

addition, 0.5% CaCl<sub>2</sub> applied during the hydro-cooling process. Following CaCl<sub>2</sub> treatments, sweet cherry fruits were either maintained at room temperature (20 °C) for 3 days (shelf life) or cold stored for 20 days in plastic bags (0°C, 90% relative humidity (RH) and subsequently maintained at 20°C for 2 days. Subjective quality assessments indicated that preharvest CaCl<sub>2</sub> application reduced fruit cracking, pitting and browning stem. Although fruit penetration and deformation were not affected by the CaCl<sub>2</sub> treatments, stem removal force was higher in fruits subjected to CaCl<sub>2</sub>. Significant differences at harvest or during shelf life period were monitored in respiration rate, external color, soluble solids concentration, total phenolic and anthocyanin contents, and antioxidant activity among treatments.

PP-22

### **Biology and control of bacterial diseases and drosophila suzukii in cherry growing in the Netherlands**

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In the Netherlands, bacterial canker in cherry trees is caused by *Pseudomonas syringae* pathovars. Recently, cherry production in the Netherlands has changed from a relatively extensive into an intensive cultivation. In general nurseries and fruit growers are not familiar with bacterial diseases and lack knowledge in order to prevent infections. Therefore, control strategies to manage cherry decline have to be developed. The Spotted Wing Drosophila (SWD), *Drosophila suzukii*, is a fruit fly of Asian origin that rapidly invaded Europe from 2008 onwards. In contrast to other *Drosophila* species that develop on overripe or decaying fruits, *D. suzukii* is able to oviposit in undamaged ripe fruits. Since its first notification in the Netherlands in 2012, it has become a major pest of berry and stone fruit crops. Like in many other countries, soft fruit production in the Netherlands is characterised by a large variety in crops and culture methods. For example, cherries are grown in traditional orchards with high trees and a large variety of cultivars, but also in modern plantations under rain cover. The latter enables the growers to leave the fruits on the tree and prolong the harvest season, but it will also increase the risk of SWD infestation. First observations on the SWD biology in the Netherlands will be presented. Part of the research is carried out within the EU-DROPSA project. It has focus on new and emerging threats such as *Drosophila suzukii*, and the bacterial pathogen *X. arboricola* pv. *pruni* (Xap).

PP-23

### **S allele diversity in sweet cherries in Turkey**

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Turkey is dominated world sweet cherry production and export determination of S-allele combinations of sweet cherry genotypes and cultivars has importance for both growers and