



INFLUENCE OF UV TREATMENT ON SOME PROPERTIES AND BIOACTIVE COMPOUNDS IN ONION BULBS (*ALLIUM CEPA L.*) DURING STORAGE

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ABSTRACT

Due to the importance of food and health benefits, onions are used and stored in large quantities. One of the problems encountered during onion storage is besides maintaining the chemical components at optimal values, the losses recorded by sprouting and stripping the bulbs. Physical and chemical properties as well as bioactive compounds and weight loss of the onion bulbs were determined during storage under the influence of an UV-C treatment with doses of $2 \text{ kJ} \cdot \text{m}^{-2}$. The results showed that UV-C illumination treatment do not lead to significant differences concerning the size of onion during storage. Weight losses of onion were lower in onions treated by UV-C illumination during storage. Dry matter, the soluble solids and total phenolic contents remained higher in treated onions. Treatment of onions by UV-C illumination determines the suppression of bulb sprouting. These findings demonstrate that the application of UV-C illumination to onions can be a method of extending their shelf life.
