

Detection and quantification of the antioxidant melatonin in Montmorency and Balaton tart cherries (*Prunus cerasus*).

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The antioxidant melatonin was recently identified in a variety of edible plants and seeds in high concentrations. In plants, as in animals, melatonin is believed to function as a free radical scavenger and possibly in photoperiodism. In this study, melatonin was detected and quantified in fresh-frozen Balaton and Montmorency tart cherries (*Prunus cerasus*) using high-performance liquid chromatography. Both cherry species contain high levels of melatonin compared to the melatonin concentrations in the blood of mammals. Montmorency cherries (13.46 +/- 1.10 ng/g) contain approximately 6 times more melatonin than do Balaton cherries (2.06 +/- 0.17 ng/g). Neither the orchard of origin nor the time of harvest influenced the amount of melatonin in fresh cherries. The implication of the current findings is that consuming cherries could be an important source of dietary melatonin in as much as melatonin is readily absorbed when taken orally. Also, previously published data and the results presented here show that melatonin is not only endogenously produced but also present in the diet.

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