

Title Modeling of the ethylene metabolism during ripening and CA storage of Jonagold apples

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Abstract

In a first experiment ethylene production as well as the concentrations of 1-aminocyclopropene-1-carboxylic acid (ACC) and S-(5'-adenosyl)-L-methionine (SAM) and the activities of the enzymes ACC oxidase and ACC synthase are monitored during the on tree ripening of Jonagold apples. Samples were collected for a period of four weeks, starting from two weeks before optimal harvest time. In a second experiment the same measurements are performed on apples stored under optimal CA conditions. In this experiment the effect of storage time, the influence of harvest date and the application of the ethylene blocker Smartfresh on the ethylene metabolism is studied. Firmness is measured in these experiments as an indicator of fruit quality. Results gained so far will be presented at the conference.