ABSTRACT

Experiments were conducted at James Finlay Kenya, Tarakwet farm in Kericho county to test the efficacy of various biostimulants, i.e., biozyme 2.5 ml/L, hicure 2.5 ml/L, foltron 2.0 ml/L, codamine radicular 2.0 ml/L, alexin 2.5 ml/L and control (water sprayed only) in controlling Agrobacterium tumefasciens the cause of crown gall disease in roses. Treatments were either sprayed or drenched. Both greenhouse and pot trials were conducted on a susceptible rose variety 'Tropical amazone'. Plots treated with biozyme 2.5 ml/L, hicure 2.5 ml/L, foltron 2.0 ml codamine radicular 2.0 ml/L, alexin 2.5 ml/L were longer, with a bigger head size and had better yield of marketable rose stems compared to control plots treated with water only. It was therefore concluded the application of various biostimulants on roses affected by A. tumefasciens by drenching or spraying improved the yield and quality of marketable rose stems. This was attributed to the fact that biostimulants boosted the immune response of roses to A. tumefasciens through improving the nutrient use efficiency of the plant and enhanced tolerance to biotic and abiotic stresses. However, more research is needed to elucidate this.