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Foliar Nutrition with Calcium Nitrate in Strawberries (*Fragaria × ananassa Duch.*): Effect on Fruit Quality and Yield

Ramandeep Singh Sidhu, Nav Prem Singh*, Satpal Singh and Rakesh Sharda

Department of Fruit Science, Punjab Agricultural University Ludhiana -141 004, India
**E-mail: navpremsingh@pau.edu*

Abstract: Study investigates the effect of pre-harvest calcium nitrate sprays on the qualitative and quantitative characteristics of 'Winter Dawn' strawberries (*Fragaria × ananassa* Duch.). Strawberry fruits were sprayed with different doses of Calcium nitrate (0.2%, 0.4%, 0.6% and 0.8%) under field conditions. In comparison tothe control, foliar nutrition with $Ca(NO_3)_2$ significantly improved fruit quality and yield related parameters. Calciumnitrate (0.4%) registered the highest total soluble solids (TSS), total sugars, reducing sugars, non-reducing sugars and ascorbic acid content over the other treatments and the control. Moreover, maximum fruit size, weight and yield plant^{-1} was also obtained with $Ca(NO_3)_2$ at 0.4 per cent. Supplementary calcium feeding played a significant role in enhancing fruit firmness by imparting strength and thickness to fruit cell wall. Therefore, it is intended that foliar feeding $Ca(NO_3)_2$ at 0.4% is the most effective to extend the qualitative and quantitative characteristics of 'Winter Dawn' strawberries.

Keywords: Pre-harvest, $Ca(NO_3)_2$, Physico-chemical attributes, Yield