GAZİ ÜNİVERSİTESİ 1926

FACULTY OF PHARMACY

GAZİ SYMPOSIUM

2nd INTERNATIONAL GPSS

GAZİ PHARMA SYMPOSIUM SERIES

PHARMA Turkey 13 11 2017

OCTOBER - ANKARA

2ND INTERNATIONAL GAZİ PHARMA SYMPOSIUM

ABSTRACT BOOK

GPSS-2017 IS SUPPORTED BY TÜBİTAK
(The Scientific and Technological Research Council of Turkey) with 2223-B Program.

Special thanks to Turkish Association of Pharmacists for their kind support.

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TRIGONELLA SPICATA SIBTH. & SM.; DETERMINATION OF FATTY ACID COMPOSITION, STEROL, TOCOPHEROL AND AMINO ACID CONTENTS

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The genus Trigonella L. (Fabaceae) comprises of over 135 species distributed all through the Mediterranean regions, Southeastern Europe, Western Asia, North and South Africa [1,2]. Trigonella foenum-graecum L. commonly called fenugreek, is the most widely used species in traditional medicine for many years due to their wide range of biological activities and nutritional values. According to the literature the chemical constituents of this genus had generally been reported as flavonoids, alkaloids, saponins, fixed oil, polysaccharides, minerals and proteins. The seeds used in many traditional systems as aromatic, carminative, galactogogue, antibacterial, antidiabetic, hypocholesterolemic, diuretic and analgesic agent [1-3].

In Turkey, the genus Trigonella represented by 13 sections, 8 groups and 54 taxa [4,5]. The aim of this study was to determine fatty acid compositions, sterol, tocopherol and aminoacid contents of T. spicata Sibth. & Sm. for the first time. The seed oil content of the studied species was found to be 1.71±0.09 g/100 g. Linoleic acid (31.78±0.91 %), palmitic acid (21.11±0.72 %) and oleic acid (16.04±0.73) were the main fatty acids. The total sterol content was 1736.79±0.56 mg/kg, which consisted high amounts of β-sitosterol (39.79±0.82 %). The dominant tocopherol was found to be α-tocopherol (342.56±1.84 mg/100 g). Aspartic acid (4936±0.13 mg/100 g) was the main aminoacid. The results of the present study revealed that this species is important source of essential fatty acids, tocopherols and aminoacids.

This study was supported by the Research Fund of Mersin University in Turkey with Project Number: 2016-1-AP2-1412

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