

Organizers



Istituto Zootecnico e Caseario per la
Sardegna, Olmedo, Italy



International Dairy Federation
Brussels, Belgium



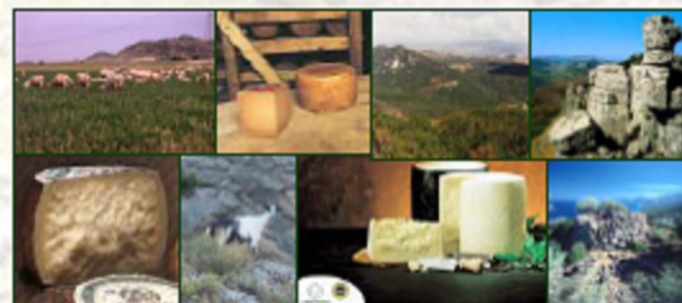
Italian National Committee of the IDF
Milan, Italy



Alghero • Italy • 18-20 April 2007
<http://sheepgoatsmilk.fil-idf-pr.com>



5th International Symposium on The Challenge to Sheep and Goats Milk Sectors



Science, Technology,
Production, Nutrition

Final Programme

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5th International Symposium on the Challenge to Sheep and Goats Milk Sectors

Alghero - Sardinia, Italy
April 18-20, 2007

organised by
ERA-Istituto Zootecnico e Caseario per la Sardegna
International Dairy Federation
Italian National Committee of IDF

Programme Committee

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Organising Committee

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Programme

The first Symposium organized by IDF on sheep and goats milk and their products was held in Athens in 1985. After a very long delay the second Symposium was held in Hersonissos, Crete (Greece) in 1995. The third Symposium was held in Nicosia (Cyprus) in 2000 and the fourth in Zaragoza (Spain) in 2004.

The Symposium will be a platform for exchange of knowledge and information among international experts in the field.

The program covers the latest scientific findings about husbandry and milk production, technology, chemistry, physics, microbiology, nutrition, etc. The significance of markets and appropriate policies, as they have evolved in recent years, will also be taken into account.

The symposium will be structured in 4 sessions, all sessions will be plenary. Each session will be introduced by a major review paper and completed with five oral presentations. Poster presentations will complement the oral programme.

Abstracts

Abstracts of oral presentations and posters will be made available to participants from the registration desk at the Symposium venue.

Symposium proceedings

A Special Issue of the Small Ruminant Research Journal, containing oral presentations and other selected papers will be published after the Symposium. Posters and other papers will be published by IDF in electronic form.

Speakers preview

The conference room will be equipped for audio-visual projections with a stationary computer. Speakers have been requested to submit their audio-visual presentation by Email or CD-ROM to the Chairman of the Programme Committee prior to the symposium. In addition, speakers must bring a copy of their presentation on a removable storage device (USB-key or CD-Rom) and ensure with the designated person of the Organizing Committee that the presentation will be up-loaded on the stationary computer at the conference room at least four hours before the start of the respective session. There will be no possibility to run audio-visual presentations from speakers' own laptop computers.

Rules for presenting posters

Posters will be exhibited in a specifically designated room at the conference venue. The organisers will ensure numerical indication of the allocated areas of display.

Poster size must not exceed 90 cm (width) x 120 cm (height).

All posters must be in English.

Posters will be discussed during coffee breaks, organised and chaired by the scientific coordinators of the different sessions.

Wednesday, April 18, 2007

- 08:00-09:30 Registration and Poster hung up
09:30-10:00 Symposium Opening and Welcome Addresses

Session 1 Raw milk Chair: George Psathas (Cyprus)

- 10:00-10:30 **Main lecture**
Detection of species adulteration in milk and dairy products
F Addeo (Italy)
- 10:30-11:00 Coffee break and Poster session
- 11:00-11:20 **Investigating the genetic component of fatty acids composition in sheep milk**
A Caria, Sara Casu, M Addis, JM Eisen, M Flori, A Fraghi, S Marzi, L Mura, G Piredda, L Schibler, T Sechl, MG Usal, F Barillet
- 11:20-11:40 **In vitro inhibition of peripheral blood mononuclear cell proliferation caused by milk proteins and their hydrolysates**
EK Erksen, GE Vegarud, T Langsrud, H Almås, T Lea
- 11:40-12:00 **Continuous milking without a dry period**
MC Pieterse
- 12:00-12:20 **Evaluation of a commercial ELISA method for the quantitative detection of goat and cow milk in ewe milk and cheese**
N Costa, F Ravasco, R Miranda, M Duthoit, LB Rosetto
- 12:20-12:40 **Dietary manipulation to enhance CLA vitamin A and E contents in goat milk**
M Saluja and A Tyagi
- 12:40-12:50 Question and Answers
- 12:50-13:00 Conclusions of the chair
- 13:00-14:30 Lunch

Session 2 Processing and Product Chair: Antonio Pirisi (Italy)

- 14:30-15:00 Poster session
- 15:00-15:30 **Main lecture**
The use of lamb rennet paste in the traditional sheep cheese production
M Addis, G Piredda, A Pirisi (Italy)
- 15:30-15:50 **Batch and continuous hydrolysis of ovine whey proteins**
D Mištin, L Čurda, P Jelen
- 15:50-16:10 **Caciotta technology as an ideal method of delivering probiotic strains**
L Pellerin, M Nurisso, J Lorant and A Momet
- 16:10-16:30 Coffee break
- 16:30-16:50 **Physicochemical and organoleptic properties of sheep milk yogurt with ACE-inhibitory activity**
CG Papadimitriou, A Vafopoulou, E Alchanidis

- 16:50-17:10 **Sheep/goat whey and "scotta" treatment with membrane technologies for a commercial exploitation of whey protein and lactose**
C Russo, D Pizzichini, L Chianese, S Calra, M Pizzichini
- 17:10-17:30 **The effect of High-Pressure treatment on the lipolysis of ewe milk cheeses**
B Juan, V Ferragut, B Guamis, AJ Trujillo
- 17:30-17:40 Question and Answers
- 17:40-17:50 Conclusions of the chair

Thursday, April 19, 2007

Session 3 Characteristics of the products Chair: Yvette Soustre & André Ayerbe (France)

- 09:00-09:30 Poster session
- 09:30-10:00 **Main lecture**
Nutritional composition of goat and sheep milk products: new results
K Raynal-Ljutovac, G Lagriffoulle (France)
- 10:00-10:20 **Antibacterial effect in protein fractions from caprine milk – after degradation by human proteolytic enzymes**
H Almaas, V Berne, R Flingsrud, H Holm, T Langsrud, TG Devold, G Vegarud
- 10:20-10:40 **Volatile fingerprint of Piacentino cheese produced with different tools and type of saffron**
S Carpino, T Rapisarda, I Caminiti, G Lictra
- 10:40-11:10 Coffee break and Poster session
- 11:10-11:40 **Factors influencing nutritional and health components: an overview**
A Michailidou
- 11:40-12:00 **Leptin, Insulin and ghrelin in goat milk and in plasma of suckling kids**
D Magistrelli, G Polo Dimel, F Rosi
- 12:00-12:20 **Hedonics and sensorics of Swiss goat's and sheep's cheese**
S Rytzel, E Beutler, P Piccolini
- 12:20-12:30 Question and Answers
- 12:30-12:40 Conclusions of the chair
- 12:40-14:30 Lunch

Session 4 Market and perspectives Chair: Marco Vannini (Italy)

- 14:30-15:00 Poster session
- 15:00-15:30 **Main lecture**
Sheep & Goat cheeses: from artisanal tradition to modernity
E Canut (Spain)
- 15:30-15:50 **Initiatives and methods to valorise and promote the small scale cheeses**
J-P Dubeuf

15:50-16:10	PDO—the Halloumi cheese case P Papademas
16:10-16:30	Coffee break
16:30-16:50	The traditional Andalusian cheeses quality denominations <u>AM Rey, JL Ares</u>
16:50-17:10	Factors affecting the marketing channel choice of sheep and goat farmers in the region of east Macedonia in Greece regarding the distribution of their milk production <u>L Tsourgiannis, A Errington, M Warren, J Eddison</u>
17:10-17:30	Dutch agro-food design 20 years of development; the upcoming of goat milk in the Netherlands 1986 - 2006 JPH van Wegen
17:30-17:40	Question and Answers
17:40-17:50	Conclusions of the chair
17:50-18:00	Closing remarks

LEPTIN, INSULIN AND GHRELIN IN GOAT MILK AND IN PLASMA OF SUCKLING KIDS

D Magistrelli, G Polo Dimel, F Rosi

Istituto di Zootecnia Generale – Facoltà di Agraria, Università degli Studi di Milano, Milano, Italy

Milk is not just the basic source of nourishment for the neonate, but it is also a vector of bioactive peptides that can play a possible role in neonatal development.

Because of the increasing utilization of goat milk in infant formulas for human nutrition, it could be of interest to quantify the levels of leptin, insulin and ghrelin in goat milk and in plasma of suckling kids and to evaluate the relationships between ingested and circulating levels of hormones in growing animals.

For this purpose, 10 suckling kids (fed goat milk containing 0.53 nmol/l of leptin, 0.30 nmol/l of insulin and 1.01 nmol/l of ghrelin) were analysed from the 3rd to the 5th week of age (before the beginning of the weaning period). During the experimental period, body weight and milk consumption were recorded. Blood samples were taken weekly, before the first meal of the day. Plasma was analyzed for leptin, insulin and ghrelin.

As expected, body weight and milk intake increased during the experimental period. Although daily intake of milk hormones and growth factors increased during the period, it was observed that ghrelin did not vary and leptin decreased ($P < 0.02$) in plasma of suckling kids. Contrarily, plasma levels of insulin increased more than 4 times ($P < 0.01$), with a significant correlation with the quantity of hormone ingested daily ($P < 0.01$). This latter result is probably due to the increasing amount of milk consumption during the entire period, but it is possible to hypothesize the presence of receptors that facilitate the transfer of milk-borne insulin through the gastrointestinal mucosa of the suckling kids. Milk-borne insulin, indeed, plays a crucial role in the functional development of pancreas at the onset of weaning in rats and it has been reported that milk insulin increases plasma insulin levels and this can be a stimulator of pancreatic amylase gene expression just before weaning.