

Title Molecular aspects of bilberry (*V. myrtillus*) fruit ripening
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Abstract

The quality of fruits is determined by the different developmental steps via the complicated signaling cascade that is responsible for the metabolic and structural changes during fruit development and ripening. We have studied the development and ripening of bilberry (*Vaccinium myrtillus* L.) at the molecular level. The focus has been on biosynthesis of flavonoids and the genes controlling the regulation of fruit development. Expression of the genes involved in fruit ripening has been monitored with qPCR and in situ hybridization techniques. Moreover, a ripening related EST library has been created for bilberry. As the composition and texture of ripe fruit is for the most part genetically regulated, the molecular level information will shed light on the complicated biological and biochemical processes involved in the fruit development.