

**Joint Seminar of the Sub-Network on Production Systems & Sub-Network on Nutrition
Innovation for Sustainability in Sheep and Goats**
(Vitoria-Gasteiz, Spain, 3-5 October 2017)

POSTERS

SESSION 1. INNOVATION'S CONCEPTUAL AND PRACTICAL FRAMEWORK. APPLICATION TO THE AGRO-FOOD SECTOR

| Nº | Title | Authors | Country |
|-------|--|--|----------------|
| S1-01 | Impact of group feeding management of Basco-Bearnais dairy ewes at the beginning of milking on milk production and the chemical composition of milk | <i>J-M. Arranz, P. Hassoun, M. Poivre, J-M. Cami, O. Sallato, J. Legarto</i> | France |
| S1-02 | "Geroko", a simulator to measure changes in economic, environmental (ecosystemic services) and climatic performances of agropastoral farms in the Western Pyrenees | <i>J-M. Arranz, J-M. Noblia, O. Sallato, E. Olha, J-P. Theau</i> | France |
| S1-03 | Revisiting particle kinetics in the rumen: comminution, digestion and passage functions as affected by diet type | <i>A. de Vega, J. Gasa, C. Castrillo, J. A. Guada</i> | Spain |
| S1-06 | Innovation and multi-actor cross-border cooperation in central Pyrenees to improve sustainability of local sheep breeds | <i>B. Lahoz, C. Jousseins, J.H. Calvo, J. Papuchon, J.L. Alabart, L. Pardos, V. Loywyck, M. Serrano, C. Soulas, P. Eguinoa, F. Tortereau, E. Fantova, E. Jouhet, A. Bernués, R. Canellas, J.C. Boscolo, J. Folch, S. Fabre</i> | Spain / France |
| S1-08 | Migrant shepherds and workforce implications in Mediterranean pastoralism | <i>M. Nori</i> | Italy |
| S1-09 | Evaluating dairy sheep systems for conversion to the optimized agro-ecological model | <i>F.A Ruiz, M. Sitzia, C. Manca, Y. Mena</i> | Spain |

SESSION 2. INNOVATIONS TO ADAPT SHEEP AND GOAT FEEDING AND PRODUCTION SYSTEMS AND INDUSTRY TO THE NEW SOCIETAL DEMANDS – Nutrition

| Nº | Title | Authors | Country |
|--------|--|---|---------|
| S2N-01 | Effect of including fermented by-products mixture in dairy goats rations on digestibility and productive performance. | <i>M. Alaa, M. El-Badawy, M. Yacoot</i> | Egypt |
| S2N-02 | Eléments de mesure rapide de digestibilité chez les medics pour une amélioration génétique de la valeur alimentaire des populations. | <i>F. Alane</i> | Algeria |
| S2N-03 | Potentialité en sucres de quelques populations de sorgho local Algérien et valeur nutritionnelle des sous-produits issus de pressage | <i>F. Alane</i> | Algeria |

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| S2N-04 | In vitro study of the effect of combinations of cereals and sugarbeet pulp on pH and gas production pattern in concentrate or forage-based diets for ruminants | Z. Amanzougarene, S. Yuste, A. de Vega, M. Fondevila | Spain |
| S2N-05 | The nutritional interests of halophytic plants in South-East of Algeria | H. Arab, S. Mehennaoui, M. Laid Haddi | Algeria |
| S2N-07 | Effect of incorporation of waste of date in intake and milk quality of goat in Tunisian arid land | N. Ayeb | Tunisia |
| S2N-08 | Use of field pea and triticale in dairy sheep diet: Effects on milk composition and fatty acid profile | A. Bahri, H. Selmi, M. Amraoui, H. Rouissi | Tunisia |
| S2N-10 | Effect of increasing level of maize silage in the diet on lambs fattening performance and carcass characteristics | M. Benbati, M. El Haloui, B. Bouazzama, A. Keli | Morocco |
| S2N-11 | Chemical composition and essential oil antimicrobial activity of four grazed plants growing wild in the Northeastern Tunisia | A. Bettaieb, R. Zouaoui, N. Feras, S. Elkahoui, N. Moujahed | Tunisia |
| S2N-12 | Potential of essential oil from natural populations of <i>Pistacia lentiscus</i> to modify in vitro ruminal fermentation in sheep | A. Bettaieb, C. Darej, N. Moujahed | Tunisia |
| S2N-13 | Effect of green forage and oily components in lamb ration on fattening results, slaughter value and meat quality | B. Borys, A. Cieslak, M. Bryszak, Y. R. Yanza, M. Szumacher-Strabel, D. Lisiak, M. Pieszka, E. Kłopotek. | Poland |
| S2N-14 | Methane production in fattened lambs depends on forage type and oily components in diets | A. Cieslak, B. Borys, M. Bryszak, M. Gao, M. Szumacher-Strabel, E. Kłopotek | Poland |
| S2N-17 | <i>In vitro</i> fermentation of diets including agroindustrial by-products in batch cultures of ruminal microorganisms from goats | M. Romero-Huelva, M.D. Carro, E. Molina-Alcaide | Spain |
| S2N-18 | Influence of particle size of crude olive cake on in vitro rumen fermentation and gas production kinetics | C.N. Marcos, S. Chávez, C. de Blas, M.J. Ranilla, E. Molina-Alcaide, M.D. Carro | Spain |
| S2N-19 | Chemical composition and in vitro rumen fermentation of crude olive cake and olive fruit extracts | C.N. Marcos, S. Chávez, C. de Blas, E. Molina-Alcaide, M.J. Ranilla, M.D. Carro | Spain |
| S2N-21 | Effect of the age and the period on chemical composition of cactus cladodes in Northern Morocco | S. El Otmani, M. Ayadi, J.L. Hornick, M. Chentouf, J.F. Cabaraux | Morocco |
| S2N-22 | <i>In vitro</i> gas production, fermentation kinetics and predicted metabolizable energy of different parts of some browses in the Gezira, Sudan | M. Elimam, A. Abukoaa | Sudan |
| S2N-23 | Effects of different levels of dried sugar beet based concentrates on performance and carcass characteristics of Tagger kids in the Gezira State, Sudan | M. E. Elimam, N. O. H. Elshafie, B. A. Eltayeb | Sudan |
| S2N-24 | Effect of the energy level and of linseed in the diet on the production and composition of milk in Saanen goats during early lactation. | M. Focant | Belgium |

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| S2N-25 | Diet supplementation with a high dose of stearic acid to alleviate fish oil-induced milk fat depression in lactating ewes | <i>L. Rodríguez-López, P.G. Toral, G. Hervás, P. Frutos</i> | Spain |
| S2N-27 | Production performance and milk fatty acid profile as affected by cold-pressed oilseed cakes and sainfoin in Latxa dairy ewes | <i>A. Pascual, A. Garcia-Rodriguez, C. Pineda-Quiroga, R. Atxaerandio, R. Ruiz</i> | Spain |
| S2N-28 | Curd sensory properties as affected by feeding dairy ewes with cold-pressed oilseed cakes and sainfoin | <i>C. Pineda-Quiroga, A. Garcia-Rodriguez, A. Pascual, R. Atxaerandio, R. Ruiz</i> | Spain |
| S2N-30 | Effect of the level of protein in the diet on kids growth performance and carcass characteristics | <i>M. Salhi, M. Mounsif, H. Agdim, A. Keli</i> | Morocco |
| S2N-31 | Effect of cake of Argan on the dairy performance of goats of breed alpine | <i>N. Lakram</i> | Morocco |
| S2N-33 | Enrichment of ewe cheese with Laminaceae seed oil as a source of omega-3 | <i>N. Muñoz-Tébar, J.A. de la Vara, A. Molina, M. Carmona, M.I. Berruga</i> | Spain |
| S2N-34 | Replacement of cereal grains by cactus waste fruits, Argan meal and carob pulp in ewe diets: effect on physicochemical quality of milk. | <i>A. Mouhaddach, M. Elhamdani, A. El Housni, R. Hassikou, M. Bendaou</i> | Morocco |
| S2N-35 | Effect of the incorporation of the argan by-products on the dairy performances of the Sardi ewes. | <i>S. Moutik, N. Lakram, El. Maadoudi, A. El Housni, N. Essafi</i> | Morocco |
| S2N-36 | Effect of levels of intake on rumen fermentation, digestibility, methane emissions and behaviour | <i>D. Moya, C.J. Newbold</i> | United kingdom |
| S2N-38 | Dietary pomegranate pulp to improve meat fatty acid composition in lambs | <i>A. Natalello, G. Luciano, L. Morbidini, A. Priolo, L. Biondi, M. Pauselli, M. Lanza, B. Valenti.</i> | Italy |
| S2N-40 | Variation in fatty acids profile of transhumant small ruminants milk related to the floristic composition of rangelands in Greece | <i>M. Ioannidou, M. Karatassiou, A. Ragkos, Z. Parissi, I. Mitsopoulos, P. Sklavou, V. Lagka, G. Samouris</i> | Greece |
| S2N-41 | Fatty acids profile and gross composition of Tunisian goat colostrums | <i>Amel Sboui, S. Abassi, Mouna Ben Khaled, Touhami Khorchani</i> | Tunisia |
| S2N-42 | Effects of the dose and the administration form of rosemary essential oils on carcass characteristics of lambs | <i>S. Smeti, I. Mekki, H. Hajji, M. Mahouachi, N. Atti</i> | Tunisia |
| S2N-43 | Effects of EPA and DHA on <i>in vitro</i> ruminal bio-hydrogenation of 18-carbon fatty acids in sheep | <i>P. G. Toral, G. Hervás, D. Carreño, H. Leskinen, A. Belenguer, K.J. Shingfield, P. Frutos</i> | Spain |
| S2N-45 | Influence of dietary protein source on milk clotting time and rennet coagulation ability | <i>M. Yossifov</i> | Bulgaria |
| S2N-46 | Effect of dietary rapeseed meal on fatty acid profile of lamb meat | <i>M. Yossifov</i> | Bulgaria |

SESSION 2. INNOVATIONS TO ADAPT SHEEP AND GOAT FEEDING AND PRODUCTION SYSTEMS AND INDUSTRY TO THE NEW SOCIETAL DEMANDS – Production Systems

| Nº | Title | Authors | Country |
|-----------|--|---|----------------|
| S2S-01 | Application of random regression model to estimate genetic parameters for average daily gains of Tunisian local kids population | <i>A. Atoui, M.J. Carabaño, C. Díaz, S. Najari</i> | Tunisia |
| S2S-02 | Effect of different feeding and water systems on activity of some enzymes of cheese produced from Shami goat milk at Sinai, Egypt | <i>S.M. Alsheikh , M. El-Gendy, M. Magdoub, M. El-Nawawy</i> | Egypt |
| S2S-04 | Progeny-test and factors of variation in dairy sheep selection in the local population (in Setif region) | <i>A. Djaout, F. Afri-Bouzebda, Z. Bouzebda, Y. Belkhiri</i> | Algeria |
| S2S-05 | Effect of doses of eCG and cloprostenol on oestrus and ovulation induction in North Moroccan goats during the anoestrus season | <i>S. EL Kadili, M. Raes, J. Bister, N. Kirschvinck, M. Chentouf</i> | Morocco |
| S2S-06 | Colostrum composition of Honamlı goats raised under extensive conditions in Turkey | <i>O. Elmaz, F. Tascı, A.A. Akbas, M. Saatçı</i> | Turkey |
| S2S-07 | Phenotypic and genetic characteristics of the local goat population in arid land of Tunisia | <i>Amor Gaddour, A. Mouldi</i> | Tunisia |
| S2S-08 | Performances of Barbarine ewes grazing on wheat stubble under conventional and conservation agricultural conditions in a Tunisian semi-arid area | <i>H. Guesmi, N. Moujahed, S. Ben Youssef, C. Darej, M. Chakroun, H. Ben Salem</i> | Tunisia |
| S2S-10 | Adaptation of sheep breeding systems to changes in the Algerian steppe context: Case of the region of M'Sila. | <i>I. Hadbaoui Ilyes, A. Senoussi</i> | Algeria |
| S2S-11 | L'incertitude des systèmes alimentaires vulnérabilise les élevages steppiques maghrébins | <i>J. Huguenin, M. Kanoun, T. Jemaa, R. hammouda, B. Bouchareb, I. Julien, M. Belhamra, T. Naja</i> | France |
| S2S-14 | Ethnoveterinary practices in the Tena Valley and Biescas area (Spanish Pyrenees) for the care of sheep and goats | <i>L. López Marco, C. Obón</i> | Spain |
| S2S-18 | Effect of the presence of neomycin in goat's milk on the making process and characteristics of Tronchón cheese | <i>P. Quintanilla, M.C. Beltrán, B. Palau, I. Escriche, M.P. Molina.</i> | Spain |
| S2S-19 | Estimating and improvement approach of local goat dairy performances under pastoral breeding in arid zone | <i>S. Najari, M. Abdennebi</i> | Tunisia |
| S2S-23 | Innovation in small ruminants' dairy products in Lebanon: an alternative drying technique for Kishk, a traditional fermented milk | <i>C. Salameh, E. Tabet, C. Hosri, S. Desobry-Banon, J. Scher</i> | Lebanon |

SESSION 3. PRECISION FARMING AND OTHER TECHNICAL INNOVATIONS FOR INCREASING EFFICIENCY IN SHEEP AND GOATS

| Nº | Title | Authors | Country |
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| S3-02 | Feasibility Study of turning sheep farming breeding from traditional to economic production. Case study: Noiemy in the Eastern Region, Kingdom of Saudi Arabia. | <i>A. Alshouaibi, F. Ameen</i> | Egypt |
| S3-03 | Evolution of body reserves of Ouled Djellal sheep in semi-arid zone | <i>A Meredef, T Madani, D Ouachem</i> | Algeria |
| S3-06 | Different carbohydrates used early in life can affect lactation persistency of dairy sheep. | <i>A. Ledda, M.F. Lunesu, M. Ledda, G. Spanu, A. Fenu, A. Mazza, F. Fancello, A. Cannas, A.S. Atzori</i> | Italy |
| S3-07 | Molecular detection of <i>Theileria</i> , <i>Babesia</i> , and <i>Hepatozoon</i> spp. in ixodid ticks collected from sheep, goat and dogs from Palestine | <i>K. Azmi</i> | Palestine |
| S3-09 | Reproductive performance and lambing results of the taadmit breed in algeria | <i>M. Belhadia, A. Aichouni, N. Kebir, K. Fantazi</i> | Algeria |
| S3-10 | Body reserves mobilization effect on ewe reproduction and lamb growth performances in low input production system of Algerian semi-arid region | <i>F. Belkasmi, T. Madani, L. semara, C. Mouffok</i> | Algeria |
| S3-11 | Phenotypic parameters for semen characteristics and their relationship with scrotal circumference in Ouled Djellal rams in Southeast Algeria | <i>Y. Belkhiri, A-F. Bouzebda, Z. Bouzebda, A. Djaout</i> | Algeria |
| S3-12 | Investigation into the key drivers of ewe colostrum production | <i>F.P. Campion, T.F. Crosby, T.M. Boland.</i> | Ireland |
| S3-13 | Evaluation of subsidies for rangelands in development of sheep and goat farming | <i>C. Cevher, Ö. Köksal, Y. Atasever, B. Altunkaynak, Ş. Coşkun Cevher</i> | Turkey |
| S3-14 | Grazing behaviour of goats in Rif Mountains of Morocco by using new techniques | <i>Y. Chebli, A. Keli, M. Chentouf, J. L. Hornick, J. F. Cabaraux</i> | Morocco |
| S3-15 | Structural characterisation and its importance on economic results for sheep meat farms in Aragon. | <i>L. Chekmam, M. T. Maza Rubio, L. Pardos</i> | Spain |
| S3-16 | Maternal behavior score affects lamb and litter survival in D'man sheep reared in Tunisian oases | <i>A. Dhaoui, M. Chniter, M. Hammadi</i> | Tunisia |
| S3-17 | Evaluation of in vitro digestibility of available by-products in the North of Morocco | <i>S. El Otmani, M. Ayadi, J.L. Hornick, M. Chentouf, J.F. Cabaraux</i> | Morocco |
| S3-20 | Characterization of production environment and exploration of new phenotypes to improve genetic selection efficiency and animal adaptation to variety of environments. | <i>D. Hazard, H. Larroque, E. Gonzalez-Garcia, D. Francois, P. Hassoun, I. Palhiere, F. Bouvier, S. Parisot, V. Clement, A. Piacère, S. Masselin-Silvin, D. Buisson, V. Loywyck, F. Tortereau, G. Lagriffoul</i> | France |
| S3-21 | Effect of alpha s1 casein gene polymorphism on milk chemical proprieties of sheep | <i>B. Jemmali, N. Balti, M. Kamoun, S. Slim, A. Ben Gara, B. Rekik</i> | Tunisia |

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| S3-22 | Genetic polymorphism of alpha-S1 and kappa casein gene in Tunisian local Goat | <i>B. Jemmali, M. Hammami, M. kamoun, A. Ben Gara, B. Rekik.</i> | Tunisia |
| S3-23 | Feed preference and nutrient digestibility of dried or silage form of olive cake as affected by concentrate supplementation | <i>G. Keles, V. Kocaman</i> | Turkey |
| S3-24 | Effects of different doses of Dexamethasone on thyroid function in Ouled Djellal sheep | <i>N. Kellali, M. Kerrour, N. Lakhdara, A. Bensegueni, F. Tekkouk, M.A. Boudhene</i> | Algeria |
| S3-25 | Scenarios for Precision to Future Climate Change and Animal Farming of Turkey | <i>N. Koluman, U. Gültekin</i> | Turkey |
| S3-26 | Body reserve dynamics of locale ewes throughout an entire cycle of production | <i>K. Lakhssassi, M. El Fadili</i> | Morocco |
| S3-27 | The experience of the ANGRA farmers in prolificacy improvement by the BMP15 ovine mutation FecXR in Rasa Aragonesa | <i>A. Laviña, M. López, L.V. Monteagudo, M.T. Tejedor, A. Macías, E. Martín.</i> | Spain |
| S3-29 | The influence of the citernal surface of the udder on milk production of Tunisian Sicilo-Sarde sheep | <i>A. Najjar, A. Hamrouni, B. Boubaker, A. Gasmi-Boubaker</i> | Tunisia |
| S3-30 | Genetic characterization of three genes associated with fertility performance in Egyptian small ruminant breeds | <i>O. Othman, HAbd El-Kader, S. Alam</i> | Egypt |

SESSION 4. SUCCESS STORIES OF INNOVATIONS IN THE SHEEP AND GOAT INDUSTRY, WITH SPECIAL FOCUS ON INCREASING CONSUMPTION AND ADDING VALUE TO PRODUCTS

| Nº | Title | Authors | Country |
|-------|--|--|---------|
| S4-01 | Effect of drinking water salinity on sexual behavior of mature Barbarine rams | <i>D. Amiri, N.Lassoued</i> | Tunisia |
| S4-03 | Study of the quality of goat milk and its transformation into cheese flavored by rosemary | <i>S. Arroum, A.. Gaddour, A.Zammouri.</i> | Tunisia |
| S4-04 | La transhumance en élevage ovin steppique : réduction des coûts ou adaptation inévitable ? | <i>F. A. Belhouadjeb, F. Chehat, A. Djekal.</i> | Algeria |
| S4-05 | Yogurt enrichment with Spirulina (<i>Arthrospira platensis</i>): effect on physicochemical, rheological properties, and sensory acceptance | <i>H. Debbabi, B. Boubaker, T. Gmati, M. Chouaibi, A. Boubaker, A. Snoussi</i> | France |
| S4-06 | Local Ewe milk valorization and cheese characterization in Mohamadia zone -Morocco- | <i>K. El Kabous</i> | Morocco |
| S4-10 | Caractérisation de l'élevage caprin dans la région désertique de Béchar en Algérie | <i>S.A. Kadi, A. Mouhous, F. Gani, R. Fiouane, F. Djellal</i> | Algeria |
| S4-12 | Strategies of transition towards a more sustainable food model. contribution of the Malagueña goat. | <i>E. Morales¹, Micheo J.M.¹, I. Antúnez², D, Grande³, F.A. Ruiz⁴, Y. Menaz</i> | Spain |

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| S4-13 | Proposal for World Goat Day 2017 in Iran: Celebration of the First Domestication of Goats and the Contribution of Goats Today | <i>F. Mirzaei</i> | Iran |
| S4-14 | Sustainability of the sheep farming systems in central Tunisia: case of the region of Sidi Bouzid | <i>A. Mohamed-Brahmi, A. Mechi, N. Mhamdi</i> | Tunisia |
| S4-16 | Mountain pasture management by goat farmers: case of Kabylia region (Algeria) | <i>A. Mouhous, S.A. Kadi, F. Djellal, M. Berchiche, J. Huguenin, V. Alary</i> | Algeria |
| S4-18 | Effect of livestock stocking rate on fatty acid and tocol composition of milk from sheep managed under part-time grazing | <i>L. Bravo-Lamas, M.M. Bustamante, M. Aldai, A.I. Nájera, N. Mandaluniz, I.J. R. Barron</i> | Spain |
| S4-21 | Investigation on the Ewe's milk consumption in the Rabat Salé Zemmour Zaer area, Morocco | <i>F.Z. Zouhair</i> | Morocco |