

Methods and issues in cheese authenticity studies a workshop.



3/9/2009 – 5/9/2009

Hotel de la Ville
Avellino

micheeses@isa.cnr.it

http://www.isa.cnr.it/web-new/ita/eventi/eventi_26.htm

Programme (v1.4 25/8/2009)

Authenticity and traceability are key issues for the protection of traditional food products, and EU and member states have developed quality branding schemes and specific regulations to this end. Recent scandals connected to frauds related to origin, authenticity, safety, and labelling of some PDO and non-PDO cheeses have weakened consumers' confidence in quality branding schemes and caused severe economical damage to producers. The objective of this meeting is to present to researchers, public quality control agencies, and cheese maker organizations, an overview of analytical, economic and technical issues on cheese authenticity and traceability.



Thursday, September 3rd, 2009

14.00 **Registration**

Poster set-up

Opening session. "Cheese and honey: romance for the senses".

16.00 **Welcome addresses:** Prof. R. Coppola, Director, ISA-CNR, Avellino. Mr. G. Nappi, Assessore all'Agricoltura, Regione Campania.

16.15 Classical and innovative process markers in honey. - Prof. E. Marconi, DISTAAM, Università degli Studi del Molise

Guided tasting session: Dr. M. Sarnataro, ONAF

16.30 The pasta filata cheeses of Campania meet honeys of Irpinia

18.00 Pecorino: terroir, autochthonous breeds and honeys

19.00 Minor cheese productions from Campania. A rediscovery of ancient cheeses paired with honeys from Irpinia

20.30 **Welcome party.**

Friday, September 4th, 2009

Session 1. Invited speakers

08.30 **Registration**

09.30 **Welcome addresses:** Prof. R. Coppola, Director, ISA-CNR, Prof. E. Parente, Dip. Biologia DBAF, Università degli Studi della Basilicata, Dr. A. Bertani, Dip. Agrolimentare CNR.

10.00 Factors that affect the quality of cheese - Prof. P.F. Fox, University College Cork, Cork

10.30 Classification and diversity of cheese - Prof. P. McSweeney, Dept. of Food and Nutritional Sciences, University College Cork, Cork

11.00 **Coffee break and poster session**

11.30 Protein and peptide composition analysed by CE, HPLC and LC-MS - Prof. Y. Ardö, Dept. of Food Science, University of Copenhagen

12.00 Microbial fingerprinting and authenticity of cheese - Dr. D. Ercolini, Dip. Scienza degli Alimenti, Università degli Studi di Napoli "Federico II", Napoli

12.30 Spectroscopic methods for cheese quality and authenticity - Prof. L. Mannina¹, M. Delfini², D. Capitani³, M. E. Di Cocco², F. Sciubba², E. Brosio², R. Gianferri². ¹Dipartimento STAAM, Università degli Studi del Molise, Campobasso. ²Dipartimento di Chimica, Università "La Sapienza" di Roma, Piazzale Aldo Moro 5 Roma. ³Istituto di Metodologie Chimiche, CNR, (Roma)

13.00 **Discussion**

13.30 **Lunch**

- 15.00** Immunochemical methods for cheese authenticity studies – Dr. R. Pizzano¹, Dr. M. A. Nicolai², Dr. C. Manzo¹, Prof. F. Addeo^{1,2}, ¹ISA-CNR, Avellino; ² Dip. Scienza degli Alimenti, Università degli Studi di Napoli “Federico II”, Napoli, Italia.
- 15.30** Small molecules for the evaluation of cheese authenticity - Dr. M.C. Messia, DISTAAM, Università degli Studi del Molise
- 16.00** **Coffee break and poster session**
- 17.00** Statistical methods for cheese authenticity studies – Prof. E. Parente, Dr. A. Ricciardi, Dr. T. Zotta, Dip. Biologia, Università degli Studi della Basilicata, Potenza, Italia
- 17.30** The role of the Italian Central Inspectorate for Food Quality in the protection of food authenticity - Dr. F. Fuselli, Ispettorato Centrale per il Controllo della Qualità dei Prodotti Agroalimentari, Rome
- 18.00** **Conclusions and general discussion.**

Saturday, September 5th, 2009

Session 2. Oral communications

- 9.00** Traceability of artisan raw milk cheeses of the Marche region: a preliminary approach. V. Babini, S. Santarelli, L. Aquilanti, A. Osimani, C. Garofalo, G. Silvestri, E. Zannini, F. Clementi. SAIFET, Università Politecnica delle Marche, Ancona
- 9.10** Branched-Chain Fatty Acids: a Potential Parameter for Assessing Authenticity of PDO Mountain Cheeses. G. Battelli¹, I. De Noni². ¹Istituto di Scienze delle Produzioni Alimentari del Consiglio Nazionale delle Ricerche (ISPA-CNR) Milano, ²DiSTAM, Università degli Studi di Milano, Milano
- 9.20** Analytical traceability of Parmigiano Reggiano cheese. F. Camin¹, R. Larcher¹, D. Bertoldi¹, L. Bontempo¹, L. Ziller¹, G. Nicolini¹, M. Nocetti². ¹FEM-IASMA, San Michele all'Adige (TN), ²Consorzio Formaggio Parmigiano-Reggiano, Reggio Emilia
- 9.30** Non volatile hydrocarbons: promising tools for dairy products traceability. G. Contarini, M. Povolò, V. Pelizzola, CRA-Centro di Ricerca per le Produzioni Foraggere e Lattiero-Casearie, Lodi
- 9.40** Proteolytic oligopeptides as molecular markers for cheese authenticity. A. Dossena, V. Cavatorta, S. Sforza, G. Galaverna, R. Marchelli, Department of Organic and Industrial Chemistry, University of Parma, Parma
- 9.50** Evaluation of dairy products' authenticity by aromatic and nutritional compounds. V. Fedele, S. Claps, L. Sepe, A. R. Caputo, M. A. Di Napoli. CRA-ZOE Unità di Ricerca per la Zootecnia Estensiva, Bella (PZ)

- 10.00** Sensory conformity of Asiago cheese PDO. A. Marangon, M. Cappellari, Veneto Agricoltura - Istituto per la Qualità e le Tecnologie Agro-alimentari, Thiene (VI)
- 10.10** Pyroglutamyl- γ -3-casein as marker of proteolysis and ripening period of Grana Padano and Parmigiano Reggiano cheeses. F. Masotti, J. Hogenboom, I. De Noni, L. Pellegrino. DiSTAM, Università degli Studi di Milano, Milano
- 10.20** Microbiological and chemical characterization of Fruhe cheese: a new dairy product eligible for a PDO certification. M.A. Murgia, N.P. Mangia, G. Garau, F. Fancello, P. Deiana. DISAABA – Università degli Studi di Sassari, Sassari

10.30 **Discussion**

11.00 **Coffee break**

- 11.30** **Round table:** Cheese authenticity and traceability, technical, economical, sociological and legislative aspects. (in Italian). Coordinated by Ms. M. Borea, RAI Sen. C. Sibia, Presidente Provincia di Avellino
 Prof. R. Coppola, ISA-CNR Avellino
 Dr. A. Tartaglia, Regione Campania
 Dr. L. Perozzi, Segretario generale CCIAA Avellino
 Prof. G. Cannata, Magnifico Rettore Università degli Studi del Molise
 Prof. A. Di Porto, Università degli Studi di Roma “La Sapienza”
 Dr. M. Ferraro, Dirigente Coldiretti, Roma
 Dr. M. Zema, CSQA, Bari
 Dr. V. Amendolara, Ismecert
 Dr. L. Bertozzi, Consorzio di Tutela del Parmigiano Reggiano
 Dr. L. Pevere, Consorzio di Tutela Montasio
 Dr. B. Bartemucci, Ispettorato Centrale Controllo Qualità degli Alimenti
 Dr. R. Rubino, ANFOSC
 Dr. M. Sarnataro, ONAF
 Dr. A. Limone, Commissario Istituto Zooprofilattico per il Mezzogiorno
 Dr. V. D’Amato, Presidente Ordine dei Veterinari di Avellino

Poster

1. Identification and characterization of yeast strains isolated from samples of Water Buffalo Mozzarella cheese and natural whey cultures. M. Aponte, O. Pepe, G. Blaiotta. Dip. Scienza degli Alimenti, Università degli Studi di Napoli Federico II, Portici (NA)
2. Genotypic and technological diversity of *Leuconostoc mesenteroides*, *Lactobacillus paracasei* and *Brevibacterium linens* strains isolated from the artisanal ‘Pecorino di Filiano’ cheese. M.G. Bonomo, M. A. Sico, G. Salzano. Dipartimento di Biologia, Difesa e Biotecnologie Agro-Forestali, Università degli Studi della Basilicata, Potenza

3. Use of colorimetric methods for the analysis of the type of rennet used in traditional cheese production. K. Carbone, B. Ferri, D. Settineri. Centre for Agricultural Research Council, Research Meat Production and Genetic Improvement, Monterotondo, Rome
4. The lactic microflora isolated from traditional, raw milk Italian cheeses: a tool to define cheese authenticity? D. Carminati, B. Bonvini, M.E. Formasari, A. Perrone, M. Remagni, L. Rossetti, M. Zago, G. Giraffa. Centro di Ricerca per le Produzioni Foraggere e Lattiero-Casearie (CRA-FLC), Lodi
5. Diversity of Caciocavallo cheese produced in different regions of Southern Italy. T. Di Renzo, M.L. Grasso, S. Niro, A. Reale, P. Tremonte, G. Panfili, E. Sorrentino, R. Coppola, M. Succi. Dipartimento di Scienze e Tecnologie Agro-alimentari, Ambientali e Microbiologiche, Università degli Studi del Molise, Campobasso
6. The flavour profile of Mozzarella cheese: natural vs. defined starter cultures. T. Di Renzo¹, A. Di Luccia², M. Succi¹, A. Reale¹, P. Tremonte¹, A. Trani², V. Capilongo¹, R. Coppola¹, E. Sorrentino¹. ¹Dipartimento di Scienze e Tecnologie Agro-alimentari, Ambientali e Microbiologiche, Università degli Studi del Molise, Campobasso. ²Dipartimento di Progettazione e Gestione dei Sistemi Agro-zootecnici e forestali (PROGESA), Università degli Studi di Bari, Bari
7. ELISA for monitoring the freshness of river buffalo curd. R. Gagliardi¹, Y.T.R. Proroga¹, A. Barbato¹, A. Trani², M. Faccia², A. Di Luccia². ¹Dipartimento Ispezione degli Alimenti Istituto Zooprofilattico del Mezzogiorno, Portici, Italy. ²Dipartimento di Progettazione e Gestione dei Sistemi Agro-zootecnici e forestali (PROGESA), Università degli Studi di Bari
8. Biochemical characterization of “Laticauda” ovine hard cheese to value and to safeguard a traditional dairy product of “Sannita” bio-territory. D. Matassino¹, N. Castellano¹, G. Gigante¹, F. Inglese¹, L. Rillo¹, F. Romagnuolo¹, A. Trani², G. Varricchio¹, A. Di Luccia². ¹ConSDABI. NFP.-FAO- Center of Omic Science for the Nutritional Quality and Excellence - Piano Cappelle Benevento, Italy. ²PROGESA - University of Bari- Bari
9. Hygienic, microbial and physico-chemical characteristics of Fagagna, a semi-hard cheese of Friuli Venezia Giulia region. L. Iacumin¹, L. Chiesa², S. Panseri², C. E. M. Bernardi², S. Ceccone³, M. Manzano¹, G. Comi¹. ¹Dipartimento di Scienze degli Alimenti, Università degli Studi di Udine, Udine. ²Dipartimento di Scienze e Tecnologie Veterinarie per la Sicurezza degli Alimenti, Università degli Studi di Milano, Milano. ³ARPA FVG, Dipartimento di Pordenone.
10. Development of new starter cultures for traditional cheeses produced in the mountain areas of the Veneto Region. A. Lombardi¹, C. Andrighetto¹, A. Cattelan¹, P. De Dea¹, M. Centeleghe², T. Dallo². ¹Veneto Agricoltura – Istituto per la Qualità e le Tecnologie Agroalimentari, Thiene (VI). ²Lattebusche, Latteria della Vallata Feltrina, Cesiomaggiore (BL)
11. Employment of selected autochthonous starters for quality improvement and preservation of typical features of PDO cheeses. N.P. Mangia, M.A. Murgia, G. Garau, P. Deiana. Dipartimento di Scienze Ambientali Agrarie e Biotecnologie Agroalimentari. Università degli Studi di Sassari, Sassari
12. Use of the microfluidic “Lab-on-a-chip” technique as alternative method for the study of milk proteins. F. Nazzaro, F. Fratianni, R. Coppola. Istituto di Scienze dell’Alimentazione, ISA-CNR, Avellino
13. Characterization and safety evaluation of enterococci isolated from Manchego cheeses. P. Nieto-Arribas¹, S. Seseña², F. Pérez², R.M. Chicón¹, L. Cabezas³, J.M. Poveda¹, M. Llanos Palop². ¹Dpto. de Química Analítica y Tecnología de Alimentos, Universidad de Castilla-La Mancha. Instituto Regional de Investigación Científica Aplicada (IRICA), Ciudad Real, ²Facultad de Ciencias del Medio Ambiente, Toledo. ³Dpto. de Bromatología y Tecnología de los Alimentos, Facultad de Veterinaria, Universidad de Córdoba. Campus de Rabanales, Córdoba
14. *Cis-trans*-retinol isomerization as a process marker in “pasta filata” cheeses. G. Panfili, A. Fratianni, R. Mignogna, T. Di Criscio, T. Di Renzo, E. Sorrentino. Dipartimento di Scienze e Tecnologie Agro-alimentari, Ambientali e Microbiologiche, Università degli Studi del Molise, Campobasso
15. Methods for the evaluation of innovative drying techniques of “pasta filata” cheeses. G. Panfili¹, S. Niro¹, A. Fratianni¹, P. Tremonte¹, E. Sorrentino¹, M. Schiavone². ¹Dipartimento di Scienze e Tecnologie Agro-alimentari, Ambientali e Microbiologiche, Università degli Studi del Molise, Campobasso. ²Parco Scientifico e Tecnologico Moliseinnovazione, Campobasso
16. Free amino acids in “pasta filata” cheeses made from milk of different origin. S. Niro, G. Panfili, A. Fratianni, E. Sorrentino, R. Coppola, P. Tremonte. Dipartimento di Scienze e Tecnologie Agro-alimentari, Ambientali e Microbiologiche, Università degli Studi del Molise, Campobasso.
17. Bacterial population of Pecorino Crotonese cheese and its influence in flavour formation. C.L. Randazzo, I. Pitino, A. Ribbera, C. Caggia. Dipartimento di Orto Floro Arboricoltura e Tecnologie Agroalimentari (DOFATA), University of Catania
18. A preliminary evaluation of physico-chemical and microbiological characteristics of “Pecorino di Farindola” cheese. M. Schirone, R. Tofalo, G. Suzzi, A. Corsetti, Dipartimento di Scienze degli Alimenti, Università degli Studi di Teramo
19. Promising analytical approaches for cheese characterisation. M. Simoni¹, R. Berneri¹, E. Pellegrini¹, D. Ferretti¹, R. Piro¹, E. Sangiorgi¹, G. Campolongo². ¹Istituto Zooprofilattico Sperimentale Lombardia Emilia Romagna “Bruno Ubertini”, Brescia. ²Buchi Italia, Assago (Mi)
20. Characterization of coagulase-negative cocci involved in the ripening of Manteca cheese. R. Tofalo, M. Schirone, A. Corsetti, G. Suzzi. Dipartimento di Scienze degli Alimenti, Università degli Studi di Teramo

21. Application of Artificial neural networks for the traceability of mountain cheeses. G. Zeppa, M. Giordano, S. Belviso, S. Grosso. Dipartimento di Valorizzazione e Protezione delle Risorse Agroforestali - Settore Microbiologia agraria e Tecnologie Alimentari - Università degli Studi di Torino, Grugliasco (TO)

Language.

The official languages of the scientific sessions is English, while opening session and round table will be held in Italian.

Congress venue.

The Congress venue has been moved to Hotel de la Ville, Via Palatucci 20, 83100 Avellino, Italy - Tel +39 0825 780911 - Fax +39 0825 780921 email info@hdv.av.it. Detailed information on how to reach the Hotel are available at: <http://www.hdv.av.it/>

Instruction to speakers.

A PC with Windows operating system will be available for presentations. We are able to support only MS Power Point presentations. If you want to prepare your presentation in a different format please inform the organizing committee as soon as possible (micheeses@isa.cnr.it). You are kindly requested to leave a copy of your PowerPoint presentation at least 30 min before the start of your session and to check with our technical personnel that it is displayed correctly.

Invited communications have been allotted 30 min. + 30 min. general discussion at the end of the session.

Oral communications have been allotted 10 min. with 30 min. general discussion at the end of session.

Posters.

Poster boards will be available in a designated exposition area. Posters will be mounted by our technical staff. Maximum allowable poster dimensions are 70 x 100 cm. Posters will be on display for the whole duration of the meeting.

Roadmap.

May 21st: the registration is open

June 30th: deadline for abstract submission

July 15th: the selection of oral communications is completed

July 31th: the final programme is published on the website

http://www.isa.cnr.it/web-new/ita/eventi/eventi_26.htm and sent to registered participants

August 10th: deadline for early registration

September 3rd: the meeting begins

Scientific Committee.

Prof. Raffaele Coppola, Director, ISA-CNR, Avellino, Italy; Prof. Eugenio Parente, Università degli Studi della Basilicata, Potenza, Italy; Prof. Gianfranco Panfili, Università degli Studi del Molise, Campobasso, Italy; Dott.ssa Angiolella Lombardi, Veneto Agricoltura, Thiene, Italy.

Organizing Committee.

Dr. Maria Aponte, Dip. Scienza degli Alimenti, Università degli Studi di Napoli "Federico II"; Dr. Luigi Cipriano; Mr. Antonio Ottobrino, Mr. Clemente Meccariello, Mr. Gennaro Russo, ISA-CNR Avellino; Dr. Patrizio Tremonte, Dr. Tiziana Di Renzo, DISTAAM, Università degli Studi del Molise.

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Fees.

The registration fee (200 €) must be paid before August 10th, 2009. A late registration fee (250 €) or day to day participation tickets (100 €/day) can be paid by cheque only at the registration desk.

The registration fee includes access to the meeting and exposition areas, welcome reception, coffee and tea breaks and lunch, congress bag and proceedings. The registration fee is VAT exempt.

Payment must be made by bank transfer, payable to Formica Onlus, VAT number 0000092065880640 Via Vasto 29, 83100, Avellino, on bank account 7512393 at Cassa di Risparmio di Rimini, Filiale 144, S. Elia a Pianisi (CB).

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SWIFT: CRRNIT2R

Please clearly indicate on the transfer MicheeseAS/your surname and Initial (i.e. MicheeseAS/ParenteE)

Accommodation and travel information.

Detailed information on accommodation have been published on the web site. A list of hotels will be made available but participants are responsible for booking their own accommodation.

The closest airports are Napoli Capodichino and Bari Palese. Avellino can be easily reached by car or bus from Napoli and Salerno, both served by Eurostar trains.

Registration information.

Please complete the registration information in the form in the following page, copy and paste in the body of an E-mail message and send to micheeses@isa.cnr.it

The organization of the workshop is supported by



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3/9/2009 – 5/9/2009

Hotel de la Ville
Avellino (Italia)

Registration form.

Title

Name ...

Middle Initial

Surname

Affiliation

Mailing address:

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State/province

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Telephone.....

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I will submit an abstract. I would rather present my work as

poster oral communication either

The title is: ...

The authors are: ...

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