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**Italian Journal of
Animal Science**

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2017

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ASPA 22nd CONGRESS

Perugia, June 13-16, 2017

Book of Abstracts

**Guest Editors: Massimo Trabalza-Marinucci (Coordinator),
Cesare Castellini, Emiliano Lasagna, Stefano Capomaccio,
Katia Cappelli, Simone Ceccobelli, Andrea Giontella**



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- Animal derived food quality and safety
- Animal genetics and breeding
- Aquaculture, poultry, companion and wildlife
- Livestock systems, management and environment
- Non-ruminants nutrition and feeding
- Production physiology and biology
- Ruminants nutrition and feeding

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Italian Journal of Animal Science

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ASPA 22nd Congress

Perugia, June 13-16, 2017

Guest Editors

**Massimo Trabalza-Marinucci (Coordinator), Cesare Castellini,
Emiliano Lasagna, Stefano Capomaccio, Katia Cappelli,
Simone Ceccobelli, Andrea Giontella**

Table of Contents

MAIN LECTURES			
Livestock welfare issues in Europe or what is needed to maintain livestock production in the future?	1	Animal breeding and genetics - dairy cattle genetics	77
Animal breeding and genetics - adaptation strategies	3	Aquaculture, poultry and rabbit production - husbandry, health and welfare	80
Nutrition and feeding	4	Aquaculture, poultry and rabbit production - genetics	86
Plenary session workshop	5	Animal husbandry and environmental impact - husbandry systems and socio-economic analysis	89
Nutrition and feeding	10	Animal welfare, health and behaviour - pig health and behaviour	93
Animal welfare, health and behaviour - cattle health and metabolism	11	Nutrition and feeding - feed evaluation	96
Animal breeding and genetics	13	Animal food quality and safety - milk and cheese quality	101
Aquaculture, poultry and rabbit production	14	Animal food quality and safety - meat quality	105
Animal food quality and safety	16	Joint session - insects in animal nutrition	108
Aquaculture, poultry and rabbit production	17	Joint session - dietary strategies and quality of food	113
Animal welfare, health and behaviour	19	Joint session - insects in animal nutrition	114
Animal husbandry and environmental impact	21	Animal breeding and genetics - other species	116
Animal food quality and safety - food safety	25	Aquaculture, poultry and rabbit production - aquaculture	120
		Animal husbandry and environmental impact - husbandry systems and environmental impact	125
		Animal welfare, health and behaviour - small ruminant health and behaviour	130
ORAL COMMUNICATIONS			
Animal breeding and genetics - horse genetics	27	Nutrition and feeding - ruminant nutrition	134
Nutrition and feeding - ruminal metabolism	30	Animal food quality and safety - food safety	139
Animal food quality and safety - meat quality	34	Joint session - dietary strategies and quality of food	143
Animal breeding and genetics - adaptation strategies	37		
Animal breeding and genetics - beef cattle genetics	40	POSTERS	
Aquaculture, poultry and rabbit production - poultry and rabbit nutrition	46	Animal breeding and genetics	145
Animal welfare, health and behaviour - husbandry, welfare and behaviour	50	Animal husbandry and environmental impact	174
Animal welfare, health and behaviour - cattle health and metabolism	54	Aquaculture, poultry and rabbit production	184
Nutrition and feeding - monogastric nutrition	59	Animal welfare, health and behaviour	192
Animal breeding and genetics - genome-wide studies	65	Animal food quality and safety	202
Animal breeding and genetics - dairy cattle genetics	68	Nutrition and feeding	217
Animal breeding and genetics - small ruminants genetics	72		
		INDEX OF AUTHORS	
			a



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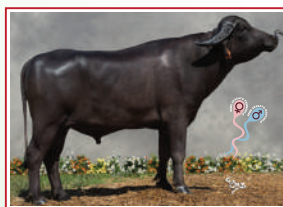
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Congress of the Animal Science
and Production Association

*22° Congresso dell'Associazione per
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Perugia (Italy)

June 13th - 16th, 2017

Venue

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ASPA 22nd Congress

Perugia, June 13-16, 2017

22nd ASPA CONGRESS PROGRAMME AT A GLANCE



Tuesday, June 13 th				
09.30 12.30	IJAS EDITORIAL BOARD MEETING			
13.00 15.00	ARRIVAL - REGISTRATION			
	ROOM AU		ROOM T1	ROOM T2
15.00 16.15	ORAL PRESENTATIONS AB "Horse genetics" (5)	15.00 16.30	ORAL PRESENTATIONS NF "Ruminal metabolism" (6)	15.00 16.00 ORAL PRESENTATIONS FQ "Meat quality" (4)
17.30 19.30	OPENING CEREMONY <i>(Plenary Room - Dept. of Agricultural, Food and Environmental Sciences, University of Perugia)</i> INVITED LECTURE Livestock welfare issues in Europe or what is needed to maintain livestock production in the future? Matthias Gauly, EAAP, Italy			
19.30 20.00	Concert of "Perugia University Choir" and Welcome Cocktail			

LEGEND

AB: Animal Breeding and Genetics
 AE: Animal Husbandry and Environmental Impact
 APR: Aquaculture, Poultry and Rabbit Production
 AW: Animal Welfare, Health and Behaviour
 NF: Nutrition and Feeding
 FQ: Animal Food Quality and Safety

22nd ASPA CONGRESS PROGRAMME AT A GLANCE



Wednesday, June 14 th						
	ROOM AU		ROOM T1		ROOM T2	ROOM H
8.45 9.45	MAIN LECTURE - AB Genetic adaptation of livestock to the challenges of climatic changes Olivier Hanotte, UK	8.45 9.45	ORAL PRESENTATIONS NF "Monogastric nutrition" (4)	8.45 10.15	ORAL PRESENTATIONS APR "Poultry and rabbit nutrition" (6)	8.45 10.30 ORAL PRESENTATIONS AW "Husbandry, welfare and behaviour" (7)
09.45 10.45	ORAL PRESENTATIONS AB "Adaptation strategies" (4)	9.45 10.30	INVITED LECTURE - NF Precision feeding Luigi Calamari, Italy			
10.45 11.15	Coffee break and POSTER SESSION					
	ROOM AU					
11.15 13.00	PLENARY SESSION WORKSHOP Foods of animal origin and consumer attitudes Chairman: Luca Buttazoni, Italy Politics of risk: questioning the naturalization of danger in meat production and consumption. Cristina Papa, Italy Food fact versus food fiction - The never-ending struggle between unbiased information and preconceived ideologies. Luigi Scordamaglia, Italy Foods of animal origin – how do we help the consumer understand sustainability implications of diet choice? Judith L. Capper, UK					
13.00 14.00	Lunch and POSTER SESSION					
	ROOM AU		ROOM T1		ROOM T2	ROOM H
14.00 15.00	MAIN LECTURE - NF Gastrointestinal tract functionality and its relationships with eubiotics Pietro Celi, USA	14.00 16.00	ORAL PRESENTATIONS AW "Cattle health and metabolism" (8)	14.00 16.15	ORAL PRESENTATIONS AB "Beef cattle genetics" (9)	14.00 16.30 ROUND TABLE Adaptation to hot climate and strategies to alleviate heat stress in dairy cows ASPA Commission "Adattabilità dei sistemi zootecnici ai cambiamenti climatici"
15.00 16.00	ORAL PRESENTATIONS NF "Monogastric nutrition" (4)	16.00 16.45	INVITED LECTURE – AW Nutritional impact on lameness in dairy cows Hugh Galbraith, UK			
16.45 17.15	Coffee break and POSTER SESSION					
17.15 19.30	AGROTEAM ROUND TABLE (ROOM AU) Innovative strategies to improve livestock production efficiency					
20.00	Dinner at Convention Center					

ASPA 22nd Congress

Perugia, June 13-16, 2017

22nd ASPA CONGRESS PROGRAMME AT A GLANCE



Thursday, June 15 th						
	ROOM AU		ROOM T1		ROOM T2	ROOM H
8.30 9.15	INVITED LECTURE - AB A brief history of statistical developments in animal breeding <i>Daniel Gianola, USA</i>			8.30 9.30	ORAL PRESENTATIONS APR "Husbandry, health and welfare" (4)	
9.15 10.30	ORAL PRESENTATIONS AB "Genome-wide studies" (5)	8.30 10.30	ORAL PRESENTATIONS NF "Feed evaluation" (8)	9.30 10.30		08.30 10.15 ORAL PRESENTATIONS FQ "Milk and cheese quality" (7)
10.30 11.00	Coffee break and POSTER SESSION					
	ROOM AU		ROOM T1		ROOM T2	ROOM H
11.00 12.00	MAIN LECTURE - FQ Feeding strategies to reduce the use of antibiotics in pig production <i>Joris Michiels, Belgium</i>			11.00 12.45	ORAL PRESENTATIONS AB "Dairy cattle genetics" (7)	11.00 12.15 ORAL PRESENTATIONS APR "Husbandry, health and welfare" (5)
12.00 13.00	ORAL PRESENTATIONS FQ "Meat quality" (4)	11.00 12.45	Joint Session NF+FQ+APR "Insects in animal nutrition" (7)	11.00 12.45		12.15 13.00 INVITED LECTURE – APR Welfare in poultry <i>Martina Gerken, Germany</i>
13.00 14.00	Lunch and POSTER SESSION					
	ROOM AU		ROOM T1		ROOM T2	ROOM H
14.00 15.00	MAIN LECTURE - AW The role of mother-offspring behaviour in lamb survival <i>Cathy Dwyer, UK</i>			14.00 15.30	ORAL PRESENTATIONS AB "Small ruminant genetics" (6)	14.00 15.30 ORAL PRESENTATIONS AE "Husbandry systems and socio-economic analysis" (6)
15.00 15.45	INVITED LECTURE – AW Animal welfare and food security: role and tasks of the Italian farmers <i>Franco Valfré, Italy</i>	14.00 15.30	ORAL PRESENTATIONS Joint Session NF+FQ "Dietary strategies and quality of foods" (6)	14.00 15.30		
	ROOM AU		ROOM T1		ROOM T2	ROOM H
15.45 16.30	INVITED LECTURE – AE Constraints and solutions to reduce environmental impact for developed livestock farming <i>Andrea Rosati, EAAP, Italy</i>	15.45 16.45	ORAL PRESENTATIONS AW "Pig health and behaviour" (4)	15.45 16.45	ORAL PRESENTATIONS AB "Dairy cattle genetics" (4)	15.45 16.45 ORAL PRESENTATIONS APR "Genetics" (4)
16.45 17.00	Coffee break and POSTER SESSION					
17.00 18.30	MEETING OF ASPA MEMBERS (ROOM AU)					
20.00	Social Dinner - Palazzo Bernabei, University of Perugia (Assisi)					

ASPA 22nd Congress

Perugia, June 13-16, 2017

22nd ASPA CONGRESS PROGRAMME AT A GLANCE



Friday, June 16 th							
	ROOM AU		ROOM T1		ROOM T2		ROOM H
9.00 10.00	MAIN LECTURE - AE How to solve the (un)sustainability dilemma <i>Simone Bastianoni, Italy</i> Environmental impact of animal production <i>Matteo Crovetto, Italy</i>	9.00 10.00	ORAL PRESENTATIONS FQ "Food safety" (4)	9.00 10.45	ORAL PRESENTATIONS NF "Ruminant nutrition" (7)	9.00 11.00	ORAL PRESENTATIONS APR "Aquaculture" (8)
		10.00 10.45	INVITED LECTURE - FQ Foodborne pathogen: the case of <i>Campylobacter</i> in poultry <i>Lisa K. Williams, UK</i>				
11.00 11.30	Coffee break and POSTER SESSION						
	ROOM AU		ROOM T1		ROOM T2		ROOM H
11.30 13.30	SIB ROUND TABLE Dairy cow welfare and ethology	11.30 13.00	ORAL PRESENTATIONS Joint Session NF+FQ "Dietary strategies and quality of foods" (6)	11.30 13.15	ORAL PRESENTATIONS AB "Other species" (7)	11.30 13.00	ORAL PRESENTATIONS AW "Small ruminant health and behaviour" (6)
							ROOM C ORAL PRESENTATIONS AE "Husbandry systems and environmental impact" (8)

ASPA 22nd Congress

Perugia, June 13th-16th, 2017

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Agenda Invited Speakers

June 13th

Plenary Room - Dept. of Agricultural, Food and Environmental Sciences, University of Perugia

17.30-19.30 Matthias Gauly
Livestock welfare issues in Europe or what is needed to maintain livestock production in the future?..... IS001

June 14th

Room AU - Animal Breeding and Genetics - Adaptation strategies

Chairmen: Paolo Ajmone-Marsan, Stefano Capomaccio
08.45-09.45 Olivier Hanotte
Genetic adaptation of livestock to the challenges of climatic changes IS002

Room T1 - Nutrition and Feeding

Chairmen: Antonella Baldi, Luigi Gallo
09.45-10.30 Luigi Calamari
Precision Feeding IS003

Room AU - PLENARY SESSION WORKSHOP

Foods of animal origin and consumers attitudes

Chairman: Luca Buttazzoni
11.15-13.00 Cristina Papa
Politics of risk: questioning the naturalization of danger in meat production and consumption IS004
Luigi P. Scordamaglia
Food fact versus food fiction - The never-ending struggle between unbiased information and preconceived ideologies IS005
Judith L. Capper
Foods of animal origin – how do we help the consumer understand sustainability implications of diet choice?..... IS006

Room AU - Nutrition and Feeding

Chairmen: Paolo Bosi, Domenico P. Lo Fiego
14.00-15.00 Pietro Celi
Gastrointestinal tract functionality and its relationships with eubiotics IS007

Room T1 - Animal Welfare, Health and Behaviour - Cattle health and metabolism

Chairmen: Cinzia Marchitelli, Erminio Trevisi
16.00-16.45 Hugh Galbraith
Nutritional impact on lameness in dairy cattle IS008

June 15th

Room AU - Animal Breeding and Genetics

- Chairmen: Nicolò P. P. Macciotta, Alfredo Pauciullo
08.30-09.15 Daniel Gianola
A brief history of statistical developments in animal breeding IS009

Room T2 - Aquaculture, Poultry and Rabbit Production

- Chairmen: Federico Sirri, Alessandro Dal Bosco
09.30-10.30 Laura Gasco
Insects as sustainable feed ingredients IS010

Room AU - Animal Food Quality and Safety

- Chairmen: Andrea Serra, Paolo Polidori
11.00-12.00 Joris Michiels
Feeding strategies to reduce the use of antibiotics in pig production IS011

Room H - Aquaculture, Poultry and Rabbit Production - Husbandry and welfare

- Chairmen: Cecilia Mugnai, Massimiliano Petracci
12.15-13.00 Martina Gerken
Welfare in Poultry IS012

Room AU - Animal Welfare, Health and Behaviour

- Chairmen: Silvana Mattiello, Massimo Trabalza-Marinucci
14.00-15.00 Cathy M. Dwyer
The role of mother-offspring behaviour in lamb survival IS013
15.00-15.45 Franco Valfré
Animal welfare and food security: role and tasks of the Italian farmers IS014

Room AU - Animal Husbandry and Environmental Impact

- Chairmen: Luca M. Battaglini, Maurizio Silvestrelli
15.00-15.45 Andrea Rosati
Constraints and solutions to reduce environmental impact for developed livestock farming IS015

June 16th

Animal Husbandry and Environmental Impact

- Chairmen: Bruno Stefanon, Mariano Pauselli
09.00-10.00 Simone Bastianoni
How to solve the (un)sustainability dilemma IS016
Gian Matteo Crovetto
Environmental impact of animal production IS017

Animal Food Quality and Safety - Food safety

- Chairmen: Luisa A. Volpelli, Vincenzo Chiofalo
10.00-10.45 Lisa K. Williams
Foodborne pathogen: the case of Campylobacter in poultry IS018

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Agenda for oral presentations

Tuesday June 13th - room AU

Animal breeding and genetics - Horse genetics

Chairmen: Donata Marletta, Roberto Mantovani

15.00-15.15	Andrea Giontella, Francesca M. Sarti, Giovanni P. Biggio, Andrea Taras, Raffaele Cherchi, Maurizio Silvestrelli, Camillo Pieramati <i>Sardinian Anglo-Arab horses: genetic parameters of conformation and performances</i>	O001
15.15-15.30	Stefano Capomaccio, Andrea Giontella, Ted Kalbfleisch, Scotty DePriest, Andrea Verini-Supplizi, Silvia Sorbolini, Raffaele Cherchi, Maurizio Silvestrelli, Katia Cappelli <i>Transcriptome analysis of racehorses PBMCs: insights on transcribed introns and repeats</i>	O002
15.30-15.45	Andrea Verini-Supplizi, Stefano Capomaccio, Luisa Pascucci, Cinzia Bazzucchi, Marco Pepe, Mauro Coletti, Rodolfo Gialletti, Stefano Petrini, Fabrizio Passamonti, Franco Moriconi, Maurizio Silvestrelli, Katia Cappelli <i>RNA-cargo characterization of equine Ad-MSCs vesicles: first step towards cell-free therapeutic procedures</i>	O003
15.45-16.00	Katia Cappelli, Elisabetta Chiaradia, Andrea Viglino, Maurizio Silvestrelli, Francesca Beccati, Livia Moscati, Stefano Capomaccio <i>Circulating miRNAs as biomarkers of stress and training in endurance horses</i>	O004
16.00-16.15	Andrea Giontella, Hovirag Lancioni, Irene Cardinali, Marco R. Capodiferro, Stefano Capomaccio, Katia Cappelli, Camillo Pieramati, Alessandro Achilli, Maurizio Silvestrelli <i>Mitochondrial DNA haplotypes unveil mistakes in Maremmano horse pedigree records</i>	O005

Tuesday June 13th - room T1

Nutrition and feeding - Ruminant metabolism

Chairmen: Lucia Bailoni, Andrea Formigoni

15.00-15.15	Giuseppe Conte, Corrado Dimauro, Alice Cappucci, Eleonora Bulleri, Francesca Ciucci, Andrea Serra, Marcello Mele <i>Relationship between ruminal biohydrogenation products and milk fat depression</i>	O006
15.15-15.30	Alberto Palmonari, Giorgia Canestrari, Elena Bonfante, Ludovica Mammi, Andrea Formigoni <i>Effect of replacing soybean meal with rapeseed meal on productive performance and ruminal conditions of lactating dairy cows</i>	O007
15.30-15.45	Marica Simoni, Federico Righi, Francesca Martuzzi, Massimo Malacarne, Marco Renzi, Afro Quarantelli <i>Study of the in vivo and in vitro variations of the enzymatic activity of bovine rumen fluid inocula</i>	O008
15.45-16.00	Fabio Correddu, Alberto S. Atzori, Gianni Battacone, Giuseppe Pulina, Anna Nudda <i>Effect of exhausted berries of myrtle on ruminal metabolism in dairy sheep</i>	O009
16.00-16.15	Fiorentina Palazzo, Filippo Biscarini, Federica Castellani, Andrea Vitali, Giulia Masetti, Lisa Grotta, Giuseppe Martino <i>Characterization of the rumen microbiota in dairy calves receiving copper or grape-pomace feed supplementation</i>	O010
16.15-16.30	Federica Mannelli, Mariano Pauselli, Francesco Pini, Alice Cappucci, Andrea Serra, Giuseppe Conte, Marcello Mele, Sara Minieri, Stefano Rapaccini, Luciana Giovannetti, Carlo Viti, Arianna Buccioni <i>Effect of olive oil pomace dietary supplementation on rumen microbial community profile: a metagenomics approach</i>	O011

Tuesday June 13th - room T2

Animal food quality and safety - Meat quality

Chairmen:	Edi Piasentier, Luciano Morbidini	
15.00-15.15	Francesco Sirtori, Riccardo Bozzi, Alessandro Croveti, Chiara Aquilani, Antonio Pezzati, Antonio Bonelli, Carolina Pugliese <i>Effects of salting time on seasoned meat in two pigs genotypes</i>	0012
15.15-15.30	Michela Contò, Maria Miarelli, Sabrina Di Giovanni, Paola Lavermicocca, Francesca Valerio, Sebastiana Failla <i>Effect of the broking down of cold chain on beef meat oxidation</i>	0013
15.30-15.45	Amalia Simonetti, Roberto Giudice, Annamaria Perna, Emilio Gambacorta <i>Comparison of oxidative status and antioxidant compounds of pig meat from Italian autochthonous pig Suino Nero Lucano and a modern crossbred pig before and after cooking</i>	0014
15.45-16.00	Alessandro Croveti, Francesco Sirtori, Doria Benvenuti, Antonio Bonelli, Andrea Lombardo, Giovanni Brajon, Riccardo Bozzi <i>Wet aging effect on beef meat physical traits</i>	0015

Wednesday June 14th - Room AU

Animal breeding and genetics - Adaptation strategies

Chairmen:	Paolo Ajmone-Marsan, Stefano Capomaccio	
09.45-10.00	Miranda Bryan, Christian Maltecca, Kent Gray, Clint Schwab, Yijian Huang, Francesco Tiezzi <i>Genetic variance for sow tolerance to heat stress</i>	0016
10.00-10.15	Elia Vajana, Mario Barbato, Licia Colli, Marco Milanese, Estelle Rochat, Enrico Fabrizi, Christopher Mukasa, Marcello Del Corvo, Charles Masebe, Vincent Muwanika, Fredrick Kabi, Riccardo Negrini, Stéphane Joost, Paolo Ajmone-Marsan, the NEXTGEN Consortium <i>Combining landscape genomics and ecological modelling to investigate local adaptation of indigenous Ugandan cattle to East Coast Fever</i>	0017
10.15-10.30	Tri Satya Mastuti Widi, Nuzul Widias <i>Variation of Madura Cattle in Madura Island, Indonesia</i>	0018
10.30-10.45	Salvatore Mastrangelo, Paolo Ajmone-Marsan, Alessandro Bagnato, Luca M. Battaglini, Riccardo Bozzi, Antonello Carta, Gennaro Catillo, Martino Cassandro, Sara Casu, Roberta Ciampolini, Elena Ciani, Paola Crepaldi, Mariasilvia D'Andrea, Rosalia Di Gerlando, Luca Fontanesi, Maria Longeri, Nicolò P. P. Macciotta, Roberto Mantovani, Donata Marletta, Donato Matassino, Marcello Mele, Giulio Pagnacco, Camillo Pieramati, Baldassare Portolano, Francesca M. Sarti, Fabio Pilla <i>BOVITA: a first overview on genome-wide genetic diversity of Italian autochthonous cattle breeds</i>	0019

Wednesday June 14th - Room T2

Animal breeding and genetics - Beef cattle genetics

Chairmen:	Liliana Di Stasio, Camillo Pieramati	
14.00-14.15	Francesca M. Sarti, Simone Ceccobelli, Andrea Giontella, Piera Di Lorenzo, Emiliano Lasagna, Andrea Quaglia, Fiorella Sbarra, Roberta Guarcini, Camillo Pieramati, Francesco Panella <i>Effects of Single Nucleotide Polymorphisms (SNPs) in candidate genes for growth traits in Italian beef cattle breeds</i>	0020
14.15-14.30	Fiorella Sbarra, Andrea Quaglia, Giovanni Bittante, Roberto Mantovani <i>Heritability of reproduction traits and type latent factors and their genetic correlations in Marchigiana, Chianina and Romagnola beef breeds</i>	0021
14.30-14.45	Domenico Aiello, Laura Salvadori, Sara Chiappalupi, Simone Ceccobelli, Emidio Albertini, Guglielmo Sorci, Emiliano Lasagna <i>Histological muscle characterization in hypertrophied Marchigiana cattle breed</i>	0022
14.45-15.00	Simone Savoia, Alberto Brugiapaglia, Liliana Di Stasio, Alessandro Ferragina, Alessio Cecchinato, Giovanni Bittante, Andrea Albera <i>"QualiPiem" - Innovative tools for selection of meat quality in Piemontese breed</i>	0023
15.00-15.15	Cinzia Marchitelli, Bianca Moioli, Roberto Steri, Gennaro Catillo <i>Twinning project: increasing of twin births in Maremmana breed</i>	0024
15.15-15.30	Mauro Fioretti, Stefano Biffani, Riccardo Negrini, Riccardo Bozzi <i>Genetic improvement and population structure of Italian Limousine</i>	0025

15.30-15.45	Hovirag Lancioni, Piera Di Lorenzo, Simone Ceccobelli, Licia Colli, Irene Cardinali, Taki Karsli, Marco R. Capodiferro, Luca Ferretti, Paolo Ajmone-Marsan, Francesca M. Sarti, Emiliano Lasagna, Alessandro Achilli <i>Ancient distinctive migration routes suggested by the current mitochondrial gene pool of Podolic cattle breeds in Italy</i>	0026
15.45-16.00	Filippo Biscarini, Salvatore Mastrangelo, Gennaro Catillo, Bianca Moioli, Roberta Ciampolini <i>Genome-wide homozygosity in Maremmana cattle</i>	0027
16.00-16.15	Rosalia Di Gerlando, Maria T. Sardina, Marco Tolone, Anna M. Sutura, Salvatore Mastrangelo, Baldassare Portolano <i>Genome wide Copy Number Variation (CNV) detection in Cinisara cattle breed</i>	0028

Wednesday June 14th - Room T2

Aquaculture, poultry and rabbit production - Poultry and rabbit nutrition

Chairmen: Antonella Dalle Zotte, Cesare Castellini		
08.45-09.00	Nieves Núñez-Sánchez, Gabriele Acuti, Domenico Brusco, Simona Mattioli, Oliviero Olivieri, Massimo Trabalza-Marinucci <i>Prediction of nutrient digestibility and chemical composition of rabbit diets using faecal near infrared spectroscopy (FNIRS)</i>	0029
09.00-09.15	Marco Birolo, Angela Trocino, Francesco Gratta, Gerolamo Xiccato <i>Performance and feeding behaviour of group-housed rabbits with free or time-limited access to feed</i>	0030
09.15-09.30	Paula A. Toalombo-Vargas, Nelson A. Duchi-Duchi, Luis R. Fiallos-Ortega, José V. Trujillo-Villacís, Luis E. Hidalgo-Almeida, Rafael Buenano-Nuñez <i>Effect of chamomile (Matricaria chamomilla) on health in chickens</i>	0031
09.30-09.45	Paula A. Toalombo-Vargas, Nelson A. Duchi-Duchi, Luis R. Fiallos-Ortega, Antonio J. Morales- delaNuez, Luis E. Hidalgo-Almeida, Matiza L. Vaca-Cárdenas, Noé F. Rodríguez-G <i>Effect of chamomile (Matricaria chamomilla) on productive performance in chickens</i>	0032
09.45-10.00	Angela Trocino, Francesco Gratta, Marco Birolo, Alessandra Piccirillo, Massimiliano Petracchi, Luc Maertens, Gerolamo Xiccato <i>Effects of the feeding system on performance and myopathy occurrence in two broiler chicken genotypes</i>	0033
10.00-10.15	Siria Tavaniello, Rossella Mucci, Acaye Ongwech, Marek Bednarczyk, Giuseppe Maiorano <i>Probiotic and prebiotic supplementation in broiler chickens: growth performance, carcass traits and meat quality</i>	0034

Wednesday June 14th - Room H

Animal welfare, health and behaviour - Husbandry, welfare and behaviour

Chairmen: Flaviana Gottardo, Andrea Verini-Supplizi		
08.45-09.00	Giulio Cozzi, Luisa Magrin, Isabella Lora, Thomas Beorchia, Barbara Contiero <i>Milk yield, culling rate and reasons of pure Holsteins and second generation crossbred cows from Montbéliard × (Swedish Red × Holstein)</i>	0035
09.00-09.15	Riccardo Moretti, Stefano Biffani, Stefania Chessa, Riccardo Bozzi <i>Predictive models for locomotion issues in Italian Holstein dairy cows</i>	0036
09.15-09.30	Vincenzo Lopreiato, Andrea Minuti, Elisabetta Fratto, Marcello Marotta, Giovanni Loprete, Domenico Britti, Erminio Trevisi, Valeria M. Morittu <i>Use of an electronic rumination-monitoring system in pre-weaned calves</i>	0037
09.30-09.45	Giorgio Marchesini, Davide Mottaran, Matteo Gazziero, Massimo Mirisola, Severino Segato, Iginio Andrighetto <i>Effect of different ventilation systems on beef cattle during the early fattening period</i>	0038
09.45-10.00	Veronica Redaelli, Marta De Santis, Silvia Gozzo, Laura Contalbrigo, Annalisa Stefani, Marta Toson, Luca Farina, Marta Borgi, Francesca Cirulli, Emanuela Valle, Fabio Luzi <i>Use of Infrared Thermography (IRT) in equine assisted interventions: physiological aspects</i>	0039
10.00-10.15	Aristide Maggiolino, Alessandra Tateo, Pasquale De Palo, Giovanna Calzaretto, Pasquale Centoducati <i>Evaluation of different habituation protocols for training dairy donkey jennies to the milking parlor: effect on milk yield, behavior and heart rate</i>	0040
10.15-10.30	Monica Battini, Sara Barbieri, Elisabetta Canali, Francesca Dai, Emanuela Dalla Costa, Valentina Ferrante, Lorenzo Ferrari, Silvana Mattiello, Michela Minero <i>Outcomes of a web-survey for collecting stakeholders' opinion on welfare requirements for sheep, goats, turkeys, donkeys, and horses</i>	0041

Wednesday June 14th - Room T1

Animal welfare, health and behaviour - Cattle health and metabolism

Chairmen: Cinzia Marchitelli, Erminio Trevisi

- 14.00-14.15 Andrea Minuti, Nusrat Jahan, Matteo Mezzetti, Fiorenzo Piccioli-Cappelli, Lorenzo Bomba, Stefano Capomaccio, Juan J. Loor, Paolo Ajmone-Marsan, Erminio Trevisi
Relationship between blood energetic markers and circulating leukocytes transcriptome in transition dairy cows 0042
- 14.15-14.30 Erminio Trevisi, Andrea Minuti, Matteo Mezzetti, Annarita Ferrari, Fiorenzo Piccioli-Cappelli
Supplements of Aloe arborescens improve health and inflammo-metabolic status of transition dairy cows 0043
- 14.30-14.45 Paola Cremonesi, Federica Riva, Maria F. Addis, Camilla Ceccarani, Marco Severgnini, Erminio Trevisi, Massimo Amadori, Claudia Pollera, Joel Filipe, Giulio Curone, Lauretta Turin, Vittorio Tedde, Alessandra Pagnoni, Daniele Vigo, Paolo Moroni, Andrea Minuti, Valerio Bronzo, Bianca Castiglioni
A multidisciplinary study investigating the bovine milk microbiome and its association with mastitis resistance traits in Holstein Friesian and Rendena dairy cows 0044
- 14.45-15.00 Daniele Dipasquale, Loredana Basiricò, Patrizia Morera, Umberto Bernabucci
Anti-inflammatory effects of conjugated linoleic acid isomers and essential fatty acids in bovine mammary epithelial cells 0045
- 15.00-15.15 Sandy Sgorlon, Danilo Licastro, Bruno Stefanon, Monica Colitti
Cows relocation affects exosomes and their cargos in bovine milk 0046
- 15.15-15.30 Luisa Magrin, Marta Brscic, Leonardo Armato, Giulio Cozzi, Flaviana Gottardo
Lameness in finishing beef cattle: distribution of claw disorders in 2716 hind feet 0047
- 15.30-15.45 Edyta Bauer, Justyna Żychlińska-Buczek
Using mineral-vitamin boluses to improve somatic cell count prevention value in Polish dairy farms 0048
- 15.45-16.00 Juan J. García Bustos
Treatment of bovine diseases with agroforestry resources in farms of the Colombian Amazon piedmont 0049

Wednesday June 14th - Room T1

Nutrition and feeding - Monogastric nutrition

Chairmen: Antonella Baldi, Luigi Gallo

- 08.45-09.00 Elena Mariani, Nicoletta Rizzi, Guido Invernizzi, Alessandro Agazzi, Adriana Maggi, Giovanni Savoini
Spatio-temporal analysis of the Nrf 2 activation in transgenic reporter mouse fed with high dosage of saturated or unsaturated fatty acids using in vivo bioluminescent imaging 0050
- 09.00-09.15 Maria G. Cappai, Maurizio Picciau, Maria G. A. Lunesu, Corrado Dimauro, Raffaele Cherchi, Walter Pinna
Circulating levels of nutrient-related metabolites in healthy Anglo-Arabian foals from weaning to 18 months of age 0051
- 09.15-09.30 Mirco Dalla Bona, Giuseppe Carcò, Enrico Fiore, Stefano Schiavon, Luca Carraro, Massimo Morgante, Luigi Gallo
Effects of dietary protein and lysine content on growth performances, carcass traits and estimated nitrogen input-output flow of growing pigs 0052
- 09.30-09.45 Micol Bertocchi, Paolo Trevisi, Diana Luise, Vincenzo Motta, Chiara Salvarani, Anisa Ribani, Aude Simongiovanni, Etienne Corrent, Luca Fontanesi, Paolo Bosi
Dose-response for different levels of leucine to lysine ratio on the growth performance of weaning pigs with different genotypes at the α -amino adipate d-semialdehyde synthase gene 0053

Wednesday June 14th - Room AU

Nutrition and feeding - Monogastric nutrition

Chairmen: Paolo Bosi, Domenico P. Lo Fiego

- 15.00-15.15 Vincenzo Motta, Michele Pesciaroli, Paolo Trevisi, Diana Luise, Ludovica Curcio, Lucilla Cucco, Francesca R. Massacci, Chiara F. Magistrali
Dietary calcium-butyrate promotes a shift of gut microbiota of weaned pigs 0054
- 15.15-15.30 Chiara Aquilani, Francesco Sirtori, Oreste Franci, Alessandro Crovetti, Carolina Pugliese
Effects of protein restricted diet on in vivo performances and slaughtering traits of Cinta Senese pigs 0055

15.30-15.45	Matteo Ottoboni, Carlotta Giromini, Marco Tretola, Davide Gottardo, Daniela Marchis, Valentina Caprarulo, Federica Cheli, Antonella Baldi, Luciano Pinotti <i>Nutrients content and in vitro digestibility of ex-food as feed ingredient for pig diets</i>	O056
15.45-16.00	Eleonora Seoni, Gianni Battacone, Paolo Silacci, Frigga Dohme-Meier, Giuseppe Bee <i>Impact of increasing levels of condensed tannins from sainfoin in grower-finisher diets of entire male pigs on growth performance and carcass characteristics</i>	O057

Thursday June 15th - Room AU

Animal breeding and genetics - Genome-wide studies

Chairmen:	Nicolò P. P. Macciotta, Alfredo Paucullo	
09.15-09.30	Mariasilvia D'Andrea, Valentino Palombo, Marco Milanese, Sandy Sgorlon, Stefano Capomaccio, Giuseppe Conte, Paolo Ajmone-Marsan <i>Genome-wide association study of milk fatty acid composition in Italian Simmental and Italian Holstein cows</i>	O058
09.30-09.45	Alessio Cecchinato, Sara Pegolo, Christos Dadousis, Núria Mach, Yulixais Ramayo-Caldas, Marcello Mele, Stefano Schiavon, Giovanni Bittante <i>Genome-wide association and pathway-based analysis for milk fatty acids profile in dairy cattle</i>	O059
09.45-10.00	Alberto Cesarani, Antonio Puledda, Maria G. Manca, Fabio Correddu, Jessica Serdino, Silvia Sorbolini, Nicolò P. P. Macciotta <i>Genome-wide association study of cheese-making properties in sheep milk</i>	O060
10.00-10.15	Anna M. Sutura, Salvatore Mastrangelo, Maria T. Sardina, Rosalia Di Gerlando, Marco Tolone, Baldassare Portolano <i>Genome-wide association study for milk production traits in Valle del Belice sheep</i>	O061
10.15-10.30	Salvatore Mastrangelo, Marco Tolone, Maria T. Sardina, Anna M. Sutura, Rosalia Di Gerlando, Baldassare Portolano <i>Genome-wide scan for runs of homozygosity in Valle del Belice sheep</i>	O062

Thursday June 15th - Room T2

Animal breeding and genetics - Dairy cattle genetics

Chairmen:	Giulio Pagnacco, Mauro Penasa	
11.00-11.15	Marco R. Capodiferro, Shaoqiang Wang, Ningbo Chen, Tao Zhang, Hovirag Lancioni, Irene Cardinali, Hucai Zhang, Yongwang Miao, Vongpasith Chanthakhoun, Metha Wanapat, Marnoch Yindee, Yi Zhang, Hongzhao Lu, Ruihua Dang, Yongzhen Huang, Xianyong Lan, Martin Plath, Hong Chen, Johannes A. Lenstra, Chuzhao Lei, Alessandro Achilli <i>Looking into the Swamp Buffalo genetic history through the whole mitogenome analysis</i>	O063
11.15-11.30	Chiara Roveglia, Giulio Visentin, Mauro Penasa, Raffaella Finocchiaro, Maurizio Marusi, Martino Cassandro <i>Genetics of alternative somatic cell count traits in Italian Holsteins</i>	O064
11.30-11.45	Hugo Toledo-Alvarado, Gustavo de los Campos, Ana Vazquez, Rob Tempelman, Giovanni Bittante, Alessio Cecchinato <i>Predictive ability of Fourier transform infrared spectroscopy and milk components to assess the pregnancy status of dairy cows</i>	O065
11.45-12.00	Cristina Sartori, Francesco Tiezzi, Nadia Guzzo, Roberto Mantovani <i>Causal relationships between milk yield, somatic cells, fertility, longevity and fighting ability in Aosta Chestnut-Black Pied Cattle</i>	O066
12.00-12.15	Corrado Dimauro, Elisabetta Manca, Alberto S. Atzori, Massimo Cellesi, Giustino Gaspa, Nicolò P. P. Macciotta <i>Use of discriminant analysis to early detect lactation persistency in dairy cows</i>	O067
12.15-12.30	Marco Milanese, Mario Di Guardo, Stefano Capomaccio, Katia Cappelli, Valentino Palombo, Mariasilvia D'Andrea, Marcello Del Corvo, Sandy Sgorlon, Andrea Minuti, Yuri Tani Utsunomiya, José Fernando Garcia, Erminio Trevisi, Riccardo Negrini, Bruno Stefanon, Paolo Ajmone-Marsan <i>Identification of genomic variants associated with metabolic stress in Italian Simmental and Holstein cows</i>	O069
12.30-12.45	Elisabetta Viale, Francesco Tiezzi, Fabio Maretto, Massimo De Marchi, Mauro Penasa, Martino Cassandro <i>Candidate gene association analysis for milk yield and composition traits, coagulation properties and somatic cell count in Italian Holstein Friesian bulls</i>	O078

Thursday June 15th - Room T2

Animal breeding and genetics - Small ruminants genetics

- Chairmen: Elena Ciani, Emiliano Lasagna
- 14.00-14.15 Beatriz López, Vincenzo Landi, Mayra M. Gómez Carpio, Beatriz Agudo, Amparo Martínez Martínez
Preliminary results on the genetic variation and the population structure within a Spanish Merino breed commercial population 0070
- 14.15-14.30 Mokhethi M. Selepe, Simone Ceccobelli, Emiliano Lasagna, Nokuthula W. Kunene
An overview on the genetic diversity in South African Nguni (Zulu) sheep 0071
- 14.30-14.45 Silvia Sorbolini, Giustino Gaspa, Donata Marletta, Paola Crepaldi, Bianca Moioli, Antonello Carta, Baldassare Portolano, Emiliano Lasagna, Elena Ciani, Mariasilvia D'Andrea, Fabio Pilla, Nicolò P. P. Macciotta, Italian Sheep Consortium (BIOVITA)
Detection of signatures of selection in Italian sheep breeds 0072
- 14.45-15.00 Sara Casu, Tiziana Sechi, Mario G. Usai, Stefania Sechi, Mario Barbato, Paolo Ajmone-Marsan, Antonello Carta
Toward the identification of causal mutations and LD markers associated to disease resistance in sheep 0073
- 15.00-15.15 Licia Colli, Marco Milanese, Marcello Del Corvo, Andrea Talenti, Francesca Bertolini, Minhui Chen, Alessandra Crisà, Kevin Daly, Bernt Gulbrandsen, Stéphane Joost, Johannes A. Lenstra, Ezequiel L. Nicolazzi, Estelle Rochat, Benjamin D. Rosen, Max F. Rothschild, Bertrand Servin, Tad S. Sonstegard, Roberto Steri, Elia Vajana, Curtis P. Van Tassell, Paolo Ajmone-Marsan, Paola Crepaldi, Alessandra Stella, the ADAPTmap Consortium
Drawing up worldwide goat diversity and post-domestication history: update from ADAPTmap project 0074
- 15.15-15.30 Andrea Talenti, Stefano Frattini, Salvatore Mastrangelo, Baldassarre Portolano, Emiliano Lasagna, Francesca M. Sarti, Simone Ceccobelli, Marco Milanese, Licia Colli, Elena Ciani, Dominga Soglia, Stefano Sartore, Roberta Ciampolini, Alessandra Crisà, Roberto Steri, Gennaro Catillo, Donata Marletta, Salvatore Bordonaro, Mariasilvia D'Andrea, Stefania Chessa, Bianca Castiglioni, Pasqualino Loi, Tiziana Sechi, Antonello Carta, Riccardo Negrini, Alessandra Stella, Alessio Valentini, Francesco Panella, Giulio Pagnacco, Fabio Pilla, Paolo Ajmone-Marsan, Paola Crepaldi, the Italian Goat Consortium
Italian Goat Consortium: a collaborative project to study the Italian caprine biodiversity 0075

Thursday June 15th - Room T2

Animal breeding and genetics - Dairy cattle genetics

- Chairmen: Paola Crepaldi, Giovanni Bittante
- 15.45-16.00 Nadia Guzzo, Cristina Sartori, Alessandro Ferragina, Giovanni Bittante, Roberto Mantovani
Genetic parameters of new FTIR milk phenotypes in Rendena breed 0076
- 16.00-16.15 Valentino Palombo, Marco Milanese, Stefano Capomaccio, Sandy Sgorlon, Mariasilvia D'Andrea
Pathways interaction analysis for identification of novel candidate genes 0077
- 16.15-16.30 Marco Iannaccone, Marina Papaiani, Flora Ianniello, Andrea Fulgione, Daniela Gallo, Gianfranco Cosenza, Rosanna Capparelli
Identification of a novel polymorphism in the 3' untranslated region of the interferon gamma gene as potential marker associate with bovine tuberculosis in water buffalo (Bubalus bubalis). 0079
- 16.30-16.45 Sara Pegolo, Christos Dadousis, Núria Mach, Yulixaxis Ramayo-Caldas, Marcello Mele, Stefano Schiavon, Giovanni Bittante, Alessio Cecchinato
SNP co-association and network analyses for bovine milk fatty acid profile 0080

Thursday June 15th - Room T2

Aquaculture, poultry and rabbit production - Husbandry, health and welfare

- Chairmen: Federico Sirri, Alessandro Dal Bosco
- 08.30-08.45 Cristina Zomeño, Marco Birolo, Francesco Gratta, Andrea Zuffellato, Gerolamo Xiccato, Angela Trocino
Influence of group housing, lactation system and floor type on performance and injuries in rabbit does 0081
- 08.45-09.00 Marta Brscic, Michele Gazzo, Barbara Contiero, Flaviana Gottardo
Main welfare problems in intensive broiler chicken production systems: is there any way to differentiate farms? 0082
- 09.00-09.15 Kunlayaphat Wuthijaree, Christian Lambertz, Matthias Gauly
Prevalence and burden of helminths in free-range laying hens in Northern Italy 0083
- 09.15-09.30 Sabine Mueller, Lorena Taddei, Ruth E. Messikommer, Michael Kreuzer, Isabelle D. M. Gangnat
Growth and slaughter performance of two dual-purpose poultry types compared with extensive broiler and layer types fattened for 67 and 84 days 0084

Thursday June 15th - Room H

Aquaculture, poultry and rabbit production - Husbandry and welfare

- Chairmen: Cecilia Mugnai, Massimiliano Petracci
- 11.00-11.15 Massimiliano Petracci, Giulia Baldi, Francesca Soglia, Maurizio Mazzoni, Federico Sirri, Luca Canonico, Elena Babini, Claudio Cavani
Effect of spaghetti-meat abnormality on quality and histological traits of broiler breast fillets O085
- 11.15-11.30 Francesca Soglia, Massimiliano Petracci, Claudio Cavani, Per Ertbjerg
Changes in structural properties and desmin degradation of broiler wooden breast fillets during refrigerated storage O086
- 11.30-11.45 Achille Schiavone, Alberto Brugiapaglia, Michele De Marco, Stefano Sartore, Dominga Soglia, Sandra Maione, Roberto Rasero, Paola Sacchi, Alessandra Dalmasso, Maria T. Bottero, Daniele Pattono, Martina Tarantola, Mario Giacobini, Luigi Bertolotti, Ivo Zoccarato, Laura Gasco, Cecilia Mugnai
Market chain of "Consortium for safeguard of Bianca e Bionda breeds" in Piedmont: 1. demography, housing and slaughtering conditions O087
- 11.45-12.00 Cecilia Mugnai, Achille Schiavone, Michele De Marco, Stefano Sartore, Dominga Soglia, Sandra Maione, Roberto Rasero, Paola Sacchi, Alessandra Dalmasso, Maria T. Bottero, Daniele Pattono, Martina Tarantola, Mario Giacobini, Luigi Bertolotti, Ivo Zoccarato, Laura Gasco, Alberto Brugiapaglia
Market chain of "Consortium for safeguard of Bianca e Bionda breeds" in Piedmont: 2. Meat quality O088
- 12.00-12.15 Andrea Amici, Riccardo Primi, Pier Paolo Danieli, Paolo Viola
*Captive morphological changes and growth parameters in Apennine rock partridges (*Alectoris graeca graeca*)* O089

Thursday June 15th - Room H

Aquaculture, poultry and rabbit production - Genetics

- Chairmen: Silvia Cerolini, Claudio Cavani
- 15.45-16.00 Marco Zampiga, Micol Bertocchi, Paolo Bosi, Paolo Trevisi, Adele Meluzzi, Federico Sirri
Comparison of productive performance and intestinal transcriptomic profile of two fast-growing chicken hybrids O090
- 16.00-16.15 Raffaella Rebucci, Carlotta Giromini, Davide Gottardo, Marcello Comi, Xian-Ren Jiang, Federica Cheli, Antonella Baldi, Valentino Bontempo
Influence of a synthetic emulsifier supplementation on lipid metabolism and apolipoprotein gene expression in liver of broiler chicks O091
- 16.15-16.30 Katia Parati, Silvia Cenadelli, Graziella Bongioni, Andrea Galli, Hervé Chavanne
Parentage assignment for genetic improvement of farmed sea bream by new single nucleotide polymorphisms and single tandem repeats panels O092
- 16.30-16.45 Genciana Terova, Simona Rimoldi, Chiara Ascione, Emi Gliozheni, Fabio Brambilla
*Intestinal microbiota characterization by next generation sequencing in rainbow trout (*Oncorhynchus mykiss*) fed animal by-product meals as an alternative to fishmeal protein sources* O093

Thursday June 15th - Room H

Animal husbandry and environmental impact - Husbandry systems and socio-economic analysis

- Chairmen: Maurizio Ramanzin, Giuseppe Pulina
- 14.00-14.15 Christian Lambertz, Matthias Gauly
Potential of pure- and crossbred Les Bleues broiler for meat production for small-scale farmers O094
- 14.15-14.30 Georgia Faccioni, Alberto Bernués Jal, Maurizio Ramanzin, Enrico Sturaro
Ecosystem services and mountain livestock farming: a socio economic valuation O095
- 14.30-14.45 Ioanna Pouloupoulou, Martin C. Nock, Silvia Steinmayer, Christian Lambertz, Matthias Gauly
How can working time analysis contribute to the production efficiency of mountain dairy farms? O096
- 14.45-15.00 Luisa A. Volpelli, Nicola Battistella, Francesco Gradari
Rural development and dialogue between the communities in Kosovo: an example of international cooperation O097
- 15.00-15.15 Francesca Petrera, Giovanni Tagliaferri, Andrea Galli, Fabio Abeni
Survey on dairy farmer use and interest for precision livestock farming tools O098
- 15.15-15.30 Maddalena Zucali, Alberto Tamburini, Giulia Gislon, Anna Sandrucci, Luciana Bava
Milk quality and milking practices in dairy goat farms in Lombardy O099

Thursday June 15th - Room T1

Animal welfare, health and behaviour - Pig health and behaviour

Chairmen:	Carolina Pugliese, Giovanna Martelli	
15.45-16.00	Silvia Parrini, Anna Acciaioli, Valentina Becciolini, Gustavo Campodoni, Oreste Franci <i>Study on the behaviour of Cinta Senese and Large White x Cinta Senese pigs reared at pasture</i>	O100
16.00-16.15	Giuseppe Carcò, Mirco Dalla Bona, Luca Carraro, Luigi Gallo, Maria A. Latorre, Manuel Fondevila, Stefano Schiavon <i>The daily feeding behaviour of growing pigs subjected to a feed restriction and to a reduction of dietary indispensable amino acid contents</i>	O101
16.15-16.30	Eleonora Nannoni, Luca Sardi, Marika Vitali, Giovanna Martelli <i>Growth traits, carcass and meat quality of heavy pigs receiving different enrichment tools</i>	O102
16.30-16.45	Luciana Rossi, Serena Reggi, Giovanni L. Alborali, Paolo Trevisi, Diana Luise, Angela Lombardi, Eugenio De Martini, Antonella Baldi <i>Seed-based vaccine immunogens administered in feed for the control of verocytotoxic E.coli infection in pig livestock</i>	O103

Thursday June 15th - Room T1

Nutrition and feeding - Feed evaluation

Chairmen:	Paolo Bani, Pier Paolo Danieli	
08.30-08.45	Afro Quarantelli, Marco Renzi, Marica Simoni, Alessandro M. Rosato, Federico Righi <i>Use of a new instrument for the in vitro evaluation of ruminants feeds through gas production: preliminary study</i>	O104
08.45-09.00	Martina Novacco, Matteo Ottoboni, Eleonora Fusi, Silvia Gastaldello, Valentina Furlan, Claudio Maran, Vittorio Dell'Orto, Federica Cheli <i>Electronic nose for the detection of mycotoxin contaminations in maize kernels</i>	O105
09.00-09.15	Monika Hejna, Antonella Baldi, Elisabetta Onelli, Davide Gottardo, Salvatore R. Pilu, Vittorio Dell'Orto, Mauro Zaninelli, Luciana Rossi <i>Evaluation of heavy metals in intensive animal production systems</i>	O106
09.15-09.30	Silvia Parrini, Anna Acciaioli, Antonio Pezzati, Doria Benvenuti, Riccardo Bozzi <i>Application of FT- NIRS to estimate chemical components of freeze-dry herbage of Tuscany natural pasture</i>	O107
09.30-09.45	Marco Isidori, Fabrizio Rueca, Gabriele Mannucci, Massimo Tralbalza-Marinucci <i>Palatability of extruded dog diets supplemented with <i>Ascophyllum nodosum</i></i>	O108
09.45-10.00	Pier Paolo Danieli, Roberto Ruggeri, Riccardo Primi, Francesco Rossini, Emiliano Chiaretti, Catia Stamigna, Domenico Chiaretti, Vincenzo Natoli, Bruno Ronchi <i>A preliminary nutritional assessment of six genotypes of tef (<i>Eragrostis tef</i>) as potential forage sources</i>	O109
10.00-10.15	Marta Castrica, Carlotta Giromini, Raffaella Rebucci, Davide Gottardo, Valentino Bontempo, Antonella Baldi <i>Evaluation of polyphenolic content and antioxidant activity in agri-food wastes and by-products using chemical and physiological extraction</i>	O110
10.15-10.30	Andriyani Astuti, Cuk Tri Noviandi, Ali Agus, Subur Priyono Sasmito Budhi, Ristianito Utomo, Evi Septiani <i>The effect of duration of storage and storage method on chemical composition and in vitro digestibility of complete calf pellet</i>	O183

Thursday June 15th - Room H

Animal food quality and safety - Milk and cheese quality

Chairmen:	Andrea Summer, Umberto Bernabucci	
08.30-08.45	Sudeb Saha, Giovanni Bittante, Stefano Schiavon, Giacomo Cesaro, Matteo Ganesella, Leonardo Armato, Enrico Fiore, Luigi Gallo <i>Effects of rumen fluid pH on rumen activity and quality and technological properties of milk</i>	O111
08.45-09.00	Massimo Todaro, Raimondo Gaglio, Maria L. Scatassa, Giovanna Sala, Francesca Mazza, Isabella Mancuso, Luca Settanni <i>Effect of the wooden vats on traditional cheese characteristics</i>	O112
09.00-09.15	Federica Salari, Iolanda Altomonte, Rosario Licitra, Mina Martini <i>Vitamin D content in donkey milk: preliminary results</i>	O113
09.15-09.30	Giorgia Stocco, Andrea Summer, Massimo Malacarne, Alessio Cecchinato, Giovanni Bittante <i>Factors affecting the detailed mineral profile of bovine milk from multi-breed herds</i>	O114

09.30-09.45	Claudio Cipolat-Gotet, Alessio Cecchinato, MaryAnne Drake, Bruno Martin, Giovanni Bittante <i>Influence of dairy farming system and animal factors on sensory descriptors of model cheeses from individual cows</i>	O115
09.45-10.00	Matteo Bergamaschi, Alessio Cecchinato, Flavia Gasperi, Franco Biasioli, Giovanni Bittante <i>Discrimination of dairy systems using the volatile fingerprinting of ripened cheese detected by a fast and non-invasive spectrometric technique (PTR-ToF-MS)</i>	O116
10.00-10.15	Alessandro Dalla Riva, Jasmina Burek, Daesoo Kim, Greg Thoma, Martino Cassandro, Massimo De Marchi <i>Life cycle assessment of Italian mozzarella cheese manufacturing</i>	O117

Thursday June 15th - Room AU

Animal food quality and safety - Meat quality

Chairmen: Andrea Serra, Paolo Polidori		
12.00-12.15	Andrea Serra, Giuseppe Conte, Elisabetta Giannessi, Laura Casarosa, Carla Lenzi, Alessandro Baglini, Francesca Ciucci, Alice Cappucci, Marcello Mele <i>Cholesterol content and fatty acid composition of phospholipids and triglycerides are affected by the histological characteristics of semimembranosus and triceps brachii muscle fibre of Maremmana and Limousine bovine breeds</i>	O118
12.15-12.30	Roberto Tocci, Eleonora Pippi, Matteo Campostrini, Andrea Martini, Clara Sargentini <i>Consumer acceptance of ewe meat deriving from traditional and halal Tuscan market</i>	O119
12.30-12.45	Alice Cartoni Mancinelli, Simona Mattioli, Alessandro Dal Bosco, David Ranucci, Raffaella Branciarri, Cesare Castellini <i>Geese reared in organic vineyard: qualitative traits of breast meat</i>	O120
12.45-13.00	Simone Mancini, Giovanna Preziuso, Sara Minieri, Alessandro Dal Bosco, Valentina Roscini, Gisella Paci <i>Enhanced antioxidant capacity and reduced lipid oxidation in cooked rabbit burgers added with Zingiber officinale</i>	O121

Thursday June 15th - Room T1

Joint session (NF + FQ + APR) - Insects in animal nutrition

Chairmen: Marina Pasquini, Achille Schiavone		
11.00-11.15	Maria F. Iulietto, Paola Sechi, Margherita Ceccarelli, Luca Grispoli, Beniamino T. Cenci-Goga <i>Exploring consumer perception of entomophagy: data from an online survey</i>	O122
11.15-11.30	Andrea Dama, Marco Meneguz, Manuela Renna, Carola Lussiana, Achille Schiavone, Francesco Gai, Enrico Bressan, Laura Gasco <i>Innovative protein sources in animal diets: bioconversion of vegetable waste with black soldier fly (Hermetia illucens)</i>	O123
11.30-11.45	Simona Mattioli, Valentina Roscini, Giacomo Rossi, Gabriele Rondoni, Maurizio Servili, Alessandro Dal Bosco, Mariano Pauselli, Cesare Castellini, Eric Conti <i>Fatty acids profile of Tenebrio molitor larvae grown in different oil-enriched substrates</i>	O124
11.45-12.00	Andrea Osimani, Federica Cardinali, Lucia Aquilanti, Nino Loreto, Sara Ruschioni, Paola Riolo, Maria F. Trombetta, Marina Pasquini <i>The microbiota of fresh mealworms as revealed by PCR-DGGE</i>	O125
12.00-12.15	Sihem Dabbou, Marco Cullere, Michele De Marco, Ilaria Biasato, Elena Biasibetti, Maria T. Capucchio, Stefania Bergagna, Daniela Dezzutto, Francesco Gai, Laura Gasco, Achille Schiavone, Antonella Dalle Zotte <i>Effects of black soldier fly (Hermetia illucens L.) larvae fat inclusion on growth performance, blood traits, carcass characteristics morphometric and histological parameters of finisher broiler chickens</i>	O126
12.15-12.30	Marco Cullere, Michael Woods, Giulia Tasoniero, Stefaan De Smet, Eric Claeys, Simone Vincenzi, Elsje Pieterse, Louwrens C. Hoffman, Antonella Dalle Zotte <i>Apparent nutrient digestibility of broiler quail diets supplemented with black soldier fly larvae reared on two different substrates</i>	O127
12.30-12.45	Enrico Bressan, Francesco Gai, Sihem Dabbou, Achille Schiavone, Manuela Renna, Andrea Dama, Marco Meneguz, Giovanni Perona, Ivo Zoccarato, Laura Gasco <i>Hermetia illucens partially defatted meal in piglets nutrition: preliminary results</i>	O128

Thursday June 15th - Room T1

Joint session (NF + FQ) - Dietary strategies and quality of food

Chairmen:	Maria F. Trombetta, Giuseppe Luciano	
14.00-14.15	Giulia Rossi, Stefano Schiavon, Giovanni Bittante, Giovanna Lomolino, Alberto Simonetto, Claudio Cipolat-Gotet, Marta Cattin, Franco Tagliapietra <i>Garlic as supplement for lactating cows: consequences on milk and cheese products</i>	O129
14.15-14.30	Federica Castellani, Nadia Bignardi, Andrea Vitali, Elettra Marone, Fiorentina Palazzo, Lisa Grotta, Giuseppe Martino <i>Effect of cow feeding supplementation with olive pomace on the development of aromatic compounds in milk and dairy products</i>	O130
14.30-14.45	Mirco Corazzin, Alberto Romanzin, Edi Piasentier, Stefano Bovolenta <i>Milk fatty acid profile of Italian Simmental cows as affected by pasture type and supplement level</i>	O131
14.45-15.00	Lucia Bailoni, Nadia Guzzo, Gianfranco Gabai, Roberto Mantovani <i>Fatty acids profile in early and commercial milk of dairy cows supplemented with flaxseed during the dry period</i>	O132
15.00-15.15	Miriam Iacurto, Germana Capitani, Federico Vincenti, Umberto Bernabucci <i>Effects of glycerol esters (Butyrflex[®]) on productive performances and meat quality of Limousine young bulls</i>	O134
15.15-15.30	Bernardo Valenti, Valentina Roscini, Giuseppe Luciano, Umberto Rossetti, Alessandro Priolo, Marcella Avondo, Mariano Pauselli <i>Dietary pomegranate pomace to improve milk fatty acid composition in grazing ewes</i>	O135

Friday June 16th - Room T2

Animal breeding and genetics - Other species

Chairmen:	Roberta Ciampolini, Fabio Pilla	
11.30-11.45	Katarzyna Stadnicka, Janusz Debski, Rita Gil, Michalina Debowska, Marek Bednarczyk <i>Revealing avian oviduct cell proteome and secretome in vitro and its susceptibility to modification</i>	O136
11.45-12.00	Simone Ceccobelli, Luigi Orrù, Simone Tralbalza, Piera Di Lorenzo, Antonella Lamontanara, Francesca M. Sarti, Alessandro Dal Bosco, Emiliano Lasagna <i>RNA-Seq analysis reveals different mechanisms in fatty acids biosynthesis in two chicken strains</i>	O137
12.00-12.15	Agata Szczerba, Takashi Kuwana, Aleksandra Dunislawska, Luiza Chojnacka-Puchta, Dorota Sawicka, Grazyna Plucienniczak, Marek Bednarczyk <i>Efficiency of in vitro and in vivo chicken primordial germ cells modification</i>	O138
12.15-12.30	Martina Zappaterra, Roger Ros-Freixedes, Martina Bordini, Joan Estany, Roberta Davoli <i>ELOVL6 gene and SNP effects on fatty acid composition of backfat in Italian Large White pigs</i>	O139
12.30-12.45	Samuele Bovo, Gianluca Mazzoni, Giuseppina Schiavo, Francesca Bertolini, Giuliano Galimberti, Antonia B. Samorè, Stefania Dall'Olio, Luca Fontanesi <i>Genome wide association studies for haematological and clinical-biochemical parameters in Italian Large White pigs</i>	O140
12.45-13.00	Elena Facchini, Rita Rizzi, Giulio Pagnacco, Giulietta Minozzi <i>Estimation of genetic parameters for honey production in the honeybee – Preliminary results</i>	O141
13.00-13.15	Andrea Talenti, Dayna L. Dreger, Stefano Frattini, Beatrice Coizet, Federica Danelli, Stefano P. Marelli, Amedeo Picchi, Jacopo Riva, Enrico Moretti, Raffaella Cocco, Daniele Bigi, Luigi Liotta, Michele Polli, Gustavo Gandini, Giulio Pagnacco, Elaine A. Ostrander, Paola Crepaldi <i>Genomic landscape and biodiversity of Italian dogs</i>	O142

Friday June 16th - Room H

Aquaculture, poultry and rabbit production - Aquaculture

Chairmen:	Alessandra Roncarati, Emilio Tibaldi	
09.00-09.15	Chiara Ceccotti, Simona Rimoldi, Chiara Ascione, Genciana Terova <i>Effects of butyrate and taurine supplementation in European sea bass diet based on soybean meal</i>	O143
09.15-09.30	Gloriana Cardinaletti, Paola Beraldo, Bianca M. Poli, Maria Messina, Emilio Tibaldi <i>Including marine microalgae in European seabass (Dicentrarchus labrax) diets: effects on digestive-absorptive functions</i>	O144

09.30-09.45	Luca Parma, Erika Bonvini, Luciana Mandrioli, Rubina Sirri, Cinzia Viroli, Ramon Fontanillas, Pier Paolo Gatta, Alessio Bonaldo <i>Feeding European sea bass (<i>Dicentrarchus labrax</i>) with increasing dietary fibre levels: impact on growth, blood biochemistry, gut histology and gut evacuation</i>	O145
09.45-10.00	Chiara Ascione, Emi Gliozheni, Chiara Ceccotti, Simona Rimoldi, Genciana Terova <i>Effects of dietary butyrate supplementation on histone modifications and the expression of inflammatory-related genes in European Sea bass (<i>Dicentrarchus labrax</i>)</i>	O146
10.00-10.15	Marina C.T. Meligrana, Gian Enrico Magi, Giuseppe Catone, Paolo Melotti, Alessandra Roncarati <i>Effects of different feeds on performances of rainbow trout (<i>Oncorhynchus mykiss</i>) broodstocks</i>	O147
10.15-10.30	Maria Messina, Francesca Tulli, Tiziana Bongiorno, Gloriana Cardinaletti <i>Effects of feed restriction and re-feeding on body condition, plasma metabolites and intestinal brush border enzymes activity in rainbow trout <i>Oncorhynchus mykiss</i></i>	O148
10.30-10.45	Francesca Tulli, Alberto Niccolai, Graziella Chini-Zittelli, Mario Tredici, Emilio Tibaldi <i>Apparent digestibility of different microalgae dried biomass in rainbow trout (<i>Oncorhynchus mykiss</i>)</i>	O149
10.45-11.00	Fausto Scopetta, Roberta Galarini, Danilo Giusepponi, Marinella Capuccella <i>Antibiotic use in a rainbow trout fattening farm in Umbria: sustainability, residues and farm environmental impact</i>	O150

Friday June 16th - Room C

Animal husbandry and environmental impact - Husbandry systems and environmental impact

Chairmen:	Marcello Mele, David Meo Zilio	
11.30-11.45	Giacomo Pirlo, Susanna Lolli <i>Environmental impact of milk production in two samples of organic and conventional farms in Lombardy</i>	O151
11.45-12.00	Elisabetta Vida, Dorian E. A. Tedesco <i>Carbon footprint of integrated milk production and bioenergy systems</i>	O152
12.00-12.15	Luciana Bava, Giulia Gislon, Jacopo Bacenetti, Anna Sandrucci, Alberto Tamburini, Maddalena Zucali <i>Carbon footprint of PDO cheeses: Grana Padano and Gorgonzola</i>	O153
12.15-12.30	Alice Cappucci, Eleonora Bulleri, Giuseppe Conte, Francesca Ciucci, Arianna Buccioni, Andrea Serra, Laura Casarosa, Marcello Mele <i>In vitro study of the effects of different tannin extracts on rumen ammonia and methane production</i>	O154
12.30-12.45	Octavio A. Castelán Ortega, Luisa T. Molina, Gloria S. Hernández Pineda, Paulina E. Pedraza Beltrán, Mohammed Benaouda, Manuel González Ronquillo <i>Sustainable reduction of methane emissions from cattle's enteric fermentation</i>	O155
12.45-13.00	Gloria S. Hernández Pineda, Paulina E. Pedraza Beltrán, Mohammed Benaouda, José M. Palma García, Francisca Avilés Nova, Luisa T. Molina, Octavio A. Castelán Ortega <i>Effect of three tanniferous plants on methane emission by dairy cows</i>	O156
13.00-13.15	Monika Hejna, Nadia Stroppa, Alessandra Moscatelli, Diego De Nisi, Vittorio Dell'Orto, Salvatore R. Pilu, Antonella Baldi, Luciana Rossi <i>Phytoremediation as an innovative approach to control heavy metals output from livestock</i>	O157
13.15-13.30	Enrico Fabrizio, Andrea Costantino, Lorenzo Comba, Paolo Cornale, Luca M. Battaglini <i>EPAnHaus project: assessment of the energy use for climate control into animal houses</i>	O158

Friday June 16th - Room H

Animal welfare, health and behaviour - Small ruminant health and behaviour

Chairmen:	Gianni Battaccone, Gabriele Acuti	
11.30-11.45	Valentina Becciolini, Oreste Franci, Silvia Parrini, Anna Acciaioli <i>Feeding behaviour of Massese lamb reared indoors</i>	O159
11.45-12.00	Valeria Giovanetti, Mauro Decandia, Marco Acciaro, Mauro Mameli, Giovanni Molle, Andrea Cabiddu, Carla Manca, Rossella Cossu, Maria G. Serra, Salvatore P. G. Rasso, Corrado Dimauro <i>The effect of different time epoch settings on the classification of sheep behaviour using tri-axial accelerometry</i>	O160
12.00-12.15	Carla Manca, Cristian Porcu, Valeria Giovanetti, Gianpaolo Epifani, Marco Acciaro, Mauro Decandia, Marilia Gallus, Maria Dattena, Fiammetta Berlinguer, Giovanni Molle <i>Effect of a flushing treatment based on a glucogenic mixture on sheep body temperature as measured by thermal imaging</i>	O161

12.15-12.30	Silvia Crotti, Deborah Cruciani, Alberto Fazzari, Chiara F. Magistrali, Ludovica Curcio, Laura Madeo, Paola Papa, Pietro Antenucci, Cristina Pesca <i>Ovine foot-rot: a welfare and economic concern</i>	O162
12.30-12.45	Christian Lambertz, Ioanna Pouloupoulou, Matthias Gauly <i>Endoparasites in sheep and goats: prevalence and control strategies of mountain farms in Northern Italy?</i>	O163
12.45-13.00	Valentina Becciolini, Riccardo Bozzi, Maria P. Ponzetta <i>Growth and morphometry of farmed fallow deer (<i>Dama dama</i> L., 1758) from birth to six months of age</i>	O164

Friday June 16th - Room T1

Nutrition and feeding - Ruminant nutrition

Chairmen: Antonello Cannas, Luigi Calamari		
09.00-09.15	Elena Bonfante, Alberto Palmonari, Damiano Cavallini, Ludovica Mammi, Giorgia Canestrari, Mattia Fustini, Andrea Formigoni <i>Fecal sample time-points to estimate uNDF240 excretion in dairy cows</i>	O165
09.15-09.30	Marcella Sabino, Victor Adriano Okstoft Carmelo, Gianluca Mazzoni, Katia Cappelli, Stefano Capomaccio, Paolo Ajmone-Marsan, Andrea Verini-Supplizi, Massimo Trabalza-Marinucci, Haja N. Kadarmideen <i>Transcriptome analysis reveal sex-specific gene expression in lambs supplemented with essential oils</i>	O166
09.30-09.45	Marco Acciaro, Mauro Decandia, Valeria Giovanetti, Carla Manca, Gianni Battacone, Salvatore P. G. Rassu, Giovanni Molle <i>Herbage intake of Sarda suckler cows characterized by two different calving periods in a mountain pasture</i>	O167
09.45-10.00	Ika Sumantri, Ali Agus, Tridjoko Wisnu Murti, Nuryono, Josef Boehm <i>Effects of bentonite inclusion in naturally aflatoxin contaminated diet on aflatoxin excretion and milk production of Indonesian Friesian Holstein</i>	O168
10.00-10.15	Mondina F. Lunesu, Mauro Decandia, Giovanni Molle, Marco Acciaro, Giampaolo Epifani, Ana H. D. Francesconi, Alberto S. Atzori, Giovanni C. Bomboi, Paola S. Nicolussi, Alberto Prandi, Antonello Cannas <i>Effects of partially replacing cereal grains with soyhulls on energy partitioning in ewes and goats in mid lactation</i>	O169
10.15-10.30	Damiano Cavallini, Mattia Fustini, Alberto Palmonari, Andrea Formigoni <i>Effect of the presence/absence of long hay and the administration of ad libitum or restricted TMR</i>	O170
10.30-10.45	Ramy Elgendy, Federica Castellani, Fiorentina Palazzo, Mery Giantin, Lisa Grotta, Mauro Dacasto, Giuseppe Martino <i>RNA sequencing-based transcriptome profiling of dairy cows fed with a polyphenol-rich grape pomace-supplemented diet</i>	O171

Friday June 16th - Room T2

Animal food quality and safety - Food safety

Chairmen: Luisa A. Volpelli, Vincenzo Chiofalo		
09.00-09.15	Margherita Ceccarelli, Luca Grispoldi, Paola Sechi, Maria F. Iulietto, Filippo Bertero, Serena Franceschini, Marco Revoltella, Beniamino T. Cenci-Goga <i>Prevalence of Escherichia coli from lymph nodes of bovine carcasses and detection of stx1, stx2 and eaeA genes with multiplex polymerase chain reaction</i>	O172
09.15-09.30	Karama Musafiri, Luca Grispoldi, Isidro García-Meniño, Jesús Blanco, Margherita Ceccarelli, Paola Sechi, Maria F. Iulietto, Rosalia Materazzi, Jorge Blanco, Beniamino T. Cenci-Goga <i>Characterization of verotoxin-producing Escherichia coli (STEC) in dairy cattle's faeces from Pretoria, South Africa</i>	O173
09.30-09.45	Paola Sechi, Maria F. Iulietto, Salvatore Barbera, Luca Grispoldi, Margherita Ceccarelli, Filippo Bertero, Serena Franceschini, Beniamino T. Cenci-Goga <i>Effect of lactic acid bacteria on the quality of beef hamburger under different storage conditions</i>	O174
09.45-10.00	Marco Tretola, Ambra Di Rosa, Matteo Ottoboni, Valentina Caprarulo, Carlotta Giromini, Francesco Leone, Vittorio Dell'Orto, Vincenzo Chiofalo, Luciano Pinotti <i>Former food products safety: stereomicroscopy and computer vision for evaluation of packaging remnants contamination</i>	O175

Friday June 16th - Room T1

Joint session (NF + FQ) - Dietary strategies and quality of food

Chairmen:	Miriam Iacurto, Giovanni Savoini	
11.30-11.45	Greta Farina, Elena Mariani, Mauro Vasconi, Raffaella Rebucci, Vittorio M. Moretti, Alessandro Agazzi, Giovanni Savoini, Guido Invernizzi <i>Camelina cake in laying hens diet to enrich eggs with omega-3 fatty acids</i>	O176
11.45-12.00	Claudio Forte, Raffaella Branciaro, Massimo Trabalza-Marinucci, Gabriele Acuti, Dino Miraglia, David Ranucci, Rossana Roila, Roberta Ortenzi, Michela Codini, Andrea Valiani <i>Dietary administration of olive mill wastewater extract to improve broiler performance and oxidative status in chicken meat</i>	O177
12.00-12.15	Francesca Ciucci, Alice Cappucci, Giuseppe Conte, Laura Casarosa, Eleonora Bulleri, Marcello Mele, Andrea Serra <i>Olive pomace diet supplementation of Cinta Senese swine: effect on fatty acid composition and on lipid peroxidation of sausages.</i>	O178
12.15-12.30	Sara Chiapparini, Raffaella Rossi, Federica Maghin, Siria Tavaniello, Giuseppe Maiorano, Carlo Corino <i>Effect of long term supplementation with Lippia spp. extract on meat quality parameters in heavy pigs</i>	O179
12.30-12.45	Valentina Roscini, Giuseppe Luciano, Mariano Pauselli, Miriam Iacurto, Nastaran Samadirad, Silvia Ruggeri, Luciano Morbidini <i>Fatty acids and oxidative stability of meat from lambs fed with linseed and brewers spent grains</i>	O180
12.45-13.00	Luciano Morbidini, Valentina Roscini, Giuseppe Luciano, Mariano Pauselli <i>Consumer testing of meat from Apennine lambs fed diets containing linseed and brewers spent grain</i>	O181

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Agenda for poster presentations

ANIMAL BREEDING AND GENETICS

Salvatore Mastrangelo, Maria T. Sardina, Marco Tolone, Rosalia Di Gerlando, Anna M. Sutura, Luca Fontanesi, Baldassare Portolano <i>Distribution of functional variants within runs of homozygosity in four Italian cattle breeds</i>	P001
Sven Menčik, Marija Špehar, Željko Mahnet, Dominik Knežević, Mario Ostović, Valentino Beretti, Paola Superchi, Alberto Sabbioni <i>Litter size traits in Black Slavonian and Nero di Parma pig breeds: effects of farrowing management and sow number per herd</i>	P002
Michela Ablondi, Attilio Rossoni, Chiara Nicoletti, Alberto Sabbioni <i>A methodology for the parentage diagnosis of the Italian Brown breed</i>	P003
Liliana Di Stasio, Antonino Duchi, Alfredo Pauciullo <i>Biodiversity in tench populations of Sicily</i>	P004
Luiza Chojnacka-Puchta, Dorota Sawicka, Grazyna Plucienniczak, Marek Bednarczyk <i>Lipofection conditions of CHO-K1 cells with the use of two transposon systems</i>	P005
Gianfranco Cosenza, Barbara Auzino, Roberta Ciampolini, Daniela Gallo, Marco Iannaccone, Rosanna Capparelli, Alfredo Pauciullo <i>Genetic variability detected at the (c-type) milk lysozyme encoding gene in donkey</i>	P006
Gianfranco Cosenza, Luigi Ramunno, Daniela Gallo, Marco Iannaccone, Rosanna Capparelli, Meichao Gu, Alfredo Pauciullo <i>First marker discovery in ACACA gene and association study with milk yield in Mediterranean river buffalo</i>	P007
Marco Iannaccone, Marina Papaiani, Andrea Fulgione, Flora Ianniello, Daniela Gallo, Gianfranco Cosenza, Rosanna Capparelli <i>The interleukin-10 polymorphism g.3936 G>A is uncoupled with bovine tuberculosis susceptibility in water buffalo (Bubalus bubalis)</i>	P008
Sara Albarella, Nadia Musco, Emanuele D'Anza, Deborah Frate, Vincenzo Peretti, Francesca Ciotola <i>Effects of diets rich in β-glucans on chromosome stability of peripheral blood lymphocytes of pigs</i>	P009
Meichao Gu, Gianfranco Cosenza, Yong Guo, Liliana Di Stasio, Alfredo Pauciullo <i>Complex transcriptomic pattern identified at river buffalo DGAT1</i>	P010
Alessandra Crisà, David Meo Zilio, Roberto Steri, Gennaro Catillo, Luca Buttazzoni <i>Establishment of a crossbreed Simmental x Holstein experimental herd and first assessment of heterosis effects on technical and biological parameters</i>	P011
Mario Barbato, Marcello Del Corvo, Tad S. Sonstegard, Paolo Ajmone-Marsan <i>Signals of adaptive introgression between European taurine and indicine cattle revealed by local ancestry inference</i>	P012
Marco Tolone, Maria T. Sardina, Rosalia Di Gerlando, Salvatore Mastrangelo, Anna M. Sutura, Baldassare Portolano <i>A pipeline for variants discovery using next-generation DNA sequencing data</i>	P013
Daniela Finizio, Antonino Di Grigoli, Carmelisa Valluzzi, Paola Di Gregorio, Adriana Di Trana, Andrea Rando, Giuseppe Maniaci, Marco Alabiso, Adriana Bonanno <i>Effect of CSN1S1 G allele on some characteristics of milk produced by Cinisara cows</i>	P014
Mayra M. Gómez Carpio, Vincenzo Landi, Amparo Martínez Martínez, José Manuel León Jurado, Maria Antonia Revidatti, José Luis Vega-Pla, Juan Vicente Delgado Bermejo, BioHorse Consortium <i>The genetic structure of Hispano-Arabe horse in the Spanish context</i>	P015
Vincenzo Landi, Mayra M. Gómez Carpio, Amparo Martínez Martínez, Jordi Jordana, Anna Castelló, Javier Fernández, Juan Vicente Delgado Bermejo, Marcel Amills <i>Capramur project: Genomic analysis of the genetic determination of milk yield, composition and body condition and viability in Murciano-Granadina goats</i>	P016

Javier Forero, Mayra M. Gómez Carpio, Vincenzo Landi, Amparo Martínez Martínez, Juan Vicente Delgado Bermejo <i>Preliminary results of the project “Backcross recovery and conservation of the Iberian pig variety Manchado de Jabugo”</i>	P017
Valerio J. Utzeri, Orsolya Ivett Hoffmann, Anisa Ribani, Giuseppina Schiavo, Luca Fontanesi <i>A genomic landscape of mitochondrial DNA insertions in the rabbit nuclear genome</i>	P018
Samuele Bovo, Gianluca Mazzoni, Flaminia Fanelli, Marco Mezzullo, Giuseppina Schiavo, Giuliano Galimberti, Francesca Bertolini, Stefania Dall’Olio, Uberto Pagotto, Luca Fontanesi <i>Comparative analysis of metabolomics profiles of plasma and serum in pigs</i>	P019
Stefano Cheloni, Giuseppina Schiavo, Graham Etherington, Federica Di Palma, Luca Fontanesi <i>Mining 116 pig genomes to identify putative functional mutations in candidate genes for economically relevant traits</i>	P020
Giuseppina Schiavo, Francesca Bertolini, Mariasilvia D’Andrea, Maurizio Gallo, Luca Buttazoni, Luca Fontanesi <i>Genome wide association studies for meat quality, carcass and performance traits in Italian Duroc pigs</i>	P021
Anisa Ribani, Valerio J. Utzeri, Claudia Geraci, Radostina Doneva, Stefania Dall’Olio, Leonardo Nanni Costa, Graziano Usai, Maurizio Gallo, Luca Fontanesi <i>Signs of de-domestication in local pig breeds: evidences from variability in genes affecting phenotypic and morphological traits</i>	P022
Giuseppina Schiavo, Valerio J. Utzeri, Anisa Ribani, Claudia Geraci, Francesca Bertolini, Laura Santoro, Maurizio Gallo, Luca Fontanesi <i>Identification of genomic regions affecting the hairless and tail shape phenotypes in Casertana pigs</i>	P023
Emiliano Lasagna, Simone Ceccobelli, Fiorella Sbarra, Francesco Filippini, Maria F. Trombetta, Marina Pasquini, Francesco Panella, Francesca M. Sarti <i>Effect of muscle hypertrophy on the carcass traits in Marchigiana beef cattle breed</i>	P024
Francesco Iannaccone, Anna Balestrieri, Aristide Maggiolino, Salvatore Claps, Domenico Rufrano, Annunziata Fontana, Giuseppina Pedota, Alessandra Tateo, Gianluca Neglia <i>Milk quality of six goat breeds maintained in the same environmental conditions</i>	P025
Donatella Balduzzi, Sabina Arabi, Graziella Bongioni, Valeria Bornaghi, Rossana Capoferri, Luciano Foglio, Andrea Galli, Anna Pozzi, Cristina Previtali, Lorenzo Proietti, Roberta Vanni, Marina Montedoro <i>The Italian Official Semen Control (OSC)</i>	P026
Aristide Maggiolino, Salvatore Claps, Gianluigi Zullo, Francesco Iannaccone, Angela Salzano, Giuseppina Pedota, Roberta Cimmino, Pasquale De Palo <i>Wood’s model application in six different goat breeds</i>	P027
Stefano Capomaccio, Marco Milanese, Cristina Nocelli, Andrea Giontella, Andrea Verini-Supplizi, Michele Branca, Maurizio Silvestrelli, Katia Cappelli <i>Alternative splicing site disruption as strong candidate for white dominant phenotype in an Italian Trotter</i>	P028
Elisa Pieragostini, Pasqua Loizzo, Antonio Capogna, Stefano Deramo, Chiara Mattia, Ferruccio Petazzi <i>Start-up of a conservation plan of the Altamura sheep breed</i>	P029
Francesca Bertolini, Giuliano Galimberti, Salvatore Mastrangelo, Rosalia Di Gerlando, Maria G. Strillacci, Alessandro Bagnato, Baldassare Portolano, Luca Fontanesi <i>Application of SNP reduction approaches and random forest for the identification of population informative markers in cosmopolitan and local cattle breeds</i>	P030
Valentina Longobardi, Gianluigi Zullo, Carolina De Canditiis, Anna Balestrieri, Roberta Cimmino, Giuseppe Albero, Angela Salzano, Bianca Gasparrini <i>Cholesterol supplementation reduces cryocapacitation damages in bovine sperm</i>	P031
Andrea Giontella, Camillo Pieramati, Maurizio Silvestrelli, Francesca M. Sarti <i>Population structure and genetic variability in Maremmano horse via pedigree analysis</i>	P032
Andrea Criscione, Serena Tumino, Salvatore Bordonaro, Bernardo Valenti, Marcella Avondo, Donata Marletta <i>Polymorphisms at PITX2 gene and effects on milk quality of Argentata dell’Etna goat breed</i>	P033
Marcello Del Corvo, Silvia Bongiorno, Bruno Stefanon, Licia Colli, Alessandra Stella, Alessio Valentini, Paolo Ajmone-Marsan <i>Genome-wide methylation profiles changes associated with stress exposure in cattle</i>	P034
Maria G. Strillacci, Erica Gorla, Maria Cristina Cozzi, Mario Vevey, Francesca Bertolini, Luca Fontanesi, Alessandro Bagnato <i>A GWAS in the autochthonous Italian Valdostana Red Pied cattle population based on a high resolution Copy Number Variant (CNV) scan</i>	P035
Andrea Talenti, Matteo Cortellari, Marco Milanese, Stefano Frattini, Licia Colli, Giulio Pagnacco, Paolo Ajmone-Marsan, Paola Crepaldi <i>Identification of genomic regions of recent selection for productive and reproductive traits in Italian Holstein bulls</i>	P036

Elena Ciani, Samir Bachir Souheil Gaouar, Ismail Boujenane, Sonia Romdhani, Vincenzo Landi, Juan Vicente Delgado Bermejo <i>The CARAVAN project: toward implementation of a modern dromedary selection system</i>	P037
Andrea Talenti, Dayna L. Dreger, Federica Danelli, Stefano Frattini, Beatrice Coizet, Stefano P. Marelli, Giulio Pagnacco, Gustavo Gandini, Michele Polli, Romolo Caniglia, Marco Galaverni, Elaine A. Ostrander, Paola Crepaldi <i>Whole genome analysis of the Lupo Italiano</i>	P038
Dominga Soglia, Stefano Sartore, Sandra Maione, Roberto Rasero, Paola Sacchi <i>Polymorphisms in genomic region of PTX3 gene and their association with somatic cell score breeding value in Italian Holstein</i>	P039
Thais Miranda Silva Freitas, Maria Clorinda Soares Fioravanti, Maria Ivete de Moura, Gustavo Lage Costa, Juliana Moraes Dias, Luanna Kim Pires Guimarães, Emília Oliveira Alves Costa, Juliano Soares Raquel, Mayra M. Gómez Carpio, Vincenzo Landi <i>Preliminary characterization of a microsatellites panel in the major histocompatibility complex in Curraleiro cattle breed</i>	P040
Grazia Bramante, Giancarlo Carchedi, Elisa Pieragostini, Elena Ciani <i>Follow-up on the genealogical and demographic characterization of the Murgese horse</i>	P041
Martina Zappaterra, Vladimiro Cardenia, Diana Luise, Vincenzo Motta, Roberta Davoli, Paolo Bosi, Maria T. Rodriguez Estrada, Paolo Trevisi <i>Colostrum fatty acid composition in sows belonging to three different Italian pig breeds</i>	P042
Federica Turri, Emanuele Capra, Paola Cremonesi, Barbara Lazzari, Teresa M. Gliozzi, Alessandra Stella, Flavia Pizzi <i>Functional characterization and small RNA sequencing of cryopreserved semen in high and low fertility bulls</i>	P043
Roberta Davoli, Marika Vitali, Rubina Sirri, Piero Di Battista, Martina Zappaterra, Domenico P. Lo Fiego, Giacinto Della Casa, Paolo Zambonelli <i>Effect of a diet enriched in PUFA and polyphenols on the expression of genes involved in lipids metabolism in pigs</i>	P044
Caterina Cambuli, Ilaria Barbieri, Monica Cerioli, Maria Pacciarini, Silvia Cenadelli, Roberto Puglisi, Laura G. Brenzoni, Claudia Nassuato, Andrea Galli, Graziella Bongioni <i>Selection model for resistance to scrapie in small populations: the case study of Brianzola sheep breed</i>	P045
Mariasilvia D'Andrea, Faisal Almathen, Mohammed Al Abri, Elena Ciani <i>Genetic characterization of sheep breeds from the Arabian peninsula through genome-wide SNP markers</i>	P046
Sami Megdiche, Johannes A. Lenstra, Elena Ciani <i>Signatures of merinization through analysis of local genome ancestry</i>	P047
Salvatore Mastrangelo, Slim Ben Jemaa, Rahel Ourida, Gabriele Marras, Vincenzo Landi, Fabio Pilla, Rosaria Lucchini, Mojca Simčič, Ivica Medugorac, Dominique Rocha, Fabio Marroni, Hussain Bahbahani, Alessio Valentini, Paolo Ajmone-Marsan, Jared Egan Decker, Elena Ciani <i>Genome-wide characterization of local cattle breeds from central and western Mediterranean</i>	P048
Roberta Davoli, Martina Zappaterra, Roger Ros-Freixedes, Joan Estany <i>GWA study for backfat fatty acid composition in pigs detects SNPs involved in the phenotypic variations of porcine subcutaneous fat quality</i>	P049
Martina Zappaterra, Paolo Zambonelli, Roberta Davoli <i>Lipases and their co-expressions in porcine muscle tissue samples divergent for intramuscular fat deposition</i>	P050

ANIMAL HUSBANDRY AND ENVIRONMENTAL IMPACT

Giorgio Marchesini, Elisabetta Garbin, Francesco Benozzo <i>Improving anaerobic digestion of lignocellulosic biomass through ultrasound treatment</i>	P051
Francesco Giannico, Simona Tarricone, Maria Antonietta Colonna, Domenico Gerardi, Anna M. Russo, Giuseppe Marsico <i>Effect of rearing system on meat quality of Lucanian black pigs</i>	P052
Sabrina Di Giovanni, Paola De Santis, David Meo Zilio, Carmela Tripaldi, Bianca M. Varcasia <i>Use of untreated whey for animal feeding</i>	P053
Maria F. Trombetta, Sara Priori, Franco Fabietti, Marina Pasquini <i>Performance in vivo e post mortem of Marchigiana and Romagnola breed</i>	P054
Fabio Luzi, Veronica Redaelli, Giulia Corsini, Giuliano Grignaschi, Gerardo Marsella, Monica Forni <i>Use of Infrared Thermography (IRT) in laboratory animals environment: preliminary note</i>	P055
Sara Carè, Giacomo Pirlo, Giuliano Marchesin, Simone Mellano, Kees De Roest, Laura Valli, Luciano Migliorati <i>BEEF CARBON: demonstration actions to mitigate the carbon footprint of beef production in France, Ireland, Italy and Spain</i>	P056

Giampiero Grossi, Andrea Vitali, Nicola Lacetera, Alessandro Nardone, Umberto Bernabucci <i>Comparison between cow milk and soymilk combining nutritional values and greenhouse gas data</i>	P057
Paweł Migdał, Adam Roman, Ewa Popiela-Pleban, Yekaterina Zonova <i>Accumulation of manganese, copper and silver in honey bee organism, depending on the concentration and the type of the pesticide</i>	P058
Francesco Serrapica, Felicia Masucci, Antonio Di Francia, Maria Serrapica, Giuseppe De Rosa, Corrado Pacelli <i>The use of Azospirillum as a tool for promoting sustainable production of silage maize: a preliminary evidence under field condition</i>	P059
Ferdinando Calegari, Dario Rossi, Luigi Calamari <i>Ventilation and evaporative cooling of the resting area in free stalls dairy barn</i>	P060
Elena Ciani, Ferruccio Petazzi, Paolo Direnzo, Nicola Dibenedetto, Luigi Tortorelli, Cristoforo Carrino, Maria C. Rizzo, Giorgio Donnini, Fabio Modesti, Filippo Clemente, Elisa Pieragostini <i>Towards a sustainable wool chain in Apulia: dream or possible reality?</i>	P061
Alberto S. Atzori, Enrico Vagnoni, Giovanni Molle, Antonello Franca, Mauro Decandia, Claudio Porqueddu, Giuseppe Pulina, Pierpaolo Duce <i>Facing carbon emission mitigation of dairy sheep supply chain: estimation of a baseline trend</i>	P062
Ruggiero Sardaro, Daniela Panio, Ferruccio Petazzi, Elisa Pieragostini <i>Measuring the profitability of the Apulian native Altamura ovine breed for better conservation programmes</i>	P063
Annalisa Dettori, Andrea Felici, Eleonora Scoccia, Carmen Maresca <i>Start vs cessation of ruminant farming activity from 2010 to 2015: the paradigm of Umbria</i>	P064
Giuliano Palocci, Carmela Tripaldi, Sabrina Di Giovanni, Nicla Marri, Carlo Boselli, Gilberto Giangolini, Simonetta Amatiste <i>Microbiological characteristics of mozzarella type cheese from raw ewe milk</i>	P065
Alberto S. Atzori, Giuseppe Pulina <i>The Net Waterfootprint: a proposal to calculate the water consumption of animal products</i>	P066

AQUACULTURE, POULTRY AND RABBIT PRODUCTION

Giulia Tasoniero, Hanne C. Bertram, Jette Feveile Young, Antonella Dalle Zotte, Eero Puolanne <i>Wooden breast myopathy in broiler chickens: does myowater have a role on hardness?</i>	P067
Monica Sforna, Ilaria Porcellato, Raffaella Branciarì, David Ranucci, Simona Mattioli, Cesare Castellini <i>Morphological evaluations of pectoralis major muscle in two chicken strains</i>	P068
Chiara Ascione, Laura Gasco, Simona Rimoldi, Genciana Terova <i>Effects of dietary insect meal from <i>Hermetia illucens</i> on the expression of genes related to methionine metabolism in rainbow trout (<i>Oncorhynchus mykiss</i>)</i>	P069
Giulia Baldi, Francesca Soglia, Luca Laghi, Claudio Cavani, Massimiliano Petracci <i>A comparison of water distribution and protein oxidation between poultry and rabbit meat</i>	P070
Chiara Ceccotti, Laura Gasco, Chiara Ascione, Genciana Terova <i>Hepatic metabolites S-adenosyl methionine (SAM) and S-adenosyl homocysteine (SAH) as signals of methionine nutritional deficiency in rainbow trout (<i>Oncorhynchus mykiss</i>) fed on diets with partial replacement of fishmeal with insect (<i>Hermetia illucens</i>) meal</i>	P071
Rosa Loponte, Antonio Gaudio, Valentina Panettieri, Carmelo Di Meo, Antonino Nizza <i>Growth performance and carcass traits of rabbits raised in cages or in a free range system from 30 to 100 days of age</i>	P072
Nicolaia Iaffaldano, Michele Di Iorio, Miranda Miranda, Mario Petrecca, Silvia Cerolini, Pier Paolo Gibertoni, Stefano Esposito <i>Effect of equilibration time for semen cryopreservation of endangered Mediterranean brown trout (<i>Salmo cetti</i>) inhabiting the Biferno river (Molise region, South Italy)</i>	P073
Nicolaia Iaffaldano, Michele Di Iorio, Marsia Miranda, Paola Principe, Michele Schiavitto, Angelo Manchisi, Silvia Cerolini <i>Comparison of two basic extenders on the in vitro post-thaw quality of rabbit semen</i>	P074
Yara Husein, Giulia Secci, Giuliana Parisi <i>Advantages and disadvantages of mechanical separation process applied to fishery industry</i>	P075
Giovanni Piccolo, Andrea Valentino, Stefania Marono, Valentina Panettieri, Irina Cavaliere, Rosa Loponte, Aniello Anastasio <i>On-growing turbot (<i>Scophthalmus maximus</i>, Linnaeus 1758) in a land-based aquafarm in Southern Italy: preliminary results</i>	P076

Tiziana Bongiorno, Monica Borgogno, Saida Favotto, Giuseppe Baldisserotto, Francesca Tulli, Edi Piasentier <i>Sensory comparison of mussels (<i>Mytilus galloprovincialis</i>) farmed in the Adriatic and Sardinian Sea</i>	P077
Rita Smaldone, Giuseppe De Rosa, Raffaele Sacchi, Antonello Paduano, Roberto Di Matteo, Carmela M. A. Barone <i>The effect of season on the nutritional quality of wild white sea bream (<i>Diplodus sargus</i>)</i>	P078
Giuliana Parisi, Pier Paolo Danieli, Giovanni Piccolo, Laura Gasco, Vittorio M. Moretti, Vincenzo Russo <i>The real annual per capita consumption of fish in Italy</i>	P079

ANIMAL WELFARE, HEALTH AND BEHAVIOUR

Melania Martino, Simona Mattioli, Valentina Cambiotti, Livia Moscati, Cesare Castellini, Alessandro Dal Bosco <i>Use of a motivational cage to evaluate the social relationship in colony-reared rabbit does</i>	P080
Marisanna Speroni, Claudia Federici, Andrea Summer <i>Heart rate and heart rate variability as indicators of animal welfare and coping style of dairy cattle</i>	P081
Martina Tarantola, Iaria Biasato, Elena Biasibetti, Davide Biagini, Franco Guarda, Barbara Miniscalco, Silvia Mioletti, Andrea Salaroglio, Maria T. Capucchio <i>On-farm animal welfare assessment in beef cattle: an integrated approach</i>	P082
Caterina Cambuli, Roberto Puglisi, Francesca Fusi, Luigi Bertocchi, Andrea Galli, Graziella Bongioni, Marina Montedoro <i>Identification of differentially expressed microRNAs in the peripartum of dairy cows: potential indicators of welfare and metabolic efficiency</i>	P083
Veronica Redaelli, Fabio Luzi, Giulia Ferrari, Marco Gargano, Nicola Ludwig, Augusto Vitale, Caterina Spiezio <i>Applicability of infrared thermography of chimpanzees in semi-natural conditions: a preliminary study</i>	P085
Maria C. Scatà, Giovanna De Matteis, Elisa Mostarda, Cinzia Marchitelli, Gennaro Catillo <i>Evaluation of adhesion molecules in bovine neutrophils and monocytes during early lactation</i>	P086
Valentina Becciolini, Riccardo Bozzi, Maria P. Ponzetta <i>Milk intake in relation to growth in hand-reared fallow deer (<i>Dama dama L., 1758</i>) fawns</i>	P087
Veronica Redaelli, Fabio Luzi, Davide Rossetti, Alice Tappella, Valerio Bronzo <i>Use of thermography (IRT) as a pre-diagnostic technique in bovine mastitis: a pilot study</i>	P088
Mattia Freschi, Giuliano Grignaschi, Gerardo Marsella, Veronica Redaelli, Fabio Luzi <i>Thermographic monitoring of nests of nude mice in their early life: technical note</i>	P089
Fabio Mastrogiovanni, Umberto Bernabucci, Loredana Basiricò, Daniele Dipasquale, Nicola Lacetera <i>Evaluation of antioxidant effects of pomegranate peel extract on bovine mammary epithelial cells</i>	P090
Paweł Migdał, Adam Roman, Deta Łuczycka, Ewa Popiela-Pleban <i>Limiting the impact of electromagnetic fields on the family honeybee - preliminary results</i>	P091
Michele Premi, Giorgia Lovotti, Annarita Ferrari, Luigi Calamari <i>Development of a reference tool based on physiological measurements to validate the models of animal welfare assessment in dairy farms</i>	P092
Vincenzo Lopreiato, Carlotta Ceniti, Elisabetta Fratto, Marcello Marotta, Domenico Britti, Valeria M. Morittu <i>Influence of serum γ-globulin concentration at 24 h after birth on lamb growth in natural rearing system</i>	P093
Marialuisa Pisani, Giuseppe De Rosa, Ada Braghieri, Maria Serrapica, Corrado Pacelli, Fernando Grasso, Fabio Napolitano <i>Cross-sucking and mortality in buffalo calves</i>	P094
William C. Davis, Francesco Grandoni, Mahmoud M. Elnaggar, Gaber S. Abdellrazeq, Federica Signorelli, Lindsay M. Fry, Victoria Hulubei, Samy A. Khaliel, Helmy A. Torky, Cinzia Marchitelli, Luca Buttazzoni <i>Identification and use of cross reactive monoclonal antibodies to characterize leukocyte subsets in water buffalo (<i>Bubalus bubalis</i>)</i>	P095
Alessandra Tateo, Aristide Maggiolino, Pasquale De Palo, Edmondo Ceci, Pasquale Centoducati <i>Evaluation of blood plasma catecholamine concentration in Martina Franca donkeys: effect of age and sex</i>	P096
Paola Cremonesi, Rossana Capoferri, Paola Roccabianca, Federica Riva, Giuliano Pisoni, Marcello Del Corvo, Alessandra Stella, Paolo Moroni, Bianca Castiglioni <i>Gene expression profiling in response to experimental <i>Staphylococcus aureus</i> infection in mammary gland tissues of two divergent lines of goat for high and low milk somatic cell scores</i>	P097

ANIMAL FOOD QUALITY AND SAFETY

Carla Lazzaroni, Davide Biagini <i>Carcass measurements for ethnic allocation in cattle</i>	P098
Silvia Vincenzetti, Gloria Astolfi, Elena Cellini, Ambra Ariani, Stefania Pucciarelli, Natalina Cammertoni, Paolo Polidori <i>Determination of some water-soluble vitamins in donkey milk</i>	P099
Simona Mattioli, Alessandro Dal Bosco, Lara Macchioni, Lanfranco Corazzi, Alice Cartoni Mancinelli, Cesare Castellini <i>Effect of dietary flaxseed supplementation on liver $\Delta 6$-desaturase activity in two chicken genotypes</i>	P100
Simona Mattioli, Joana M. Machado Duarte, Melania Martino, Alessandro Dal Bosco, Roberto D'Amato, Luca Regni, Cesare Castellini, Primo Proietti <i>Dietary supplementation of selenium-enriched olive leaves in fattening rabbits: 1. Productive performance, carcass and meat characteristics</i>	P101
Simona Mattioli, Joana M. Machado Duarte, Melania Martino, Alessandro Dal Bosco, Roberto D'Amato, Cesare Castellini, Luca Regni, Primo Proietti <i>Dietary selenium-enriched olive leaves supplementation in fattening rabbits: 2. In vivo and meat oxidative status</i>	P102
Raffaella Rossi, Mirco Pellizzer, Francesco Vizzari, Donato Casamassima, Carlo Corino <i>Lipid supplement in the finishing diet of beef: effects on the nutritional profile and fatty acids composition of longissimus dorsi muscle</i>	P103
Simone Mancini, Gisella Paci, Domenico Gatta, Giovanna Preziuso <i>Zingiber officinale reduced lipid oxidation and increased antioxidant capacity in cooked pork burgers</i>	P104
Virginia C. Resconi, María Pascual-Alonso, José A. Abecia, José L. Olleta, María M. Campo, Begoña Asenjo, Gustavo A. María <i>Performance and meat quality in light lambs fed with organic or conventional commercial concentrates</i>	P105
Alberto Brugiapaglia, Andrea Albera, Simone Savoia, Liliana Di Stasio <i>Beef colour measurement with an RGB camera</i>	P106
Monica Borgogno, Saida Favotto, Dario Furlan, Edi Piasentier <i>Sensory properties of goat cheese from Friuli Venezia Giulia farms</i>	P107
Giulia Secci, Noemi Baronti, Antonio Bonelli, Rosa Loponte, Giuliana Parisi, Fulvia Bovera <i>Total substitution of soybean meal with <i>Hermetia illucens</i> meal in laying hens: effect on lipid composition of yolk</i>	P108
Mauro Vasconi, Federica Bellagamba, Vittorio M. Moretti <i>Chemical and fatty acids composition of fish roes</i>	P109
Lorena Jiménez Sobrino, Ana Isabel Garzón Sigler, Andrés Luis Martínez Marín, Nieves Núñez-Sánchez, Jesús Romero Asensio, Gabriele Acuti, Mario Román, María Dolores Pérez Guzmán, Ramón Arias Sánchez <i>Variation in composition and color indices of sheep raw milk influenced by productive practices and feeding strategy</i>	P110
Anna M. Belmonte, Giovanna Minelli, Paolo Macchioni, Francesco Mezzetti, Corina Scutaru, Luisa A. Volpelli, Domenico P. Lo Fiego <i>Effect of dietary regimen and of feeding maltodextrins and dextrose on meat and fat quality of immunocastrated pigs</i>	P111
Luca M. Battaglini, Manuela Renna, Carola Lussiana, Giampiero Lombardi, Massimiliano Probo, Giorgio Masoero <i>Smart near infrared spectroscopy on frozen milk samples can discriminate grass-fed from conventional milk</i>	P112
Sebastiana Failla, Michela Contò, Claudia Geraci, Leonardo Nanni Costa, Luca Buttazzoni, Luca Fontanesi <i>CASTRUM project highlights that Italian PDO and PGI products with pig meat require the castration of males</i>	P113
Corina Scutaru, Anna M. Belmonte, Francesco Mezzetti, Silvia Gigliano, Massimo Bellelli, Patrizia Fava, Domenico P. Lo Fiego <i>Effect of extruded linseed, vitamin E and polyphenols pig dietary supplementation on microbial growth of meat during refrigerated storage</i>	P114
Ada Braghieri, Amelia M. Riviezzì, Fabio Napolitano, Francesco Serrapica, Maria Serrapica, Andrea Bragaglio, Corrado Pacelli <i>Stracchino cheese: an alternative use of buffalo milk</i>	P115
Vincenzo Lopreiato, Luigi Liotta, Carlotta Ceniti, Marcello Marotta, Elisabetta Fratto, Alessandro Concolino, Domenico Britti, Valeria M. Morittu <i>Effects of milk production level on milk quality in Italian Mediterranean buffaloes</i>	P116
Roberto Giudice, Amalia Simonetti, Annamaria Perna, Emilio Gambacorta <i>Infra vitam and post mortem performance of ancient autochthonous genetic types pigs: comparison between Cinta Senese, Siciliano, and Suino Nero Lucano pigs</i>	P117

Gilberto Giangolini, Carlo Boselli, Francesco Filippetti, Nicla Marri, Giuseppe Bitonti, Patrizia Pietrini, Daniela Patriarca, Simonetta Amatiste, Andrea Leto, Ugo Della Marta <i>Microbiological and chemical dynamics during manufacturing and ripening of pasteurized goat's cheese in a dairy farm</i>	P118
Antonella Santillo, Lucia Figliola, Francesco Ciampi, Annalisa de Finis, Mariangela Caroprese, Rosaria Marino, Agostino Sevi, Marzia Albenzio <i>Indigenous proteolytic enzymes in buffalo milk and fresh cheese</i>	P119
Pier Paolo Danieli, Diana De Santis, Andrea Valiani, Rossana Roila, Riccardo Primi, Maria T. Frangipane, Bruno Ronchi <i>Replacement of nitrates and nitrites by plant extracts in Italian pork salami</i>	P120
Sebastiana Failla, Michela Contò, Serafino Concetti, Paolo Viola, Andrea Amici <i>Influence of slaughtering procedures and carcass processing on meat quality of hunted wild boar</i>	P121
Pietro Paschino, Michele Pazzola, Claudio Cipolat-Gotet, Giovanni Bittante, Emanuela Pira, Maria L. Dettori, Carlo E. Pilo, Giuseppe M. Vacca <i>Milk composition, coagulation properties and cheese yield in Sarda and Maltese goats reared in semi-extensive system</i>	P122
Antonino Di Grigoli, Adriana Di Trana, Francesca Vitale, Massimo Todaro, Giuseppe Di Miceli, Daniela Giorgio, Adriana Bonanno <i>Wheat bran as dietary tool to improve dairy production, oxidative status of lactating cows and food sustainability indexes</i>	P155
Antonella Della Malva, Marzia Albenzio, Giovanni Annicchiarico, Mariangela Caroprese, Antonella Santillo, Agostino Sevi, Rosaria Marino <i>Tenderness development and proteomic changes in lamb meat: effect of quinoa and/or linseed supplementation</i>	P156

NUTRITION AND FEEDING

Loredana Basiricò, Patrizia Morera, Daniele Dipasquale, Roberta Bernini, Luca Santi, Annalisa Romani, Umberto Bernabucci <i>Epigallocatechin-3-gallate and hydroxytyrosol protect against oxidative damage and improve anti-inflammatory response in bovine mammary epithelial cells (BME-UVI)</i>	P123
Gianluca Giuberti, Paola Fortunati, Sara Bruschi, Maurizio Moschini, Francesco Masoero, Antonio Gallo <i>Use of a partial least squares (PLS) regression to predict the glycaemic index of raw cereal grains commonly utilized in pig nutrition</i>	P125
Nieves Núñez-Sánchez, Pilar Gómez-Cortés, Martín Benítez Cuella, Miguel Ángel de la Fuente, Gabriele Acuti, Francisco Peña Blanco, Massimo Trabalza-Marinucci, Andrés L. Martínez Marín <i>Effect of plant oil addition to dairy goat diet on milk fat contents of trans-9 C16:1 and C16:2</i>	P126
Samantha Sigolo, Ebrahim Deldar, Alireza Seidavi, Mehrdad Bouyeh, Antonio Gallo, Aldo Prandini <i>Effects of supplemental methionine and lysine levels on growth performance, blood serum parameters, immune responses, and carcass traits of broilers</i>	P127
Alessia Candellone, Pier Giorgio Peiretti, Giorgio Masoero, Giorgia Meineri <i>In vivo ear flap NIR scan in young rabbit does fed diets with different fatty acid profiles and the relationship with pregnancy status</i>	P128
Pinar Uzun, Felicia Masucci, Maria L. Varricchio, Francesco Serrapica, Antonio Di Francia <i>Effects of arbuscular mycorrhizal fungi and low fertilizer supply on forage quality, milk traits and profitability</i>	P129
Andrea Osimani, Andrea Roncolini, Cristiana Garofalo, Nino Loreto, Sara Ruschioni, Paola Riolo, Maria F. Trombetta, Marina Pasquini <i>Proximate composition and microbiological characterization of fresh mealworms (<i>Tenebrio molitor</i> L.)</i>	P130
Fiorenzo Piccioli-Cappelli, Mattia Maiocchi, Andrea Minuti, Laura Gobbi, Dario Rossi, Erminio Trevisi <i>Effect of rumen-protected methionine and choline supplementation to dairy goats during dry period on metabolic profile, milk yield and composition</i>	P131
Francesca Murru, Katerina Fliegerova, Jakub Mrazek, Giuseppe Moniello <i>Phylogenetic analysis of methanogens in the hindgut of donkey</i>	P132
Roberta Cimmino, Valentina Longobardi, Domenico Rufrano, Giuseppe Albero, Carmela M. A. Barone, Roberto Di Matteo, Carolina De Canditiis, Giuseppe Campanile <i>Growth and post mortem performance in Saanen goat kids fed with polyphenols: preliminary results</i>	P133
Bernardo Valenti, Andrea Criscione, Salvatore Bordonaro, Anna De Angelis, Donata Marletta, Marcella Avondo <i>SCD1 and DGAT1 polymorphism in Modicana cows and their interaction with feeding system. Effects on milk fatty acid composition</i>	P134
Paola Cremonesi, Stefania Chessa, Emanuele Capra, Barbara Lazzari, Federica Turri, Giovanna Battelli, Stefania Colombini, Luca Rapetti, Bianca Castiglioni <i>Effect of a diet enriched with linoleic acid (hemp seeds) or α-linolenic acid (linseed) on the goat milk transcriptome and miRNAs</i>	P135

Alberto Pellegrini, Marco Fidani, Vincenzo Chiofalo, Alessandro Agazzi, Vittorio Dell'Orto <i>Determination of theobromine and caffeine in complementary feedingstuffs for horses</i>	P136
Paolo Trevisi, Laia Blavi, David Sola-Oriol, Carmen Villodre, Paola López, Susanna M. Martin-Orue, Vincenzo Motta, Diana Luise, Paolo Bosi, José F. Perez Hernández <i>High dietary calcium levels in low phosphorus diets affects intestinal microbiota and the inflammatory gene expression response in the intestinal mucosa of weaning pigs</i>	P137
Maria L. Varricchio, Francesco Serrapica, Salvatore Faugno, Maura Sannino, Pinar Uzun, Felicia Masucci, Antonio Di Francia <i>Suitability of oil seed cakes as livestock feeds: preliminary results</i>	P138
Nieves Núñez-Sánchez, Carmen Avilés Ramírez, Ángeles Mena Rodríguez, Gabriele Acuti, Silvia Martínez Miró, Fuensanta Hernández Ruipérez, Francisco Peña Blanco, Andrés L. Martínez Marín <i>Use of camelina seed (Camelina sativa) by-products in diets for feedlot lambs: effects on productive results</i>	P139
Luigi Calamari, Laura Gobbi, Valentina Ficuciello, Alberto Barbi <i>Precision feeding based on TMR system equipped with NIR analyser in dairy cows farm</i>	P140
Anna Nikulina, Eleanor Jones, Charles Jamie Newbold, Federico Mason, Mauro Spanghero <i>Microbial community structure and VFA profile in the rumen liquids from a continuous culture fermenter and in vivo</i>	P141
Dominga Soglia, Joana Nery, Stefano Sartore, Sandra Maione, Irene Viola, Paola Sacchi, Roberto Rasero, Domenico Bergero, Francesco Gai, Ivo Zoccarato, Laura Gasco, Achille Schiavone <i>Differential gene expression analysis in broiler chickens in response to dietary larvae Mealworm meal inclusion</i>	P142
Gabriele Acuti, Eleonora Scoccia, Claudio Forte, Carmen Maresca, Angela Caporali, Carmen Panzieri, Massimo Trabalza-Marinucci, Marta Antignano, Livia Moscati <i>Dietary supplementation with linseed and vitamin E affects sheep immune response in transition period</i>	P143
Alessandra Marzano, Mondina F. Lunesu, Antonio Mazza, Roberto Rubattu, Giampaolo Epifani, Marco Acciaro, Antonello Ledda, Antonello Cannas <i>TNF-α and adiponectin evolution in lactating ewes and goats and interactions with dietary carbohydrates</i>	P144
Alberto S. Atzori, Antonio Gallo, Sara Bruschi, Marco Sini, Paola Fortunati, Francesco Lai, Francesco Masoero, Antonello Cannas <i>From lab to farm: using fermentation rates (kd) of corn silage to improve diet formulation of dairy cows</i>	P145
Giovanna Buffa, Fabio Correddu, Giuseppe Pulina, Anna Nudda <i>Effect of Myrtus berries by-product on milk fatty acid profile in Sarda ewes</i>	P147
Barbara Król, Maja Stupczyńska, Witold Pietrzak, Joanna Kawa-Rygielska, Mariano Pauselli, Martyna Mońka, Andrzej Zachwieja <i>Feed value of dried distiller's faba bean seeds (Faba bean var. equine) with solubles</i>	P148
Barbara Król, Maja Stupczyńska, Joanna Chmielewska, Małgorzata Serowik, Józef Sowiński, Mariano Pauselli, Martyna Mońka <i>Impact of pre-treatment Sucrocorgo 304 bagasse on the nutritional value and the kinetics of drying</i>	P149
Stupczyńska Maja, Król Barbara, Kinal Stefania, Bodarski Rafał, Mońka Martyna <i>Bioavailability of phosphorus from various fodder phosphates in lambs</i>	P150
Stupczyńska Maja, Król Barbara, Sowiński Józef, Bodarski Rafał, Mońka Martyna <i>Chemical composition and quality of two varieties of sorghum forages ensiled with various silage additives</i>	P151
Daniele Dipasquale, Germana Capitani, Federico Vincenti, Miriam Iacurto, Umberto Bernabucci <i>Effects of glycerol esters (Butirflex®) on metabolic profile of Limousine young bulls</i>	P152
Paolo Bani <i>Influence of rumen fluid sampling techniques on assessment of fermentation parameters and microbial profile in the bovine rumen</i>	P153
Doriana E. A. Tedesco, Aldo Tava, Gaetano V. Celano, Cecilia Conti, Elisabetta Vida, Claudia M. Balzaretto <i>A focus on the project: Bioconversion of fruit and vegetable waste to earthworm meal as novel food source</i>	P154

Foreword

The 22nd Congress of the Animal Science and Production Association (ASPA) is hosted in Perugia, a wonderful university city with a long tradition in agriculture, veterinary and animal sciences. The Congress is the result of the precious collaboration among the Department of Agricultural, Food and Environmental Sciences and the Department of the Veterinary Medicine of the University of Perugia as well as other Italian scientific Institutions such as the Università Politecnica delle Marche (Ancona), University of Camerino, Università degli Studi della Tuscia (Viterbo) and the Council for Agricultural Research and Economics – CREA ZA (Monterotondo, Roma).

This edition of the ASPA Congress has received a total of 333 scientific contributions: 180 oral presentations and 153 posters have been selected. The Congress sessions with their relative number of papers are listed as follows: Animal breeding and genetics (97), Nutrition and feeding (70), Animal food quality and safety (53), Animal welfare, health and behaviour (43), Aquaculture, Poultry and Rabbit production (40), and Animal husbandry and environmental effect (30).

I would like to point out that 18 main lectures will be presented across all the scientific sessions.

I wish to thank first of all the Organizing Committee, Dr Emiliano Lasagna (Chairperson), Dr Gabriele Acuti (Secretary), Dr Stefano Capomaccio, Professor Alessandro Dal Bosco, Dr Miriam Iacurto (Secretary), Professor Paolo Polidori, Professor Maria Federica Trombetta. I also wish to thank all the members of the Scientific Committee, Professor Cesare Castellini (Chairperson), Professor Umberto Bernabucci, Dr Luca Buttazzoni, Dr Katia Cappelli, Dr Simone Ceccobelli, Dr Andrea Giontella,

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Special thanks to Professor Oliviero Olivieri, President of the Congress, for the contribution of the University of Perugia in the organisation of the Congress. Additional thanks to the Technical organizing Secretariat, MV Congressi SpA, in particular to Mrs Roberta Pasquini. Indeed, I would like to congratulate and to thank all those persons who have organised the meeting and have collaborated in reviewing the summaries and thank them for what they have done for ASPA and for the Italian Animal Science. A special thank goes to Professor Rosanna Scipioni, Editor-in-Chief of the Italian Journal of Animal Science, for having contributed to the edition of these proceedings.

Finally, I acknowledge the University of Perugia and the institutional agencies, in particular the Ministry of Agricultural, Food and Forestry Policies (MIPAAF), the Region Umbria, the Municipality of Perugia and the main sponsors.

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P107**Sensory properties of goat cheese from Friuli Venezia Giulia farms**

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The aim of the study was to evaluate the sensory characteristics of goat cheeses produced with autochthonous or commercial starters in different farms of Friuli Venezia Giulia region. Autochthonous starters, obtained by milk from different goat farms and breeds, were lyophilized after selection based on their acidic and proteolytic activity. Twelve types of goat cheeses were obtained in three different farms (X, Y and Z) using two different starters (A, autochthonous; C, commercial). Cheeses were analysed after 14 and 28 days of ripening. Quantitative descriptive analysis (DA) and temporal dominance sensation analysis (TDS) were performed by a trained panel. Then, the likings of 76 consumers who habitually eat this type of cheese were assessed, using a labelled affective magnitude (LAM) scale. Consumers were also asked to group the cheeses according with their similarities and dissimilarities (mapping test, MT).

PCA was performed on DA and TDS data to highlight the intrinsic sensory similarities and differences between cheeses; those from Y farm were characterized by an animal like flavour, bitter and acid taste and astringency, while X and Z farms produced cheeses having sweet taste and milky flavour. Autochthonous starter enhanced milk and sweet taste.

Two clusters of consumers were identified by preference mapping: the biggest comprising who appreciated the sweet and milky notes, the smallest including those that preferred the bitter, astringent and animal flavour. As showed by MT, consumer clearly recognised the differences among farms, while those between A and C starters were less clearly detectable.

In conclusion, even if the autochthonous starter is a good approach for strengthening the territorial linkage of goat cheeses, their perceived sensory attributes appear more associated to farm influence, involving the confounded effects of goat breed, animal feeding and management, milk quality and cheese making process.

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P108**Total substitution of soybean meal with *Hermetia illucens* meal in laying hens: effect on lipid composition of yolk**

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Eggs are a cheap source of high quality nutrients and FAO projects a production of 89 million tones of eggs in 2030. At present, ingredients for poultry feed include soybeans and several other grains but the continuous increase of prices has been enhancing the need for alternative feed. In this context, insects are considered a viable and attractive solution for animal feeding, including chickens. Insects indeed are natural food sources for poultry although the information about the effect of the substitution of soybean with insect meal on the quality of eggs in terms of lipid composition of yolk are scarce. The present study aims to fit this gap by testing a 100% replacing diet with *Hermetia illucens* defatted meal. One-hundred and eight Lohman Brown Classic laying hens were farmed for 21 weeks and divided into 2 groups fed two isoproteic and isoenergetic diets, differing in the main protein source: corn-soybean meal based diet (SB group) or *Hermetia illucens* larve defatted meal (HI group). Results on lipid composition of feeds showed that insects meal contained 29% and 18.9% of C18:2n6 (linoleic acid, LA), and C18:1n9 (oleic acid), therefore lower than the values obtained for soybean (36.5 and 20.5%). C12 was the fatty acid which mostly characterized insect meal being around the 8% against the 1.3% of soybean. Globally, insect meal was higher in saturated (32 vs 24.7%), and *n*-3 fatty acids (5.9 vs 5.7%) and lower in *n*-6 (32 vs 39%) than soybean. Nevertheless, feeds did not affect yolk fatty acids composition. Indeed, despite the lower percentage of *n*-6 in insect feed than in soybean, HI yolks contained significantly higher *n*-6 (17 vs 14%). Furthermore, yolks of both groups were extremely rich in oleic, C16, LA, C18:1n7, and C16:1n7, accounted for around 65% of total fatty acids. Probably, desaturase enzymes involved in the conversion of LA showed a reduced activity in HI group than in SB, as revealed by the significant higher content of LA (11.72 vs 9.45%) and lower C22:5n6 (0.49 vs 0.76%). Nevertheless, docosahexaenoic acid (C22:6n3, DHA), the final product of desaturase chain, was not affected amounting to 1.2% in both groups. In conclusion, despite the high presence of saturated fatty acid in *Hermetia illucens* meal, fatty acid composition of yolk did not show to be significantly damaged especially concerning polyunsaturated *n*-3 and *n*-6 fractions.