

Title           Beta -galactosidase activity of sweet cherries as a function of development and ripeness  
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### **Abstract**

The activity of beta -galactosidase enzyme causing cell wall breakdown was studied in 4 sweet cherry [*Prunus avium*] cultivars (Carmen, Kantorjanosi, Linda and Vera). Samples at different ripeness stages (green, breaker/pit hardening, pink, red, dark red I, and dark red II) were collected. The colour and beta -galactosidase activity were determined as a function of ripeness stages. In all the cultivars, the L\* and b\* values decreased continuously as a function of ripeness. The a\* value increased until the fruit reached the red fruit stage and then started to decrease. The red colour compounds developed in sweet cherries during ripening. The lowest beta -galactosidase activity was recorded in Carmen at the green stage; the other 3 cultivars had 6-fold higher activity at the beginning. During ripening, the beta -galactosidase activity did not change (Vera) or slightly increase (Kantorjanosi). In the case of Linda, a slight decrease was found between red and dark red stages.