ULUSLARARASI TIBBİ, AROMATİK VE BOYA BİTKİLERİ SEMPOZYUMU

BİLDİRİ KİTAPÇIĞI | REYHAN 2017 | PROCEEDINGS BOOK

OCTOBER
5-7, 2017
MALATYA
TURKEY

# INTERNATIONAL SYMPOSIUM ON MEDICINAL, AROMATIC AND DYE PLANTS



Organized by
Inonu University
Food Engineering
Department

# SOME BIOACTIVE PROPERTIES OF SELECTED MEDICINAL AND AROMATIC FRUITS IN THE EASTERN BLACK SEA REGION

**Atiye DEGIRMENCI[1], Mehtap ER[1], Oktay YILDIZ[1], Melike YILDIRIM AKATIN[2], Nevzat BATAN[2], V. Numan BULUT[2], Erkol DEMIRCI[3]**

[1] *Karadeniz Technical University, Maçka Vocational High School, Department of Food Processing, Trabzon, Turkey;* atiyeyaygaz@ktu.edu.tr , mehtaper@ktu.edu.tr , oktayyildiz@ktu.edu.tr

[2] *Karadeniz Technical University, Maçka Vocational High School, Department of Chemistry and Chemistry Processing Technologies, Trabzon, Turkey;* myildirim@ktu.edu.tr , nbatan@ktu.edu.tr , vnbulut@ktu.edu.tr

[3] *Karadeniz Technical University, Faculty of Science, Department of Molecular Biology and Genetics, Trabzon, Turkey;* drerkol@ktu.edu.tr

**Abstract**

Eastern Black Sea Region is home to a very rich variety of fruits due to its climatic richness, its altitude up to 3000 meters and its geographical structure. Many fruits found in traditional and modern consumption habits are grown wild in this region. Medicinal and aromatic fruits spontaneously grows has been frequently used by local people either as a source of healing or as a source of food since the ancient times. In recent years, the trend towards natural nutrition has brought these products in our region into the forefront. In this regard, Persimmon (*Diospyros kaki*), Blueberry (*Vaccinium*), Rose hip (*Rose hip*), Concord (*Isabella*) and Bullace (*Prunus spinosa*) in the Eastern Black Sea Region known as medicinal and aromatic fruits were researched. These bioactive properties were determined by physico-chemical analyzes.

Total phenolic content of fruits ranged from 2,008 ±0,045 to 32,20±4,5 mg GAE/g fruit. Also, the antioxidant activity of the fruits were examined by FRAP method and it found that Rose hip has the highest FRAP value with 132±14,1 µmol Trolox®/100g fruit.

In consideration of findings, it was stated that these fruits had very high biologically active properties and also their yields should be determined by inventory studies to industrialize these plants/fruits.

**Keywords:** Antioxidant activity, total phenolic content, medicinal and aromatic fruits, Eastern Black Sea

**Acknowledgement:** This study with FAY-2016-5512 project number was supported by "Coordination Unit of Scientific Research Projects of Karadeniz Technical University"