

**CHEMICAL COMPOSITION OF BITTER WATERMELON AND
DETERMINATION OF ANTIOXIDANT ACTIVITY OF FOOD
ADDITIVES BASED ON WATERMELON**

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ABSTRACT

In this article, the amount of amino acids and vitamins in the juice and seeds of bitter watermelon grown in Andijan region was determined, and the results were presented in the form of tables, diagrams and the antioxidant activity of bitter watermelon was determined using the method of autooxidation of adrenaline in vitro in order to determine the chemical composition, medicinal properties, as well as its use in folk medicine and biological activity of biologically active substances in the bitter watermelon in Andijan.

KEYWORDS: *Bitter Watermelon Seeds, Bitter Watermelon Rind, Bitter Watermelon Juice, Protein, Amino Acid, Vitamins, Ethanol, Biologically Active Substance, Protein, Fats, Linolenic Acid.*

REFERENCES

1. По данным сайта GRIN (см. карточку растения)
 2. Yuan, H.; Ma, Q., Ye; L., Piao, G. The Traditional Medicine and Modern Medicine from Natural Products, *Molecules*, 2016, 21, 559. DOI: 10.3390/molecules21050559
 3. Hatam, N. A.; Whiting, D. A.; Yousif, N. J. Cucurbitacin glycosides from *Citrullus colocynthis*. *Phytochemistry* 1989, 28, 1268- 1271. DOI:10.1016/0031-9422(89)80230-4
 4. Chen, J. C.; Chiu, M. H.; Nie, R. L.; Cordell, G. A.; Qiu, S. X. Cucurbitacins and cucurbitane glycosides: Structures and biological activities. *Nat. Prod. Rep.* 2005, 22, 386-399. DOI: 10.1039/b418841c
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5. Abdelkhalek, A. A.; Sharaf, A. M.; Rabie, M.; El-Subbagh, H. I. Derivatives of cucurbitacin-Eglucoside produced by *Curvularialunata* NRRL 2178: Anti-inflammatory, antipyretic, antitumor activities, and effect on biochemical parameters. *Future J. Pharm. Sci.* 2017, 3, 124-130. DOI: 10.1016/j.fjps.2017.04.006.
6. Goldfain, D; Lavergne, A; Galian, A; Chauveinc, L.; Prudhomme, F. Peculiar acute toxic colitis after ingestion of colocynth: a clinicopathological study of three cases. *Gut* 1989, 30, 1412-1418. DOI: 10.1136/gut.30.10.1412.
7. Igwenyi, I. O. and Akubugwo, E. I. (2010). Analysis of Four Seeds Used as Soup Thickeners in the South Eastern Parts of Nigeria.
Conference Proceedings: International Conference on Chemistry and Chemical Engineering, (ICCCE, 2010), August 1–3, 2010,
Kyoto International Conference Center, Kyoto, Japan. 2010. 426–430.
8. Dane, Fenny; Liu, Jiarong. Diversity and origin of cultivated and citron type watermelon (*Citrullus lanatus*) (англ.) // *Genetic Resources and Crop Evolution* : journal. — 2006. — Vol. 54, no. 6. — P. 1255. — doi:10.1007/s10722-006-9107-3.
9. Talia Ogliore. A seedy slice of history: Watermelons actually came from northeast Africa (англ.). *ScienceDaily* (24 мая 2021). Дата обращения: 28 мая 2021. Архивировано 26 мая 2021 года.
10. Renner S. S. et al. A chromosome-level genome of a Kordofan melon illuminates the origin of domesticated watermelons (англ.) // *Proceedings of the National Academy of Sciences*. — 2021. — 1 June (no. 118 (23)). — doi:10.1073/pnas.2101486118. Архивировано 17 февраля 2022 года.
11. Krystyna Wasylikowa, Marijke van der Veen. An archaeobotanical contribution to the history of watermelon, *Citrullus lanatus* (Thunb.) Matsum. & Nakai (syn. *C. vulgaris* Schrad.) (англ.) // *Vegetation History and Archaeobotany*. — 2004. — Vol. 13, no. 4. — P. 213–217. — doi:10.1007/s00334-004-0039-6. Архивировано 9 сентября 2018 года.
12. Узбекистан вышел на четвертое место в мире по выращиванию арбузов. Датаобращения: 21 июня 2020. Архивировано 23 июня 2020 года.