



Journal

**J. Biol. Chem.
Environ. Sci., 2018,
Vol. 13(1): 375-392**

<http://biochemv.blogspot.com.eg/>

FRUITING OF *OLINDA* *VALENCIA* ORANGE TREES IN RELATION TO SPRAYING SOME PLANT EXTRACTS

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ABSTRACT

Four plant extracts namely oils of garlic, onion, clove and extract of turmeric each at 0.025 to 0.05% were tested for their effects on growth, leaf chemical components, fruit retention%, yield and fruit quality of *Olinda Valencia* Orange trees grown under sohag environmental conditions. The trees received three sprays at spraying growth start, just after fruit setting month later.

Carrying out three sprays of turmeric extract as well as oil of garlic, onion and clove each at 0.025 to 0.05% was favourable in enhancing all growth traits, leaf chemical components, fruit retention%, yield and fruit quality relative to the control treatment. Using turmeric extract as well as garlic, onion and clove, in ascending order was very effective in enhancing growth yield and fruit quality. There was a gradual promotion on these parameters with increasing concentrations of each plant extract from 0.025 to 0.05%.

For promoting yield and fruit quality of *Olinda Valencia* Orange trees grown under sohag environmental conditions, it is necessary to spray the trees three times with turmeric extract at 0.05%.

Key words: oils of garlic, *Olinda Valencia* Orange trees, onion and clove, turmeric extract, growth, yield and fruit quality.