

Effect of acetaldehyde vapors on avocado fruit ripening

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Abstract

Exogenous application of acetaldehyde (AA) vapor (5000 ppm for 18h) to peeled avocado fruits prior to storage caused inhibition of fruit ripening. This inhibition was characterized by delay in fruit softening and reduction in ethylene production. Moreover, addition of 1-aminocyclopropane-1-carboxylic acid (ACC), the precursor of ethylene, to avocado disks (*in situ*) or to avocado extract (*in vitro*) showed that AA reduced ethylene production by inhibiting ACC oxidase activity. The levels of total free sulfhydryl group compounds increased in the treated avocado, although the total amino acids level reduced during ripening.