

### **Abstract**

Effects of temperature, diphenylamine and sta-fresh coating on chilling injury of sweet pepper were studied. The research was divided into three trials. In the first experiment, the effect of temperatures at 1, 4, 7 and 25°C with 85 % RH on chilling injury of sweet pepper was investigated. Fruit stored at 7°C had the best quality compared to the rest. No chilling injury generated in fruits stored at 25°C while fruits kept at 1°C exhibited high severity of chilling injury. The second experiment was to examine dips of diphenylamine at 8, 12 and 16 mM related to chilling injury of sweet pepper. The results showed that Sweet pepper treated with diphenylamine at 12 mM and stored either at 7°C or at 13°C had lowered respiration rate, ethylene production, weight loss, chilling injury symptom, vitamin C loss, lipid oxidation and had better quality than those of other treatments. The last experiment was to observe the effect of Sta-fresh 7055 at 5, 10 and 15% on chilling injury of Sweet pepper during storage at 7 and 13°C. The results indicated that Sweet pepper coated with 10% Sta-fresh reduced in respiration rate, change of firmness, lipid oxidation and electrolyte leakage. The sweet pepper coated with 10% Sta-fresh 7055 showed higher external quality than the others.