

## عنوان مقاله:

Effects of Fertigation and Foliar Application of Boron on Fruit Yield and Several Physiological Traits of Bell Pepper

## محل انتشار:

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## خلاصه مقاله:

Boron deficiency is a prevalent challenge for plant nutrition supply in many alkaline/calcareous soils. The current research had seven treatments, including control, boric acid as fertigation (0.5, 1, and 2 g L<sup>-1</sup>), and foliar application (0.5, 1, and 2 g L<sup>-1</sup>) with three replications in controlled greenhouse conditions. The treatments were applied on Lorca bell peppers in a completely randomized design. The results showed that fertigation and foliar application increased all measured characteristics compared to the control treatment. Increasing the concentration of boric acid in the foliar application treatment caused a decrease in fruit count per plant, fruit fresh weight, fruit yield per plant, and fruit width. Both fertigation and foliar boric acid application (0.5 g L<sup>-1</sup>) as separate treatments caused the highest fruit weight, length, width, and fruit count per plant. Higher boric acid concentrations caused an increase in chlorophyll a and b, total chlorophyll, leaf carotenoid content, soluble sugars, total soluble solids, titratable acidity, total phenol, and fruit ascorbic acid content. The highest levels of chlorophyll a, b, total chlorophyll, leaf carotenoid content, and fruit ascorbic acid were observed in response to the high concentration of boric acid foliar application (2 g L<sup>-1</sup>). Overall, the boron supplement as a foliar application (0.5 to 1 g L<sup>-1</sup>) or fertigation (0.5 to 1 g L<sup>-1</sup>) improved quantitative and qualitative performance in bell pepper.

## کلمات کلیدی:

Ascorbic acid, Carotenoids, Chlorophyll, soluble sugars, total phenols

## لینک ثابت مقاله در پایگاه سیویلیکا:

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