

UFAW International Conference 2022: Advancing Animal Welfare Science



28 - 29 June 2022



Edinburgh, UK



www.ufaw.org.uk/edinburgh22



UFAW2022



Scientific Programme

Welcome to the UFAW International Conference 2022

We would like to welcome you to Edinburgh for UFAW's first in-person conference since the start of the COVID-19 pandemic. We are delighted to be able to welcome so many old friends and colleagues, and to meet new ones after two years where we couldn't meet face to face.

Our experience of running online events during the pandemic led us to recognise the advantages of a virtual approach, including being able to reach a much larger and more global audience. We are therefore pleased to be able to stream the talks live online for those who are unable to be with us in-person. Posters can also be accessed online; a link can be found at the bottom of each page of the list of posters.

The scientific programme features presentations and posters covering a wide range of animal welfare issues and species. The conference will also include a workshop and a debate forum that will run concurrently on the afternoon of Wednesday 29th June. The workshop and debate forum are only open to those delegates attending the meeting in-person

We would like to thank all those who are contributing to the meeting, as speakers, poster presenters and chairs, as well as the delegates. We hope that you all enjoy the conference. Thank you also to our dedicated UFAW office staff (Sam Griffin, Jane Moorman and Tina Langford) who have ensured that the registration process runs smoothly.

We would also like to thank our publishing partner Wiley-Blackwell for their support. As part of your registration for this meeting, Wiley-Blackwell are offering a discount of 20% on all the books in the UFAW/Wiley-Blackwell animal welfare book series (use the code VET20 when you order from www.wiley.com).

Finally, please do let us know what you think of the meeting. Please fill in the post-conference online survey, and if you have any specific comments, please email events@ufaw.org.uk.

Huw Golledge, Stephen Wickens, Birte Nielsen, Liz Carter and Luisa Dormer
UFAW Organising Committee

List of Posters

List of posters

- 1. Evidence for multiple temperament traits in sheep**
Leigh Atkinson, Rebecca Doyle, Andrew Woodward and Ellen Jongman (*University of Melbourne, Australia*)
- 2. Preliminary investigation on the effect of housing system and stocking density on behavioural response of farmed rabbit *Oryctolagus cuniculus* in humid tropics**
Mathew Ayoola, Mobolaji Alabi and Oguntunji Abel O (*Bowen University, Nigeria*)
- 3. Effects of weaning regimes on growth performance and stress response in weanling pigs**
Temitope Bankole, Olufemi Adebiyi, Emmanuel Ewuola, Ayoola Oluyemi and Olusoji Abiola (*University of Ibadan, Nigeria*)
- 4. Effect of positive human interaction on attention bias and affective states of commercial breeding dogs**
Uri Baqueiro-Espinosa, Tsz Lo, Victoria McEvoy, Rachel Hunter and Gareth Arnott (*Queen's University Belfast, UK*)
- 5. Risk factors for integumentum alterations in the carpal region of Norwegian dairy cows**
Conor Barry and Camilla Kielland (*Norwegian University of Life Sciences (NMBU), Norway*)
- 6. Does canine osteoarthritis affect step count?**
Leanne Blake, Jack O'Sullivan, Cameron Smith and Lucy Asher (*Newcastle University, University of Lincoln and University College London, UK*)
- 7. Pandemic puppies: A canine welfare timebomb?**
Claire Brand, Dan O'Neill, Zoe Belshaw, Camilla Pegram, Fiona Dale, Kim Stevens and Rowena Packer (*The Royal Veterinary College and EviVet Evidence-based Veterinary Consultancy, UK*)
- 8. Salivary biomarkers of acclimatization in dairy cows with different milk yield potential**
Liliana Cachucho, Flávio Silva, Catarina Matos, Ana Geraldo, Lénia Rodrigues, Cristina Conceição, Fernando Capela e Silva, Elsa Lamy and Alfredo Pereira (*University of Évora, Alentejo Biotechnology Center for Agriculture and Agro-food (CEBAL), Polytechnic Institute of Beja (IPBeja), Centre for Interdisciplinary Research in Animal Health (CIISA) and University of Trás-os-Montes e Alto Douro, Portugal*)
- 9. The impact of the COVID-19 pandemic on cat and dog relinquishment and abandonment**
Grace Carroll, Alice Torjussen and Catherine Reeve (*Queen's University Belfast and University of Sussex, UK*)
- 10. Proximity interactions in a permanently housed dairy herd: Network structure, consistency, and individual differences**
Kareemah Chopra, Holly Hodges, Zoe Barker, Jorge Vázquez Diosdado, Jonathon Amory, Tom Cameron, Darren Croft, Nick Bell and Edward Codling (*University of Essex, Writtle University College, University of Exeter and Royal Veterinary College, UK*)
- 11. Tell me how you feel – Using a modified novel arena test (MNAT) to assess sow welfare in three different post-weaning housings**
Jen-Yun Chou and Thomas Parsons (*University of Pennsylvania, USA; University of Veterinary Medicine, Austria; Teagasc, Ireland*)

To view a PDF of a poster, click [here](#).

SALIVARY BIOMARKERS OF ACCLIMATIZATION IN DAIRY COWS WITH DIFFERENT MILK YIELD POTENTIAL

Liliana Cachucho^{1,2,3}, Flávio G. Silva^{1,4}, Catarina Matos¹, Ana M Geraldo¹, Lénia Rodrigues¹, Cristina Conceição¹, Fernando Capela e Silva¹, Elsa Lamy¹ and Alfredo F. Pereira¹

¹ Mediterranean Institute for Agriculture, Environment and Development (MED), University of Evora, Évora, Portugal

² Alentejo Biotechnology Center for Agriculture and Agro-food (CEBAL)/ Polytechnic Institute of Beja (IPBeja), Beja, Portugal

³ Centre for Interdisciplinary Research in Animal Health (CIISA), Lisboa, Portugal

⁴ Veterinary and Animal Research Centre (CECAV), University of Trás-os-Montes e Alto Douro, Vila Real, Portugal
ecsl@uevora.pt

Environmental heat stress affects the productive performance of animals, especially those of high genetic merit. The Mediterranean region is characterized by sudden and prolonged heat periods. Although animals can adapt to warm environmental conditions, in these conditions they are less likely to acclimate. Saliva testing is a non-invasive and inexpensive test that can be a source of biomarkers. Results from our team suggested that the salivary levels of Hsp70 could function as a putative biomarker of thermal stress. The main objective of this work was to study the acclimatization process in dairy cows with high milk yield potential (HP; > 8000 kg of milk at 305 days in lactation) and low milk yield potential (LP; ≤ 8000 kg of milk) and to relate physiological parameters with salivary protein profiles. 6 HP and 6 LP animals were followed during four days in two periods: Summer - high environmental temperatures (animals under heat stress) and Winter – low environmental temperature (animals in thermoneutrality). Environment temperature was evaluated using a black globe thermometer (BGT) placed outside (BGTsun) and inside the facility (BGTshade). Rectal temperatures (RT) and respiratory rate (RR) were measured. On each period samples of saliva were collected through cotton rolls (Salivettes®) and samples of blood from the coccygeal vein. BGT, RT and RR were significantly higher ($P < 0.05$) in Summer (BGTsun) $35.71 \pm 4.71^\circ\text{C}$; BGTshade $23.88 \pm 2.05^\circ\text{C}$; $38.80 \pm 0.10^\circ\text{C}$; 64.13 ± 3.69 mov.min.) comparatively to Winter (BGTsun) $14.21 \pm 2.61^\circ\text{C}$; BGTshade $6.15 \pm 1.01^\circ\text{C}$; 38.07 ± 0.02 ; 36.13 ± 2.21 mov.min.), but no differences were observed between HP and LP. Regarding triiodothyronine (T_3), in Summer, HP had significantly lower values than LP, which indicated a more intense acclimatization. Higher values of salivary pH were observed in Summer in both HP and LP group. No significant differences were observed among periods in salivary cortisol (SC), however there was a significant negative correlation between SC and RT ($r = -0.615$, $P = 0.03$). In Winter, HP had higher levels of SC than LP cows, which could be associated with metabolic heat production. Salivary albumin was higher in HP, during Summer. The results reinforce the concept that saliva can be useful in monitoring temperature adaptation in milk-producing animals.

Acknowledgments:

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