



**EAAP**

European Federation  
of Animal Science

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## EDITORIAL

### EDITORIAL BY THE SECRETARY GENERAL

#### **The Impact of International Crises on Livestock Research: The Case of Ukraine**

*International crises, such as conflicts and wars, profoundly affect various aspects of society, and scientific research is no exception. In the specific case of Ukraine, the conflict with Russia has led to the destruction of infrastructure, the dispersion of scientists, and reduced funding, creating unprecedented obstacles to scientific progress in the country.*

*International crises directly disrupt scientific research, as national priorities shift toward maintaining security and stability. For this reason, animal science in Ukraine has been as affected as other fields. Numerous laboratories, agricultural universities, veterinary schools, and research centers have been damaged or destroyed by bombings. This destruction has resulted in the loss of scientific tools and essential resources, halting ongoing research projects and delaying technological and medical innovations. Additionally, many researchers have been forced to emigrate, bringing their expertise abroad, which now benefits foreign countries rather than Ukraine itself.*

*In this context, international collaboration plays a crucial role in supporting Ukrainian science. Many research institutions and foreign governments have offered funding and research opportunities for displaced Ukrainian scholars, along with other initiatives, such as the EAAP's effort in cooperation with the American Dairy Science Association to organize specific webinars in the Ukrainian language for local researchers and animal scientists. While these initiatives are necessary, they cannot fully compensate for the cultural and scientific loss Ukraine is experiencing. Trade restrictions further worsen the situation, as many essential resources for research cannot be imported.*

*Despite these challenges, Ukraine has shown resilience. Some local institutions have found alternative ways to continue research in difficult environments, demonstrating how science can represent a form of cultural and identity-based resistance. The Ukrainian case highlights both the vulnerability of scientific research during crises and its importance for a nation's recovery and reconstruction, becoming a symbol of hope and resilience.*

**Andrea Rosati**



## News from EAAP

### Workshop on Insect Genetic Improvement in Athens, Registrations and Abstracts Submission are Opened

EAAP is pleased to announce that both registration and abstract submission are now open for the upcoming workshop, **“Insect Genetic IMProvement, IMPLementation, IMPact.”** This dynamic event will take place in Athens, Greece, from 29<sup>th</sup> to 31<sup>st</sup> January 2024, and will spotlight the forefront of advancements in insect genetic enhancement, exploring applications across diverse sectors and evaluating their overall significance and influence. Gathering well-known experts, researchers, and professionals from the industry, the workshop aims to create a platform for knowledge exchange and innovation in this swiftly advancing field. Participants with interest in attending or presenting their research are encouraged to submit abstracts and secure their places promptly. For more information and to access the registration and submission portal, please visit the [official workshop website](#). Don't miss this unique opportunity to contribute to and engage with pioneering developments in insect genetics!

### Join the 25th EAAP Webinar “Beekeeping Today”!

EAAP will host its forthcoming webinar, titled **“Beekeeping Today,”** on Tuesday, 12<sup>th</sup> November, beginning at 15:00 CET. This session promises a comprehensive exploration of modern apiculture, featuring a series of insights from leading experts across Europe. Gerardo Caja Lopez, from Group UABee at the *Universitat Autònoma de Barcelona* (Spain), will inaugurate the discourse with an examination of the EU's contemporary beekeeping landscape, alongside the challenges and advancements anticipated by 2030. He will outline both the sector's fortitudes and its vulnerabilities, providing a panoramic view of the industry's trajectory. Subsequently, Nicola Bradbear from *Bees for Development* (UK) will illuminate the vital role of beekeeping in fostering sustainable rural economies, especially in remote areas where apiculture is often a cornerstone of livelihood and ecological stability. Following her, Per Kryger of *Aarhus University* and Annette Bruun Jensen from the *University of Copenhagen* (both from Denmark) will jointly address the troubling prevalence of honeybee diseases within Denmark, delving into causative factors and the broader implications for bee health across Europe. Concluding, Giulietta Minozzi of the *University of*

*Milan* (Italy) will unravel the intricate genetics and selective breeding techniques fundamental to honeybee resilience and adaptability. For those willing to attend, please consult the [webinar dedicated page](#) for registration and detailed information. This session will provide an invaluable platform for anyone invested in the future of apiculture and the preservation of pollinator health.



## New members of the Study Commissions

During the meetings held in Florence the “open positions” in the Study Commissions were filled with new elected scientists. The proposals discussed at the Study Commissions meetings were later analysed by the Council and then the new members of the Study Commissions were finally elected. The new Presidents of the Genetic and Cattle Study Commissions were elected, as provided by the Statute, by the General Assembly. The entire list of new Study Commissions members is available [here](#).

### “Connecting Beekeepers and Researchers: EAAP’s Role in Addressing Modern Beekeeping Challenges”

On 18-19 October 2024 EAAP was invited to participate to two special events dedicated to Beekeeping. Thanks to the cooperation with “Università degli Studi di Milano”, on 18<sup>th</sup> October EAAP had the opportunity to visit Melyos Farm owned by Elio Bonfanti, a Beekeeper based in Barzanò (a town in the North of Italy) to learn the secrets behind the rearing of Honeybees queens and Honey production. Giulietta Minozzi, Vice-President of EAAP Animal Health and Welfare Study Commission, Professor of Animal Genetics and great passionate of Beekeeping at the Milano University, led us to this wonderful journey.



Federica Motterle, from EAAP Secretariat, participated to these meetings. On 19th October EAAP activities were presented to the ApiLombardia IV Round table, a meeting in which beekeepers had the chance to discuss with the regional association about the hardest challenges of modern beekeeping, such as *Varroa parasite*, chalk brood, *Velutina wasp*, climate change impact, nutrition and genetics. Among international participants, Professors Per Kryger (Aarhus University) and Annette Bruun Jensen (University of Copenhagen) gave their speech about the researches they are conducting in Denmark, in particular about chalk brood. EAAP participation represents a great opportunity to connect beekeepers and researchers for International cooperation. We wish to thank Giulietta Minozzi, Elio Bonfanti, and all ApiLombardia staff for the hospitality and for these fruitful days!

## EAAP People Portrait

Carmen L. Manuelian



Carmen L. Manuelian, also known as Menchu, is currently a Maria Zambrano postdoctoral researcher – a scholarship aimed at attracting international talent- at the Group of Ruminant Research (G2R) at the Universitat Autònoma de Barcelona (UAB), Bellaterra, Spain. She has recently been awarded a Ramon y Cajal research fellowship by the Spanish Ministry of Science, Innovation, and Universities, the most prestigious nationally-funded research scholarship for pursuing a scientific career in Spain. During the 75<sup>th</sup> EAAP conference in Florence, Italy, she was elected vice-president of the Cattle Study Commission of the EAAP. Born and raised in Spain, Menchu now lives in Barcelona with her wife and two pet rabbits.

From a young age, she has been in contact with domestic animals, spending time at her parents' countryside house, where she loved helping the *masover* care for the animals. Unsurprisingly, she studied Veterinary Science at the UAB and later pursued a PhD focused on feed intake behaviour and selective grazing in small ruminants, aimed at promoting more sustainable crop management. During her PhD, she also worked as a researcher on the nutritional assessment of dogs and cats for Affinity SAU (pet food company), and as a freelancer nutrition consultant for companies like Addimus SL and Pig333.com. Menchu completed a pre-doctoral internship at INRAE Clermont-Ferrand, France, supported by a competitive fellowship from the *Generalitat de Catalunya* (Spain). [Read the complete profile here.](#)

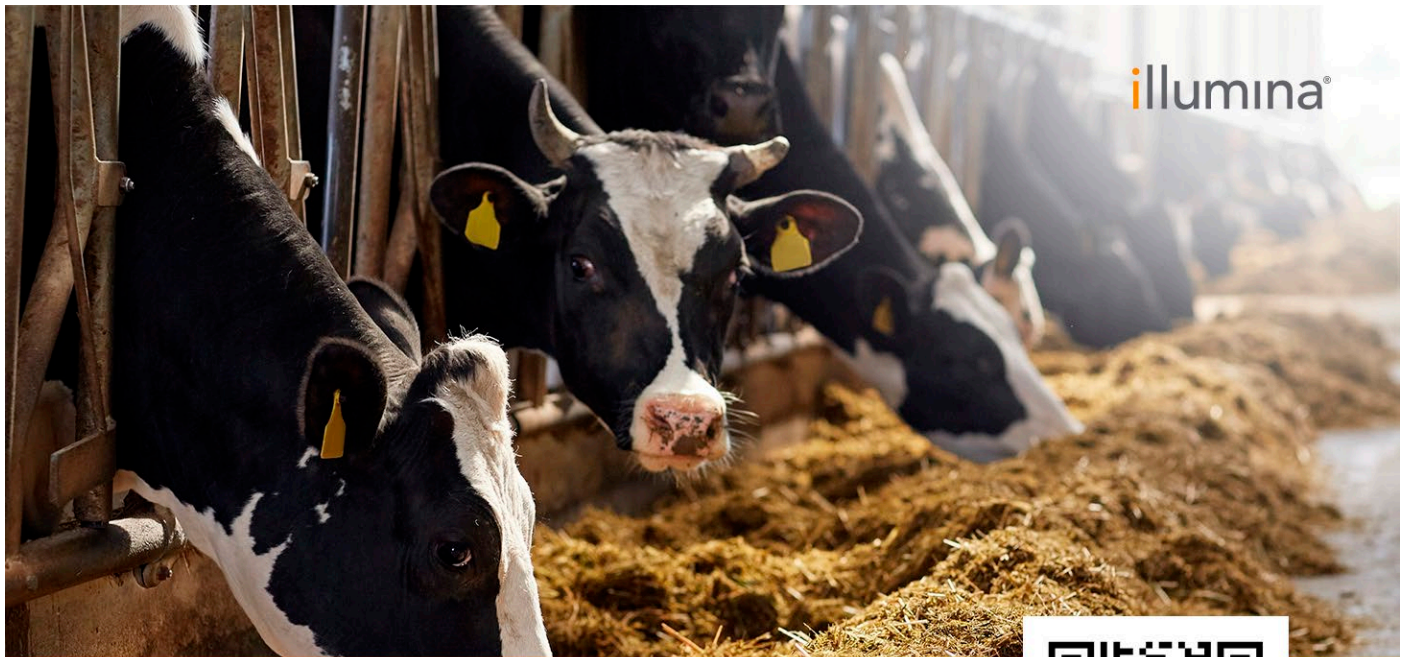
## Science and Innovation

### Revealing host genome–microbiome networks underlying feed efficiency in dairy cows

Ruminants possess a unique ability to digest plant materials inedible to humans, thanks to a symbiotic relationship with their rumen microbiota. Rumen microbes help dairy cows by supplying essential nutrients, including short-chain fatty acids, amino acids, and vitamins, which support the animals' maintenance, growth, and lactation. The research described in this article aimed to explore gene-microbiome networks associated with feed efficiency by analysing genotypic, microbial, and phenotypic data from 448 lactating Holstein cows. Key traits examined included dry matter intake (DMI), milk energy output, and residual feed intake (RFI). Through genomic scans, researchers identified genetic regions linked to both microbial populations and feed efficiency traits. Findings highlighted three types of network relationships, revealing direct and indirect genomic influences on microbial abundances and feed efficiency. Notably, certain microbes, such as *Syntrophococcus* and *Prevotella*, emerged as potential targets for selection in breeding programs, paving the way for enhanced feed efficiency in dairy cows. [Read the full article on Nature.](#)

### Effects of heat stress mitigation strategies on feedlot cattle performance, environmental, and economic outcomes in a hot climate

Rising global temperatures pose a significant challenge to the beef industry, particularly in feedlots where heat stress affects animal welfare and economic outcomes. Shade structures are a practical way to reduce heat stress. In a study



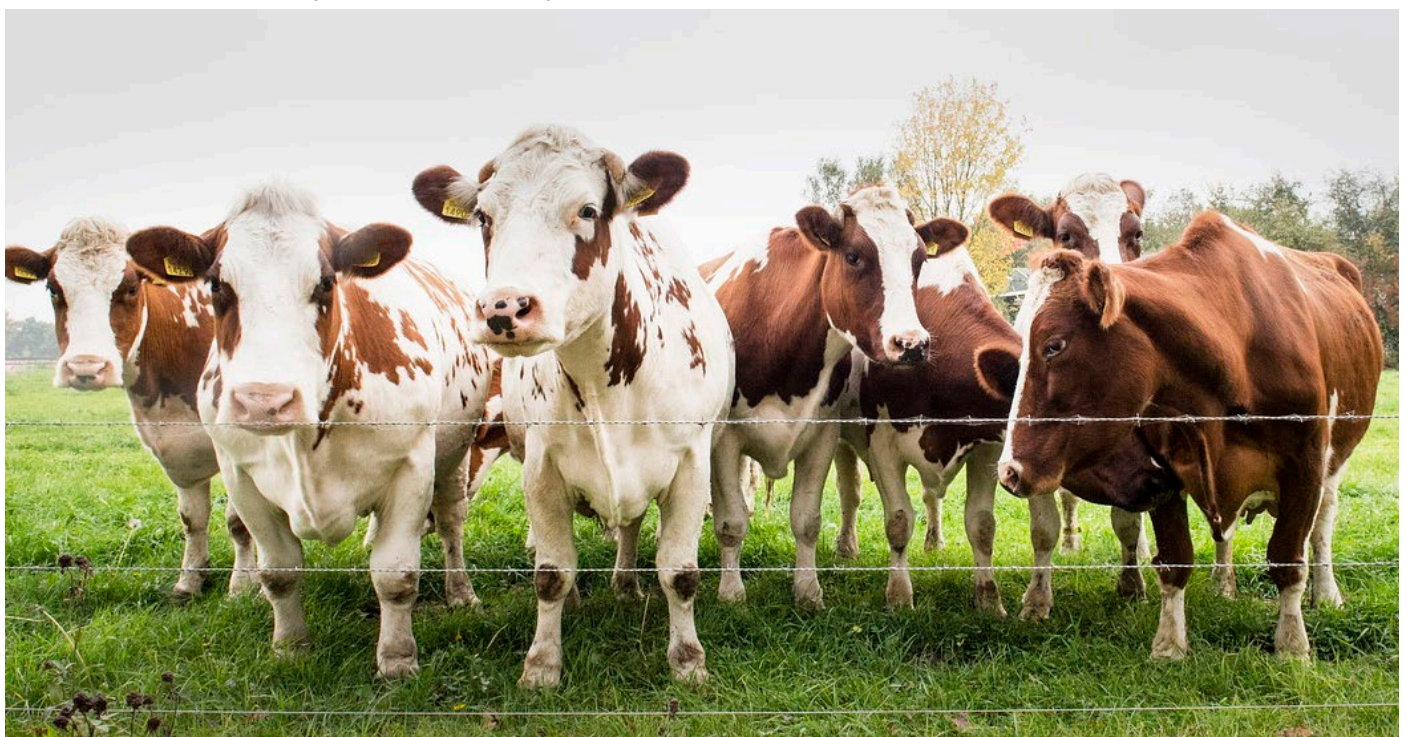
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## Cattle Array – BovineSNP50 v3



with 1,560 *Bos indicus* bulls, researchers tested four types of shade structures: standard steel shade (SC), double steel shade (DS), dome without fans (DSA), and dome with fans (DCA). Bulls under the DCA structure, which provided extensive shade and ventilation, showed the greatest weight gains, feed efficiency, and hot carcass weights. Although dry matter intake remained unaffected, DCA cattle had final body weights 20–22 kg heavier than those under simpler shades. Additionally, DSA and DCA structures reduced greenhouse gas and ammonia emissions by 3–8%. Economically, DCA structures increased profitability by \$29.66 per animal. Overall, advanced shade systems improved cattle performance, reduced environmental impacts, and boosted profits. [Read the full article on Animal.](#)





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## Movement-driven modelling reveals new patterns in disease transmission networks

In multi-host systems, interspecies interactions play a critical role in pathogen transmission. While technologies like GPS trackers and camera traps are widely used to detect contacts, traditional models often simplify transmission risks to contact rates and fixed probabilities. This study aimed to refine this approach by using a movement-based model to assign a unique transmission risk to each contact, breaking down risk factors into contact formation, duration, and host characteristics. Using GPS data from two Spanish areas affected by animal tuberculosis (TB) in cattle and pigs, researchers observed different transmission dynamics in each system, influenced by contact specifics, host traits, and environmental factors. Results indicated that GPS fix intervals longer than 30 minutes missed key interactions, with intervals over two hours inadequate for accurate epidemiological data. This model provides a repeatable framework, demonstrating that overlooking contact conditions can misrepresent each species' role in disease spread, crucial for managing TB in Mediterranean multi-host systems. [Read the full article on Journal of Animal Ecology.](#)

## Transforming aquaculture with insect-based feed: restraining factors



Insect farming offers a sustainable and innovative solution for producing aquaculture feed, helping to address global food security challenges. However, scaling insect production economically, ensuring safety, and creating clear regulations present significant obstacles. This sector needs targeted research, investment, and innovation to meet growing demands for aquafeed and fully realize its environmental advantages. Successfully breeding insects, particularly flies, requires precise balance—blending technological advances with natural processes, using biomimicry for efficiency. Key challenges include ensuring consistent mating in captivity, building specialized facilities, managing costs, and maintaining quality. With limited standardized practices, companies keep operations confidential to stay competitive. To advance the sector, independent oversight and government incentives are essential to manage safety and potential risks effectively. While insect-based feed holds immense promise as a sustainable protein source, addressing these hurdles is critical to transforming this vision into a practical, scalable solution for livestock and aquaculture feed. [Read the full article on Animal Frontiers.](#)



## Key features

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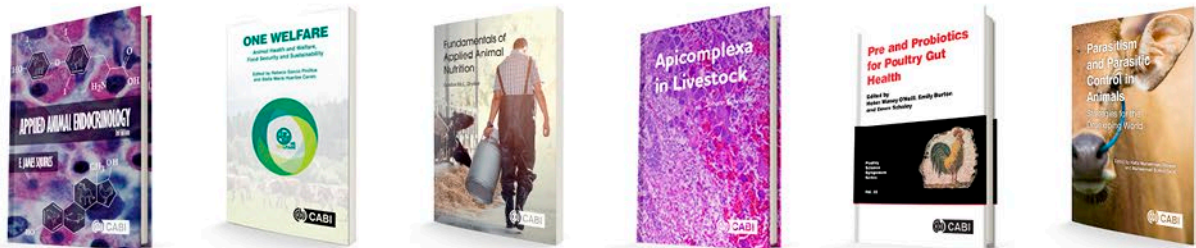
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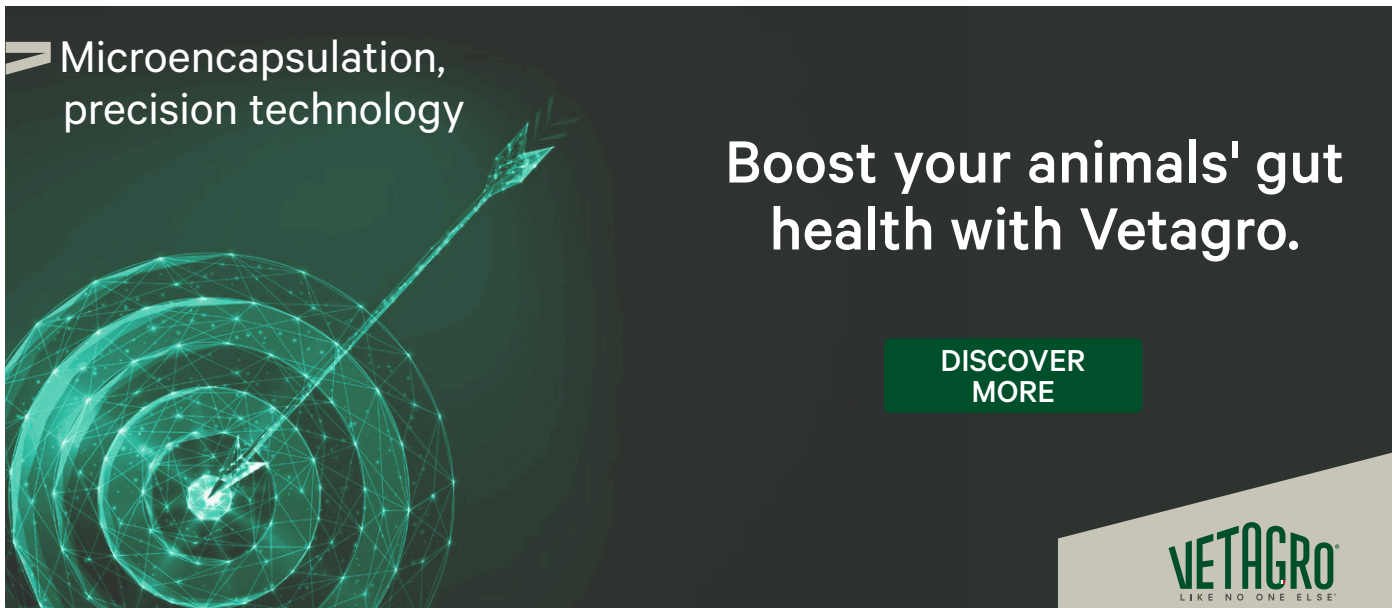
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## News From EU

**The 3<sup>rd</sup> Rumigen newsletter is now available!**

Enjoy your reading [here!](#)

For receiving the future issues please [sign up here.](#)



### EuroFAANG survey!

EuroFAANG is conducting a survey to assess the current landscape of cross-sector collaboration and resource-sharing in genotype to phenotype (G2P) research in farmed animals for EuroFAANG RI. Our goal is to identify opportunities for improving data sharing and improving collaboration between public and private sectors. Your insights will be very helpful in pinpointing key areas for better communication and cooperation. Please take a few minutes to [fill out our survey.](#)

**The 12<sup>th</sup> TechCare newsletter is now available!**

Enjoy your reading [here!](#)

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## Job Offers

**Senior Scientist at NordGen Farm Animals, As, Norway**

NordGen Farm Animals is hiring a Senior Scientist with background in farm animal genetics. A PhD in animal genetics or related fields is required. Fluency in one of the Scandinavian languages and English is required. Deadline: **12 November 2024.**

For more information [read the job vacancy.](#)



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<sup>1</sup> Dependent on animal age and health, breed, feed regime, farm condition.



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## Industries

### The Next Generation of Porcine Genotyping: Neogen's GGP Porcine v2 Array

Developed in collaboration with academic scientists, the second generation GGP for Porcine is built on the foundation of the most globally utilised porcine arrays ever developed. The GGP Porcine v2 array features more than 52,000 SNPs specifically chosen for optimal chromosomal spacing and high minor allele frequency values for use in most commercial breeding lines. The array has been validated in many economically important pig breeds.

The GGP Porcine array also includes several genetic markers that may directly impact disease and performance traits. It provides a very robust solution for imputation to higher density arrays such as the GGP Porcine HD (80k) array. The average imputation accuracy is 99.4% across all chromosomes.

**Diseases:** Porcine stress syndrome (HAL), Rendement Napole (RN), resistance marker to E. coli (F4 ab/ac), PRRS tolerance marker (WUR10000125).

**Performance Traits:** Feed intake, conversion/weight gain, lean growth/fat content, meat quality.

#### Can Neogen help with your project work?

The Neogen team is ready to assist with any genotyping or sequencing research project, whether it's current or in the planning stages. [Simply fill out our form with your query.](#)

## Publications

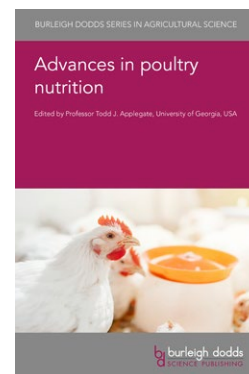
• **Animal consortium (EAAP, INRAE, BSAS) – Elsevier**  
[Animal: Volume 18- Issue 10 – October 2024](#)

Article of the month: [“Review: Animal welfare from an animal-centered point of view”](#)

• **Burleigh Dodds Science Publishing**

[Advances in poultry nutrition.](#)

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## Animal Science Podcasts

Teagasc, The Pig Edge Podcast: [“What you need to know about the Nutrient Importation Storage Scheme”](#), speaker Emer McCrum



## Other News

### AI on the prize

Dr Gerard Cramer always wanted to be a dairy farmer. He grew up on his family's dairy farms, first in the

Netherlands, and then in Canada, but when he finished college, his father thought he was too young to take over the farm. So, he set his sights on vet school as the next best thing. Cramer received both Doctor of Veterinary Medicine and Doctor of Veterinary Science degrees from the University of Guelph, and he spent several years running his own dairy farm as well as working in private veterinary practice with a focus on cows. But he kept ruminating about a problem he'd seen on farms his whole life: lameness. [Read the full article here.](#)

### Gene Edited Pig Offers Hope Against Costly Hog Disease

A potential solution is on the horizon against the increasingly costly hog disease PRRS: a genetically edited pig that the federal government is in the process of considering for commercial release. [Watch the video to know more!](#)

### Aquatic Life Institute releases aquaculture certification benchmark report

Aquatic Life Institute (ALI) has published the third edition of its aquaculture certification benchmark report, which analyses current welfare requirements within the primary farming standards of global seafood certification schemes and an international ratings agency. The institute explains that the Aquaculture Certification Schemes Benchmark is part of its ongoing work to help encourage progressive development related to animal welfare standards in aquaculture and will be used as a tool by decision-makers worldwide as they make informed choices about sourcing from the certifiers that lead in aquatic animal welfare. The detailed analysis and personalized recommendations within the benchmark serve as a roadmap to continue progressing to the highest standards possible, or to construct entirely new welfare requirements for aquatic animals where they previously did not exist. [Read the full article here.](#)



## Conferences & Workshops

EAAP invites you to check the validity of the dates for every single event **published below and in the Calendar of the website.**

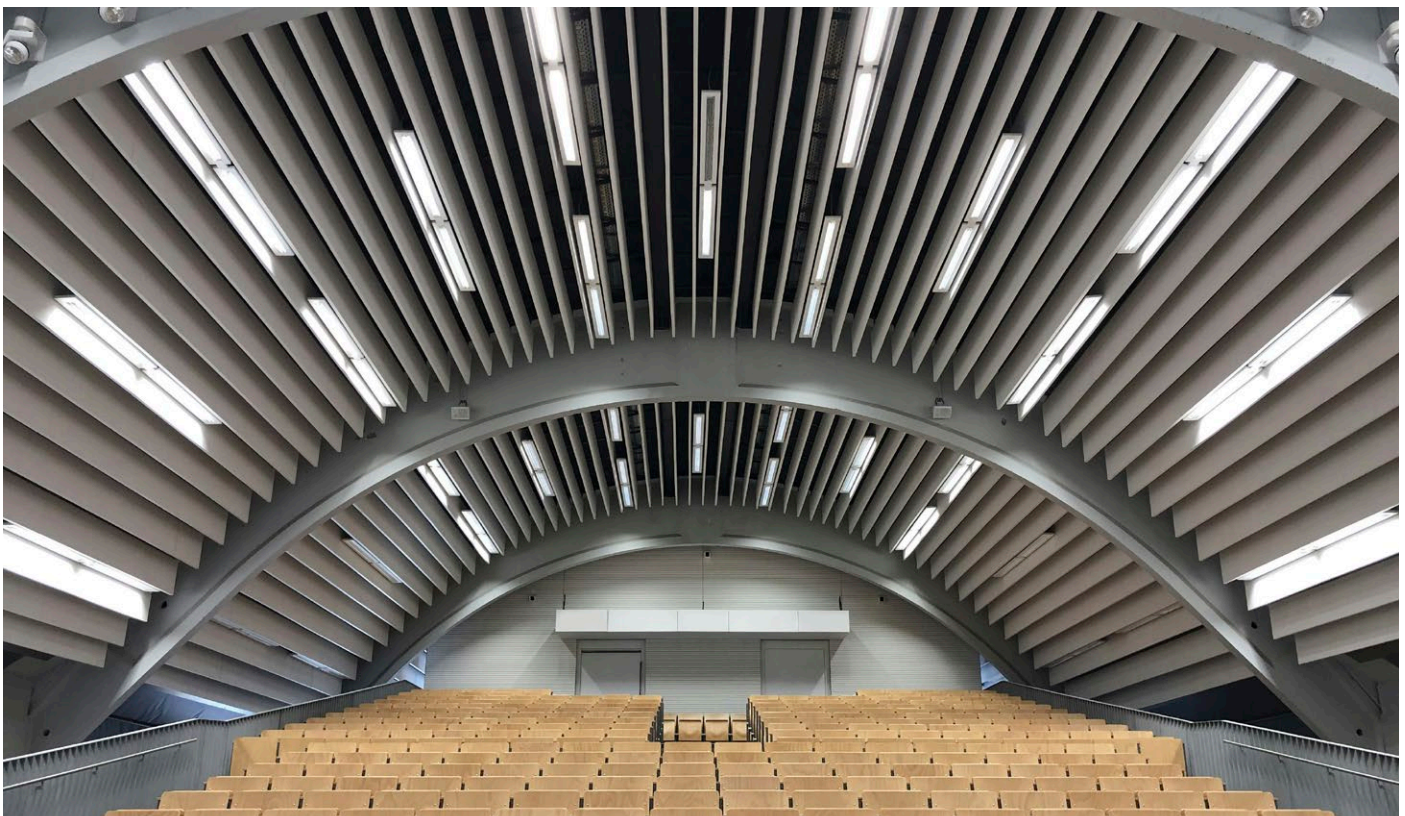
### EAAP Conferences and Webinars

Event	Date	Location	Information
EAAP Webinar Beekeeping Today	12 November 2024	Online	<a href="#">Website</a>
1 <sup>st</sup> EAAP Insects Workshop	29 – 31 January 2025	Athens, Greece	<a href="#">Website</a>
3 <sup>rd</sup> EAAP Regional Meeting	9 -11 April 2025	Krakow, Poland	<a href="#">Website</a>
1 <sup>st</sup> EAAP Companion Animals Workshop	14 – 16 May 2025	Milan, Italy	<a href="#">Website</a>
1 <sup>st</sup> EAAP Artificial Intelligence 4 Animal Science Workshop	4 – 6 June 2025	Zurich, Switzerland	<a href="#">Website</a>

### Other Conferences and Webinars

Event	Date	Location	Information
Symposium on Gut Health in Production of Food Animals	10 – 13 November 2024	St. Louis, Missouri, USA	<a href="#">Website</a>
Pig Research Summit 2024 – Sustainable Pig Feed for the Future	20 – 24 November 2024	Copenhagen, Denmark	<a href="#">Website</a>
Livestock horizons beyond food production	3 December 2024	London, United Kingdom	<a href="#">Website</a>

More conferences and workshops [are available on EAAP website.](#)



*“It is the time you have wasted for your rose  
that makes your rose so important”*

*(Antoine de Saint-Exupéry)*

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Presently, the English version of the Newsletter reaches nearly 6000 animal scientists, boasting an average of certified readers ranging from 2200 to 2500 per issue. EAAP gives to industries a great opportunity to increase visibility and create a wider network!

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The **Flash-e-News** is the Official EAAP Newsletter. This interesting update about activities of the European animal science community, presents information on leading research institutions in Europe and also informs on developments in the industry sector related to animal science and production. The Newsletter is sent to all EAAP Members and supporters. You are all invited to submit information for the newsletter. Please send information, news, text, photos and logo to: [marlene@eaap.org](mailto:marlene@eaap.org).

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