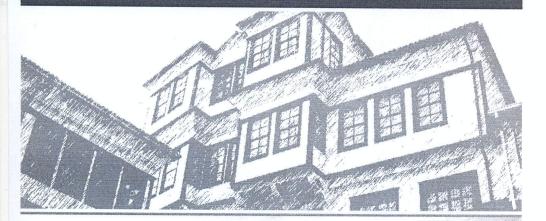


UDC 619 636/637

CODEN MVPRE

e-ISSN 1857-7416

MACEDONIAN VETERINARY REVIEW



Proceedings of the 5th International Scientific Meeting Days of veterinary medicine 2014 Ohrid, Macedonia September 5-7, 2014

Mac Vet Rev 2014; Volume 37; Supplement 1; Pages: 1-90

International Scientific Journal MACEDONIAN VETERINARY REVIEW

An Official Publication of the Faculty of Veterinary Medicine-Skopje Ss.Cyril and Methodius University in Skopje

e-ISSN 1857-7415



Proceedings of the 5th International Scientific Meeting Days of veterinary medicine 2014 Ohrid, Macedonia September 5-7, 2014

Mac Vet Rev 2014; Volume 37; Supplement 1; Pages: 1-90

Disclaimer

This proceedings book has been produced using author-supplied copy. Editing has been restricted to some corrections of spelling and style where appropriate. The publisher assumes no responsibility for any claims, instructions, methods or drug dosages contained in the abstracts. It is recommended that these are verified independently. The contents contained herein are correct at the time of printing and may be subject to change.

e-ISSN 1857-7415 International Scientific Journal
MACEDONIAN VETERINARY REVIEW

Vol. 37; Suppl. 1, Pages 1-90, 2014

The Mac Vet Rev is an international peer-reviewed. Open Access journal published two times per year. Mac Vet Rev Online (e-ISSN 1857-7415) offers free access to all articles at http://www.macvetrev.mk.

Indexed in: AGRIS, Academic Journals Database, AkademicKeys, Bielefeld Academic Search Engine (BASE), CAB Direct, CAS (Chemical Abstracts), CiteFactor, CORE (COnect Repositories), Directory of Open Access Journals (DOA), Global Health. Directory of Research Journals Indexing (DRI), EBSCO. EFITA, Genamics JournalSeek, GetInfo, Google Scholar, INDEX COPERNICUS, International Impact Factor Services (IIFS), IVIS, Journal Index.com, JournalTOCs, Journal Rate, L-Primo, Open J-Gate, Open Access Library (OALib) PERIODICOS, Ulrich's Periodicals Directory, SCOPUS, ScienceCentral.com. SCIRUS. SUNCAT, Veterinary Bulletin, Veterinary Science Database, Virtual Science Library(VLC), Wanfang Data, WorldCat, WorldWideScience.gov.

Editor in Chief

Ass. Prof. Lazo Pendovski, PhD

Associate Editor

Ass. Prof. Florina Popovska-Percinic, PhD

Local Editorial Board

Ass. Prof. Aleksandar Dodovski, PhD

Prof. Blagica Sekovska, PhD Ass. Prof. Dean Jankuloski, PhD Prof. Goran Nikolovski, PhD

Prof. Igor Ulcar, PhD

Ass. Prof. Jovana Stefanovska, PhD Prof. Pavle Sekulovski, PhD Prof. Plamen Trojacanec, PhD Prof. Romel Velev, PhD

Prof. Slavco Mrenoski, PhD

Ass. Prof. Trpe Ristoski, PhD Prof. Vladimir Petkov, PhD Prof. Zehra Hajrulai-Musliu, PhD

all from the Faculty of Veterinary Medicine -Skopje (Ss. Cyril and Methodius University in Skopje, R. Macedonia)

International Editorial Board

Dr. Andrew Butterworth, PhD, University of Bristol, UK
Prof. Anton Russenov, PhD, Trakia University - Stara Zagora, Bulgaria
Prof. Albert Marinculic, PhD, University of Zagreb, Croatia
Prof. Andrej Kirbis, PhD, University of Ljubljana, Slovenia
Prof. Angel Vodenicharov, PhD, Trakia University - Stara Zagora, Bulgaria
Prof. Artur Niedzwiedz, PhD, University of Wroclaw, Poland
Prof. Pruse Le Pieze, PhD, Nortee Atlentie Netional Callage of Voteringer

Prof. Bruno Le Bizec, PhD, Nantes-Atlantic National College of Veterinary Medicine, (ONIRIS), France Prof. Danijela Kirovski, PhD, University of Belgrade, Serbia Prof. E. Dan Heller, PhD, The Hebrew University of Jerusalem, Israel Prof. Dine Mitrov, PhD. Ss. Cyril and Methodius University in Skopje, Macedonia Dr. Florence Cliquet, PhD, ANSES Laboratory for Rabies and Wildlife, Nancy, France

Dr. Francisco Javier S. Bodes, PhD, University of Surrey, UK Prof. Geert Opsomer, PhD, University of Gent, Belgium Prof. Georgi Georgiev, PhD, NDRVMI-Sofia, Bulgaria

Prof. Gilles Dupré, Diplomate ECVS, University of Veterinary Medicine Vienna, Austria Prof. Giovanni Michele Lacalandra, PhD, University of Bari, Italy

Prof. Giovanni Michele Lacalandra, PhD, University of Bari, Italy Prof. Gregor Fazarinc, PhD, University of Ljubljana, Slovenia Prof. Halil Gunes, PhD, Istanbul University, Turkey Prof. Ilse Schwendenwein, PhD, University of Veterinary Medicine Vienna, Austria Prof. Ivan Pavlovic, PhD, University of Belgrade, Serbia Prof. Ivanco Naletoski, PhD, Joint FAO/IAEA Division, Vienna, Austria Prof. Kurt Pfister PhD, Ludwig-Maximilians-Universität, Germany Dr. Kiro R. Petrovski, PhD, University of Adelaide, Australia Dr. Menachem Banai, PhD, Kimron Veterinary Institute, Bet Dagan, Israel Dr. Miriam Scheuerle, PhD, Ludwig-Maximilians-Universitat, Germany Prof. Mustafa Atasever, PhD, Ataturk University, Turkey Dr. Nevijo Zdolec, PhD, University of Zagreb, Croatia Prof. Nihad Fejzic, PhD, University of Sarajevo, Bosnia and Herzegovina Prof. Peter Vajdovich, PhD, Szent István University, Hungary Prof. Robert Farkas, PhD, Szent István University, Hungary

Prof. Peter Dove, PhD, University of Ljubljana, Slovenia
Prof. Robert Farkas, PhD, Szent István University, Hungary
Prof. Robert W. Henry, PhD, University of Tennessee, USA
Prof. Roberto Amerigo Papini, PhD, University of Pisa, Italy
Dr. Tarek Khalifa, PhD, EquiBiotech Inc-Research Services in Farm Animal Breeding. Greece
Prof. Tomas Zadnik, PhD, University of Ljubljana, Slovenia
Prof. Toni Dovenski, PhD, Ss. Cyril and Methodius University in Skopje, Macedonia
Prof. Urban Besenfelder, PhD, University of Veterinary Medicine Vienna, Austria
Prof. Velimir Stojkovski, PhD. Ss. Cyril and Methodius University in Skopje, Macedonia
Dr. Verica Milosevic, PhD, Institute for Biological Research "Siniša Stanković" University of Belgrade, Serbia
Prof. Vitomir Cunic. PhD. University of Belgrade. Serbia

Prof. Vitomir Cupic, PhD, University of Belgrade, Serbia Prof. Vlatko Ilieski, PhD, Ss. Cyril and Methodius University in Skopje, Macedonia Prof. Wim Heijman, PhD, Wageningen University, Netherland

Proof-reader from English

Milan Damjanoski, M.A., Ss. Cyril and Methodius University in Skopje

Macedonian Veterinary Review, Lazar Pop Trajkov 5/7, 1000 Skopje, Republic of Macedonia Tel: ++389 2 3240 700; Fax: ++ 389 2 3114 619; e-mail: macvetrev@fvm.ukim.edu.mk; URL: www.macvetrev.mk



The Journal Macedonian Veterinary Review (Mac Vet Rev) is committed to maintaining the highest ethical publication standards by adopting comprehensive guidelines on the Committee on Publication Ethics (COPE), the World Association of Medical Editors (WAME) and the International Committee of Medical Journal Editors (ICMJE).

internship students in veterinary faculties in Turkey with the aim of identifying the awareness of the students' about brucellosis

The questionnaire was applied to 320 internship students from 6 different veterinary faculties in Turkey. The questionnaire consisted of two parts. In the first part, gender, age, university, experiences of living / working on a farm, contact with suspected animals, suffering from brucellosis, their career plans on farm animals were asked to students. The second part consisted of 12 Likert type (1-5 scale) questions about brucellosis. Non parametric Mann-Whitney U and Kruskall Wallis tests were used to analyze data. Cronbach's alpha (α =0,849) indicated a high degree of internal consistency.

Gender and ages of the students had no influence on the response to questions. Career plan and suffering from bruceilosis had only significant influence on knowledge about vaccination. It has been observed that the students who contacted with suspected animals had higher awareness of brucellosis. Students, who had experiences living in a farm, had higher awareness about transmission, and protection & control of the disease. The results of the survey also indicate that there were significant differences among the faculties in terms of brucellosis awareness.

SS2

Unsaturated fatty acid content in corn flakes

Risto Tome Uzunov^{1*}, Zehra Hajrulai-Musliu¹, Basak Kucukcakan¹, Aleksandra Angeleska¹, Biljana Stojanovska-Dimzoska¹, Elizabeta Dimitrieska-Stojkovic¹, Katerina Davceva¹, Velimir Stojkovski²

¹Food Institute, Faculty of Veterinary Medicine, Skopje. Republic of Macedonia

²Institute for Reproduction and Biomedicine, Faculty of Veterinary Medicine, Skopje, Republic of Macedonia

Introduction: Content of fatty acids in food play a very important role in human health. Apart from meat (pork, beef, poultry) and meat products, milk, dairy product and some plants such as palm fruit, coconut and palm kernel oil, which contains higher percentage of saturated fatty acids, olive oil and many grains (barley, corn, rice, oats, wheat), nuts, legumes, plant oils contain more unsaturated fatty acid. The aim of this study was determination of unsaturated fatty acids in corn flakes and describing the importance of unsaturated fatty acid for human health.

Material and methods: Fifty samples from corn flakes were collected from the local stores in Skopje and were analysed. For determination of fatty acid contents we used the AOAC Official Method 996.06. Analyses were performed with gas chromatograph (7890 GC system) with flame ionization detector and the calculation of results was made with Chemstation software.

Results: The analyses of the results showed that out of the total fatty acids in corn flakes 71.05% were unsaturated

fatty acids. The linoleic fatty acid (C18:2n6c) was the primary fatty acid and its content in the corn flakes was 47.84% (from 40.22 to 50.94%). Oleic acid (18:1n9c) and γ -linolenic acid (18:3n6) were presented with 21.02% (from 17.28% to 25.12%) and 1.39% (from 0.72 to 2.57%) respectively. The concentration of polyunsaturated fatty acids was higher than unsaturated fatty acids.

Conclusion: Unsaturated fatty acids are important for human healt and the beneficial effects have been shown for the secondary hearth diseases, hypertension, diabetes type 2, ulcerative colitis, renal diseases, rheumatoid arthritis and chronic obstructive pulmonary disease. They are used in prevention of cancer, cardiovascular diseases, autoimmune diseases, inflammatory diseases and depression. Linoleic acid, which is the primary fatty acid in corn flakes, is considered as the most effective supplement in decreasing bad cholesterol, protector of stroke, reducer of blood pressure and platelet aggregation; it also plays an important role in brain function and normal growth and development. The linoleic acid is the precursor of omega-6 fatty acid. From our study we can conclude that corn flakes are a very good source of unsaturated fatty acids and may be used as food rich in unsaturated fatty acids.

SS3

The influence of transport on the within flock prevalence of *Salmonella* spp. in laying hens

Mirko Prodanov*, Marija Ratkova, Ljupco Angelovski, Dean Jankuloski, Sandra Mojsova, Pavle Sekulovski, Vlatko Ilieski

Food Institute, Faculty of Veterinary Medicine, Ss. Cyril and Methodius University in Skopje, R. Macedonia

Introduction: Laying hens eggs are a food most commonly connected with *Salmonella* outbreaks. Therefore there is a national monitoring program for the presence of *Salmonella* in the laying hens flocks. This monitoring plan focuses on the presence of the *Salmonella* in the faeces, and it doesn't determine the prevalence of *Salmonella* within the flock. However the literature states the possibility of the *Salmonella* presence in the laying hens without being shedded in the faeces until there is some kind of stress. The goal of this study was to determine *Salmonella* prevalence within flock, prior and after the transport.

Material and methods: A Salmonella free flock of laying hens scheduled for depopulation in two weeks was selected for our investigation. Ten pooled samples of 150 g of faeces and 2 pooled dust samples were taken from the farm. Furthermore, 100 samples of cloacal swabs were taken from 100 randomly selected laying hens from the flock in the farm. At the slaughterhouse 50 cloacal swabs were sampled from 50 hens before the slaughtering, and during the evisceration caeca from 50 hens were sampled. All samples were analyzed using ISO 6579:2002