

عنوان مقاله:

(Influence of an exogenous application of glycine betaine and methionine on biochemical and morphological traits of basil (*Ocimum basilicum* L

محل انتشار:

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خلاصه مقاله:

Purpose: This experiment was carried out to examine the impacts of glycine betaine (GB) and methionine (Met) on basil plants' biochemical and morphological traits in two experiments under greenhouse conditions at Guilan University, Iran. Research method: Two completely randomized plans were used for the experiment, each involving three replications. The experiment factors during the first experiment were various amounts of GB (0, 50, 100, and 150 mg. L⁻¹), and in the second experiment, we utilized four Met quantities (0, 50, 100, and 150 mg L⁻¹). Findings: The results showed that GB utilized at 150 mg L⁻¹ led to the maximum leaf fresh and dry weight, stem dry weight, chlorophyll a, chlorophyll b, total antioxidants, and leaf calcium and nitrogen content. The treatments with GB had a 1000 seed weight higher than the control. According to the results, leaf fresh and dry weight, root dry weight, and chlorophyll a and b in control were significantly higher than other Met treatments. Root fresh weight and the florets number per plant in control and 50 mg L⁻¹ Met were significantly higher than in other treatments. Besides, the 50 mg L⁻¹ Met treatments resulted in higher total phenol, antioxidants, and leaf phosphorus content than the control. Research limitations: No limitations were found. Originality/Value: The findings of this experiment demonstrate that the use of Met in greenhouse conditions does not have significant effects on basil plants, but GB has significant effects

کلمات کلیدی:

chlorophyll, total antioxidants, Total phenol, Weight

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