



INTERNATIONAL CONGRESS ON NATURAL, HEALTH SCIENCES AND TECHNOLOGY

BOOK OF ABSTRACTS



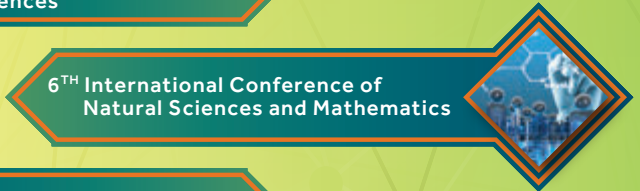
9TH International Balkan
Conference in Sport Sciences



8TH International Scientific
Conference on Applied Sciences



7TH International Scientific
Conference of the Faculty of
Medical Sciences



6TH International Conference of
Natural Sciences and Mathematics



4TH International Conference of
Food Technology and Nutrition



2ND International Conference on
Sustainable Agriculture Farming
Systems

15 – 17 May, 2024
Tetova, North Macedonia



**International Congress on Natural, Health Sciences
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- **9th International Balkan Conference in Sport Sciences**
- **8th International Scientific Conference on Applied Sciences**
- **7th International Scientific Conference of the Faculty of Medical
Sciences**
- **6th International Conference of Natural Sciences and
Mathematics**
- **4th International Conference of Food Technology and Nutrition**
- **2nd International Conference on Sustainable Agriculture
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8th International Scientific Conference on Applied Sciences



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**2nd International Conference on Sustainable
Agriculture Farming System**

CHEMICAL COMPOSITION OF MADŽUN (GRAPE MOLASSES) PRODUCED FROM DIFFERENT GRAPE VARIETIES

**Violeta DIMOVSKA, Fidanka ILIEVA, Emilija
ARSOV, Biljana BALABANOVA, Biljana
VITANOVSKA**

Faculty of Agriculture, Goce Delcev University, Stip, North Macedonia

*Corresponding author: email: violeta.dimovska@ugd.edu.mk

Abstract

In this study, some chemical properties of Madžun (grape molasses) samples produced using the traditional method with five different grape cultivars (Cardinal, Vranec, Afus ali, Stanushina, Smederevka) were investigated. The water-soluble dry matter, pH, titratable acidity and hydroxymethyl furfural (HMF) content of the samples were determined to be 61.67-84.98%, 3.11-4.47, 3.8-11.1 g/L and 620.30-875.30 mg/kg, respectively. The mean fructose and glucose contents of the Madžun (grape molasses) samples were determined to be 39.64% and 40.86%, respectively. Sucrose content in all samples was at the detection threshold (<0.1%). This indicates that no sugar was added in the production of grape molasses (Madžun). The total phenols (gallic acid) were identified in five samples and significant differences were observed between samples ($P < 0.01$). Sensory analysis of the samples was carried out by a committee consisting of 7 members. All members are women with experience in sensory evaluation of plant-based foods.

The following elements were evaluated: color, smell, taste, sweetness, acidity, texture and aftertaste. The maximum number of points is 20 (ISO 6564, ISO 8587 and ISO 11036). Based on the results of the sensory evaluation, we concluded that the highest score

of 17.92 points is sample Madžun (grape molasses) produced from the Vranec grape variety.

Keywords: Madžun, sugar, total phenols, total acids, HMF (hydroxymethyl furfural), sensory evaluation.

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