

## Brassinosteroids Improve Quality of Table Grapes (*Vitis vinifera* L.) cv. Flame Seedless

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**ABSTRACT:** Significance of preharvest foliar sprays of brassinosteroid (BRs) on physicochemical properties and postharvest life of table grape cv. Flame Seedless were studied. The experiment was performed on 12-year old own rooted, grapevines planted at 3m x 3m spacing trained on overhead system. Vines were treated with aqueous solutions of BRs (0.0, 0.1, 0.5 and 1.0 mg l<sup>-1</sup>) at pea stage and at veraison. After harvesting, clusters were divided into two lots in which one was subjected to initial quality evaluation, while the other was stored in cold room (3-4 °C, 90-95% RH) for evaluation of postharvest quality. Clusters treated with 0.5 and 1.0 mg l<sup>-1</sup> BRs showed significant increase in cluster weight and breadth as well as berry weight, length and breadth. BRs, at the dose of 0.5 mg l<sup>-1</sup> effectively reduced the rate of berry softening, maintained external colour, stabilized anthocyanins, increased total phenols along with reduced rate of degradation in TSS and TA during low temperature storage on the contrary to other two doses and the control. It also exhibited protective role against decay development. Preharvest foliar spray of 0.5 mg l<sup>-1</sup> BRs could be an effective means of maintaining quality and extending postharvest life of grape cv. Flame Seedless during cold storage.

**Keywords:** anthocyanin, phenol, physicochemical properties, postharvest, viticulture

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