

## **$\beta$ -Carotene, Cucumisin Content and Fruit Morphology of Melon (*Cucumis melo*) Germplasm Collection**

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This study was carried out to investigating quality and nutritional traits of melon genetic resources. It could provide important baseline data in breeding for increased  $\beta$ -Carotene, cucumisin content thereby increasing the marketability of melon. To this end, we have examined some fruit morphological traits and  $\beta$ -Carotene, cucumisin content of 163 genetic resources. The morphological characters were recorded on the field and inside laboratory and nutritional contents for  $\beta$ -carotene, cucumisin was measured using spectrophotometric and HPLC methods. Melon fruits have shown a diverse morphological characters. Green and white is dominant for fruit skin color and round and oval-shape is dominant for form in the entire collections. The  $\beta$ -carotene content varied between 0.5 and 233.6mg/kg, 0.7 and 226.5mg/kg, 0.4 and 189.0 mg/kg using UV-Vis and microplated reader instruments, HPLC respectively. The high  $\beta$ -carotene contents were characterized five melon fruit originated from South Africa, Uzbekistan, Albania, France. The cucumisin content varied between 0.3 and 33.5 unit/mg, 0.29 and 32.1unit/mg using UV-Vis and microplated reader instruments, respectively.

**Key words:** Melon, Genetic resources,  $\beta$ -Carotene, cucumisin, HPLC, Spectrophotometer

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