



UNIVERSITY "Ss. CYRIL AND METHODIUS" IN SKOPJE
FACULTY OF VETERINARY MEDICINE - SKOPJE



PROCEEDINGS

DAYS OF VETERINARY
MEDICINE 2011



2011
Vet

OHRID, MACEDONIA
09 - 11 September 2011

UNIVERSITY "Ss. CYRIL AND METHODIUS" IN SKOPJE
FACULTY OF VETERINARY MEDICINE - SKOPJE



2011
Vet

PROCEEDINGS

DAYS OF

VETERINARY MEDICINE 2011

09-11 September 2011
Ohrid, Republic of Macedonia

EXECUTIVE COMMITTEE OF DAYS OF VETERINARY MEDICINE 2011

Organizing Committee

Prof. Dr. Dine Mitrov, Prof. Dr. Velimir Stojkovski, Prof. Dr. Zehra Hajrulai-Musliu, Asst. Prof. Dr Slavco Mrenoski, Prof. Dr. Vlatko Ilieski, Prof. Dr. Blagica Sekovska, Prof. Dr. Igor Ulcar, Prof. Dr. Pavle Sekulovski, Asst. Prof. Dr. Jovana Stefanovska, Asst. m-r Dean, Jankuloski, Asst. m-r Ljupco Mickov, Asst. m-r Lazo Pendovski

International Scientific Committee

Prof.Dr. Marjan Kosec (Slovenia), **Prof.Dr. Jelka Zabavnik-Piano** (Slovenia),
Prof.Dr. Dinko Dinev (Bulgaria), **Prof.Dr. Aleksandar Pavlov** (Bulgaria),
Prof.Dr Tomislav Dobranic (Croatia), **Prof.Dr. Alen Slavica** (Croatia),
Prof. Dr. Dine Mitrov (Macedonia), **Prof. Dr. Velimir Stojkovski** (Macedonia),
Prof. Dr. Zehra Hajrulai-Musliu (Macedonia), **Asst. Prof. Dr Slavco Mrenoski** (Macedonia),
Prof. Dr. Vlatko Ilieski (Macedonia), **Prof.Dr. Almedina Zuko** (Bosnia and Herzegovina),
Prof.Dr. Mehmed Muminovic (Bosnia and Herzegovina),
Asst. Prof. Dr. Danijela Kirovski (Serbia), **Prof.Dr. Miodrag Lazarevic** (Serbia),
Prof.Dr. Ljupce Kocoski (Macedonia), **Prof.Dr. Dimce Kitanovski** (Macedonia),
Prof. Dr. Igor Ulcar (Macedonia), **Prof. Dr. Blagica Sekovska** (Macedonia),
Prof. Dr. Pavle Sekulovski (Macedonia), **Asst. Prof. Dr. Jovana Stefanovska** (Macedonia),
Asst. m-r. Darko Mitevski (Canada), **Prof. Dr. Ivanco Naletoski** (Austria)

Secretariat

Asst. m-r Aleksandar Dodovski, Asst. m-r Iskra Cvetkovik, Asst. m-r Ksenija Ilievska,
Asst. m-r Irena Celevska, Asst. m-r Kirili Krstevski, Asst. Igor Dzadzovski,
Asst. m-r Nikola Adamov, Asst. m-r Igor Esmerof, Asst. m-r Lazo Pendovski,
Asst. m-r Ljupco Mickov, Asst. m-r Katerina Blagoevska, Asst. m-r Florina Popovska-Percinik,
Asst. m-r Dean Jankuloski Asst. Sandra Kostova, Asst. m-r Elizabeta Dimitrievska-Stojkovik,
Ljupco Angelovski, Mirko Prodanov, Marija Ratkova

Topics of the Days of Veterinary Medicine

Animal Health
Food Safety and Veterinary Public Health
Animal Welfare
Animal Reproduction

Editor in Chief

Prof. d-r Dine Mitrov

Published by:

Faculty of veterinary medicine – Skopje, Lazar Pop Trajkov 5/7, 1000 Skopje
Tel: ++389 2 3420 700 Fax: ++ 389 2 3114 619
www.fvm.ukim.edu.mk

CIP - Каталогизација во публикација
Национална и универзитетска библиотека "Св. Климент Охридски", Скопје
636.09(062)

PROCEEDINGS : days of veterinary medicine 2011, 09-11 September,
Ohrid, Republic of Macedonia / [editor Dine Mitrov]. - Skopje :
Faculty of Veterinary medicine, 2011. - 128 стр. ; 24 см

Conclusions кон трудовите

ISBN 978-9989-774-20-X

1. Mitrov, Dine [уредник]

а) Ветерина - Зборници

COBISS.MK-ID 89174026

MILK FATTY ACID COMPOSITION FROM TWO DAIRY BREEDS IN MACEDONIA

Uzunov Risto¹, Hajrulai-Musliu Zehra¹, Arapceska Mila²,
Dimitrieska-Stojkovik Elizabeta¹, Stojanovska-Dimzoska Biljana¹,
Sekulovski Pavle¹, Stojkovski Velimir¹

¹*Faculty of Veterinary Medicine, University Ss "Cyril and Methodius"
in Skopje, Macedonia*

²*Faculty of Biotechnical Sciences, University "St. Kliment Ohridski",
Bitola, Macedonia*

Present study evaluates the milk fatty acid (FA) composition and cholesterol content of two main Macedonian dairy breeds Simmental and Holstein Frisian (n = 25 for each breed). The cows were housed together and received the same diet. The results show a significant variation ($P < 0.05$) in the FA content of the two breeds. The milk fat of Simmental breeds was found to contain significantly lower ($P < 0.05$) amount of saturated fatty acid content than Holstein Frisian breeds (66.96 and 69.09 g/100 g).

Determined mean monounsaturated fatty acid (MUFA) contents (27.62 vs. 25.20 g/100g) and total trans fatty acids (3.48 vs. 2.48) were significantly elevated ($P < 0.05$) in the milk fat of Holstein Frisian breeds. Amount of fat and conjugated linoleic acid content was higher ($P = 0.04$) in Holstein Frisian cows as compared to Simmental cows (7.00 vs. 7.78 g /100g and 0.80 vs. 0.71 g / 100g), while cholesterol content was not different among both breeds ranging from 8.89 vs. 10.24 mg /dl.

Present studies show that in future genetic selection programs along with altered breed nutrition may be able to result in optimum levels of various fatty acids in milk.

Keywords: Simmental, Conjugated linoleic acid, Milk fat, Holstein Frisian