TitleCitrus postharvest diseases and injuries related to impact on packing linesAuthorFischer Ivan Herman, Ferreira Marcos David, Spósito Marcel Bellato and Amorim LilianCitationScientia Agricola, 66(2), 2009.KeywordsBrazil; 'valencia' sweet orange; 'murcott' tangor; Fungal rots; Mechanical damages

## Abstract

Brazilian exports of fresh citrus represent less than 1% of the overall Brazilian production. Phytosanitary barriers and poor appearance stand out among the several reasons contributing to such low exporting/production ratio. The purpose of this work was to characterize postharvest injuries in 'Valencia' sweet oranges and 'Murcott' tangors produced for foreign markets after different processing stages in a packinghouse, as well as to identify critical points and impact extent on packing lines. Sampling was performed both after pre-washing and degreening the fruits, and also at the arrival on the packing table and in the pallet. They were stored for 21 days at 25°C and 85% RH. The incidence of injuries was visually assessed every three days. An instrumented sphere with acceleration register was used to evaluate the extent of impacts (G,  $m/s^2$ ) at the 19 transference points of the citrus processing line. There was low rot incidence (under 3.5%) at the different stages of fruit processing, with slight increase after degreening in 'Valencia' orange and a decrease after fungicides treatment in 'Murcott' tangor. The main pathogens found in the oranges were Lasiodiplodia theobromae and Penicillium digitatum, which were surpassed by Colletotrichum gloeosporioides in the tangors. Impacts in the processing line were caused mainly by drops on hard surfaces, with 94.7% of them varying from 30 to 95 G. The greatest impacts were observed when fruits were transferred from the processing line to bins destined to degreening. Mechanical injuries related to oleocellosis increased until the arrival of fruits at the packing table.