

#### Abstract:

The effect of storage of green pepper (*Capsicum annuum*) at 1 °C, 4 °C and 8 °C for 18 days on chlorophyll fluorescence parameters and chilling injury occurrence on fruit was investigated. 'Roxy F1' green pepper fruit were grown in non-heated plastic tunnel in soil and harvested at mature-green stage. After harvest fruit were stored in perforated PE bags, non-perforated PE bags or without bags. At 3-6 days intervals, the chlorophyll fluorescence parameters ( $F_o$ ,  $F_m$ ,  $F_v$ ,  $F_v/F_m$ ) were measured and chilling injury symptoms were evaluated at storage temperature and after additional 3 days of shelf life at room temperature. The results showed a gradual decrease of  $F_v/F_m$  fluorescence from about 0.85 for fresh-harvested pepper to 0.55 after 3 days of storage at 1 °C and to 0.45 after 18 days of storage for both packaged and non-packaged fruit. There were no significant differences in rate of  $F_v/F_m$  decrease between pepper stored for 6 days in non-perforated bags, perforated bags and without packaging. The earliest visible symptoms of chilling injury on non-packaged pepper were observed after 6 days storage at 1 °C or after 3 days storage at 1 °C and additional 3 days at room temperature. Packaging of pepper significantly delayed chilling injury occurrence, up to 6th of day storage at 1 °C and additional 3 days at room temperature or up to 18th day of storage at 4 °C.