

EVALUATION OF ANTIOXIDANT POTENTIAL OF ALBANIAN FIG VARIETIES “KRAPS ZI” AND “KRAPS BARDHE” CULTIVATED IN THE REGION OF TIRANA

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Abstract

Phenolic compounds in recent years are well known for their beneficial effect in human health, as they are featured by antioxidant properties. Figs are sources of phenolic compounds more than red wine and tea. The phenolic content is influenced by the cultivar and is different in the skin and the pulp of the fruit also. The aim of this study was the evaluation of the antioxidant potential of two autochthonous Albanian fig varieties cultivated in the region of Tirana, as they are widely consumed in the local market for fresh consuming.

Selected varieties “Kraps Zi” dark type and “Kraps Bardhe” light type, which produce twice a year, respectively first (breba) and second (main) crop, were collected and compared. Phenols extracted separately from peel and pulp of fresh fruits, were analyzed for total phenolic content, flavonoid and anthocyanins content. Antioxidant activity was estimated with 1,1-diphenyl-2-picrylhydrazyl - DPPH, and 2,2'-Azino-bis (3-ethylbenzothiazoline-6-sulfonic acid - ABTS radical scavenging assays.

Analysis revealed that the main crop of both varieties had higher phenolic content compared to breba crop. Among all fruit fractions the highest phenolic content was observed in peel of dark variety (up to 226.4 mg gallic acid 100 g⁻¹ fresh weigh - FW). An appreciable content of anthocyanins (up to 135.1 mg cyanidin-3-rutinoside 100 g⁻¹ FW) showed the peel of dark variety too. Antioxidant activity evaluated with ABTS assay resulted up to 2.89 mol ascorbic acid 100 g⁻¹ FW, and with DPPH method antioxidants activity, expressed as equivalents of Trolox (6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid), resulted up to 3.9 mol TE100 g⁻¹ FW. The dark variety “Kraps Zi” resulted with higher antioxidant potential compared to light variety.

The results were in accordance to other similar studies.

Key words: *Antioxidant potential, Anthocyanins, Fig fruit, Phenols.*