

## Effect of Difference Pollen Sources on Fruit Quality of Sugar Apple

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### Abstract

Four pollen sources including 'Taitung No1.', 'Taitung No2.', and Soft-branch sugar apple, and atemoya were artificially pollinated to 'Taitung No1.' and 'Taitung No2.', respectively. The metaxenia effect of fruit quality after pollination of different pollen sources was investigated. The resulted fruit weight of 'Taitung No1.' and 'Taitung No2.' pollinated with atemoya pollen had the least fruit weight, 354.5 grams and 434.7 grams, respectively. It might be due to less seed numbers, the seed number per fruit were 49 and 26, respectively. 'Taitung No2.' pollinated with pollen of Soft-branch had the heaviest fruit weight, 683.8 grams/fruit. 'Taitung No1.' and 'Taitung No2.' Pollinated with Soft-branch pollen had higher total soluble solids, 22.3° Brix and 22.9° Brix, respectively. Those that pollinated with atemoya pollen were had less total soluble solids, about 20-21° Brix. In summary, 'Taitung No2.' pollinated with Soft-branch sugar apple's pollen would increase fruit weight and L values, and total sugar contents of 'Taitung No2.'.

**Key words:** Sugar apple, Pollen, Fruit quality, Metaxenia.