

**Title** Comparison of 'Cripps Pink' apple bruising  
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**Citation** ISHS Acta Horticulturae 880:223-229. 2010.  
**Keyword** Coolstore systems and management; harvest; packing; storage; temperature; 'Cripps Pink'; 'Granny Smith'

### **Abstract**

Bruising is the major cause of down grading of apple fruit quality. It is a serious commercial problem in apple handling and marketing, as small bruises in the flesh can often be masked by highly coloured and dark peel. Although much of this damage is preventable (careful handling and grading), bruising still remains a significant commercial problem for the apple industry. While a number of factors affect bruise susceptibility or the potential of apples to bruise, this study specifically examined the effect of time of harvest through the day and storage temperature on bruise development of 'Cripps Pink' and 'Granny Smith' apples. Bruises were created using a standardised impact, and bruise volume was related to impact energy. Fruit harvested later in the day were more tolerant of bruising than those harvested in the morning suggesting that bruise susceptibility is related to cell turgor. Bruise susceptibility of 'Granny Smith' apples was greater at 5°C than at higher or lower temperatures, whilst susceptibility of 'Cripps Pink' tended to be greater at higher temperatures used (12 and 20°C), thus the interactions between bruise susceptibility and temperature appear to be variety-specific. These preliminary results show a need to understand how bruise susceptibility changes during postharvest handling and storage for each variety. Further exploration and adoption of this information during harvest and packing will be of great assistance to minimise apple bruising.