Effect of 2,4-Dichloro phenoxy Acetic Acid (2,4-D) on Fruit Size and Quality ofSatsuma Mandarin *(Citrus unshiu)*

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size of fruit is the most important quality factor in marketing, of citrus fruits. Small fruit size in mandarin is always a big problem for producers and reduces its marketability and profitability. Using synthetic auxins is one of the best and newest methods for increasing citrus fruit size because they don't cause any significant reducing in number of fruit. In this experiment, the effect of four levels of 2,4-D (0,10,30 and 60 mg^{l-1}) were examined on Satsuma mandarin trees *(Citrus unshiu)* grafted on sour orange rootstock in "on year" using randomized complete block design with four replications. Measuring factors were fruit diameter, fruit weight, peel diameter, peel weight, juice amount, TSS, total acidity and pH of juice.

All treatments increased fruit diameter and weight compared with control plant but only in 30 mg^{l-1} treatment increase of fruit weight was significant. peel firmness in all treatments increased significantly in compare with control, but peel diameter didn't have any significant difference in compare with control.Acidity, pH and TSS of juice didn't have significant difference. Also treatments didn't have any significant effect on percentage of fruit thinning and preharvest drop. In all treatments, percentage of very small and unmarketable fruit reduced too much, in return percentage of medium fruits (5.7 - 6.1 mm diameter) in compare with control were increased greatly.