

Boron and Calcium Sprayed on 'Fuyu' Persimmon Tree Prevent Skin Cracks, Groove and Browning of Fruit During Cold Storage

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Flesh softening, skin browning and rotting are major problems during cold storage (CS) of Sweet 'Fuyu' Persimmon. We studied the effects of boron (B) and calcium (Ca) sprayed on the trees during three consecutive years, on the development of skin cracks; grooves and darkening in persimmon fruit under CS. In the municipality of Farroupilha, RS, Brazil (29°31' south, 51°21' west, and about 750 m altitude) a homogeneous orchard area of 0.5 ha was delimited and three sets of five plants for each treatment, were randomly selected and marked. The persimmon trees were sprayed at 20 day interval, from 15th January until harvest, for three consecutive years, with: T1) water; T2) calcium nitrate at 0.5% (m/v); T3) calcium chloride at 0.5% (m/v); T4) boron at 0.3% (m/v). The fruit were harvest with orange-reddish color; 18-20°Brix, flesh firmness of 45 to 60N, and kept under CS at 0±1°C for 45 days. The fruit were evaluated immediately before CS; six hours after removal from CS; and after four days at 23±2°C, from the end of the CS period. Both boron and calcium sprayed

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on the trees prevented skin cracks, grooves and darkening. Besides, when boron was sprayed on the trees, the mentioned effects were additive in the following year.

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