



**Comparative study on the effect of garlic clove and acetyl salicylic acid aqueous extracts with emphasis on inducing resistance against root knot nematode, *Meloidogyne incognita* on sugar beet**

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**Abstract :** Garlic clove and acetylsalicylic acid (ASA) aqueous extracts at concentrations 100 and 1000ppm were treated by soil drench and foliar spraying for controlling root knot nematode, *Meloidogyne incognita* infecting sugar beet cv. Gazelle under screen house conditions. The obtained results clarified, in general, that garlic and acetyl salicylic acid extracts at concentrations of 100 and 1000 ppm either as soil drench or as foliar spraying reduced nematode parameters and increased plant growth, yield and percentage total soluble solids (TSS%) criteria as influenced by the tested concentration and type of treatment compared to untreated inoculated control. In other words, by using soil drench, the two tested materials at 1000ppm highly affected nematode criteria compared to 100ppm and control. Contrarily, the two materials at 100ppm, when used as foliar spraying, highly affected nematode criteria than did at 1000m which may indicate that they act as resistance inducers against root knot nematode. The enzyme, chitinase was increased in the treated plants according the same trend of the tested concentrations and type of treatment compared to inoculated and uninoculated non-treated controls.

**Key words:** Acetyl salicylic acid, garlic clove, aqueous extracts, *Meloidogyne incognita*, sugar beet.

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