UFAW International Conference 2022: Advancing Animal Welfare Science

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

61. **Influence of bedding hygiene and colostrum management in dairy calves' health**
Flávio Silva, Cristina Conceição, Severiano Silva, Pedro Caetano, Joana Ramalho, Sofia Pedro, Inês Azevedo, Luís Martins, Alfredo Pereira and Joaquim Cerqueira *(University of Trás-os-Montes e Alto Douro, University of Évora and Agrarian School of Viana do Castelo Polytechnic Institute, Portugal)*

62. **A guide to practical tools for improving scientific validity, animal welfare and health & safety**
Adrian Smith and Bente Bergersen *(Norecopa, Norway)*

63. **The use of companion animals in media: Welfare implications and a possible regulatory solution**
Ira Snir, Liran Plitman and Yael Arbel *(Israeli Veterinary Services and Animal Health, Israel)*

64. **(Anti-) social animal. Is sociality a matter of the rearing process in turkeys?**
Jenny Stracke, Alicia Krasny, Stefanie Tensfeldt and Nicole Kemper *(University of Bonn and University of Veterinary Medicine Hannover, Germany)*

65. **Analysis of dairy cows' activity using a hybrid modelling approach for the early detection of health problems**
Masoomeh Taghipoor, Severine Bord, Laure Sansonnet, Quentin Bulk and Joon Kwon *(Université Paris-Saclay and Ferme expérimentale AgroParisTech, France)*

66. **The use of pigs vocalisations structure to assess the quality of human-pig relationship**
Céline Tallet and Avelyne Villain *(PEGASE, INRAE, France)*

67. **Operationalize stunning of captured plaice (*Pleuronectes platessa*) and turbot (*Scophthalmus maximus*) at sea: Provisions to ensure improved welfare**
Hans van de Vis, Michelle Boonstra and Hendrik Kramer *(Wageningen Livestock Research, Wageningen Marine Research and MDV-Beheer, The Netherlands)*

68. **The use of body surface temperature to detect valence of affective state and magnitude of food reward**
Chanakarn Wongsaengchan, Ruedi Nager, Dominic McCafferty and Dorothy McKeegan *(University of Glasgow, UK)*

69. **Changing human behaviour for animal welfare: The case of sheep tail docking length in Australia**
Madeleine Woodruff, Carolina Munoz, Rebecca Doyle, Grahame Coleman and Stuart Barber *(University of Melbourne, Australia; University of Edinburgh, UK)*

70. **How Japanese people make decisions about the happiness of zoo animals – A comparison between zoo visitors and professionals**
Yumi Yamanashi, Yuko Ikkatai, Rie Akami, Nahoko Tokuyama, Moe Honjo and Duncan Wilson *(Kyoto City Zoo, Kyoto University, Kanazawa University, Japan Monkey Centre and Nagasaki University, Japan)*

71. **Difficult paradigm shift? Reasons for continued animal use for educational purposes revealed in non-technical summaries**
Miriam Zemanova, Andrew Knight and Susanna Lybæk *(Animalfree Research and University of Fribourg, Switzerland; Oxford Centre for Animal Ethics and University of Winchester, UK; Griffith University, Australia; The Norwegian Animal Protection Alliance (Dyrevernalliansen), Norway)*

To view a PDF of a poster, click here.

INFLUENCE OF BEDDING HYGIENE AND COLOSTRUM MANAGEMENT IN DAIRY CALVES' HEALTH

Flávio G. Silva[1,2], Cristina Conceição[2], Severiano R Silva[1], Pedro C Caetano[3], Joana Ramalho[4], Sofia Pedro[2], Inês Azevedo[2], Luís Martins[3], Alfredo F Pereira[2] and Joaquim L Cerqueira[1,5]

[1] Veterinary and Animal Research Centre (CECAV), Department of Animal Science, University of Trás-os-Montes e Alto Douro, Vila Real, Portugal
[2] Mediterranean Institute for Agriculture Environment and Development (MED), Department of Zootechnic, University of Évora, Évora, Portugal
[3] Mediterranean Institute for Agriculture Environment and Development (MED), Department of Veterinary Medicine, University of Évora, Évora, Portugal
[4] Department of Veterinary Medicine, University of Évora, Évora, Portugal
[5] Agrarian School of Viana do Castelo Polytechnic Institute, Ponte de Lima, Portugal
fsilva@uevora.pt

Calves are born agammaglobulinemic and naturally vulnerable to pathogenic agents before developing their immune system. Therefore, soiled environments and bad hygiene practices can greatly increase the risk of infectious diseases. Passive immune transfer (PIT), with colostrum consumption, can help the calf cope with the microbiological load in the environment; however, PIT is greatly affected by management colostrum practices. So, calves housed in soiled conditions and with PIT failure are prone to a high occurrence of diarrhoea, pneumonia, and omphalitis. This study aimed to relate calves' bedding hygiene and colostrum practices to calves' health. Data from 24 calves were collected in two dairy farms until calves were sold (15 to 30 days) or weaned (60 days). At every calving, birthplace (maternity pen), cow, calves' pens and calf hygiene were assessed using visual scoring systems. Nesting score was evaluated to access bed comfort related to physical injuries and respiratory diseases. Colostrum intake, time and method of administration was recorded, and IgG level was estimated with a Brix % refractometer. PIT was evaluated by total serum proteins (TSP) 24h after birth. On days 2, 7, 30 and 60, health status was evaluated with a health scoring system to detect diarrhoea, pneumonia, omphalitis, and physical injuries. In this study, birthplace hygiene was poor, but calves' pens had good scores on hygiene and nesting score. Colostrum practices seemed adequate, and mean Brix % values (23.71 ± 2.31% Brix) were just above the breaking point for high-quality colostrum (21%); however, there was a high failure of PIT (50% of the calves), with subsequent elevated diseases' prevalence (diarrhoea [75%] and pneumonia [25%]). Failure in PIT could have been more related to the quantity of colostrum (3.30 ± 0.73 litres) or microbiological quality. Diseases occurred manly after one week of life, suggesting no influence of the birthplace's poor conditions. Calf's cleanliness score, no cases of omphalitis and physical injuries can be related to the calves' clean and comfortable beds. Also, a multi regression model (R2=0.7; P=0.001) showed a positive relation between TSP and total litres of colostrum and Brix, but not with time and method. It highlights the importance of quantity and quality of colostrum, with no significant changes on PIT if colostrum is consumed within 2:05 ± 1:08 hours.

Back