

# VETERINARY CONGRESS

July 02-03, 2018 Berlin, Germany

## The effect of barberry and fumitory extracts on growth performance, liver enzyme and serum lipid profile in broiler chickens

Amir Reza Rajabi<sup>1</sup>, Mehrshad Mehrkish<sup>1</sup>, Naser Ranjbar Malidareh<sup>2</sup> and Sahar Rostami<sup>3</sup><sup>1</sup>Islamic Azad University of Babol, Iran<sup>2</sup>Clinician of diagnostic Laboratory, Iran<sup>3</sup>Tarbiat Modares University, Iran

Given the hazards of using chemical drugs in various areas of broiler breeding including drug resistance, high cost and many other side effects, the need for herbal medicines has increased in all animal health issues. Barberry and fumitory with scientific name of *Berberis vulgaris* and *Fumaria officinalis* are phytogetic compounds. These plants have anti-bacterial and growth stimulator characteristics. Considering the widely use of phytogetic compounds as alternative to chemical drugs in human diet and livestock industry, this study tried to evaluate the impact of barberry and fumitory extracts on growth performance, serum lipid profile and liver enzymes. In this regard a number of 360 one-day-chicks of Ross 308 broilers were housed in equal conditions. They were classified in 3 groups with 3 replicates (40 chicks per group). The experimental groups were as follows: control group, received maize-soybean diet; barberry group, received maize-soybean diet + barberry extract and; fumitory group, received maize-soybean diet + fumitory extract. The studied traits included feed intake, weight variation, Feed Conversion Ratio (FCR), serum lipid profile and liver enzymes. On 41<sup>st</sup> day, 20 chicks were selected randomly and their blood samples were obtained. The results showed that using barberry and fumitory as feed additives improve weight gain and FCR ( $p < 0.05$ ) and exert positive effect on lipid profile and liver enzymes compared to the control ( $p < 0.05$ ).

### Recent Publications

1. Imanshahidi M and H Hosseinzadeh (2008) Pharmacological and therapeutic effects of *Berberis vulgaris* and its active constituent, berberine. *Phytotherapy Research* 22(8):999-1012.
2. Fatehi M, et al., (2005) A pharmacological study on *Berberis vulgaris* fruit extract. *Journal of Ethnopharmacology* 102(1):46-52.
3. Fatehi-Hassanabad Z, et al., (2005) The antihypertensive and vasodilator effects of aqueous extract from *Berberis vulgaris* fruit on hypertensive rats. *Phytotherapy Research* 19(3):222-225.
4. Sajjad S, et al., (2015) Ethno-botanical, Bioactivities and Medicinal Mysteries of *Fumaria officinalis* (Common Fumitory). *Journal of Pharmaceutical and Biomedical Sciences* 5(11):857-62.
5. Hördegen P, et al., (2003) The anthelmintic efficacy of five plant products against gastrointestinal trichostrongylids in artificially infected lambs. *Veterinary Parasitology* 117(1-2):51-60.

### Biography

Amir Reza Rajabi is DVM student from Babol Azad University, Babol, Iran. His main area of research interests are the effect of the herbal medicines in poultry health issues.

Amirreza\_Rajabi@yahoo.com