

## **Abstract**

The fumigation of apple and pear fruit for 2 h with 2 ml/l of sulfur dioxide at room temperature enabled adequate detection of fresh and old micro-wounds varying from 0.1 to 5 mm in diameter. A bleached spot surrounded by a brown halo formed around the wounds allowing their visualization. Otherwise, the same symptoms were observed when fruit were treated for 2 h with 20 ml sodium metabisulfite solution at 20 g/l.

The incidence of wounding among SO<sub>2</sub> treated apples varied from 9 to 20% and from 13 to 24% in the 2001–2002 and 2002–2003 harvest periods, respectively. The susceptibility was higher on pear fruit which averaged 17–30% of wounded fruit at harvest for the same periods. Comparatively, the incidence of wounding varied between 5 and 11% when apple or pear fruit were evaluated visually for superficial defects. Additional wounds occurred during the sizing of ‘Cameo’ apples. Thus, the incidence of wounding was around 12 and 23% before and after sizing, respectively. SO<sub>2</sub> fumigation revealed an abraded surface two-fold larger on fruit after sizing resulting principally from impacts between adjacent fruit and between fruit and the bin sides.