



## Physiological disorders of selected *Citrus* fruit species in Sri Lanka and their effect on fruit quality

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### ABSTRACT

**Purpose:** This study was conducted to identify the physiological disorders and their symptoms of selected *Citrus* fruit species (*C. sinensis*, *C. limon* and *C. crenatifolia*). Furthermore, it was aimed to determine whether physicochemical and sensory properties were affected by physiological disorders. **Research method:** *Citrus* fruits with physiological disorders were observed separately for visible changes and characters were recorded and photographed. Moreover, *Citrus* fruits with physiological disorders were analyzed for physicochemical and sensory properties. **Findings:** Many physiological disorders were recorded from three *Citrus* fruit species including chilling injury, sun burn, stem-end rind breakdown, oleocellosis, rind disorder, puff and crease, granulation, wind injury, peteca, fruit splitting and fruit cracking. Based on the overall result of sensory analysis, it can be concluded that most of the physiological disorders in studied *Citrus* species appear on the peel but not adversely affect the edible internal portion of the fruits. Physicochemical properties of *C. limon* are not adversely affected by physiological disorders whereas *C. sinensis* and *C. crenatifolia* are affected by physiological disorders. **Limitations:** Availability of selected *Citrus* fruit species throughout the year is limited due to their seasonality. **Originality/Value:** This study provides novel information about the physiological disorders of some *Citrus* species in Sri Lanka and other parts of Asia and a future potential exists in controlling these disorders to provide healthy and quality fruits to the market.