Antioxidant Activities of Radish and Sweet Potato using Chromogen Radicals during the Drying

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The changes in the radical scavenging activity and the antioxidant content of radish and fresh and steamed sweet potato were investigated during the drying. Total phenolics were determined using the Folin-Ciocalteu reagent. Chlorogenic acid and isochlorgenic acids of sweet potato were analyzed by HPLC. The radical scavenging activity was studied in two chromogen radicals: 1,1-diphenyl-2-picrylhydrazyl (DPPH) and 2,2 '-azino-bis (3-ethylbenzothiazoline-6-sulfonic acid) (ABTS). In this study it is observed that thermal processing elevated total antioxidant activity, phenolic content and bioaccessible chlorogenic acid content in sweet potato and decreased total phenolic content, total antioxidant activity in radishes during the drying. These findings indicate that the thermal processing enhanced the nutritional value of sweet potatoes by increasing the bioaccessible chlorgenic acid and total antioxidant activity. This information may have a significant impact on consumers 'food selection by increasing their consumption of dried sweet potato to reduce the risk of chronic diseases.