

Investigation on North Iranian commercial mandarin sensitivity to curing for controlling *penicillium* SP. instead of chemical methods.

Mohammad Ali Shahbake¹, Farhad Rafat² and Mahtab Zargaran³.

1- P.h.D ,Faculty Member Research Deputy of Iranian Agricultural Engineering Research Institute (IAERI), Karaj, Iran .

2- BSc , Expert , Citrus Research Institute , Ramsar , Iran .

3- BSc , Laboratory Expert , IAERI , karaj , Iran .

An investigation for evaluation of curing commercial mandarins in north of Iran was carried out. In this research, three cultivars of mandarin , including Unshiu, Yunesi and Page were used for determination of skin sensitivity to curing.

Treatments were controled (no shrink wrapping and no curing) , Shrink wrapping with 19 μ Low Density Polyethylene (LDPE) , Curing at 37°C for 2 - 3 days, with 80 - 85 % RH , and combined treatments mentioned above. The fruits were kept at 8 - 10°C with 80 - 85 % RH for 2 months in cold storage. After the end of storage time , each treatment was measured for skin sensitivity to curing process , percentage of weight loss (WL) , Titratable Acidity (TA) , Total Solible Solids (TSS) , TSS/TA ratio, incidence of decay and overall acceptability.

The results showed that Yunesi mandarin are more or less sensitive to curing and produce some storage spots in the stem end . Other cultivars in these experiments were relatively tolerated to curing. According to the results obtained from these experiments , curing is not recommended to be used for controlling *penicillium* spp. in Yunesi mandarin , but , considering some practical points of curing it could be replaced instead of chemical methods for Clemaitine , Unshiu and Page varietise.