

Effects of Paclobutrazol and Uniconazol applications on yield component in pomegranate (*Punica granatum L.*) cvs. Shahvar and Zagh

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Triazoles are a group of growth regulators that their biological effects on yield and its components has been studied in a number of species.

There is no report available on the effect of triazoles on pomegranate. Therefore, field trials were carried out to determine the effect of triazoles on the fruit quality and quantity of pomegranate cvs Zagh and Shahvar for two successive years in Yazd agricultural research Center. Both cvs. are very vigorous but "Shahvar" produces more suckers than "Zagh"

Trees were treated with 0,1,3,5 g active ingredient of PP333 and XE-1019 just under the tree canopy as a soil drench. Experiment was a randomized complete block design with three replications. Effects on vegetative and reproductive growth were recorded in the following growing season. To see the residual effects, plant responses were studied the following year as well. To do this vegetative growth, sucker number yield (weight, volume, number of fruit per tree), fruit quality (T.S.S, Vit.C, pH, EC, Pulp/peel juice content), Peel (FW and DW), seed(DW), Juice (DW) and juice density, were recorded.

Results indicated that compounds reduction in vegetative growth but increased total yield and this was due to increase in fruit weight and not to fruit number.

The greatest reductions in vegetative growth and increment of yield were again in concentration of 3 and 5 g of PP333 and XE-1019. With increase in concentration of growth regulator substances, fresh and dry peel weight, seed dry weight, fruit weight, fruit volume, peel thickness and fruit juice increased. Whereas vegetative growth, percentage of decay and pulp/peel decreased. Triazoles had no significant effect on quality of fruit (TSS, pH, Vit.c), number of sucker, fruit number, density of fruit juice, fruit juice (DW) and percentage of cracking.