperature, have excellent horticultural characters and more resistant to storage and transportation, and can provide reference for farmers to choose planting.

Keywords: *Annona*, Atemoya, Cracked fruit, Peel scale, Scale ditch

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