

Nutrition and utilization of a new sweetpotato cultivar for tops

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Abstract. A new variety, Suioh, was released for vegetable use by the National Agricultural Research Center for Kyushu Okinawa Region, Japan in 2001. The nutritional value of the flour made from the tops of Suioh and the characteristics of its processed foods, bread and green tea, were evaluated to develop a new use of sweetpotato tops. The protein, lipid, sodium, iron, zinc, carotene, total ascorbic acid, vitamin E, and vitamin K₁ contents were the highest in the leaves. The highest content of ash, potassium and carbohydrate were the highest in petioles or stems. The dietary fiber, energy, phosphorous and magnesium contents did not much differ among the portions. The contents of the components in each portion of the tops in the Jul. 15 harvests did not change appreciably in Aug. 27 harvests. The flour from whole tops, consisting of leaves, petioles and stems, seemed to have a well-balanced nutritional value. Addition of flour from whole tops at 2% of the bread ingredients was the optimal amount for swelling, color, hardness and bread aging in bread processing. The green tea made from the tops contained high amount of polyphenols and showed high activity of radical scavenging activity. Thus, sweetpotato tops can be used as an ingredient of processed foods and green tea in addition to its use as a leafy vegetable.