French Reference Centre for Animal Welfare

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Editorial

A new European Commissioner for animal welfare

Image from the LFDA website

On Tuesday 17 September, the President of the European Commission, Ursula von der Leyen, announced the nomination of Olivér Várhelyi as **Commissioner for Health and Animal Welfare**. This is the first time that animal welfare has been included in the title of a European Commissioner's portfolio, emphasising the growing importance of this issue on the European political scene. Mr Várhelyi's appointment has yet to be approved by the European Parliament, where there is concern in some quarters over the choice of this Hungarian diplomat for the position. As part of his remit, the new commissioner would be given responsibility for concluding the revision of the EU's animal welfare legislation by 2026, and for the transition towards cage-free livestock farming. He would work in direct collaboration with Christophe Hansen, nominated as Commissioner for Agriculture and Food, to implement these recommendations arising from the Strategic Dialogue on the future of EU Agriculture, with the intention of taking forward the modernisation agricultural practice while ensuring the sustainability of livestock farming methods.

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Livestock farming: balancing the needs of animals, humans and the environment

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A new study of cattle suckler herds in France has explored the recipe for all-round success in the three realms of economics, the environment and animal welfare by looking at the evidence from a database of technical and economic data from over 250 French suckler farms between 2016 and 2022. The data showed that farms best achieve this sort of three-dimensional multiple performance when they use extensive grazing systems – generally associated with animal welfare – that synchronise the nutritional needs of the animals with grass availability by choosing the appropriate calving season (late winter/early spring). Suckler cows' greatest nutritional needs arise a few weeks after they begin lactation and during calf growth, so this should ideally correspond to the period of greatest grass growth. Suckler farms with hardy breeds that are well-adapted to grass feeding would therefore appear to be the most effective way to combine the economic profitability of a farm with current agro-ecological principles.

The establishment of a harmonious balance between humans, animals and the environment is the principle that underpins the One Health concept, launched in the early 2000s. An article published in Research Ethics sets out the foundations for this concept, which seeks to optimise the long-term health of humans, animals and ecosystems. According to the authors, research into animal behaviour and welfare is directly linked to One Health, and vice versa. Given that such research applies the ethical principles of One Health, it should be valued equitably alongside other research, forming part of a transdisciplinary and multisectoral collaboration that highlights the need for people to recognise the importance of animal welfare and the integrity of the whole ecosystem.

The One Health approach works for rabbit farming as well, as is demonstrated in a **chapter from the recent book, *From Farm Zoo – the Quest for Animal*** dedicated to this topic. The chapter describes rabbit farming as a sustainable way to meet consumer demand for meat without high environmental impacts, since rabbits are efficient food converters with low land and resource requirements. Despite their low requirements, rabbits must still be provided with adequate living space to avoid stress and health problems and to guarantee their welfare.

Protecting rabbit welfare in abattoirs and on farms

Image from Elsayed et al. (2024)

One of the summer's top animal welfare stories in France has concerned the need for EU legislation on welfare in abattoirs to be made less onerous for small businesses operating in local short distribution chains, with the publication by **joint technology network Alimentation Locale of its conclusions** on how European Council Regulation (**EC) No 1099/2009**) can be adapted to such businesses, with particular attention to small poultry and lagomorph abattoirs. The study judges the training required for an animal protection officer working in small abattoirs (< 150,000 animals) to be disproportionate. Using the flexibility built into the European regulations, it provides long-awaited recognition for the alternative forms of implementation that are appropriate to the particular characteristics of low-tonnage businesses, while still achieving animal protection goals. The appointment of a responsible officer remains compulsory, but training is not required unless the veterinary services report serious failings in terms of animal protection during inspections. A technical instruction from the French Directorate General for Food should be published by the end of the year to provide operators with a clearer framework.

Improving the farming conditions of rabbits depends in part on the design and enrichment of their living environment. A **study published in PLoS ONE** has assessed the effect of housing type (traditional individual cages, group housing and a mixed Pilot system) on the welfare of two local rabbit populations in Italy. Group-housed rabbits displayed a wider range of behaviours, including kinetic activity, although the system was associated with higher levels of salivary and capillary corticosterone. Additionally, young rabbits were shown to be more active and older rabbits exhibited more agonistic behaviour. By better understanding the social dynamics and developmental stage-based aspects of behaviours within farming systems, farmers can put measures in place to create an environment conducive to rabbit welfare. Meanwhile, **another study** has examined the impacts of different environmental enrichments, such as rubber flooring, coloured plastic balls and mirrors, on the performance, behaviour and welfare of rabbits. The results show that the addition of balls and mirrors to the environment improved body weight, carcass quality, and physiological parameters related to health and the immune system, while reducing stress hormone levels and behaviours associated with fear. The addition of these objects to the environment would therefore seem to constitute a simple and effective strategy to improve rabbit farming conditions.

Animals can tell what humans are feeling

Image from the A fleur de crins website

A **scientific Q & A fact sheet** summarising recent research on the cognitive and emotional capacities of farm animals has been posted on the educational resources platform of the FRCAW website. Recent scientific findings have contradicted the generalised assumption that domesticated animals lack intelligence or feelings, and this has called for a reset in our thinking on their welfare and ethical treatment. Each new scientific discovery on their cognitive capacities has raised fresh questions, while also providing insight into the way in which animals perceive humans. For example,

a **recent article** demonstrates that horses are capable of identifying emotions such as joy and sadness from human facial expressions. Dogs, meanwhile, can discriminate between human body odours emitted while experiencing positive or negative emotions. In **a study published in Scientific Reports**, this ability induced a cognitive bias in dogs who had initially learned to associate a bowl of food with a specific location. The authors showed that, in the presence of olfactory signals of human stress, dogs exhibited a judgement bias and approached the food bowl less if it was placed in an ambiguous intermediate location. This suggests that dogs reduce their risk-taking behaviours and anticipate a negative outcome in the presence of a human stress odour. In showing the influence of the scent of human stress on a dog's emotional state, the article provides a better understanding of the role played by olfaction in stress-signalling between humans and dogs.

Knowledge of the cognitive abilities of animals makes us better able to adjust their environments when they are bred in captivity. At the beginning of September, a **scientific synthesis** was published on environmental enrichment, which, among other things, provides animals with various means to acquire information through interaction with their environment, thereby improving their capacity to adapt to future environments. The authors suggest that a complex environment, exposure to multiple stimuli (which can be positive, neutral or even slightly negative), and the presence of gentle challenges suited to the animals' behavioural and cognitive skills, are more enriching than simply prolonging their exposure to a single stimulus. According to the authors, such enrichment should be provided to animals in captivity to stimulate their cognitive abilities, thereby improving their welfare.

Last, a **summary published by EURCAW Ruminants & Equines** provides a focus on social complexity and relational enrichment in ruminants and equines. The authors highlight the importance of intra-species social relationships (group rearing, extension of the mother-young relationship) in optimising animal welfare. They also stress the crucial role of farmers in promoting positive human-animal relationships, which also contribute to animal welfare.

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Arthropods

07/08/2024 : Crustacean Compassion Pushes for a Government Solution on Decapod Welfare

Document type: article published in The Fishing Daily

Author: Oliver McBride

Preview: Animal welfare organisation Crustacean Compassion has hit out at the UK seafood industry over their self-developed new voluntary codes of practice, which fail to protect both decapod crustaceans and businesses from the risks of poor welfare. The UK Government legally recognised that decapods – such as crabs, lobsters, prawns and nephrops – can feel pain with their historic inclusion in the Animal Welfare (Sentience) Act 2022. Since then, the seafood sector has been waiting for guidance on how to implement and ensure high welfare standards for decapods throughout the food chain, as expected for other sentient animals in the food supply chain. This guidance was published last week, Friday 02 August 2024, after a lengthy development process by Seafish, the Shellfish Association of Great Britain (SAGB) and the Crab and Lobster Management Group (CMG). However, Crustacean Compassion says the long-awaited codes are "a missed opportunity" to help UK seafood suppliers remain competitive in the face of rising welfare expectations. Inhumane practices, causing immense suffering are still permitted and include: Boiling alive, Freezing to death, Splitting, spiking and tailing, Removal of claws, Claw nicking, The sale of live decapods to members of the public. Although the documents do describe best practice in some cases, the codes are voluntary, and companies are not obliged to follow the guidance. This means hundreds of millions of vulnerable animals will continue to be tortured to death every year, including by home cooks.

Smoke and mirrors

Dr Ben Sturgeon, CEO of Crustacean Compassion, said: "The seafood industry is using smoke and mirrors to give the illusion of improving animal welfare whilst still allowing animals to suffer needlessly. The codes were a chance to build on the recognition of sentience in decapod crustaceans, but instead they are an exercise in doing nothing and will set back welfare standards for years to come. We've developed our own guidance3 that clearly outlines what higher welfare looks like for decapods and we encourage all seafood businesses to follow our advice if they want to be fit for the future." (…)

Supermarkets are setting the pace

While most of the seafood industry has been dragging its feet over welfare, supermarkets have taken the lead by demanding more for decapods. In its annual report on welfare standards in the food industry, Crustacean Compassion found that some major retailers are already tightening up their sourcing policies on areas such on capture methods, handling practices and humane slaughter. "With public awareness around decapod welfare growing rapidly, we're seeing more retailers respond by setting a higher bar for their suppliers," Dr Sturgeon said. "Companies such as Marks & Spencer and Waitrose are starting to insist on higher welfare crustacean products for their customers, so suppliers who don't meet those standards will soon be frozen out."

New government must not let welfare slip through the net

Crustacean Compassion is calling on the new Labour government to reject the industry's codes of practice and to include decapods in the Animal Welfare Act. (…) By ignoring legislative change, excluding certain species and promoting ongoing cruel practice, these codes leave the industry exactly as it was before. Seafood businesses who want to improve their decapod welfare policies can find free advice and information on members-only website, the Crustacean Industry Welfare Hub: **www.ciwhub.org**. Crustacean Compassion will be holding a free webinar outlining their response to the industry Codes of Practice, exclusive to CIWH members, at 10am on Wednesday 21 August. To join, fill out the simple membership form and register your attendance via the webinar event page.

07/08/2024 : Catch Welfare – The Podcast Launches with Insightful Debut on Crustacean Welfare

Document type: podcast published in **The Fishing Daily**

Author: Oliver McBride

Preview: The Catch Welfare Platform is launching its podcast Catch Welfare – The Podcast today. The podcast is hosted by the Catch Welfare Platform's own Michelle Boonstra and Oliver McBride, Editor of The Fishing Daily. In this debut episode, hosts Oliver and Michelle delve into the fascinating world of crustacean (crab) welfare. They are joined by special guests, Bjorn Roth, Senior Scientist at NOFIMA, Norway's leading food research institute, who shares insights on the neurological aspects of crab welfare and humane slaughter methods, and Stefan Tijsen, a fisherman and innovator from the Netherlands, who discusses his innovative techniques in fishing and handling crabs to enhance their welfare and the overall quality of the catch. In this episode, the group examines the importance of humane handling and stunning methods for crabs and explores how new technologies are transforming the fishing industry. Bjorn has been involved in the scientific study of how to create a better end-of-life for crabs such as brown, snow, and king crabs. He explains the biology of crabs and the humane way to dispatch a crab before processing. Stefan explains to the group the measures he has taken to improve the life of crabs onboard his fishing fleet. One such advancement is moving away from nicking the crabs' claws (nicking is the act of cutting the tendon in the claw to stop contained crabs from attacking each other) to the use of specialised bands to bind the claws. The group also looks at the different periods' crabs have to survive between being caught and slaughtered. Bjorn explains that even out of water, crabs can survive for longer than people realise. Find out more by listening to the podcast. Also, find out more about the advantages of stunning and the different techniques used before processing. "This is a fascinating podcast," says host Oliver McBride. "There is so much to learn about crab life and crab biology. Bjorn and Stephan dig deep into this topic, but there is so much more to discover that can help fishermen deliver a top-quality product, along with improving the end-of-life for crabs and other crustaceans." Join us as we discuss the latest developments in the industry and explore innovative approaches to improving the welfare of crabs during the fishing process. Oliver and Michelle kick off the podcast by introducing the Catch Welfare Platform, highlighting their recent expert group meetings focused on pelagic, small-scale, and demersal fisheries. Learn about their upcoming conference on November 14-15 and the exciting topics planned for future episodes.

05/03/2024 : Farmed cricket (*Acheta domesticus*, *Gryllus assimilis*, and *Gryllodes sigillatus*; Orthoptera) welfare considerations: recommendations for improving global practice

Document type: scientific article published in Journal of Insects as Food and Feed

Authors: Rowe, E., Robles López, K.Y., Robinson, K.M., Baudier, K.M., & Barrett, M.

Preview: Orthoptera, such as crickets, is currently the most reared group of hemimetabolous insects in the insects as food and feed industry, with over 370 billion individuals slaughtered and/or sold live annually. The most-farmed cricket species is *Acheta domesticus*, however there is growing interest in farming at least two additional species, *Gryllus assimilis* and *Gryllodes sigillatus*. Crickets are largely being explored for use as human protein, and exotic animal or pet feed – as well as, to a lesser extent, livestock and fish feed. Insect welfare is of growing interest to consumers who are considering incorporating insect protein into their diets, as well as to many producers. However, no studies have considered the welfare concerns of farmed crickets under current industry conditions. Using an established model for assessing farmed insect welfare, we assess potential welfare concerns for the three most-farmed cricket species, including: interspecific interactions (including parasites and pathogens), temperature and humidity, light cycles, electrical shocks, atmospheric gas levels, nutrition and hydration, environmental pollutants, injury and crowding, density, handling-associated stress, genetics and selection, enrichments, transport-related challenges, and stunning, anesthesia, and slaughter/depopulation methods. From our assessment of these factors, we make recommendations for improving cricket welfare now and as the industry continues to grow; in addition, we identify research directions that will improve our understanding of cricket welfare. We conclude by broadly discussing the importance of addressing the welfare challenges presented by the insects as food and feed industry for the animals and for the growth and health of the industry itself.

Cognition-Emotions

26/07/2024 : Horses can learn to identify joy and sadness against other basic emotions from human facial expressions

Document type: scientific article published in Behavioral Processes

Authors: Plotine Jardat, Zoé Menard-Peroy, Céline Parias, Fabrice Reigner, Ludovic Calandreau, Léa Lansade

Preview: Recently, horses and other domestic mammals have been shown to perceive and react to human emotional signals, with most studies focusing on joy and anger. In this study, we tested whether horses can learn to identify human joyful and sad expressions against other emotions. We used a touchscreen-based automated device that presented pairs of human portraits and distributed pellets when the horse touched the rewarded face. Six horses were trained to touch the sad face and 5 the joyful face. By the end of training, horses' performances at the group level were significantly higher than chance level, with higher scores for horses trained with the sad face. At the individual level, evidence of task learning varied among horses, which could be explained by individual

variations in horses' ability to identify different human facial expressions or attention issues during the tests. In a generalization test, we introduced portraits of different humans than those presented during training. Horses trained with the joyful face performed better than chance, demonstrating generalization. Conversely, horses trained with the sad face did not. Horses also showed differences in learning performance according to the non-rewarded emotion, providing insights into horses' cognitive processing of facial expressions.

22/07/2024 : The odour of an unfamiliar stressed or relaxed person affects dogs' responses to a cognitive bias test

Document type: scientific article published in **Scientific Reports**

Authors: Z. Parr-Cortes, C. T. Müller, L. Talas, M. Mendl, C. Guest, N. J. Rooney

Preview: Dogs can discriminate stressed from non-stressed human odour samples, but the effect on their cognition is unstudied. Using a cognitive bias task, we tested how human odours affect dogs' likelihood of approaching a food bowl placed at three ambiguous locations ("near-positive", "middle" and "near-negative") between trained "positive" (rewarded) and "negative" (unrewarded) locations. Using odour samples collected from three unfamiliar volunteers during stressful and relaxing activities, we tested eighteen dogs under three conditions: no odour, stress odour and relaxed odour, with the order of test odours counterbalanced across dogs. When exposed to stress odour during session three, dogs were significantly less likely to approach a bowl placed at one of the three ambiguous locations (near-negative) compared to no odour, indicating possible risk-reduction behaviours in response to the smell of human stress. Dogs' learning of trained positive and negative locations improved with repeated testing and was significant between sessions two and three only when exposed to stress odour during session three, suggesting odour influenced learning. This is the first study to show that without visual or auditory cues, olfactory cues of human stress may affect dogs' cognition and learning, which, if true, could have important consequences for dog welfare and working performance.

11/07/2024 : A Review of the Effects of Stress on Dairy Cattle Behaviour

Document type: scientific overview published in **Animals**

Authors: Viktor Jurkovich, Péter Hejel, Levente Kovács

Preview: In this narrative review, the authors summarise the relationship between stress and behaviour and how dairy cattle cope with stressors. Based on the available literature, the most common stressors in intensive dairy cattle farming, such as pain, disease, heat stress, poor comfort caused by technology, and social stress, are surveyed. The authors describe how these stressors modify the behaviour of dairy cattle, influencing their feeding patterns, social interactions, and overall well-being. Additionally, the review explores the effectiveness of various coping mechanisms employed by dairy cattle to mitigate stress, including physiological adaptations and behavioural responses. This review is a valuable resource for understanding and grading stress in dairy cattle through behavioural reactions. Elucidating the intricate interplay between stressors and behaviour offers insights into potential interventions to improve animal welfare and productivity in dairy farming.

Furthermore, this review highlights areas for future research, suggesting avenues for more comprehensive behavioural studies to enhance our understanding of stress management strategies in dairy cattle.

30/06/2024 : Capacités cognitives et émotionnelles des animaux d'élevage

Document type: Q and A sheet published on the website of the Académie d'Agriculture de France (in French)

Authors: Léa Lansade et Ludovic Calandreau

Preview: Recent findings on the cognitive and emotional capacities of farm animals are profoundly challenging the conventional wisdom that these animals are devoid of intelligence and sensitivity. Domestication has not altered the cognitive capacities of farm animals, but it has undoubtedly shaped them. All this research paves the way for a better understanding of their mental and emotional lives, with important implications for their welfare and ethical treatment.

Link to data sheet (pdf in French)

Conferences-Seminars-Training

Du 06 au 08/11/2024 : Formation "Le bien-être des bovins au cours de l'élevage" - Evaluer le bien-être pour mieux le prendre en compte

Document type: Training announcement from Idele (in French)

Author: Idele

Presentation : This training course offers an approach to cattle welfare, from the basics to on-farm assessment for advisory purposes, via an overview of the various welfare indicators and assessment methods.

Objectives:

- Define bovine welfare and explain the issues involved
- Identify the indicators and main assessment tools, and set a target
- Measure welfare on a cattle farm by observing the animals
- Integrate welfare into advisory services

Public: livestock advisors, technicians

Pre-requisites: none

Program:

- The different representations of animal welfare (BEA) in society, stakeholders
- The scientific definition of BEA
- Frameworks for work on BEA
- Welfare assessment methods
- Measuring BEA on a cattle farm based on animal observation
- Integrating BEA into your advisory activity: workshop work

Training coordinator: Anne Aupiais

30/07/2024 : La Faculté de Droit (FLD) de l'Université Catholique de Lille lance un Diplôme Universitaire dédié au droit animalier pour la rentrée 2024

Document type: article published in **Savoir Animal** (in French)

Author: Matthieu Meerpoël

Preview: From the beginning of the coming academic year, the Faculty of Law at the Catholic University of Lille (FLD) will welcome students for a University Diploma (UD) in Animal Law. Led by Matthieu Meerpoël, a lecturer and researcher in law at the FLD, this course addresses the current debate on animal welfare and rights and the position of animals in human society. This diploma is intende for both law students and professionals with legal experience who wish to deepen their knowledge in the field. Since launching its university diploma in environmental law in 2023, the FLD is continuing to enrich its teaching offer to meet the challenges of the future. With 192 hours of classes (including 144 compulsory hours), this UD is the most comprehensive in France on the subject of animal law and the first UD to specialize in animal law in the Hauts-de-France region.

Objectives: to train law students to specialise in animal law and to allow professional lawyers to deepen their knowledge or develop a specialism. The UD is open to all law students and professionals from all backgrounds (lawyers, veterinary services, local civil servants, customs officers, national police officers, and Ministry of Justice and Prefecture employees) with legal experience. (…)

What is on the syllabus?

– an introductory unit to the law including a basic science module on the status of animals (biological and psychological definition).

– an in-depth unit on the fundamentals of animal law, (history of animal law, animal ethics, information on those who play a part in animal law). The UD also covers the primary areas of the law and the place of animals in each major legal category and according to their environment (domestic, zoos, farming, etc.).

– a further in-depth unit on the areas of animal law with several options (equine law, legal personality of animals, veterinary law, animal criminology, etc.).

– a practical module on animal law: animal law clinic, animal law factory with lecturers from the associated fields and a module on rewriting the law, looking at lobbying by associations.

With a hybrid format and flexible schedules, this course is tailored to the pursuit of professional activities or studies, for those who wish to develop national and international (French-speaking) influence.

Among the speakers are professors, associations, and lawyers including Graziella Dode, a lawyer specializing in animal law at the Lille Bar, who achieved the recognition of animal damage by the Lille courts.

27/07/2024 : Animal welfare: 1st master's degree in animal husbandry

Document type: article published in **EPI**

Author: European Food Agency

Preview: The first edition of the 2nd Level University Master's Course in GEstion, Livestock Farming Sustainability and Animal Welfare - Gesaben was presented in the Aula Magna of the University of Sassari. The master's degree is the result of the collaboration between the University of Sassari and the Experimental Zooprophylactic Institute of Sardinia (IZS) 'G. Pegreffi' and is part of the educational offer of the Department of Agriculture for the A.A. 2023/2024: it is the first of the postgraduate academic offer at national level on issues related to the pillars of the new CAP 2023/2027 (Common Agricultural Policy) and the Classyfarm system, as well as on farm management, animal welfare protection and antimicrobial resistance reduction.

fc - 42896 Sassari, SS, Italia, 26/07/2024 15:47 **EFA News - European Food Agency**

Animal husbandry and Human-animal relationships

06/09/2024 : Farmers' views needed on castration and tail docking of lambs

Document type: survey ad published in **Farming UK**

Author: FarmingUK team

Preview: Farmers' views are needed on the castration and tail docking of lambs as the sector prepares for potential new restrictions. Sheep producers are being urged to take part in a **new NFU survey** exploring the two practices. The survey, which closes for responses at the end of this month, comes as the sector prepares for potential new rules from the Labour government. The NFU warned this could have a "detrimental impact on these routine management procedures". Feedback from the survey will provide the union with a better understanding of routine practices used within the sheep sector. Farmers' views will also help to explore the impact of introducing restrictions on these routine management practices and procedures. Tail docking and castration in lambs is considered necessary to manage negative health and welfare impacts caused by fly-strike, or to avoid unwanted pregnancies and complications during post-slaughter processing. Both procedures are permitted in the UK, governed by numerous legislation spanning decades. However, due growing pressure on the veterinary profession and resource, there is potential for regulatory changes to be taken forward by the new Labour government. The NFU said: "The NFU is therefore seeking sheep producers' participation in a short survey on the lamb production and husbandry and management methods. "This will provide us with a comprehensive understanding of practices within the sector and the necessary information and data to highlight the detrimental impact of introducing restrictions on these routine management procedures."
The deadline to participate in the **survey is 26 September 2024**.

02/09/2024 : Attitudes and professional values of veterinarians and veterinary students toward positive welfare states for dairy cattle

Document type: scientific article published in **Journal of Dairy Science**

Authors: M.W. Brunt, D.B. Haley, S.J. LeBlanc, D.F. Kelton

Preview: Research that involves agricultural animal welfare has typically aimed to improve welfare by decreasing disease, distress, and pain. Positive welfare does not necessarily occur with the absence of suffering but in combination with opportunities for behaviors or affective states desired by animals. Our objectives were to describe Canadian bovine veterinarians' and veterinary students' attitudes, professional normative values, and perceived ability to promote positive welfare for dairy cows, and to explore participants' provided rationale. With an online cross-sectional survey, Canadian veterinary practitioners (n = 78) and veterinary students (n = 148) were asked, on a 7-point Likert scale, about their attitudes, perceived professional normative values, and perceived ability of veterinarians to promote positive welfare for dairy cows. We used an applied thematic analysis approach within the qualitative description methodology to analyze participants' open-ended text responses. Quantitatively, participants had very favorable attitudes (mean ± SE; 6.3 ± 0.04) and perceived favorable values (5.7 ± 0.06) in the veterinary community toward positive welfare opportunities for dairy cows. Three themes were identified to explain the professional normative values: influences from within the veterinary profession, influences from outside the veterinary profession, and personal views of participants. Participants were confident that veterinarians could suggest positive welfare opportunities for dairy cows (6.1 ± 0.06) but were uncertain that the decision to suggest these opportunities to producers was within a veterinarian's control (4.3 ± 0.11) and were not confident that implementation of positive welfare opportunities was under a veterinarian's control (2.1 ± 0.07). Three themes were identified to explain the barriers to veterinarians promoting positive welfare opportunities for dairy cows: not practical to implement, resistance to change, and concern for the animal. Participants stated that many positive welfare opportunities were impractical or expensive to implement. We conclude that positive attitudes and positive professional values exist in the veterinary community toward positive welfare for dairy cows but that much uncertainty exists regarding a veterinarian's ability to influence change to current practices.

29/08/2024 : Evaluation of a scheme to identify risks for tail biting in pigs

Document type: scientific article published in **PLoS ONE**

Authors: D'Alessio RM, Mc Aloon CG, Correia-Gomes C, Hanlon A, O'Driscoll K

Preview: The study aimed to assess the effectiveness of a tail-biting risk assessment scheme. The scheme consisted of trained private veterinary practitioners (assessors) applying a risk assessment tool on commercial pig farms to six pens per farm. The assessment tool included animal and non-animal-based observations which were used to determine the perceived risk of tail biting for each pen. For this study 27 farms were assessed, and a subsequent batch of pigs from each farm underwent post-mortem tail lesion scoring at the abattoir. The assessments revealed that a high percentage of pens had fully slatted flooring (92%) and mixed-sex populations (84%), with a significant proportion of pens containing pigs which were all tail docked (92%). Most pens (86%) did not allow all pigs simultaneous access to feeders. Enrichment was present in 88% of the pens, but most (46%) were supplied with only one item, and only 15% offering multiple enrichment types. The study found no significant associations between the risk of tail biting and visible injuries, dirty flanks,

or tucked tails, as assessed by the assessors (P ≥ 0.05). Similarly, the risk of tail biting reported per pen was not associated with aggressive, damaging, or exploratory behaviours (P ≥ 0.05). At the abattoir, 96% of pigs' tails exhibited minor skin damage, with only 4% showing moderate to severe damage. Furthermore, no links were found between the scores obtained during slaughter and the risk of tail biting, as reported by the assessors (P ≤ 0.05). Although the tool was useful in identifying several improvements that could be made at farm level in areas such as stocking density, enrichment provision and reducing tail docking, overall the results underscored the need for improved training of assessors, and the challenge of associating management practices and animal based measures with tail-biting risk.

Precision farming

31/08/2024 : Combining Automated Behaviour Recognition and Physiological Data to Characterize Heat Tolerance and Animal Welfare in Growing Pigs

Document type: scientific article uploaded to the SSRN website

Authors: Poullet Nausicaa, Guichard Johanna, Beramice David, Dantec Laurent, Gourdine Jean-Luc, Bonneau Mathieu

Preview: Estimating animal behaviour during heat stress (HS) is particularly insightful to monitor animal welfare but also to better understand how animals thermoregulate. The present study is a proof of concept combining computer vision to monitor animal behaviour, continuous monitoring of subcutaneous temperature and recording of ambient temperature, with the aim to study the link between behaviour and animal body temperature during HS. A total of 22 pigs were video-monitored from 8:00 to 18.00 under two contrasted conditions: HS corresponding to the tropical climate (between 20.3°C and 27.9°C) and Thermoneutral (TN) consisting of an indoor temperature-controlled room at 22°C. Animal temperature (Tmuscle) and ambient temperature were monitored continuously using temperature loggers. Pig postures estimated by a neural network show that animal in HS spend more time lying laterally and less time lying sternally than in TN. Moreover, in HS, the length of the lateral sequences increased with the outdoor ambient temperature. The ability of an animal to dissipate heat while lying laterally was quantified through a Heat Dissipation Coefficient (HDC), combining Tmuscle and lateral lying sequence duration, and showed great individual variation. A Heat Discomfort Index (HDI) was also determined to quantify the difference in time spent lying laterally between HS and TN and could be useful as a proxy to quantify animal welfare reduction due to HS. This study demonstrates that combining image analysis to monitor animal behaviour and physiological data is an efficient tool to derive quantitative criterion to characterize animal welfare and traits related to heat tolerance.

20/08/2024 : Precision Livestock Farming: Revolutionizing Animal Health and Behavior Monitoring

Document type: article published in Market Research Reports

Author: Markets and Markets

Preview: The livestock industry is undergoing a transformation with the rise of Precision Livestock Farming (PLF). This technology-driven approach to livestock management is revolutionizing the way farmers monitor and maintain the health and behavior of their animals. Among the various applications of PLF, livestock health and behavior monitoring is emerging as a pivotal area, expected to witness the highest growth rate during the forecast period.

Understanding Precision Livestock Farming

Precision Livestock Farming is the application of technology and data analytics to monitor, manage, and optimize the health, welfare, and productivity of livestock. By utilizing sensors, cameras, wearable devices, and advanced software, farmers can collect real-time data on various aspects of animal behavior and health, including feeding patterns, movement, body temperature, and even social interactions. This data is then analyzed to provide insights that help in making informed decisions to improve the overall well-being of the herd.

The Growth of Health and Behavior Monitoring

The demand for health and behavior monitoring within the PLF industry is driven by several factors:

- Rising Awareness of Animal Welfare (...)
- Need for Disease Prevention and Control (...)
- Efficiency in Resource Management (...)
- Enhanced Productivity (...)

Technological Innovations Driving Growth

Several technological advancements are propelling the growth of health and behavior monitoring within the PLF sector:

- *Wearable Devices:* These are attached to animals to monitor vital signs, activity levels, and stress indicators. They provide continuous data that can be analyzed to assess the overall health of each animal.
- *Advanced Imaging and Sensors:* Cameras and sensors placed in barns or pastures can track movement, eating habits, and social interactions. These systems can detect deviations from normal behavior, which may signal health problems.
- *Artificial Intelligence and Machine Learning:* AI-driven algorithms are used to process the vast amounts of data generated by PLF systems. These technologies can predict health issues before they become severe, offering recommendations for preventive measures.

Market Outlook and Future Trends

The precision livestock farming industry is poised for significant growth, with the health and behavior monitoring segment expected to lead the charge. As technology continues to advance and become more accessible, more farmers are likely to adopt these systems, recognizing the long-term benefits they offer in terms of animal welfare, productivity, and profitability. Future trends in this space may include the integration of blockchain for enhanced traceability, further advancements in AI for predictive analytics, and the development of more sophisticated wearable devices that offer even greater insights into animal health. The rise of Precision Livestock Farming, particularly in the area of health and behavior monitoring, represents a significant shift in how the livestock industry operates. As the demand for sustainable, ethical, and efficient farming practices grows, so too will the adoption of PLF technologies. This trend is not just about improving farm operations; it’s about creating a more sustainable and humane approach to livestock management that benefits animals, farmers, and consumers alike.

PDF Brochure: https://www.marketsandmarkets.com/pdfdownloadNew.asp?id=29706557

08/08/2024 : Machine learning-based understanding of aquatic animal behaviour in waters

Document type: scientific article published in Expert Systems with Applications

Authors: Ignacio Martinez-Alpiste, Jean-Benoît de Tailly, Jose M. Alcaraz-Calero, Katherine A. Sloman, Mhairi E. Alexander, Qi Wang

Preview: Inspired by the ambitions envisioned in the Fourth Industrial Revolution for aquaculture, also known as Aquaculture 4.0, the aquaculture (marine animal farming) industry is seeking to adopt data-driven Artificial Intelligence (AI) to help significantly improve business operations. One of the major barriers is the manual annotation of animal behaviour data, which is a time-consuming task that demands high levels of concentration from biologists. To address this challenge, this paper proposes novel automatic animal behaviour monitoring tailored for industrial scenarios. Our approach introduces a real-time machine-learning-based instance segmentation system that is specialised for underwater environments, where large groups of shrimp are farmed. The implemented system achieves an accuracy rate of 89% at 30 frames per second (fps) and can accurately detect shrimp in high-density areas under poor lighting conditions and high turbidity waters, despite the challenges of occlusion and overlapping. A key innovation of our method is the implementation of a new density cluster algorithm for time series and video analysis. This approach provides a more efficient and accurate way of monitoring animal behaviour, significantly saving time and effort for biologists and advancing the capabilities of automated aquaculture systems.

14/03/2024 : Heat stress measuring methods in dairy cows

Document type: scientific article published in Acta IMEKO

Authors: Alessandra Aloia, Aristide Maggiolino, Lucrezia Forte, Pasquale De Palo

Preview: The most widely used predictor to assess the incidence of thermal stress in livestock is THI, the temperature humidity index. However, it is an indicator that disregards the individual animal and the specific farm conditions. This review aims to list and summarize other thermal stress predictor factors, by using non-invasive and cost-effective strategies, in particular with the aid of Precision Livestock Farming technologies. When it comes to dairy animals the metabolic load is already increased by milk production, so the effect of heat stress can exacerbate the overall welfare of the cow. Therefore, the animals enact copying mechanisms that may result in physiological, behavioral and productive alterations. Those animal-based parameters can be used as early predictors of heat stress, allowing the farmer to collect real time data and address the condition operating management strategies in order to prevent further detrimental effect on the performance and consequent economic losses.

Ethics-Sociology-Philosophy

01/08/2024 : The Animal-Welfare Levy

Document type: preprint of socio-economic article uploaded to the SSRN website

Authors: Romain Espinosa, Nicolas Treich

Preview: We provide a non-anthropocentric rationale for implementing a levy on meat consumption due to animal-welfare considerations. It operates as a Pigouvian tax and addresses externalities on farmed animals. Under total utilitarianism, the levy is a subsidy when an animal's life is worth living, and a tax when it is not. Under average utilitarianism, it is always a tax when human welfare exceeds animal welfare. Even under conservative assumptions, calibrated tax levels are substantial and would make most-intensive animal farms unprofitable. Taxes are significantly higher for chickens and pigs than for cows, in contrast to the taxation of other meat externalities.

23/04/2024 : Animal behaviour and welfare research: A One Health perspective

Document type: scientific article published in **Research Ethics**

Author: James William Yeates

Preview: Animal behaviour and welfare research are part of a wider endeavour to optimize the health and wellbeing of humans, animals and ecosystems. As such, it is part of the One Health research agenda. This article applies ethical principles described by the One Health High Level Expert Panel to animal behaviour and welfare research. These principles entail that animal behaviour and welfare research should be valued equitably alongside other research in transdisciplinary and multisectoral collaboration. It should include and promote a multiplicity of marginalized voices, including those of animals, and it should apply and describe a harmonious balance between human—animal-environment interactions. Lastly, it should describe how humans need to change behaviour, adopt sustainable solutions and recognize the importance of animal welfare and the integrity of the whole ecosystem.

Animal welfare assessment and Labelling

06/08/2024 : Evaluating a crowding intensity scale and welfare indicators for Atlantic salmon in sea cages

Document type: scientific article published in **Aquaculture Reports**

Authors: Lars Helge Stien, Jonatan Nilsson, Chris Noble, David Izquierdo-Gomez, Elisabeth Ytteborg, Gerrit Timmerhaus, Angelico Madaro

Preview: A 5-level crowding intensity scale for directing and auditing the crowding of Atlantic salmon in sea cages based on surface observations is currently included in standards, manuals, and guidelines for fish farmers. Here we test the feasibility of using this scale to create distinct crowding levels, the effects of these different levels upon fish welfare, and the suitability of a set of possible operational welfare indicators (OWIs) and laboratory-based welfare indicators (LABWIs) to be included in toolboxes for monitoring and assessing fish welfare in relation to the crowding of salmon in sea cages. Crowding level 1 was not included in this study since this is a very light level of crowding, and also not level 5 as this level clearly would harm the fish and lead to mortalities. We were able to use the scale to create three distinct crowding levels in two of three separate crowding events in 12×12m2 sea cages. Although the farm personnel were experienced, it soon became

evident that underwater monitoring of fish behaviour and how the net was tightened around the fish was important to make sure that no pockets or irregularities that could harm the fish were formed during the crowding. Despite evidence of increased stress and epidermal damage with increased crowding intensity, there were no clear indications that this led to any long-term detrimental effects on fish welfare. In conclusion an OWI-toolbox for crowding should include both surface and underwater observations, monitoring of oxygen conditions, and morphological injury data to steer decisions to prevent welfare problems and mortalities. In addition, qualitative assessment of fish behaviour, plasma cortisol, and skin histology can be included in a LABWI-toolbox if more in-depth information on the effects from the crowding is wanted.

23/07/2024 : Horse welfare in semi-extensive system: establishing a welfare protocol and comparing pasture and stable farming systems

Document type: scientific article published in Italian Journal of Animal Science

Authors: Raspa, F, Valle, E, Ozella, L, Bergero, D, Tarantola, M, Necci, A, Bertocchi, L, D'Avino, N, Paniccià, M, De Palo, P, Nannoni, E, Martelli, G, Forte, C

Preview: There is not a welfare protocol for horses reared for meat production in semi-extensive systems. The aims of the study were to develop a specific welfare protocol suitable to be applied at pasture and on stable; and to evaluate whether the welfare items were influenced by the farming system (pasture vs stable). 52 non-animal-based measures (N-ABMs) and 14 animal-based measures (ABMs), classified into 6 thematic areas (training, feeding, facilities, ABMs, biosecurity, health management) were selected by a focus group. The protocol was applied on a total of 429 Catria horses located across 26 pastures during the warm seasons and on 7 stables during the cold seasons. Differences obtained within each horse-unit were calculated by using the diversity index (VARNC) and the distance from the ideal (dfi) index. Chi-square test was used for comparing the relative frequencies (%) of the answers (pasture vs stable). Most the welfare items were classified as adequate in both pasture and stable, yet differences were found within 'training' ($p = 0.02$) and 'feeding' ($p \leq 0.01$) areas in relation to the welfare items 'inspection of the animals' and 'feeding management'. Weaknesses of both pasture and stable were represented by some welfare items in the 'health management' and 'biosecurity' areas. After proper validation, the welfare protocol developed in the present study could help to fill the existing gap of knowledge on horse welfare assessment for semi-extensive system systems, providing support for official control of veterinarians and enabling the identification of key weakness to address preventive interventions.

18/07/2024 : Behaviour and welfare assessment of autochthonous slow-growing rabbits: The role of housing systems

Document type: scientific article published in PLoS ONE

Authors : Laura Ozella, Stefano Sartore, Elisabetta Macchi, Isabella Manenti, Silvia Mioletti, Barbara Miniscalco, Riccardo Crosetto, Patrizia Ponzio, Edoardo Fiorilla, Cecilia Mugnai

Preview: Understanding the farming system impact on animals is crucial for evaluating welfare. Rabbits exhibit distinct behaviours influenced by their surroundings. The conditions in which they are raised directly influence behaviour and stress responses, emphasizing the importance of providing an optimal environment for their overall well-being and growth. In this study, we assessed the behaviour and welfare of two Italian local rabbit populations, namely the grey rabbit of Carmagnola and the grey rabbit of Monferrato. These rabbits are not yet officially recognized as breeds, but they are commonly used in Italy for meat production and represent a distinctive phenotype and local heritage among farmers and consumers. We analysed the behavioural patterns, physiological responses, and blood parameters of the animals to assess the influence of both age and three distinct housing systems (traditional single cages, group farming, and a mixed system) on rabbits' welfare. In this study, 294 weaned males with 35 days old were divided into three housing systems with seven replicates each until reaching slaughtering age (100 days of age). A traditional single cage system, a group farming with 10 animals each replicate and a Mixed pilot system with 10 rabbits initially grouped, then transferred to single cages. The findings from the behavioural analysis and the evaluation of salivary and hair corticosterone levels demonstrate that both the housing system and the age of the rabbits exerted significant effects on their welfare. Rabbits in group housing displayed a wider range of behavioural patterns, including increased kinetic activities such as running, walking, and exploration. However, this housing system was associated with higher levels of both salivary and hair corticosterone, indicating a high acute and chronic stress condition. The single cage system was associated with higher levels of acute stress and a low frequency of kinetic activities and social interactions, with a predominant behaviour of turning on themselves. The age factor significantly influenced the occurrence of behaviours, with younger rabbits exhibiting higher levels of kinetic activities, while social behaviours such as attacks and dominance were more prevalent as the rabbits reached sexual maturity (around 80–85 days of age). Moreover, the attainment of sexual maturity coincided with an increase in salivary corticosterone levels. We found a significant association between attack behaviours, escape attempts, and elevated corticosterone levels, by demonstrating that these behaviours can be used as indicators of decreased animals' well-being. Our findings underscore the importance of considering both the housing environment and the temporal dimension in the study of behaviour and welfare. This enables a comprehensive assessment of appropriate rearing management techniques. By understanding the social dynamics and stress sources within housing systems, farmers can implement measures to enhance animal welfare and create a conducive environment for the health and behaviour of rabbits.

17/07/2024 : Evaluation of candidate data-based welfare indicators for veal calves in Switzerland

Document type: scientific article published in **Frontiers in Veterinary Science**

Authors: Sibylle Zwygart, Barbara Lutz, Beat Thomann, Dimitri Stucki, Mireille Meylan, Jens Becker

Preview: Welfare assessment protocols have been developed for dairy cows and veal calves during the past decades. One practical use of such protocols may be conducting welfare assessments by using routinely collected digital data (i.e., data-based assessment). This approach can allow for continuous monitoring of animal welfare in a large number of farms. It recognises changes in the animal welfare status over time and enables comparison between farms. Since no comprehensive

data-based assessment for veal calves is currently available, the purposes of this review are (i) to provide an overview of single existing data-based indicators for veal calves and (ii) to work out the necessary requirements for data-based indicators to be used in a comprehensive welfare assessment for veal calves in Switzerland. We used the Welfare Quality Protocol® (WQ) for veal calves and the Terrestrial Animal Health Code from the World Organisation of Animal Health for guidance throughout this process. Subsequently, routinely collected data were evaluated as data sources for welfare assessment in Swiss veal operations. The four WQ principles reflecting animal welfare, i.e., *'good feeding'*, '*good housing'*, '*good health'* and *'appropriate behaviour'* were scarcely reflected in routinely available data. Animal health, as one element of animal welfare, could be partially assessed using data-based indicators through evaluation of mortality, treatments, and carcass traits. No data-based indicators reflecting feeding, housing and animal behaviour were available. Thus, it is not possible to assess welfare in its multidimensionality using routinely collected digital data in Swiss veal calves to date. A major underlying difficulty is to differentiate between veal calves and other youngstock using routine data, since an identifying category for veal calves is missing in official Swiss databases. In order to infer animal welfare from routine data, adaptations of data collection strategies and animal identification are required. Data-based welfare assessment could then be used to complement on-farm assessments efficiently and, e.g., to attribute financial incentives for specifically high welfare standards accordingly.

15/07/2024 : Evaluating Potential Indicators of Welfare for Zoo Birds during an Avian Influenza Enforced Housing Order

Document type: scientific article published in **Journal of Zoological and Botanical Gardens**

Authors: Thomas Collard, Paul Rose

Preview: Unusual or extraordinary circumstances can cause change to normal husbandry regimes and daily care of managed animals. Increased biosecurity due to disease risk, for example, results in animals experiencing restrictions. Outbreaks of Highly Pathogenic Avian Influenza (HPAI) have caused zoos to remove birds from their regular exhibits and manage them indoors or in covered enclosures to reduce the likelihood of an HPAI outbreak on site. To date, there has been little research on the impacts of such husbandry change on bird behaviour and welfare. This paper examines the effect of an HPAI-induced enforced housing order (HO) on the behaviour and physical condition of a flock of Chilean flamingos in a UK zoo. Using ZooMonitor to record flock-wide behaviour patterns and scoring plumage condition, we collected data on flamingos during a housing order, immediately after lifting of the HO, and after a period of acclimation to their regular routine. Results showed that flamingos were very inactive under a HO and after release, that abnormal, redirected foraging actions occurred during the HO and after release, and that flamingos were more alert under the HO. An increase in records of good plumage condition correlated with social behaviour, inactivity, higher temperatures, and rain. This research highlights the multifactorial influences on zoo animal behaviour and shows why information on the animals, their inputs, the behavioural outputs they present, and their physical attributes should all be gathered and evaluated together to best understand the influences of husbandry and management changes on behaviour and welfare.

11/07/2024 : Welfare assessment of European brown hares (*Lepus europaeus*) reared in captivity for their subsequent release

Document type: scientific article published in European Journal of Wildlife Research

Authors: Katarina Nenadović, Marijana Vučinić, Ljiljana Janković, Vladimir Drašković, Radislava Teodorović, Milutin Đorđević

Preview: For Serbian hunting grounds, the European brown hare (*Lepus europaeus*) is the most interesting type of small hunting game animal. However, the number of hares has decreased in recent decades, so hunters and authorities rear hares in captivity systems for their subsequent release. In order to investigate the welfare of cage-reared hares in Serbia, two captivity systems were analyzed. For welfare assessment, animal-based indicators were from the welfare quality assessment protocol for rabbits. The main welfare issues identified were locomotor stereotype behaviors (observed in 33.08%, 43/130 of caged hares), hairless areas on the animal (28.46%, 37/130), wounds on the body (18.46%, 24/130), wounds on the ears (16.92%, 22/130), and thin body condition score (BCS) (10.77%, 14/130). Significant correlations ($p \leq 0.001$) were found between some welfare indicators: thin BCS and wounds on the body; thin BCS and nasal discharge; wounds on the body and hairless areas, and; locomotor stereotype behaviors and hairless areas. The results of this study provide valuable insight into the impact of the captive rearing system on the welfare of European brown hares in Serbia.

Animal welfare initiatives

15/09/2024 : Maltraitance animale : ce refuge normand propose des mesures au Gouvernement

Document type: article published in La Voix le Bocage (in French)

Author: Nathan Blouin

Preview: Animal abandonment may be considered an act of mistreatment, and punishable by law, but it's still painfully topical. More than ever, in fact. In an assessment carried out in July 2024, the French government indicated that while the number of abandoned animals is difficult to quantify precisely, the number of animals taken into care by pounds and shelters - abandoned or not - "is not falling and remains at around 200,000 animals a year", according to a study carried out by French Reference Centre for animal welfare.

3677

This is the new toll-free number set up to report animal abuse, with a line open every day (9 a.m. to 7 p.m. Monday to Friday and 10 a.m. to 5 p.m. at weekends).

"There's no more lull, it's endless"

For its part, the Stéphane Lamart association "Pour la défense des droits des animaux" (For the defense of animal rights) spoke in 2023 of "more than 300,000 abandoned animals per year", based on the Solidarité-Peuple-Animal association. That's more than one abandonment every two minutes. And this figure, contrary to what one might think, does not only - or no longer - concern the summer

season and its long vacations, but the whole year round. (...) At the Aunay shelter in August, 96 animals (85 dogs, 5 cats and 6 new pets) have been taken into care since the beginning of the year.
Proposals to reverse the trend
But the association and the Aunay shelter are determined to attack the problem at its roots, in the hope of finally reversing the trend. To this end, they have called for a number of "priority" measures to be studied by the government.
The first would be to make sterilization of cats and dogs compulsory, with the introduction of a tax reduction or tax credit for private individuals to reduce the cost. Then we'd need to give more financial support to associations and shelters, for example through subsidies and by removing VAT from their veterinary fees, which would lighten the bills, which are rising sharply. After all, the cost of an adoption is not enough to cover all the expenses incurred by the animal prior to adoption. Failing that, the state should create more shelters. This last proposal would help to resolve, at least in part, the problem of animal requisitions, i.e. those that have to be taken into care following legal proceedings for animal abuse. (...) Finally, the association calls for a total ban on the publication of animal sales on the Internet, and for greater supervision of breeding operations, which would "reduce the risk of animal trafficking and unwanted litters, and thus reduce abandonment".
For those who wish to help, the Aunay shelter still needs the help of volunteers, and is appealing for donations of chew toys, which are essential on a psychological and physiological level.

13/09/2024 : Etude de cas - Norsk Kylling pionniers du bien-être animal et d'une production de poulets durable

Document type: article published in **CIWF Agroalimentaire** (in French)

Author: CIWF Agroalimentaire

Preview: Norwegian poultry producer Norsk Kylling has successfully converted 100% of its broiler production to meet the criteria of the **European Chicken Commitment** (ECC). Find out how Norsk Kylling has succeeded in combining profitability, animal welfare and environmental sustainability. These requirements include a reduction in stocking density, the use of slower-growing strains, the provision of natural light, the enrichment of the environment, and the use of respectful slaughtering methods, with no inverted hanging of live chickens.
Link to case study (pdf)

29/08/2024 : Agriculture : l'Aveyron renforce la prévention de la maltraitance animale

Document type: article published by **Millavois.com** (in French)

Author: Millavois

Preview: As part of its actions to promote animal welfare, the Aveyron authorities have introduced a local preventive unit to anticipate situations in livestock farming that can affect animal welfare. This initiative, which was set up in response to the 2016-2020 French National Plan, is intended to provide early detection of livestock farmers in difficulty and prevent situations from developing that could adversely affect animal welfare. The scheme comprises an emergency unit, managed by the Direction Départementale de l'Emploi, du Travail, des Solidarités et de la Protection des Populations (DDETSPP), and a prevention unit run by the Aveyron Chamber of Agriculture.

Purpose and operation of the prevention unit

The main purpose of the prevention unit is to spot distress signals from livestock farmers before problems reach a critical level. Challenges such as the vagaries of the weather, cash flow problems, work overload or health problems can affect farmers' ability to care for their animals, leading to situations of abuse or involuntary neglect. The prevention unit works in close collaboration with various bodies and agents in the field, including the MSA, farming unions, veterinary surgeons and the Gendarmerie. A steering committee meets annually under the aegis of the Aveyron Prefect and the President of the Chamber of Agriculture to oversee prevention actions. In addition, a technical committee meets several times a year to deal with reports received, which are strictly confidential and submitted only with the agreement of the farmers involved.

Results and assessment of actions taken

Since it was set up, the prevention unit has dealt with around fifty situations in the first two years. Of these, two were redirected to the emergency unit due to the seriousness of the situation, while thirteen saw a significant improvement, enabling a return to normal breeding conditions. Around thirty cases still require follow-up. The success of this system is based on a proactive, coordinated approach, combining technical, regulatory and health monitoring of farms. Preventive action helps to limit the seriousness of situations, by intervening before problems worsen.

To report situations of concern or obtain assistance, the Aveyron livestock prevention unit can be contacted by telephone on 05 65 73 78 07 or by e-mail at **cellule-prevention-elevage@aveyron.chambagri.fr**.

21/08/2024 : Commission approves €20 million Danish State aid scheme to support higher animal welfare standards for pigs

Document type: information published on the **European Commission** website

Author: Commission européenne

Preview: The European Commission has approved, under EU State aid rules, a Danish scheme, with a budget of approximately €20 million (DKK 151 million), to support higher animal welfare standards for pigs. The scheme is aimed at supporting pig farmers in the implementation of preventive measures that reduce the risk of tail-biting among pigs, which results from stress and sub-optimal living conditions of pigs, and that help avoid the need of tail-docking (the shortening of tails) of piglets. The preventive measures supported by the scheme include extra supervision, extra feeding and drinking places, and improved housing conditions. The scheme will run until 31 December 2029 and will be open to pig farmers in Denmark. Under the scheme, the aid will take the form of direct grants and subsidised services (such as training and development activities) and will cover up to 100% of eligible costs. The Commission assessed the scheme under EU State Aid rules, in particular under Article **107(3)(c)** of the Treaty on the Functioning of the EU, which allows Member States to support the development of certain economic activities under certain conditions, and the **2023 Guidelines for State aid in the agricultural and forestry sectors and in rural areas**. The Commission found that the scheme is necessary and appropriate to achieve the objective pursued, namely the promotion of animal welfare in the pork livestock sector, while supporting the objectives of the **Common Agricultural Policy** and the **Farm to Fork Strategy**. Furthermore, the Commission concluded that the scheme is proportionate, as it is limited to the minimum necessary, and will have

a limited impact on competition and trade in the EU. On this basis, the Commission approved the Danish scheme under EU State aid rules. The non-confidential version of the decision will be made available under the case number SA.114488 in the State aid register on the Commission's competition website once any confidentiality issues have been resolved.

Housing and Enrichment

02/09/2024 : Review: Rethinking environmental enrichment as providing opportunities to acquire information

Document type: review article published in Animal

Authors: I. Veissier, C. Lesimple, V. Brunet, L. Aubé, R. Botreau

Preview: Environmental enrichment, that is making the environment of animals more complex, was first designed to enhance the welfare and cognitive abilities of captive animals, and was more recently applied to farm animals. Enrichments can be sensory, physical, social, occupational, feeding-based, or a mix of these, with a view to improve animals' welfare. We posit that enrichments share the common factor of providing information to animals so that enrichment is all about providing the animal with a way to acquire information by interacting with the environment. Animals enjoy acquiring information, and the process of acquiring information acts in a way that enables them to better adapt to future environments. This reframed view of enrichment has several implications including prolonging the duration of exposure to an enrichment does not necessarily increase the impact of that enrichment, neutral and even slightly negative stimuli may still be enriching, complex and variable environments are enriching, and the more intensively an animal can engage with the environment, the more it will benefit from enrichments. These implications should be further explored by comprehensive re-analyses of findings from the enrichment literature and/or by dedicated experiments.

12/08/2024 : A five domains assessment of sow welfare in a novel free farrowing system

Document type: scientific article published in Frontiers in Veterinary Science

Authors: Kate Plush, David Lines, Lauren Staveley, Darryl D'Souza, Robert van Barneveld

Preview: The Maternity Ring was developed as a free farrowing alternative to crates that preserved space whilst providing the sow with unrestricted movement. This experiment aimed to apply the Five Domains model to assess sow welfare in the Maternity Ring in comparison with the farrowing crate. Eighty-eight sows were housed in a farrowing crate (FC) and 83 in a Maternity Ring (MR), and measures collected focussed on nutrition, environment, health, behaviour, and mental state outcomes. MR sows consumed less feed than FC sows (total feed intake: 93.8 ± 3.06 kg vs. 111.2 ± 3.13 kg; $p \leq 0.001$) but had reduced P2 backfat loss during lactation (0.0 ± 0.11 vs. 1.2 ± 0.11, $p \leq 0.001$). Fewer frustrated and pain-related behaviours during farrowing were observed in MR sows (bar biting: FC 3.3 ± 2.12 vs. MR 0.5 ± 0.29 events, $p = 0.038$, and back leg forward: FC 227 ± 50.7 vs. MR 127 ± 26.4 events, $p = 0.019$), and a decreased proportion of MR sows had facial injuries after farrowing (10% CI [5, 20] vs. 67% CI [47, 95], $p \leq 0.001$). More FC sows had udder damage at

weaning (70% CI [48, 97] vs. 10% CI [6, 24], $p \leq 0.001$), and their piglets were medicated more frequently when compared to those in MR (51% CI [40, 61] vs. 30% [21, 41], $p = 0.008$). MR sows tended to have a higher reaction score to piglet processing (MR 2.0 ± 0.38 vs. FC 1.2 ± 0.27, $p = 0.094$) and had more contact with piglets once the procedure was complete than FC sows (13.5 ± 2.55 vs. 6.9 ± 1.26 events, respectively, $p = 0.016$). Whilst there was no difference in anticipation of a feeding event ($p \geq 0.05$), MR sows displayed a reduced startle response to an aversive noise stimulus at day 18 (FC 2.8 ± 0.35, MR 0.7 ± 0.16, $p \leq 0.001$). Using the Five Domains framework, sows housed in the MR during farrowing and lactation have improved welfare than those in FC and can be thought of as being in a positive affective state.

07/08/2024 : Effect of different LED light colors on welfare, performance, some behavioral patterns, and blood parameters of Muscovy ducks

Document type: scientific article published in **BMC Veterinary Research**

Authors: Eman Hefnawy, Eman Elgazzar, Ahmed Sabek, Saeed El-laithy, Souad Ahmed

Preview: The current study was conducted to assess the impact of different LED light colors on welfare indicators in Muscovy ducks. These welfare parameters encompassed growth performance, specific behaviors, tonic immobility (TI), feather score, haematological, and serum biochemical parameters. Eighty-four healthy unsexed Muscovy ducklings aged two weeks were randomly assigned to four groups (3 replicates/group; each replicate contains 7 birds) based on different LED light colors. The first group was raised under white light, the second under red light, the third under blue light, and the fourth under yellow light. To assess the impact of various LED light colors on welfare, growth performance indicators (body weight, body weight gain, feed intake, and feed conversion ratio) were measured. Behavioral patterns including feeding, drinking, standing, walking, sitting, feather pecking, and other activities were recorded. Tonic immobility test (TI) and feather condition scoring were conducted at 3, 6, and 10 weeks of age. At the end of the study blood samples were collected for hematological and serum biochemical analyses. The results revealed that using blue, yellow, and red colors had no adverse effect on the final body weight of the ducks ($P \geq 0.05$). Unlike to red light, blue light significantly reduced feather pecking, TI time and cortisol concentrations and improved the feather condition score ($P \leq 0.05$). The current findings suggest that the application of blue light effectively improves welfare indices and has no detrimental impact on the growth performance of Muscovy ducks thereby positively contributing to their welfare.

06/08/2024 : Effects of different rooting materials on behaviour and welfare of finishing pigs

Document type: scientific article published in **Applied Animal Behaviour Science**

Authors: Ellen Marie Rosvold, Marko Ocepek, Inger Lise Andersen

Preview: Provision of rooting material is important to meet the pig`s need for exploration when housed inside. In this experiment we investigated the effects of different types of rooting materials and a weekly rotation in different materials on behaviour and welfare of finishing pigs. We predicted that access to rooting material would lead to more positive and less negative behaviours, and a lower

proportion of pigs with bite marks on ears, tail, and body. During two batches with a total of 360 finishing pigs, with 10 pigs per pen, rooting material was provided twice a day (pellets, peat, straw, hay, weekly rotation of these materials, or controls with sawdust) over 12 weeks. Behaviour was recorded from video in the two most active periods of the day; immediately after material provision, for 60 minutes, with instantaneous scan sampling every 6 min. and 1/0 sampling. Welfare protocol data was collected in weeks 1,2,3 and 12. Provision of rooting material resulted in more exploration ($P \leq 0.001$), play ($P \leq 0.001$) and tail wagging ($P = 0.010$) compared to the control group, except for pellets where exploration level was even lower than controls. Rooting material also led to less tail biting ($P = 0.002$) and manipulation of pen fittings ($P \leq 0.001$) compared to the control group. Straw and rotation of materials resulted in less ear biting ($P \leq 0.001$), and straw in fewer observations with the tail hanging down or tucked between the legs ($P \leq 0.001$). Aggression was not reduced ($P = 0.036$), and non-aggressive social contact was lower with rooting materials compared to controls ($P = 0.002$). Pigs provided with peat, straw, and hay had a lower proportion of bite marks on the tail ($P \leq 0.001$), whereas pellets and rotation groups were higher than controls in this respect. All rooting materials except for pellets resulted in a lower proportion of bite marks on the body compared to controls ($P = 0.018$). Levels of exploration, play, aggression, ear biting, tail curled, wagging and hanging down ($P \leq 0.001$), and tail biting ($P = 0.052$), were all higher in the first weeks of the experiment and declined with increasing age. Groups with a weekly rotation in materials showed the highest level of exploration throughout the experimental period ($P \leq 0.001$). Our results suggest that straw and hay are highly valued as resources for finishing pigs, and material rotation is the most stimulating.

04/08/2024 : Using Different Cage Enrichments to Improve Rabbits' Performance, Behavior, and Welfare

Document type: scientific article published in **Animals**

Authors: Elsayed M, Soliman F, Elghalid O, El-Sabrout K.

Preview: Environmental enrichment is about improving the surroundings in which your animal lives by providing opportunities to express behavioral activity normally, which in turn has a great impact on the animal's welfare and productivity. The aim of the present study is to investigate the impact of using different enrichment cage tools (a rubber floor, plastic-colored balls, and a mirror) on rabbits' physiology, productivity, carcass quality, behavior, and welfare. A total of 84 weaned rabbits (V-line) were randomly and equally assigned to 4 groups, each with 7 replicates (3 rabbits/replicate). The 1st rabbit group (T1) served as a control, while the 2nd group (T2) was enriched with rubber floors. The 3rd group (T3) was enriched with plastic-colored balls, and the 4th group (T4) was enriched with mirrors. Productive traits, including the weekly body weight and feed intake, as well as the carcass characteristics, were measured. Hematological parameters and biochemical constituents were determined according to the reference's description. Furthermore, behavioral activities, such as walking, resting, feeding, and drinking, were observed. According to the results, enriching the rabbit cages with plastic-colored balls and mirrors improved the marketing body weight and feed conversion rate. It also improved carcass quality characteristics, such as the carcass weight and dressing percentage. The T3 and T4 rabbits had higher RBCS, Hb, and hematocrit levels as well as lower WBCS levels. They also had significantly higher total protein, globulin, glucose, AST, and IgG

values than other treatments. In addition, they had significantly lower corticosterone levels and fear responses. Therefore, it is recommended to use plastic-colored balls and mirrors for rabbit farming for better productivity, behavior, and welfare.

27/07/2024 : Nest-building behavior of sows on jute bags: correlations with traits recorded around parturition and potentials as a selection criterion

Document type: scientific article published in **Applied Animal Behaviour Science**

Authors: Jinhyeon Yun, Kirsi-Marja Swan, Kirsi Vienola, Chantal Farmer, Claudio Oliviero, Olli Peltoniemi, Anna Valros

Preview: The extent to which sows show pronounced nest-building behavior (NBV) on available materials prepartum seems to have an influence on selected parameters in the context of farrowing. In the present study, the NBV of 770 purebred Landrace sows kept in farrowing crates was examined in relation to the course of birth (GV) and the number of piglets born dead (TGF) per litter. The sows were offered jute sacks (JS) and the NBV was assessed using the auxiliary trait "occupation with the JS". The suitability of NBV as a selection trait was examined additionally. Using a scoring scheme from 1 (no interest in JS) to 5 (JS torn), the NBV of the sows was scored at three points in time: 2 days ante partum (a.p.), one day a.p. and on the day of birth, whereby 3,643 observations were evaluated. The JS were mostly (56.2% of the observations) manipulated by the animal in the hanging state (grade 2). Statistically significant correlations in the low range were determined between NBV and GV as well as the number of TGF per litter. Including the trait NBV of sows in breeding programs is difficult due to the estimated low heritabilities of h2 = 0.02 (h2 = 0.00 to h2 = 0.08) and the lack of standardization. In addition, there are only low phenotypic correlations with the target traits GM and TGF.

12/07/2024 : Jardin d'hiver en élevages de poulets de chair : Etat des lieux des contraintes et solutions pour sa construction et gestion

Document type: technical summary produced as part of the Casdar COCORICO project run by ITAVI, published on the website of the **Chambre d'Agriculture de Bretagne** (in French)

Authors: Félicie AULANIER (Chambre d'Agriculture de Bretagne), Gwenn GUILLOU (Chambre d'Agriculture de Bretagne), Laure WARIN (ITAVI)

Summary: In recent years, so-called standard chicken farms have diversified to meet societal expectations and new private specifications. This summary provides food for thought on the introduction of winter gardens, their feasibility and technical consequences. Standard broiler rearing has diversified, with private specifications that go beyond the European directive, covering various criteria such as rearing time, living environment and feed. Some of these require the use of winter gardens, as recommended by the **EFSA** to improve animal welfare. Their implementation, however, raises questions of feasibility, management and profitability. The winter garden is a covered, partially open space adjoining the poultry house, offering an intermediate climate between the outdoors and the poultry house. Accessible at least during the day, it provides additional space for the animals

while protecting them from health risks and predation. The recommended minimum size for these gardens is 20% of the building's floor area. Renovating existing buildings to add winter gardens presents specific constraints, such as land availability, regulations and the characteristics of the existing building. Technical constraints may also arise: building height, fragile framework, presence of asbestos, and ventilation challenges (conservation of air circuits). In Switzerland, where standards are more stringent than in France, most chicken farms have winter gardens. They cover at least 20% of the indoor area and are accessible according to temperature and age criteria. Swiss farmers report frequent use of the gardens in summer, and difficulties in managing ventilation when hatches are opened, alleviated by fine-tuning and the implementation of certain tricks. Although winter gardens offer advantages for animal welfare, their implementation on standard French broiler farms poses significant economic and technical challenges. The initial investment is substantial, with additional costs for maintenance, energy and working time. Consideration of the product's market positioning and cost is essential.
Link to pdf (in French)

04/07/2024 : Review - Relational enrichment in ruminants and equines

Document type: scientific overview published by EURCAW Ruminants & Equines

Authors: Xavier Boivin et Ruth Newberry

Preview: This review presents the current knowledge on relational enrichment *(i.e. social enrichment)* in ruminants and equines. The specific animal needs for these enrichments are summarised and the enrichments investigated in the scientific literature and their impact on welfare are presented. Finally, gaps in knowledge are identified and recommendations for inspection are provided.
Link to pdf

18/06/2024 : L'œuf bat des records de consommation en France et la filière s'engage pour continuer à fournir le pays en lançant un nouveau plan de filière responsable, volontaire et ambitieux à 2030

Document type: article published on the CNPO website (in French)

Author: CNPO

Preview: Eggs are establishing themselves as a top consumer choice. They are the cheapest source of protein on the market and their in-store sales continue, making them an exception in the wider context of reduced consumption. In 2023, household egg purchases rose by 3%, an increase that is continuing in the current year. In the first 4 months of 2024, the pace of consumption even picked up, with home consumption up 5.2% on the same period last year. This enthusiasm allowed the industry to get back on its feet quickly following the blow of avian influenza. In 2023, production rose by 4%, restoring France's status as European champion in this regard, with almost 15 billion eggs laid over the year. However, despite the fact that ITAVI forecasts stable production for 2024, French egg professionals are still watchful over the market's degree of self-sufficiency. This dropped below

100% in 2022, and was recorded at 99.1% in 2023, opening the door to the threat of a flood of low-cost imports.
The industry has therefore taken the step of devising a new shared strategy, embracing every link in the supply chain, to ensure that egg production in France has a future. The French Egg Interprofessional Group - the CNPO - is launching its second industry plan. The plan is intended to build on the sector's progress in responding to consumer expectations, and to set new targets for 2030. In particular, the industry has decided to invest 300 million euros in the construction of 300 new hen production units to align its production capacity with demand in France. It calls for strong measures on the part of the authorities, particularly those that reduce the complexity of the formal paperwork required. The poultry industry will also continue its transition to alternative farming methods. With 73% of hens raised outside cages by the end of 2023, well above the first industry plan's target of 50% by 2022, the bar has now been raised even higher: 90% by 2030. The French egg industry has always been prepared to lead the way and act responsibly, and this new target confirms its commitment to animal welfare. France is also one of only two countries in the world to have adopted in-ovo sexing. It now urges the members of the new parliament to honor the commitments previously made by the French government, namely to take action to harmonize regulations at European level in order to avoid distortions of the level playing field between Member States.
Four Strategic Pathways for an Ambitious Plan
The professionals from every part of the industry's supply chain who make up the CNPO interprofessional group are committed to 4 firm pathways in their 2030 Industry Plan: to guarantee food sovereignty, to respond to societal challenges, to strengthen links between all those involved in the industry - from animal feed providers and farmers to distributors and end consumers - and to promote innovation to ensure that all industry members and consumers can adapt to the challenges of both today and tomorrow. The objectives set out in this new 2030 plan will thus enable the industry to continue its progress towards ensuring food sovereignty and providing quality products that respect animal welfare and the environment, while ensuring that all levels of the industry can make a living.
Eggs from France : Meeting Consumer Expectations [...]
A Concentration of Accessible Nutritional Qualities
As the least expensive animal protein on the market, eggs are considered to be a staple product in an emergency by more than 7 out of 10 French people (71%). [...]

31/03/2024 : Neigh-bours: Why every young horse needs good friends. A pilot study during the breaking-in period

Document type: scientific article published in **Applied Animal Behaviour Science**

Authors: Anna Flamand, Cheyenne Zellenka, Juliette Mos, Audrey Starczan, Aurélien Polak, Odile Petit

Preview: In natural conditions, horses (*Equus caballus)* are social animals that live in stable groups. However, horses are often housed in individual stalls from the moment they begin their initial training, also called *breaking-in*. Individual stabling induces social isolation and confinement, and is a source of particularly stressful events for the young horse alongside the breaking-in process. These experiences can lead to behavioural disorders in individual stalls and dangerous defensive

behaviours in human-horse interactions. This study aimed to evaluate how the maintenance of social contacts impacts the behaviour of young horses during breaking-in. The comparison involved 12 young horses all housed in individual stalls for one month: six individuals had the opportunity to interact socially in pairs for two hours a day (hereafter called “Social Condition") in a “social box", and six individuals had no access to a social partner (hereafter called “Isolated Condition"). We collected data for various behavioural variables during training sessions (body tension, conflict behaviours, cooperation and ear positions used as an indicator of the emotional state) and activities in the individual stalls. We found that horses in the Social Condition expressed fewer abnormal behaviours ($p \leq 0.001$) and stayed still more often ($p \leq 0.01$) in the individual stall compared to horses in the Isolated Condition. During training, we did not find any difference in ear positions ($p=0.068$) and cooperation ($p=0.766$) between the two groups of horses. However, horses in the Social Condition adopted a more relaxed attitude ($p \leq 0.01$) than those that were isolated. Although more stress-related behaviours like defecation ($p \leq 0.001$) and a tense attitude were observed in isolated horses ($p \leq 0.001$), these horses reacted less to the discomfort associated with training by head-tossing behaviour ($p=0.026$) and tail switching ($p=0.033$) than horses in the Social Condition. The latter would remain capable of reacting during the sessions. Our results indicate a possible beneficial impact of this socially enriched context on the first training experience of horses in the Social Condition. Finally, the device we used will promote the welfare of horses in equestrian facilities and will be in line with changes in society regarding respect for our domestic companions.

One Welfare

12/08/2024 : One Health Approach to Rabbit Farming: Balancing Act between Environmental Impact, Farmers Livelihood, and Animal Welfare

Document type: book chapter “From Farm to Zoo - The Quest for Animal Welfare” published by IntechOpen

Authors: Ibikunle Funso Olaleru, Ibukun Oluwatobi Busari, Olorunfunmi Isimioluwa Solana

Preview: The growing consumer demand for sustainable meat production can be met in a way that balances environmental effect, farmer livelihood, and animal welfare through rabbit farming. However, the different types of rabbit farming each present advantages, drawbacks, and challenges that extend to the environment, farmers, and the animals. Advantages include the facts that rabbits are prolific breeders and are highly efficient converters of feed into meat. Rabbit require less land, water, and feed compared to other livestock species. Greenhouse gas emission and waste production are relatively low, making rabbit farming a sustainable farming model. Despite being smaller than other livestock, rabbits still require adequate space for their well-being. Insufficient space can result in stress, health issues, and decreased productivity. The welfare of rabbits is a critical aspect. In addition to being legally and morally required, upholding high welfare standards and ensuring humane treatment improves the quality of output. Overpopulation and ethical considerations should be carefully managed to ensure responsible and sustainable rabbit farming practices. Ultimately, rabbit farming can serve as a feasible remedy for the challenges that are faced

in achieving sustainable meat production, provided that it is meticulously managed to maintain a harmonious equilibrium between environmental preservation, economic viability, and animal welfare.

30/06/2024 : How to concurrently achieve economic, environmental, and animal welfare performances in French suckler cattle farms

Document type: scientific article published in **Agricultural Systems**

Authors: Larissa Mysko, Jean-Joseph Minviel, Patrick Veysset, Isabelle Veissier

Preview: Society has a number of expectations around livestock farming that go beyond mere production and affordable food prices to now encompass high standards of animal welfare and environmental performance. Here we investigate whether and how it is possible to concurrently achieve good economic, environmental, and animal welfare performances on suckler cattle farms. We extracted economic indicators, proxies for animal welfare and environmental performances, and data describing farming practices and conditions from a technical-economic database featuring data collected from ≥ 250 French suckler farms over the period 2016–2022. We analysed the relationships between animal welfare performance, environmental performance and economic performance using a structural equation modelling (SEM) approach. We then used logit models to identify farming practices and conditions that promote 'multiperformance'. Farms that combine practices where nutritional needs of suckler cattle are synchronised with the grass availability cycle are more likely to multiperform. The synchronisation is managed by exploiting certain key animal characteristics (depletion and restoral of body reserves), choosing the right calving season, and selling animals well adapted to grass-feeding. Combining two analytical models—one establishing the relationships between several performance dimensions and one establishing the relationships between multiperformance and farming practices—allows to bridge the gap between theoretical concepts and concrete farming measures on the topical issue of achieving multiperformance in more than two dimensions, where the literature is still scarce.

Pain management

04/09/2024 : Less experienced observers assess piglet castration-induced acute pain differently than experienced observers: A pilot study

Document type: scientific article published in **PLoS ONE**

Authors: da Silva GV, Lopez-Soriano M, Pairis-Garcia MD, Trindade PHE

Preview: Behavioral pain scales have been helpful for standardized swine pain assessment. However, it is still unknown if observers' experience influences the scale score. We conducted a pilot study to investigate how three different levels of swine experience influenced how observers scored castration pain in piglets using Unesp-Botucatu Pig Composite Acute Pain Scale (UPAPS). We used a database from UPAPS scores from pigs undergoing surgical castration in a previous study. Scores were attributed by six observers with Little to no experience (n = 2), Some experience (n = 2) and

Extensive experience (n = 2). Reliability was estimated using the intraclass correlation coefficient, agreement was investigated by Bland-Altman analysis, predictive capacity was estimated using the area under the curve (AUC), and statistical differences were tested using a regression model. We found that intra-experience levels reliability were satisfactory (Little to no: 0.72, Some: 0.81, Extensive: 0.84), but inter-experience reliability was lower (0.42). Little to no experience observers had poor agreement with other observers, with a bias toward underscoring UPAPS (bias of 0.94 vs. Some, 1.17 vs. Extensive). Predictive capacity was similar between all observers (AUC, Little to no: 71.94%, Some: 76.10%, Extensive: 79.09%, $p \geq 0.05$). Regression model confirmed underscoring of Little to no experience observers (mean ± standard error; Little to no: 1.09 ± 0.14; Some: 2.02 ± 0.23; Extensive: 2.25 ± 0.22; $p \leq 0.05$). We concluded that minimal experience, as Some experience observers have in the swine industry, is sufficient for them to score UPAPS in a similar way than more experienced observers. The present pilot study supports the enhancement and implementation of UPAPS on farm and laboratory settings by minimally qualified observers, improving swine welfare in the short and long term.

12/08/2024 : Effects of meloxicam on the welfare of Holstein calves from 6 weeks to 6 months old undergoing amputation dehorning

Document type: scientific article published in Journal of Dairy Science

Authors: Jiancheng Qi, Jing Fang, Fangyuan Huang, Zhiqiang Li, Maqsood Ahmed Kumbhar, Hongrui Guo, Zhihua Ren, Yi Geng, Junliang Deng, Zhicai Zuo

Preview: Amputation dehorning (AD) is a common practice performed on calves, causing harmful effects such as pain, distress, anxiety, and fear. These effects extend to behavioral, physiological, and hematological responses, prompting serious ethical concerns regarding animal welfare, even when performed with local anesthesia. Meloxicam, a nonsteroidal anti-inflammatory drug, has been widely used to mitigate the side effects of dehorning and disbudding in calves. However, there is a notable gap in research regarding the effects of meloxicam on calves aged 6 wk to 6 mo undergoing AD procedures. This study was designed to assess the effectiveness of co-administering meloxicam with lidocaine, a cornual nerve anesthetic, in alleviating the adverse effects caused by the AD procedure in calves within this age range, compared with the use of lidocaine alone. Thirty Holstein calves were enrolled and randomly divided into 2 groups. The first group received a subcutaneous injection of 5 mL of lidocaine in the horn area and a subcutaneous injection of 0.9% saline at a dose of 0.025 mL/kg in the neck, administered 10 min before the AD procedure. The second group received a combination of lidocaine and meloxicam: a subcutaneous injection of 5 mL of lidocaine in the horn area and a subcutaneous injection of 20 mg/mL meloxicam at a dose of 0.025 mL/kg in the neck, also administered 10 min before the AD procedure. To avoid subjective bias, the researchers were blinded to the treatment groups. Pain-related behaviors, including tail flicking, head shaking, ear flicking, head rubbing, head crossing bar, and kicking, were observed, and physiological parameters, including heart rate, rectal temperature, respiration rate, mechanical nociceptive threshold (MNT), daily active steps, and food intake were monitored. Hematological conditions were determined using enzyme-linked immunosorbent assays and routine blood tests. The data were processed using a generalized linear mixed model. The outcomes demonstrated that the AD

procedure increased the frequencies of ear flicking and resulted in rises in the respiration rate, heart rate, rectal temperature, and daily active steps. It also led to decreases in total food intake, forage intake, hay intake, MNT, and increased concentrations of prostaglandin E2 (PgE2), IL-1β, tumor necrosis factor-α (TNF-α), nitric oxide (NO), and malondialdehyde, as well as glutathione peroxidase activity. However, calves that received meloxicam treatment showed significant improvements in response to the AD procedure, including lower respiration rates, heart rates, and rectal temperatures; higher MNT; and lower intermediate cell ratio. They also had higher red blood counts, hemoglobin levels, hematocrit values; larger mean platelet volumes; and lower concentrations of PgE2, IL-1β, TNF-α, and NO. These results suggest that co-administration of lidocaine and meloxicam may aid in mitigating the adverse effects induced by the AD procedure on these calves, thereby supporting the use of meloxicam in conjunction with a local anesthetic in AD procedures for calves aged 6 wk to 6 mo.

Regulation

19/09/2024 : Nomination d'un commissaire européen au bien-être animal

Document type: news from La Fondation Droit Animal, Ethique et Sciences (in French)

Author: Nicolas Bureau

Preview: On Tuesday September 17, the President of the European Commission, Ursula von der Leyen, announced the appointment of Olivér Várhelyi as Commissioner for Animal Health and Welfare. On paper, this seems to mark a turning point for the European Union. It is the first time that this theme has featured in the name of a portfolio, underlining for some observers the growing importance of animal welfare within European policies. The creation of this post also meets a long-standing demand from NGOs, who have been calling for clear responsibility for this issue within the Commission. However, we must not be too quick to rejoice, as this decision could be no more than a display measure, an internal reorganization of the services; yet a title should in no way replace the concrete action that has long been awaited on animal welfare.

A surprising choice of candidate

Olivér Várhelyi is a Hungarian diplomat. Trained as a lawyer, he began his career at the Ministry of Foreign Affairs before joining Hungary's Permanent Representation to the EU, where he played a key role in the accession negotiations in 2004. European Commissioner since 2019, he was previously responsible for Enlargement and the European Neighborhood Policy. Does his appointment to this new post stem from a desire to increase attention to animal welfare issues? A close friend of Hungarian Prime Minister Viktor Orbán, Várhelyi is a surprising choice for this subject. Indeed, he has often favored his country's interests over those of the Union, going against the grain of his role. His appointment is therefore controversial within the European Parliament. However, in order to officially take office, he will need to be approved by the Parliament.

High expectations for an ambitious mandate

Ursula von der Leyen has set Várhelyi several major objectives, including the revision of the animal welfare legislation by 2026 and the transition to cage-free systems. The new Commissioner will also have to work in coordination with Christophe Hansen, candidate for the Agriculture portfolio, to

implement the recommendations of the **strategic dialogue on the future of European agriculture**. These initiatives aim to modernize farming practices while improving the sustainability of the food chain (animal welfare labeling, promotion of plant proteins, reform of the Common Agricultural Policy to prioritize high animal welfare standards...). The Commissioner will also be required to work closely with his counterparts responsible for Fisheries, Trade and the Environment. His mandate will be all the more complex as the expected reforms, such as the increased use of biocontrol and the simplification of environmental standards, are taking place against a backdrop of high expectations and debate within the European institutions.

04/09/2024 : Strategic dialogue urges EC to deliver the revision of animal welfare legislation by 2026

Document type: article published by **Eurogroup for Animals**

Author: Eurogroup for Animals

Preview: As the 8-month-long process of the **Strategic Dialogue on the Future of EU Agriculture** reaches its conclusion, it is welcoming to see consensus by all stakeholders on the urgent need for a revision of EU animal welfare legislation by 2026 and a phase-out of cage systems, in line with scientific evidence that has consistently highlighted the repercussions of industrial agriculture on the welfare of animals, planetary boundaries and the sustainability of agri-food systems. Eurogroup for Animals, a participant in the Strategic Dialogue, welcomes the **final report**, noting its important contributions relating to policies on animal welfare, trade, “public money for public good”, labelling, and the need to empower consumers to make sustainable and high welfare food choices. The report rightly acknowledges that a transition towards sustainable agri-food systems needs to prioritise high animal welfare standards, which should be supported by public money, not least from a reformed Common Agricultural Policy (CAP) as well as the newly created Just Transition Fund. Such new financial arrangements should support farmers to move to higher welfare standards including cage-free farming. It is therefore crucial, for all relevant stakeholders, that updated animal welfare legislation is published without further delay, allowing investments in future-proof solutions.

Eurogroup for Animals also welcomes the report’s call for demand-side policies ensuring that sustainable and healthy food is widely available, accessible, affordable and attractive to European consumers while rebalancing the intake of animal and plant-based protein and shifting more towards the latter. VAT reductions, an action plan to support the development of the plant-based food sector, and better food in public canteens would catalyse a shift in dietary patterns, as overdependence on animal products continues to threaten the entire food system. Consumers should have access to knowledge on their food choices, through a comprehensive, multi-tiered EU-wide animal welfare labelling scheme, including all meat and dairy products originating from and/or processed in the EU, the report recommends. It is also welcoming to note a recommendation for faster regulatory pathways for innovative products and processes focused on sustainability - this should allow for unhindered approval of innovative alternative proteins, an important piece of the puzzle allowing for fewer animals to be farmed to higher welfare standards. The report explicitly calls for the adoption of “import requirements in EU law consistent with the rules of the World Trade Organisation (WTO), including to benefit animal welfare”. This will warrant that EU consumption does not fuel unethical and environmentally damaging practices elsewhere in the world. The report also

suggests that the Commission reassess market access sections in trade agreements, to address "current challenges stemming from diverging standards", such as on animal welfare. The Strategic Dialogue was launched by the European Commission (EC) in January, bringing together farmers' associations, organisations representing consumers' interests, academics, retailers, and NGOs. Its conclusions are set to inform the EC on its vision for agriculture and food, promised to be presented in the first 100 days of the new term.

Report "Strategic Dialogue on the Future of EU Agriculture - A shared prospect for farming and food in Europe" (pdf link)

28/08/2024 : Modalités d'attribution et de mobilisation de la dotation budgétaire de trois millions d'euros dédiée à la stérilisation des chats errants par les collectivités territoriales et inscrite dans la loi de finances pour l'année 2024

Document type: technical instruction published in the **Bulletin Officiel du Ministère de l'Agriculture et de l'Alimentation** (in French)

Authors: Direction Générale de l'Alimentation (DGAL) et Sous-direction de la santé et du bien-être animal Bureau du bien-être animal (SDSBEA) du Ministère de l'Agriculture et de l'Alimentation

Preview: The purpose of this instruction is to set out the procedures for allocating and drawing down the budgetary allocation of three million euros to local authorities for the sterilization of stray and domestic cats included in the financial legislation for the year 2024. It sets out the eligibility criteria, the sums allocated, and the procedures for submitting, processing and monitoring applications. This instruction makes provision for the allocation of subsidies through a national call for projects, with a financial agreement signed between each successful applicant (communes, groups of communes or EPCI) and the DDecPP or relevant DAAF. DRAAFs or DAAFs are responsible for scrutinising and overseeing applications. This project is part of the pilot provided for in Article 12 para III of Law no. 2021-1539 of November 30, 2021, to combat animal abuse and strengthen the bonds between animals and humans.

Link to download PDF

26/08/2024 : Foire aux questions et fiches conseil bien-être animal - Chambre d'Agriculture Bretagne

Document type: article published by **Chambre d'Agriculture de Bretagne** (in French)

Author: Chambre d'Agriculture de Bretagne

Extrait : Applying regulatory requirements to livestock farming is not always easy, as official texts can sometimes be understood in different ways, leaving room for interpretation and divergent approaches. Pork trade organizations, in conjunction with government departments, have developed a number of tools to answer questions from farmers and their advisors, in the form of frequently asked questions on welfare and advice sheets.

Frequently asked questions on the welfare of pigs

The **Frequently Asked Questions (FAQ) about pig welfare** aims to provide practical answers to questions raised by farmers, producer groups and government departments concerning the

implementation of animal welfare regulations. In particular, the FAQ provides answers for the implementation of the decree of February 24, 2020 concerning the provision of manipulable materials, access to water and feed. The FAQ is managed by the Brittany Regional Chamber of Agriculture. A working group is responsible for providing answers to questions raised in the field. It is made up of representatives of professional organizations (Inaporc, FNP, La Coopération agricole, Ugpvb, Chambers of Agriculture), Ifip, pig producer groups, veterinary organizations Sngtv and Avpo, and the administration. The FAQ is national in scope. It has no regulatory status. Its purpose is to provide, on an ongoing basis, elements of interpretation of the regulations, agreed between the administration and the profession, in order to harmonize the message in the field. The most recent version is authoritative and replaces all previous versions. It is published on the CRA Bretagne website. This is currently version 3, published in February 2024.

Advice sheets on the welfare of pigs

A series of sheets, drawn up in consultation with professional and technical organizations, set out the pork industry's commitments to promoting animal welfare. These sheets complement the welfare FAQ section. The sheets on watering present the results of a study carried out by the Chambre d'agriculture de Bretagne, with financial support from the French Ministry of Agriculture and Food.

Recording of bite cases on pig farms

On pig farms, the practice of routine tail docking is considered a regulatory non-compliance. Each farmer must be able to explain how risk factors for bites are managed on his farm, i.e. how to prevent them and how to react when they occur, and to record bites in order to justify the practice of docking. A "monitoring" observation sheet for bites on farms has been drawn up by professional and technical organizations. This sheet reflects the pork industry's commitment to animal welfare, and is an additional tool to support farmers by technicians from professional organizations. The presentation of these sheets can be adapted by breeders or professional organizations, for example by integrating them into the strip sheets. Completed forms should be kept in the livestock register, as they may be requested as proof during official inspections.

Link to pdf file from Chambre d'Agriculture de Bretagne, The Pork Team, Bilan 2023 - Projets 2024

19/08/2024 : Parlement européen : réponse écrite à la question P-001523/2024 : Respect for EU animal welfare standards, with reference to the excessive euthanasia of stray animals in Romania

Document type: Response from the Commission européenne to priority question P-001523/2024

Authors: question: Nicolae Ştefănuță (Verts/ALE). Answer: Mrs Kyriakides on behalf of the European Commission

Question: On 12 August 2024, 60 dogs were brutally put down within the space of an hour at the public animal shelter in Târgu Jiu, Romania. This incident raises serious questions as to whether Romanian and EU rules on animal welfare – and especially the legal conditions applicable to euthanasia – are being respected.

Can the Commission clarify the following points:

1. Does the mass euthanasia of these dogs comply with EU standards and does the Commission view such actions as being legal in the light of EU standards?
2. What measures does the Commission recommend should be taken to ensure that the euthanasia of animals in the Member States is used only as a last resort, in strict compliance with legal and ethical standards?
3. Given that the Regulation on new rules on the welfare of dogs and cats has started on its legislative journey, how does the Commission view the way that EU animal welfare principles are being applied in animal shelters in Romania?

Answer:

1. There are currently no animal welfare rules in place at EU level that regulate the euthanasia of dogs and cats.
2. In view of the answer to question 1, the Commission has no recommendations on the use of euthanasia in dogs and cats. The Terrestrial Animal Health Code of the World Organisation for Animal Health (WOAH) contains a chapter providing guidance on the use of euthanasia in the context of dog population management[1].
3. The Commission has adopted a proposal for a regulation on the welfare of dogs and cats and their traceability[2]. The proposal includes some provisions on certain specific aspects of euthanasia, but not on euthanasia in the context of dog population management. The proposal has entered the ordinary legislative procedure and is now before the co-legislators. The issue of welfare conditions of euthanasia of dogs in shelters is currently under the responsibility of Member States.

[1] Terrestrial Code Online Access — WOAH — World Organisation for Animal Health https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_aw_stray_dog.htm

[2] Proposal for a regulation of the European Parliament and of the Council on the welfare of dogs and cats and their traceability, COM/2023/769 final.

07/08/2024 : Animal welfare policy indicators - European Commission

Document type: article published on the European Commission website

Author: European Commission

Preview: Established in 2024, within the EU Platform on Animal Welfare, the new sub-group on animal welfare policy indicators will help the Commission to identify meaningful indicators in line with EU animal welfare policy objectives and the corresponding methodology to collect, consolidate and interpret them for policy purposes. The subgroup will work on policy indicators for the keeping of the main farmed species (cattle, pigs, sheep and goats, poultry, rabbits and fish) and regarding the most critical husbandry systems and practices affecting their welfare through nutrition and diet, housing, health or behavioral needs. The mandate does not cover the transport or the killing of animals. The composition of the working group is available in the Register of the Commission expert groups.

26/07/2024 : La Commission sous pression pour inclure le bien-être animal dans sa prochaine « vision » pour l'agriculture

Document type: article published by Euractiv (in French)

Author: Hugo Struna

Preview: NGOs are calling on European Commission President Ursula von der Leyen to include the issue of animal welfare in the "Vision for Agriculture and Food", announced in her speech to the European Parliament last week. "President [Ursula] von der Leyen's speech to the European Parliament and her policy guidelines [...] made no mention of the legally binding commitment to end cage farming and on the wider revision of legislation at animal welfare ," commented Olga Kikou, Advocacy Director at the European Institute for Animal Law and Policy, in a press release. In light of the declaration by Ursula von der Leyen on July 18 that she would unveil a "Vision for Agriculture and Food" and specific commitments during her first 100 days in office, animal protection groups are calling on her to "include" animal welfare in these. A major revision of the animal welfare legislation was a core project for the previous parliament. In 2020, the European Commission had announced the initiative in the Farm to Fork strategy, before admitting at the end of its mandate that the legislation would be pushed into the next parliament. In December 2023, **two major pieces of legislation** had nevertheless been proposed and adopted by the European Parliament and the EU Council, one on animal transport - a "key element" of the legislation - and the other on the welfare and traceability of pets. Animal welfare groups have criticised a number of flaws in the European Commission's new proposals to introduce stricter rules on animal transport, including gaps in the promised range of measures.

Illegal practices [...]

Cage farming

At the end of June, several major European NGOs also launched a legal action at the Court of Justice of the EU (CJEU), accusing the Commission of failure to fulfil its commitment to end cage farming by 2023. This pledge had been made in response to the "End the Cage Age" European Citizens' Initiative (ECI) , supported by 170 European NGOs. "We expect of Ursula von der Leyen that she will not ignore in her investiture speech the cage ban promised three years ago", warned the NGO CIWF on July 17.

The associations' second priority for the next legislature is the end of fur in Europe. In 2023, the citizens' initiative "No Fur in Europe" (Fur Free Europe) collected over 1.5 million signatures. Shortly afterwards, the Council came out in favor of the ban. Changes to slaughtering rules and animal welfare labeling are also among the issues eagerly awaited. On Wednesday July 24, two new European citizens' initiatives were registered. One, on the closure of livestock farms - "Stop Cruelty Stop Slaughter" - calls on the Commission to boost the production of plant proteins, notably milk and egg substitutes of plant origin, as well as the production of cultivated meat. The other concerns food labelling. The Commission is invited to take steps to improve the transparency of information on food products, in terms of quality and sustainability. This should lead to clear labelling of the origin of all products. If these initiatives gather more than a million signatures from citizens in at least seven member states within a year, the Commission will be invited to act. "It is still possible for the President [of the Commission] to take on board the demands of the vast majority of Europeans and put the revision of the animal welfare legislation back on the agenda by including it in her Vision for Agriculture and Food", concludes Olga Kikou.

18/07/2024 : Actualités Règlementation - Application de la règlementation bien-être animal lors de l'abattage, prenant en

compte les spécificités des petits abattoirs de volailles et lagomorphes

Document type: news item from RMT Alimentation locale (in French)

Author: RMT Alimentation locale

Preview: The Regulations Working Group of the Local Food Mixed Technological Network (RMT) has been working to adapt the regulations to smaller businesses operating in short and local supply chains. This work is now bearing fruit, and we are pleased to be able to share this second article on animal welfare during slaughter with our readers. The protection of animals, particularly during the killing process, is a key concern for European legislators. Regulation 1099/2009 lays down strict conditions for protecting animals at the time of slaughter. However, recital 47 of the regulation takes the position of small slaughterhouses into account: "Small slaughterhouses predominantly involved in the direct sale of food to the final consumer do not require a complex system of management to implement the general principles of this Regulation. The requirement to have an animal welfare officer in place would therefore be disproportionate to the objectives pursued in those cases and this Regulation should provide for a derogation from that requirement for such slaughterhouses". The French parliament, in Article 70 of the Egalim law, showed less concern for small businesses, seeking to oblige ALL abattoirs, even those handling under 150,000 birds, to apply all the administrative requirements linked to animal welfare. Ultimately, the flexibility provided by the European regulation made it possible to agree and authorise a form of implementation that would respect the particular characteristics of small abattoirs and would also respect animal protection objectives.

Tabulated summary of the requirements for RPA (Responsible for Animal Protection) and OPA (Operator for Animal Protection) training courses:

		RPA		OPA
	Seuil	**Désignation**	**Formation**	**Formation**
Abattoir agréé	Sup à 150 000 oiseaux / an (env 218 tonnes)	Obligatoire (RE 1099/2009, Art 17-1)	Obligatoire (RE 1099/2009, Art 17-4)	Obligatoire (RE 1099/2009, Art 7-2)
Abattoir agréé (dont SAAF)	**Inf à 150 000 oiseaux / an (env 218 tonnes)**	**Obligatoire (Loi Egalim Art 70)**	**Non imposée**	**Obligatoire (RE 1099/2009, Art 7-2)**
EANA	500 éq poulet par semaine, 25 000 éq poulet par an (env 37 tonnes)	Obligatoire (Loi Egalim Art 70)	Non imposé : (RE 1099/2009, Art 7-1 : « niveau de compétence approprié ») L'autorité compétente DD(ECS)PP peut imposer une formation en cas de non-conformité en protection animale	Non imposé : (RE 1099/2009, Art 7-1 : « niveau de compétence approprié ») L'autorité compétente DD(ECS)PP peut imposer une formation en cas de non-conformité en protection animale

It should be noted that while RPA (animal welfare officer) training is not mandatory in approved and non-approved abattoirs (EANAs) dealing with low volumes (only the appointment of an RPA is mandatory), there is a performance requirement that enables inspectors to require RPA training if serious animal protection violations are observed during the inspection. Work is also underway to

provide animal protection training courses (including for RPAs) tailored to low-volume facilities, taking into account their individual procedures and operations. A technical instruction from the Ministry of Agriculture's Direction Générale de l'Alimentation (DGAL) is due to be published in 2024.

26/06/2024 : Bien-être des chats et des chiens : le Conseil ouvre la voie à la toute première législation à l'échelle de l'UE

Document type: Press release issued by the Council of the European Union

Author: Council of the European Union

Preview: Today, the Member States' ambassadors to the EU (Coreper) approved the Council's negotiating mandate on a proposal to improve the welfare of cats and dogs by setting EU-wide minimum rules for the first time ever.

- Key elements of the Commission's proposal

The proposal aims to improve the welfare of cats and dogs kept by breeders, sales establishments and shelters, while improving consumer protection, ensuring fair competition and combating illegal trade. The proposal has no impact on private pet owners. However, anyone wishing to place a cat or dog on the EU market will have to ensure that it is microchipped for traceability purposes. The proposal's requirements are designed as minimum standards to harmonize the EU market. If they wish, Member States may maintain or introduce stricter rules.

-Welfare principles

The Council's negotiating position maintains the broad welfare principles proposed by the Commission (...)

- Requirements applicable to operators and establishments

The Council has also maintained the provisions concerning the obligations incumbent on operators and (...)

- Main changes introduced by the Council

The Council's negotiating mandate introduces a series of improvements to the proposal in favor of greater welfare for cats and dogs (...)

Scope of the proposed regulation

As some organizations, for example NGOs, use foster homes to take in abandoned, stray or unwanted cats and dogs, the Council has decided to include foster homes within the scope of the regulation.

Approval of breeding establishments

The Commission's initial proposal required breeding establishments holding more than three bitches or cows and producing more than two litters in total per year to obtain approval following an on-site inspection by the competent authorities. (...)

Imports from non-EU countries

Under the Commission's proposal, imports will be subject to identical or equivalent standards. This will reinforce consumer protection and guarantee the traceability of cats and dogs. (...)

Data protection

The Council also introduced data protection provisions to ensure the protection of personal data contained, for example, in dog and cat databases or in information transmitted by establishments.

- Next steps

The text approved today by the Member States' ambassadors to the EU formalizes the Council's negotiating position. Negotiations between the Council Presidency and the European Parliament will begin once the Parliament has adopted its position. The outcome of the negotiations will determine the final text of the legislative act. (...)

Transport, Slaughter, Pick-up

26/08/2024 : Effects of electrical and percussive stunning on neural, ventilatory and cardiac responses of rainbow trout

Document type: scientific article published in **Aquaculture**

Authors: Jeroen Brijs, Per Hjelmstedt, Erika Sundell, Charlotte Berg, Erik Sandblom, Albin Gräns

Preview: From an ethical standpoint, it is imperative that rainbow trout (Oncorhynchus mykiss) are humanely slaughtered, which entails that they are rendered unconscious immediately by a stunning method and remain so until death. The efficacy of electrical stunning following dewatering (i.e., in-air electrical stunning at intensities of 50 to 920 mA and durations of 5 to 30 s) and percussive stunning, both advocated as humane stunning and/or killing methods, are evaluated here for this species via the presence or absence of visually evoked responses (VERs). In addition, ventilatory and cardiac responses were evaluated to elucidate the physiological basis for the lethality of both methods. While the present study was unable to determine the capability of in-air electrical stunning to induce immediate unconsciousness, our findings revealed that irreversible stuns were induced by both in-air electrical stunning (i.e., ~25 to 70% of individuals did not recover VERs across the various combinations of stunning intensities and/or durations) and percussive stunning (i.e., ~100% of individuals did not recover VERs). The efficacy of in-air electrical stunning for permanently abolishing VERs was marginally, but significantly, impacted by stun intensity (i.e., explained 8% of the variation). Furthermore, due to substantial inter-specific variability and a limited sample size, significant impacts of stun intensity and/or duration on the recovery of VERs in reversibly stunned individuals were not detected in the present study (i.e., VERs recovered between ≤0.5 to 28.8 min). Further investigation is therefore necessary before in-air electrical stunning can be endorsed as a standalone humane slaughter method for rainbow trout. This includes determining its capacity to induce immediate unconsciousness, as well as to identify additional factors that could be modified or enhanced to improve its efficacy. Furthermore, since death following in-air electrical stunning likely entails a prolonged process involving ventilatory failure, hypoxemia, and subsequent vital organ malfunction, rather than immediate cardiac arrest or central nervous system failure, the sequential use of methods such as percussive stunning is recommended to safeguard the welfare of rainbow trout during slaughter.

19/08/2024 : Occurrence of tail docking and tail biting in weaner pigs - A preliminary study in Portuguese abattoirs

Document type: scientific article published in **Livestock Science**

Authors: Gomes-Neves, E, Teixeira, MF, Cardoso, MF

Preview: EU legislation forbids the systematic use of tail docking. Tail-biting is a welfare problem in swine production, including weaners. In Portugal, like in Spain, Greece, Italy, Croatia, and Serbia the transport of five-week-old pigs to the abattoir is a common practice. This study aimed to evaluate the occurrence of tail docking and tail-biting in weaners and associate it with the farm of origin/grouping centre and meat inspection results. Weaners were observed at 6 abattoirs in the Central Region of Portugal. Origin, docking status, tail lesions, and carcass condemnation were recorded during post-mortem inspection. A total of 15,863 weaners were assessed, 12.6 % came from assembly centres, 22 % with docked tails, 21.5% with tail lesions, and 60 weaners were condemned. Tail-biting lesions were significantly associated with having an undocked tail. This association was stronger if the weaners came from intermediate assembly centres compared to weaners that came directly from the farm (AOR = 5.642, 95 %CI 2.885 to 11.030, P = 0.017 versus AOR = 1.403, 95 %CI 1.062 to 1.853, P ≤ 0.001). The rate of carcass condemnations was higher among weaners presenting tail lesions (6.15 versus 3.13/1000 in weaners without tail lesion). The most frequent cause of condemnation was polyarthritis/purulent arthritis (1.6 per 1000 weaners). Our study shows that tail-docking is still practiced, and having the tails undocked is an additional vulnerability in what concerns tail-biting, especially in those weaners that do not go directly from the farm to the abattoir, with intermediate stops at assembly centres. New regulation is needed that takes into account this further deterioration in animal welfare.

11/08/2024 : Abattage à la ferme : plus de temps et moins de stress pour les animaux

Document type: article published on **RTS** (in French)

Author: Livia Middendorp

Preview: For the past four years, on-farm slaughter has again been permitted in Switzerland. Animals are slaughtered in this way on Mischa Hofer's farm in Vitznau, in the Canton of Lucerne. Despite the complexity and costs involved, the farmer prefers this method, which he considers less stressful for the animals. Mischa Hofer's farm is perched above Vitznau in the Canton of Lucerne, on the southern slopes of the Rigi, with a view stretching far beyond Lake Lucerne. The quickest way to reach the farm is by cable car from Vitznau. Up on his farm, Mischa Hofer is slaughtering an animal on-site for the first time. He must follow specific slaughter procedures. Until six months ago, the maximum time permitted between the stunning of the animal and its evisceration at the abattoir was 45 minutes. In early February, this was extended to 90 minutes. This means makes it possible for farms to be slaughtered in more remote areas. Mischa Hofer has been providing a slaughtering service to other farms for the past three years. Now that the regulations have been relaxed, he can carry out this type of slaughter on his own farm.
The cow to be killed today is a white zebu. (...) "Bella Ciao" is separated from the other animals in the pen. Meanwhile, a local veterinary surgeon is on hand to supervise the operation. After securing "Bella Ciao"'s head in a restraint, Mischa Hofer positions the pistol between her eyes and fires. The clock is ticking: within 90 minutes, the animal must have been eviscerated at the butcher's and ready for cold storage. The farmer attaches a chain to the animal's hind leg and pulls her out with the help of a digger. Her throat is then slit and she is bled. Mischa Hofer and his team load the animal onto a

trailer and cover her with a tarpaulin. Their route to the butcher's in Arth-Goldau is the narrow mountain road along the flanks of the Rigi.

Less stress for the animals

The journey takes around 40 minutes. On-farm slaughtering is expensive - the precautionary measures veterinary supervision and journey to the butcher all cost money, says Mischa Hofer: "You have to stick to your timetable, that's essential." But he believes in the slaughter method. Studies also confirm that the animals' stress levels are significantly lower. In a recent study by the Fibl Research Institute for Organic Agriculture, the blood of animals killed in an abattoir contained 20 times more cortisol, i.e. stress hormones, than that of animals killed on farm.

No time to lose at the butcher's

Remo and Irene Heinrich are standing by to receive the animal at the "Fyrabig-Metzg" butcher's shop in Arth. For them, this is the first farm-slaughtered animal they have handled. They have half an hour to remove the hide, empty the animal and get it into the cold room. "There's no time to spare," says Irene Heinrich. But it is enough - the vet stops the clock at 1 hour, 22 minutes and 57 seconds. The meat is now ageing in cold storage for two weeks and will then be sent to a restaurant in the city of Berne.

08/08/2024 : Denmark sets better standards for piglet transport

Document type: news item from Eurogroup for Animals

Author: Animal Protection Denmark

Preview: A new addition to the Danish order on the protection of animals during transport sets minimum requirements for the ceiling height during the transport of piglets, which must ensure air circulation and sufficient space for the animals. Since 2006, there have been requirements for the ceiling height for larger pigs, but the same protections have not applied to piglets until now. Piglets are currently transported on five-floor trucks without any requirements as to how much space there must be above the animals. The move is being celebrated by Animal Protection Denmark, who have long campaigned for the update. For the transport of pigs with an average weight of 35 kilos, the new rules require a ceiling height of at least 68 centimetres, which gives approximately 19 centimetres of air above the pig's back. The new standards will affect a huge number of animals, as Denmark exports around 14 million piglets annually. The change will be mandated from 2031, in order to allow transporters a transition period to adapt their vehicle fleets. Animal Protection Denmark would like to see tighter transport regulations come into force at EU level, including a ceiling on transport time of 8 hours. The European Commission has the opportunity to make it happen with the Transport Regulation revision. However, the current proposal is too weak, leaving millions of animals unprotected.

23/07/2024 : Mémoire de thèse : Le Conseil National de l'Alimentation et ses missions en matière de bien-être animal, l'exemple du Comité National d'Éthique des Abattoirs

Document type: thesis submitted on DUMAS (Dépôt Universitaire de Mémoires après Soutenance) (in French)

Author: Maximilien Bailly

Preview: The Conseil National de l'Alimentation and its animal welfare missions, the example of the Comité National d'Éthique des Abattoirs (National Abattoir Ethics Committee)
The French national council of food (CAN) is an independent advisory body, which reports to the ministries in charge of agriculture, of consumption, of the environment and of health. Its composition and its mandate developed over time and it advises nowadays on a various number of subjects related to food, such as food products quality, food safety, crisis prevention, communication on risks, consumers information and nutrition. It creates on these subjects consultative meetings with all the relevant stakeholders in order to organize hearings of specialists and experts and followed by debates in order to identify acknowledgments, stakes and consensual advices. Thus the CNA was requested to manage the National committee of slaughterhouse ethics (CNEAb) in a social crisis context with repeated scandals in slaughterhouses. Initially destined to be temporary and to answer to this crisis context, the CNEAb was made permanent in order to keep a forum for discussion on the sensitive subject of slaughterhouses. Furthermore, the CNEAb is today the only permanent consultative group of the CNA. Its perpetuation and the trusting environment of the CNEAb allows it to set up fruitful and peaceful debates which are necessary to deal with the wide and complex subject of the slaughterhouse ethics. The CNEAb appears to also be an unique organization among the European Union, by gathering all of the relevant stakeholders to deal with animal protection within slaughterhouses. The CNEAb may also be really useful in the context of the European regulatory review concerning animal protection, especially on the subject of animal transport.
Link to the report (pdf in French)

20/07/2024 : Landscape review about the decision to euthanize a compromised pig

Document type: scientific overview published in **Porcine Health Management**

Authors: Stoffregen, J., Winkelmann, T., Schneider, B., K. Gerdes, M. Miller, J. Reinmold, C. Kleinsorgen, K. H. Toelle, L. Kreienbrock, E. grosse Beilage

Preview: Timely euthanasia of a compromised pig in farming practice has been identified as a critical topic in veterinary medicine. The questions ‘why and when are pigs euthanized’ and ‘what influences the decision making process’ need to be answered to improve the situation. In the past five years, work addressing these issues has been published in the literature, however, a synthesis of the findings is missing. With the help of a quantitative and qualitative analysis, this paper has generated a landscape review to outline major topics, the role of clinical signs and further influences on the decision to euthanize a pig. Due to the quantitative content analysis, 58 topics have been identified with the role of *welfare* as a justification and *training* for caretakers in making euthanasia decisions as the most frequently mentioned. The qualitative analysis of why and when a pig is euthanized generated a set of clinical signs for organ tracts, and a set of categories influencing the decision making process. The results outline the need to increase research on details specific to understanding how clinical signs evolve over time before euthanasia. In summary, the analysis provides an overview of work in the field and ideas on how to close knowledge gaps in the future. Moreover, the article contributes to harmonize efforts in the field and underlines the need for more research about the care of compromised and injured pigs.

Working animals

20/06/2024 : Determination of Equine Behaviour in Subjectively Non-Lame Ridden Sports Horses and Comparison with Lame Sports Horses Evaluated at Competitions

Document type: scientific article published in Animals

Authors: Sue Dyson, Danica Pollard

Preview: The Ridden Horse Pain Ethogram (RHpE) was developed to facilitate the identification of musculoskeletal pain. The aim of the current study was to collate behavioural data using the RHpE from horses at competitions assumed by their owners and/or riders to be fit for competition. The objectives were to quantify the frequency of occurrence of behaviours in pain-free horses and those with lameness or abnormalities of canter and to determine any differences between disciplines and levels of competition. The RHpE was applied to 1358 horses competing in Grand Prix (GP) dressage (n = 211), 5* three-day events (TDE) (n = 137), or low-level one-day events (ODE) (n = 1010). The median RHpE score for all horses was 4 (interquartile range [IQR] 2, 5; range 0, 12) and the median lameness grade was 0 (IQR 0, 1; range 0, 4). The Kruskal–Wallis test, followed by Dunn's test for pairwise comparisons, found a difference in median RHpE scores between low-level ODE and GP dressage (p = 0.001), but not between 5* TDE and low-level ODE (p = 0.09) or between GP dressage and 5* TDE (p = 1.00). The median RHpE score was highest for low-level ODE. The Chi-square/Fisher's exact test identified a significant difference in prevalence of most of the 24 behaviours of the RHpE in non-lame compared with lame horses. Recognition of the behaviours of non-lame horses may improve equine welfare and performance, and rider comfort, confidence, and safety.

Other

31/03/2024 : How does perception of zoo animal welfare influence public attitudes, experiences, and behavioural intentions? A mixed-methods systematic review

Document type: pre-publication of article in BioRxiv

Authors: Nicki Phillips, Laëtitia Maréchal, Beth Ventura, Jonathan Cooper

Preview: The public expects zoos to provide high standards of animal care. Failing to meet public expectations can have detrimental impacts on public experiences and behaviour, which in turn can compromise zoos' organisational goals relative to conservation and public education. Despite increased research interest in understanding how the public perceives animal welfare in zoo settings, to date the factors that influence such perceptions are still unclear. To address this gap in knowledge, we conducted a mixed methods systematic review using a PRISMA approach to identify the factors that influence public perceptions of zoo animal welfare and the potential ramifications of these perceptions on public attitudes, experiences, and behaviours. A total of 115 peer reviewed journal

articles were analysed: 43 provided qualitative data for thematic synthesis and 85 reported quantitative data for content analysis. Three main groupings were identified that impacted public perception of animal welfare in zoos: human, animal, and environmental factors. Within the human factors, ethical justifications, direct interactions, and inappropriate visitor behaviours were important. For the animal factors, animals' behaviour, apparent health status, and the suitability of certain taxa for captivity were found to be key. Finally, several aspects of the environment -- conditions of the facility, the exhibit, and welfare-related educational material --were influential. Overall, negative perceptions of animal welfare resulted in negative visitor attitudes towards zoos, detrimentally impacted experiences, and lowered likelihood to visit zoos and engagement in conservation efforts. The articles in this review provided valuable insights into the factors affecting public perception of zoo animal welfare; however, future research may benefit from a more structured approach to increase comparability and validity of results across studies. We conclude by proposing seven recommendations to increase the robustness and validity of future research in this area.

This study was the subject of an **article in faunalytics** on 16/08/2024