



**ORIGINAL ARTICLE**

## **RESPONSE OF QUALITY CHARACTERISTICS AND AMINO ACIDS OF SEVERAL CULTIVARS OF BEAN TO SPRAYING WITH BIOSTIMULANT**

**Hamid A. Ajaj\*, Anas Ibrahim Hasan, Nihad Mohammed Abood and Yas Ameen Mohammed**

Department of Field Crops, College of Agriculture, University of Anbar, Iraq.

E-mail: [ag.hamid.abdalkader@uoanbar.edu.iq](mailto:ag.hamid.abdalkader@uoanbar.edu.iq)

**Abstract:** A field experiment was carried out in the winter season (2018-2019) at the Al-Hamithia Research Station of the College of Agriculture, Anbar University, with the aim of studying the effect of spraying with the nutrient solution Vegeamino at three concentration (0, 50 and 100 mg L<sup>-1</sup>) on the grain yield characteristics and their amino acid content of three genotypes of *Vicia faba* L. (Local, Spanish and American). The results were summarized as followed: The effect of the nutrient solution on all the studied traits, as the spray with a concentration of 100 mg liter<sup>-1</sup> was superior to the studied traits, the weight of 100 seeds, the individual plant yield, the seed content of basic and non-essential amino acids and the percentage of protein and carbohydrates in the seeds. The genotypes differed significantly in the studied traits, the American genotype exceeds in most traits the weight of 100 seeds, the individual plant yield, the seed content of non-essential amino acids, the percentage of protein and carbohydrates in the seeds. While, the Spanish genotype was superior to the seed content of the essential amino acids. The interaction between the genotypes and the concentrations of spraying with the nutrient solution had a significant effect on the characteristic of the seeds' content of essential and non-essential amino acids and the percentage of carbohydrates in the seeds. The plants of the American genotype that were sprayed with the concentration of 100 mg L<sup>-1</sup> outperformed the highest average for traits.

**Key words:** Genotypes, Nutrient solution, *Vicia faba*, Amino acids.

### **Cite this article**

Hamid A. Ajaj, Anas Ibrahim Hasan, Nihad Mohammed Abood and Yas Ameen Mohammed (2022). Response of Quality Characteristics and Amino Acids of Several Cultivars of Bean to Spraying with Biostimulant. *International Journal of Agricultural and Statistical Sciences*. DocID: <https://connectjournals.com/03899.2022.18.1371>