

Effect of boron and gibberellins spray on the chemical content in the leaves of olive tree

Authors:

**Mustafa EA Al-Hadethi,
Salih UY,
Al- Hgemi SHJ and
Ahmed OJ Janabi**

Institution:

Department of Horticulture and Landscape, College of Agriculture, University of Baghdad, Iraq.

Corresponding author:

Mustafa EA Al-Hadethi

ABSTRACT:

This examination was done in the olive orchard of, Civil Engineering Department, College of Engineering – University of Baghdad-Al-Jadriya during 2015/2016 growing seasons to research the impact of gibberellins (GA₃) and boron spray on 15 year's old trees of "Ashrasi" olive cultivar. This examination included two treatments, viz: three levels of spraying of GA₃, 0 (GA₀), 100mg.L⁻¹ (GA₁₀₀) and 200 mg.L⁻¹ (GA₂₀₀) and three concentration of boric acid (17% Boron) such as spray 0 (B₀), 25 mg.L⁻¹ (B₂₅) and 50 mg.L⁻¹ (B₅₀) with their replications. Medicines were imitated multiple times at factorial trial in a Randomized Complete Block Design (RCBD) using 27 trees. The exploratory outcomes demonstrated that gibberellin at 200 mg.L⁻¹ and boric acid at 50 mg.L⁻¹ (GA₂₀₀B₅₀) altogether gave the most elevated leaf chlorophyll content of 64.34 and 68.10 (SPAD unit), leaf carbohydrate content 0.52 and 0.68 %, the most elevated leaf nitrogen content of 1.204 and 1.446 %, leaf potassium content of 1.582 and 1.710 %, leaf boron content of 26.19 and 32.98 mg.kg⁻¹ and leaf zinc substance of 13.10 and 17.12 mg.kg⁻¹ for the two seasons, separately. The least estimation of these parameters was found in the control (GA₀B₀) treatment.

Keywords:

Gibberellin, Boron, Foliar spray, Leaves mineral, Olive trees.