## Attributes of *Aloe vera* gel and chitosan treatments on the quality and biochemical traits of post-harvest tomatoes

Dinesh Khatri, Jitendriya Panigrahi, Anamika Prajapati and Himanshu Bariya

Scientia Horticulturae 259: 108837. (2020)

## Abstract

In this research paper, we report the efficiency of *Aloe vera* gel and chitosan, as edible coatings, in extending the post-harvest shelf-life of tomato fruits (Solanum *lycopersicum* Mill.), along with their biochemical attributes and antioxidative capacities. The tomato fruits were coated with *A. vera* gel or chitosan or a combination of both (*A. vera* + chitosan). Tomato fruits without any coating served as the control. Under all three coating treatments, the fruits showed a gradual increase in the total soluble sugar, total phenolic, and lycopene contents, and pectate lyase activity, and a gradual decrease in the titratable acidity and ascorbic acid content, as well as differentially induced antioxidative activities during cold storage, in comparison with the control fruits. The combined *A. vera* gel and chitosan treatment showed the best efficiency in delaying the ripening process and extended the fruit shelf-life up to 42 days.