

EVALUATION OF CAROTENOIDS, SUGAR CONTENTS OF WATERMELON VARIETIES

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Watermelon (*Citrullus lanatus* (Thunb.) Matsum. and Nakai) one of the most important cucurbits, is also the most widely grown cucurbit in Turkey. It is a good source of lycopene. Nowadays, consumers are interested in moderate carbohydrate diets containing substantial levels of vitamins and phytonutrients from fresh fruits and vegetables. This study determined carotenoids (β -carotene, lycopene) and sugar contents of seventy nine watermelon varieties (different fruit at ground colour of skin and triploid with diploid) registered by Ministry of Agriculture and Rural Affairs. Plants were grown in open field and watermelon extracts were analyzed by HPLC. The lycopene content of watermelon ranged from 17.63-51.39 mg/kg. Striped on ground colour of skin variety had the highest level of lycopene (51.39 mg/kg). β -carotene content of watermelon varied from 1.73 to 8.64 mg/kg. While fructose content was in the range of 2.42-9.39 g/100g, the glucose content was measured in 1.26-6.52 g/100g. The highest fructose and glucose contents were determined in on ground colour of skin variety (number 77) in contrast the lowest were measured in triploid variety(5 numbered). Triploid variety (number 64 had the highest content of saccharose (9.96 g/100g). Results obtained of registered watermelon varieties would be useful for producers growing for niche and specialty markets, home gardeners, and plant breeders who develop quality characteristics for niche and specialty markets and different consumption requirements could be satisfy.

Keywords: Watermelon, cucurbit, β -carotene, lycopene, sugar content

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