

Effects of pre-harvest production practices on post-harvest water loss of Leeks and Pak Choi.

Abstract

The utilization of pre-harvest conditions as crop management tools to control post-harvest weight (water) loss had been studied. Studies on two model crops i.e. leek and pak choi had shown some promising uses of these production conditions in regulating weight loss from harvested leafy vegetable. Pre-harvest conditions such as environmental (temperature and light) and cultural (mineral nutrition, density of planting, salinity and irrigation) had been investigated. Water retention during storage was improved in pseudostems from leeks grown with adequate water supply, high light level, lower temperatures and K supplement in the growing media. Pseudostems from salinized plants conserved more water than non-salinized plants and leeks grown at 35 plants m⁻² retained water better than the other three plant densities (17.5, 22 and 44 plants mm⁻²). There were significant (p<0.001) interactions between temperature, salinity and water stress and cultivars on water loss from shoots of pak choi with shoots produced at 25°C, moderate salinity and water stressed being more resistant to water loss.

Keyword: Post-harvest; Pre-harvest; Water loss; Leeks and Pak Choi.