

Title Changes in wound-induced ethylene production and ACC oxidase in fresh-cut squash
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Abstract

Effects of cutting, exogenous ethylene and 2,5-norbornadiene (NBD) treatments on wound-induced ethylene production and 1-aminocyclopropane-1-carboxylic acid (ACC) oxidase activity were investigated in fresh-cut squash (*Cucurbita maxima* Duch.). ACC oxidase and wound ethylene production increased sharply to reach a peak after cutting and then decreased gradually. The increase of ACC oxidase activity induced by wounding was inhibited by NBD but returned to initial levels after 72 h. But when NBD and ethylene were applied together, ACC oxidase activity increased markedly and then decreased gradually and ethylene production also increased similarly to the control treatment. It was concluded that increases of ACC oxidase and wounded ethylene production were induced by cutting and ethylene but inhibition by NBD on ACC oxidase was counteracted by exogenous ethylene.