



E535

Effect of 1-MCP treatment on tomato photosynthetic chlorophyll activity during storage

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Tomato is an important vegetable in Europe and in the whole world too. Due to the steadily growing demand for fresh tomatoes, there is a significant need to develop postharvest technologies, including anti-ripening treatments. Ethylene plays a key role in initiating and accelerating ripening-related processes perceiving as various qualitative changes (e.g. colour, hardness and chlorophyll content) in tomatoes. Tomatoes, unlike many other climacteric fruits, need a constant ethylene effect to progress ripening. In this context, it is possible to use ripening regulators preventing ethylene binding. According to some studies, chlorophyll fluorescence measurements can be used innovatively and at least as efficiently and reliably as tristimulus colorimetry classifying tomatoes based on maturity. Measurements were carried out by treating fresh tomatoes with 1-MCP (1-methylcyclopropene) at six different stages of ripening and studying the changes in chlorophyll content related quality characteristics (e.g. surface colour, chlorophyll fluorescence) during postharvest storage (two-week refrigerated storage at 15 °C followed by a two-week shelf life). According to our results, the chlorophyll content and photosynthetic activity of the treated samples were decreased much less than those of untreated ones. Additionally, anti-ripening treatment proved to be more effective on tomatoes at an earlier stage of ripening.

E536

Fast food consumption among Albanian adolescents

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Unhealthy diets and obesity are among the factors contributing to many chronic non-communicable diseases and are the leading risk factors for death and disability worldwide. Even though the connection between fast-food consumption and obesity has not been proven, there is a clear positive association between fast food consumption and energy intake. This study aims to analyze the determinants of fast food consumption among adolescents in Albania and to identify how perceived benefits, risks, attitudes, and demographics affect fast food consumption frequency. Using the theory of planned behavior as theoretical background and a sample of 296 valid questionnaires accomplished by the respondents in Albania, we assessed the proposed predictors' relevance on fast food consumption frequency. Structural Equation Modeling (SEM) was used to analyze factors influencing consumers' fast food consumption frequency. The obtained results of the SEM model indicate that perceived risk is negatively associated with the consumer's attitude towards fast food consumption, while perceived benefits positively and significantly impact consumer's attitudes towards fast food consumption. Consumer's attitude and location (rural or urban) were positively associated with the fast food consumption frequency. The study results shows that higher consumers' awareness can be reflected in a more appropriate fast food behavior.