METABOLISM OF EPICATECHIN BY LACCASE OF *Colletotrichum gloeosporioides*

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During avocado fruit ripening, levels of the flavonoid epicatechin decrease and the metabolism of antifungal compounds is regulated, while the quiescent *Colletotrichum gloeosporioides* infections are activated. Epicatechin levels also decrease when *C. gloeosporioides* grows in the presence of epicatechin in culture medium. Extracts of laccase enzyme obtained from diseased tissue and culture medium fully metabolized the epicatechin substrate within 4 and 20 h, respectively. Isolates of *C. gloeosporioides* with reduced laccase activity and no capability to metabolize epicatechin showed reduced pathogenicity on mature fruits. On the contrary, Mexican isolates with increasing capabilities to metabolize epicatechin showed early symptoms of disease in unripe fruits. The present results suggest that biotransformation of epicatechin by *C. gloeosporioides* in ripening fruits is followed by the decline of the performed antifungal diene compounds, resulting in the activation of quiescent infections.