

## 研究業績 英文表記

和文	
表題	紫外線照射によるパプリカ中のカロテノイドの退色作用
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Title	Discoloration of carotenoids in paprika cultivars subjected to ultraviolet irradiation
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Abstract	<p>High-performance liquid chromatography (HPLC) analysis was conducted to examine the carotenoids in paprika (red and yellow cultivars) produced in the Saga prefecture, Japan. Capsaicin, zeaxanthin, lutein, <math>\beta</math>-cryptoxanthin, <math>\alpha</math>-carotene, and <math>\beta</math>-carotene were found in the analyzed paprika cultivars and the total content in red paprika was 6.4 times higher than that in yellow paprika. It was found that the composition of carotenoids was different depending on the cultivar; for example, zeaxanthin was present in higher quantities in red paprika, while lutein was present in higher quantities in yellow paprika. In addition, ultraviolet (UV) irradiation tests were conducted to investigate the photostability of paprika using hot water-extract solutions; it was found that discoloration occurred 1 to 2 days after UV irradiation. From similar experiments on carotenoid solutions, it was found that the hydrocarbons of <math>\beta</math>-carotene and <math>\beta</math>-carotene discolored faster than xanthophylls, which contain hydroxyl groups.</p>
keyword	paprika, carotenoid, ultraviolet irradiation, discoloration, HPLC

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