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Czech J. Food Sci.

Slavov A., Karagyozov V., Denev P.,

**Kratchanova M.,
Kratchanov C.:**

Antioxidant activity of red beet juices obtained after microwave and thermal pretreatments

Czech J. Food Sci., 31 (2013): 139-147

Pressed juices and water extracts from untreated, microwave pretreated, and thermally treated red beet were obtained. The highest total betalain content – 606.34 mg/100 g dry matter (DM) was found in pressed juice obtained after microwave pretreatment. The individual betalains in the pressed juice from untreated red beet were tentatively determined by HPLC. The most abundant betalain pigments were betanin (312.47 mg/100 g DM), vulgaxanthin I (104.08 mg/100 g DM), and isobetanin (71.28 mg/100 g DM). The antioxidant activity of the pressed juices and extracts was determined. The highest antioxidant

in the pressed juice obtained from microwave pretreated red beet. The possibility of obtaining mixed fruit-vegetable juices on the basis of red beet juice was investigated. Different variants of mixed beverages using chokeberry, blackberry, blueberry, and black currant were obtained in which the concentration of the red beet pressed juice was 25, 50, and 75%. Their polyphenol contents and