

**Title** Antioxidants and proteins in ethylene-treated kiwifruits  
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### Abstract

Ethylene-treated kiwifruit (*Actinidia deliciosa*) cultivar 'Hayward' was compared with the air-treated one. The correlation coefficients between total polyphenols and the antioxidant capacities measured by [2,2'-azinobis(3-ethylbenzothiazoline-6-sulfonic acid)] (ABTS) with Trolox equivalent antioxidant capacity (TEAC), 1,1-diphenyl-2-picrylhydrazyl radical (DPPH), and cupric reducing antioxidant capacity (CUPRAC) assays for ethylene-treated kiwifruits were as followed: 0.74; 0.93 and 0.98, in comparison with air-treated samples of 0.72, 0.88 and 0.97, respectively. CUPRAC produced the most consistent measurements for ethylene-treated kiwifruit. In extracted and separated, by electrophoresis, kiwifruit proteins differences were found in the sodium dodecyl sulfate–protein bands, in the region of 32 kDa, in samples after the first days of treatment. Based on antioxidant activity and the protein profiles it can be concluded that the ethylene treatment shortened the ripening process of the fruits.