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**COMPARATIVE INVITRO
FUNGICIDAL EFFICACY OF
COPPER NANOPARTICLES AND
RIZOLEXTM FUNGICIDE
AGAINST *FUSARIUM
OXYSPORUM***

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ABSTRACT

A comparative in vitro study of the fungicidal efficacy of Copper nanoparticles and the commercially available fungicide, RizolexTM, against the *Fusarium* wilt pathogen (*Fusarium oxysporum*) isolated from date palm was conducted. Copper nanoparticles (CuNPs) were prepared according to the chemical method. Transmission Electron Microscopy showed that the prepared copper nanoparticles have spherical shape. Also, Dynamic Light Scattering revealed that the average size of the prepared copper nanoparticles was about 100 nm and their polydispersity index was 0.258. From the paper, it could be concluded that the copper nanoparticles have a significant higher fungicidal efficacy than RizolexTM against *Fusarium oxysporum*.

Key words: copper nanoparticles, RizolexTM, *Fusarium oxysporum*, date palm, fungicide.