

Investigation of metaxenia and introducing the most appropriate pollen for 'Page' mandarin

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'Page' mandarin is a complex hybrid between 'Mineolla' tangelo and 'Clementine' mandarin and it is an incompatible cultivar. In citrus, in order to produce adequate crop in the self-incompatible and non-parthenocarp cultivars, the existence of viable and compatible pollen on the stigma in pollination period is necessary. In citrus the type of pollen could have some effects on the physical and chemical characteristics of the fruit, so far it determines the quality and quantity of the fruit (effects of metaxenia). Therefore the choice of the appropriate pollen for pollination in self-incompatible and non-parthenocarp is of great importance. So this research is done in order to choose the best pollinizer and to study the effects of pollen in nine citrus cultivars on the quantitative and qualitative features in 'Page' mandarin. For analysing the results a Randomized Complete Block Design was implemented for two years (1997-1998).

After pollination of 'Page' mandarin trees, required data were recorded and when the fruits ripened they were harvested. Finally weight, diameter, length, volume, peel thickness, juice content, developed and undeveloped seeds, total soluble solids, total acid and vitamin C were measured.

Statistical calculation, compound two-year variance analysis and comparison of treatments mean by Duncan test indicate that the pollen of 'Shel-Mohaleh' (natural hybrid) has the most effect on the quantitative

however movement of nutrient medium culture was static.

7) Growth of explants have increased on the shaken liquid medium, which ions of medium culture possible are non available.

8) Porliferation of Plantlets have been raised on the semi - solid medium.

9) Density of rooting , increasing of number and lenght of roots showed on the semi - solid medium.

10) Apical dominance has been increased and growth of lateral meristems has been stimulated on the semi - solid medium.