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### Horticultural Science

Coloration, anthocyanin profile and metal element content of Yunnan Red Pear (*Pyrus pyrifolia*)

Zhang X.D., Allan. A.C., Chen X.Q., Fan L., Chen L.M., Shu Q., Su J., Li K.Z.:

Hort. Sci. (Prague), 39 (2012): 164-171

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The pigmentation response, coloration components and the metal elemental content of Yunnan Red Pear were studied. Light is indispensable for peel pigmentation. With increasing duration of illumination of fruit, the area of skin colour and colour intensity of peel increases due to accumulation of anthocyanin. The red anthocyanin component of Yunnan Red

Pear skin is cyanidin-3-O-galactoside. Other phenolic compounds in pear skin are chlorogenic acid, isorhamnetin-3-O-galactoside and isorhamnetin-3-O-6"-malonylgalactoside; or isorhamnetin-3-O-6"-malonylglucoside; or isorhamnetin-3-O-malonylgalactoside. The elements Ca, Mg and Fe are abundant in Yunnan Red Pear flesh, and Zn, Mn, Cu were also identified. These results will aid red pear breeding and pear nutrition research, as well as increase understanding of the regulatory mechanisms underlying pear fruit colouration.

## Keywords:

red peel pear; exocarp coloration; LC-MS/MS; anthocyanins; elemental analysis

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