ONLINE ISSN : 1880-3571
PRINT ISSN : 1347-2658

Horticultural Research (Japan)
Vol. 8 (2009) , No. 3 297-302

[PDF (494K)] [References]

Annual Fluctuation of On-tree Fruit Softening Rate and Manganese Contents in Japanese Persimmon 'Saijo' Tree

Yasuyuki Togano[1)], Keisuke Mochida[1)], Takao Kurahashi[1)], Osamu Takeshita[2)] and Hiroyuki Itamura[3)]

1) Shimane Agricultural Technology Center
2) Shimane Head Quarters of National Federation of Agricultural Co-operative Associations
3) Faculty of Life and Environmental Science, Shimane University

(Received January 15, 2007)
(Accepted May 29, 2008)

The annual fluctuation and difference among fields or among trees during on-tree fruit softening (OTFS) of the Japanese persimmon 'Saijo' were investigated. The mineral concentrations, especially the Mn concentration, were compared between OTFS trees and healthy trees in order to obtain basic information about OTFS. The annual fluctuation and difference among fields of OTFS were found over a four-year period (1995 to 1998). Comparing the concentrations of the main minerals in the flesh, the Mn concentration in fruit from the OTFS tree was about 1/3 of that from healthy trees, except in 1998 when the OTFS rate was markedly higher and there were significant differences at a 5% level in 1996 and 1997 as well. Negative correlation between Mn concentration in each organ; fruit, calyx and leaf, of tree and the OTFS rate was found at a 1% significance level. There was a tendency for the OTFS rate to increase as the Mn concentration in each organ decreased. The Mn concentrations in the flesh, calyx and leaf of trees with a high OTFS rate were less than 20, 180 and 300 ppm, respectively.

Key Words: soil, weather

[PDF (494K)] [References]

To cite this article:

Yasuyuki Togano, Keisuke Mochida, Takao Kurahashi, Osamu Takeshita and Hiroyuki Itamura. 2009. Annual Fluctuation of On-tree Fruit Softening Rate and Manganese Contents in Japanese Persimmon ‘Saijo’ Tree . Hort. Res. (Japan) 8: 297-302 .

doi:10.2503/hrj.8.297

JOI JST.JSTAGE/hrj/8.297