

## عنوان مقاله:

Nutritional values of green and white cucumber (*Cucumis sativus* L.) and African horned cucumber (*Cucumis metuliferus* E

## محل انتشار:

مجله باغبانی و تحقیقات پس از برداشت، دوره 6، شماره 22 (سال: 1402)

تعداد صفحات اصل مقاله: 14

## نویسندگان:

Antoine Sambou - *Department of Agroforestry, Assane Seck University of Ziguinchor, Senegal*

Ndeye Samb - *Analytical and Trial Laboratory, Polytechnic University Cheikh Anta Diop of Dakar, Senegal*

Nicolas Ayessou - *Analytical and Trial Laboratory, Polytechnic University Cheikh Anta Diop of Dakar, Senegal*

## خلاصه مقاله:

Purpose: Cucumbers play an immediate and crucial role in fighting against micronutrient deficiency and are often consumed crudely. This study aimed to assess the nutritional and phytochemical values of these three whole fruits of cucumber and the share of their different parts such as the epicarp, the mesocarp, and the endocarp. Research method: Fresh cucumber fruits were collected and their different parts were separated and crushed. Samples were analyzed to determine the proximate, the phytochemicals, the vitamins, and the minerals. Findings: The results show significant variation in nutritional and phytochemical content. White *Cucumis sativus* contained more sugars ( $704.57 \pm 124.79$  mg/100g), total polyphenols ( $133.05 \pm 21.26$  mg/100g), flavonoids ( $1.07 \pm 0.46$  mg/100g), tannins ( $43.26 \pm 5.18$  mg/100g), Sodium ( $28.52 \pm 1.37$  mg/100g) and Potassium ( $286.58 \pm 25.40$  mg/100g). Green *C. sativus* concentrated more protein ( $35.65 \pm 5.12$  mg/100g) and Iron ( $4.22 \pm 5.44$  mg/100g) while, non-bitter wild *C. metuliferus* was richer in acidity ( $6.5 \pm 1.45$  meq/100g), vitamin C ( $275.07 \pm 44.23$ ), Magnesium ( $47.87 \pm 10.53$  mg/100g) and Calcium ( $21.25 \pm 25.40$  mg/100g). According to the different parts, the endocarp concentrates more acidity ( $7.25 \pm 2.21$  meq/100g), proteins ( $39.76 \pm 5.07$  mg/100g), nitrogen ( $6.36 \pm 0.81$  mg/100g), total polyphenol ( $104.12 \pm 28.67$  mg/100g) and flavonoids ( $1.10 \pm 0.45$  mg/100g). The Mesocarp has more sugars ( $663.50 \pm 12.10$  mg/100g) while Epicarp concentrates more Tannin ( $40.19 \pm 1.99$  mg/100g), Magnesium ( $56.51 \pm 2.94$  mg/100g), Calcium ( $28.21 \pm 20.72$  mg/100g), Sodium ( $25.05 \pm 5.28$  mg/100g), Potassium ( $312.66 \pm 13.84$  mg/100g) and Iron ( $4.79 \pm 4.98$  mg/100g). Cucumbers are recognized as fruits and vegetables with multiple nutritional values. Research limitations: Further genotypic characterizations were required for a better understanding of the difference between cucumbers. Originality/Value: The knowledge of the nutritional value of each part of the fruit .was necessary for better valorization and maximizing the nutrient supplies

## کلمات کلیدی:

Cucumber, Minerals, Polyphenols, Proximate, Vitamin

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1755951>



