

## **The effect of pollen of nine citrus cultivars on the fruit set and seed number in 'Page' mandarin**

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'Page' mandarin is an early rippled and appropriate cultivar in the north of country. This cultivar, because of self-incompatibility severely needs pollinizer, otherwise it produces small, bad quality and full of seeds fruits. In citrus, pollen has metaxenia and xenia effects on the fruit and seed and it could affect the physical and chemical characteristics of the fruit, so far it determines the quality and quantity of the fruit. Therefore the choice of the appropriate pollen for pollination in self-incompatible is of great importance. So this research is done in order to find the pollinizer which is going to increase the percentage of fruit set and decrease number of seed.

In this study, the effects of nine citrus cultivars ('Sour' orange, 'Duncan' grapefruit, 'Sweet' lemon, 'Salustiana' orange, 'Local' mandarin, 'Hamlin' orange, 'Siavaraz' orange, 'Marss early' orange and 'Shel-Mohaleh' [natural hybrid]) on the fruit set and seed number in a Randomized Complete Block Design in a two years course (1997-1998) were investigated and evaluated. After artificial pollination in growth and development period of fruits, seven steps of abscission were recorded, the fruits after rippening were harvested and finally the percentage of fruit set was calculated.

All of the results concerning two-year measurement experiments indicate that different pollen treatments have statistically significant effects on the percentage of fruit set and seed number, so that the highest percent of fruit set is seen in the pollen of 'Siavaraz' orange and 'Local' mandarin and the lowest percent is in the pollen of 'Marss early' orange and 'Duncan' grapefruit. Also the most and the least mean of seed number are in the pollens of 'Sour' orange and 'Hamlin' orange respectively.