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WORLD ASSOCIATION for ANIMAL PRODUCTION

Number
45
2026

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The World Animal Science News

Main Topics

- From WAAP members
- News from Science
- News from International Organizations
- Job Offers
- Publications
- Other news
- Meetings and Conferences

EDITORIAL

“Advancing Animal Science and Sustainable Pastoralism in 2026”

Last week I had the opportunity to attend the biennial Australian Association of Animal Science Scientific meeting in Adelaide while this week I am attending the combined American and Canadian Societies of Animal Science annual scientific meeting in Madison Wisconsin. Over the next few months, I am looking forward to attending the International Congress on Meat Science and Technology in Daejeon Korea in August, the European Federation of Animal Science meeting in Hamburg Germany in September and the Asian-Australasian Association of Animal Production Societies meeting in Hanoi Vietnam in October. All these meetings are excellent opportunities to network and catch up on the latest innovations in animal science and I encourage everyone to attend local, regional and international meetings like these if they have the opportunities.

At its 76th session, the United Nations General Assembly proclaimed 2026 as the International Year of Rangelands and Pastoralists (IYRP 2026). Led by the Food and Agriculture Organization of the United Nations (FAO), the initiative brings together governments, research institutions, community organizations, and other stakeholders to celebrate and promote the vital role of rangelands and pastoralist communities. IYRP 2026 provides a global platform to increase awareness of the ecological, economic, cultural, and social importance of rangelands and pastoralism. It seeks to encourage greater investment in sustainable pastoral systems and to advance policies that recognize the unique needs of pastoral communities. Central to the initiative is support for secure access to land and natural resources, the preservation of livestock mobility, and governance approaches that are inclusive, equitable, and respectful of customary practices. The International Year also highlights the need for increased investment in rangeland stewardship, ecosystem restoration, animal health and welfare, and resilient value chains that deliver fair outcomes for producers and communities. Through dialogue, collaboration, and knowledge exchange, IYRP 2026 aims to strengthen pastoral livelihoods while promoting the sustainable management of rangeland ecosystems.

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Editorial (continues)

Ultimately, the initiative emphasizes the significant contribution that healthy rangelands and thriving pastoral communities can make toward achieving the United Nations Sustainable Development Goals, including food security, biodiversity conservation, climate resilience, poverty reduction, and sustainable land management. There are many ways to become involved in IYRP 2026, whether you are a researcher, educator, producer, industry representative, policymaker, student, or community member. For example, as researchers you could organize or contribute to conferences, workshops, seminars, and public lectures focused on rangelands and pastoral systems or highlight rangeland-related research through publications, webinars, podcasts, and media engagement. You could also develop interdisciplinary collaborations linking livestock production, biodiversity, climate resilience, Indigenous knowledge, and sustainable land management or engage students in projects and field activities aligned with IYRP themes. If you are an industry participant you could share examples of sustainable grazing and land stewardship, participate in local, national, and international IYRP events, host field days that demonstrate best-practice rangeland management and contribute case studies or success stories that illustrate the economic, environmental, and social benefits of pastoral systems. Of course, it would be great to extend any of these activities or initiatives beyond 2026.

Frank Dunshea
President WAAP

From WAAP Members

European Federation of Animal Science (EAAP)

EAAP News



From Science to Startup: Unlocking Business Opportunities in Animal Science

If you are a young researcher interested in innovation and entrepreneurship, don't miss the **EAAP Industry Club Session** taking place on **9 September 2026** during the **EAAP 77th Annual Meeting in Hamburg**. This inspiring session will explore how scientific research can be transformed into innovative business ideas, providing practical insights into the startup journey, funding opportunities, potential investments, and career paths beyond academia. Through real entrepreneurial success stories, participants will gain first-hand knowledge of the challenges and opportunities involved in bringing research to the market, while also having the chance to connect with experts, innovators, and fellow researchers in a dynamic networking environment. Whether you are already developing a business idea or are simply curious about the entrepreneurial world, this session offers a unique opportunity to gain inspiration, expand your perspective, and build valuable professional connections. The session will take place from **18:00 to 20:00+**. Programme in detail will be soon provided. [Register here to participate to the session!](#) Save the date and join us for an evening dedicated to innovation, entrepreneurship, and the future of animal science!



EAAP SESSION:

"From Science to Startup: Unlocking Business Opportunities in Animal Science"

SAVE THE DATE!

Wed 9th September

18:00 - 20:00+

Where young researcher transform scientific ideas into business opportunities beyond academia!

EAAP and KSAST: New Synergies and Cooperation Strategies from the Jeju Conference

The Secretary General of the EAAP, Andrea Rosati, recently attended the 70th International Symposium of the Korean Society of Animal Science and Technology (KSAST), held on the picturesque island of Jeju, South Korea. During the event, which celebrated a historic milestone for the Korean society, the EAAP Secretary General had the honour of delivering a lecture dedicated to the future of animal science research in Europe during the plenary session, thereby sharing scientific visions and perspectives with a vast international audience of experts and academics in the livestock sector. In addition to the valuable scientific contribution, the trip to Korea represented a crucial moment for the consolidation of global institutional relations. On the sidelines of the conference, Andrea Rosati met with the KSAST management group for a productive working meeting. At the centre of the talks was the shared desire to discuss and implement new cooperation strategies between EAAP and KSAST. The primary goal of this renewed alliance is to bridge geographical distances and create concrete tools to ensure that the respective networks of researchers can significantly increase collaboration, promoting exchanges, joint projects, and an increasingly close scientific dialogue between Europe and Asia. This initiative fits perfectly into the EAAP's mission to foster the internationalization of research and join forces globally to tackle the future challenges of animal sciences.



Presenting the "Discovery Plenary Session" of the 77th EAAP Annual Meeting

The 77th EAAP Annual Meeting, to be held in Hamburg (Germany) from September 7th to 11th, promises to be an event of extraordinary scientific richness and a fundamental gathering for our community. With a total of 98 scientific sessions on the schedule, the meeting will offer a unique opportunity to explore the latest innovations and research in the field of animal science. Among the numerous events on the agenda, we invite you to mark your calendars for the "Discovery Plenary Session", which will take place on the morning of September 8th, from 08:30 to 12:30, at the Congress Centre Hamburg. Chaired by Joël Bérard, the session will address the crucial theme "The New Era of Livestock Farming Between Science and Global Markets", offering a comprehensive overview of the economic, political, and technological challenges in the livestock sector. The morning program will feature a lineup of top-level speakers:

- 08:30 – 09:00: Opening the proceedings will be Christian Lambertz and Nicole Kemper (Germany) with an introductory presentation on *"Livestock Farming and Research in Germany"*.
- 09:00 – 09:30: Nadja El Benni (Switzerland) will explore the topic *"Feeding the Future: Global Challenges, Risks, Policy Solutions and the Role of Livestock Production"*.
- 09:30 – 10:00: Alan Matthews (Ireland) will analyse political and economic dynamics with *"Navigating the Perfect Storm: Between Green Deal Ambitions, CAP Reform, and Market Realities"*.
- 10:00 – 10:30: Coffee break
- 10:30 – 11:00: Upon resuming, Henk Hogeveen (the Netherlands) will present *"Unpacking the promises of technology in farming: The economic challenge"*.
- 11:00 – 11:30: Wendy Rauw (Spain) will speak on *"Beyond Pure Productivity: The Strategic Role of Genetics, Resilience, and Health for Business Continuity"*.

This will be followed, from 11:30 to 12:00, by an open discussion that will allow participants to directly debate the topics covered. Finally, to crown this prestigious session, the Leroy Award Presentation will take place from 12:00 to 12:30. Conferred this year to Giuseppe Bee (Switzerland), he will close the session with a talk titled *"The Other Side of a Curriculum Vitae: A Case Study in Animal Science"*.

We look forward to seeing you in Hamburg to share this important opportunity for scientific and professional growth!

Latin American Association of Animal Production (ALPA)

ALPA News



The **Latin American Association of Animal Production (ALPA)** has updated its website, which is now available at this link. You can also contact them at secretariat@alpaenlinea.org.

The journal **Archivos Latinoamericanos de Producción Animal** has a new editorial team, comprised of Editor-in-Chief Dr. Leyla Ríos de Álvarez (Mississippi State University, USA), and Associate Editors Dr. José Herrera Camacho (Universidad Michoacana San Nicolás de Hidalgo, Mexico) and J. Efrén Ramírez-Bribiesca (Colegio de Postgraduados: Texcoco, Mexico).

The magazine **ALPA en el Campo** has a new editor-in-chief. Dr. Marcia Marisol Paredes of Peru has been appointed to lead the journal for the next four years. She will be joined as co-editors by Dr. Ricardo Lopes Dias da Costa of Brazil and Dr. Laura E. Escobar-Salazar of Mexico.

Nutrient Requirements of Zebu and Crossbred Cattle – BR-CORTE (3rd edition, 2016, 314 pp.; <http://dx.doi.org/10.5935/978-85-8179-111-1.2016B002>), edited by de Campos Valadares Filho,

S. et al., is a valuable and comprehensive reference on the energy, protein, and mineral requirements of *Bos indicus* cattle under tropical conditions. The volume synthesizes results from 38 experiments employing various techniques to quantify nutrient requirements. For net energy estimation, the authors combined the Lofgreen and Garrett comparative slaughter technique, developed in California, with open-circuit calorimetry to determine energy expenditure for growth, pregnancy, and lactation. Nitrogen requirements were derived from balance trials. In addition, the book compiles data from numerous Brazilian researchers and institutions, complemented by selected international studies. It includes extensive tables detailing body composition in growing and fattening purebred and crossbred cattle of different sexes and developmental stages, as well as the efficiency of metabolizable energy utilization and other key physiological parameters. The final chapter addresses nitrogen and phosphorus excretion, providing essential inputs for modelling nutrient dynamics in cattle systems. Overall, the publication offers an invaluable resource featuring comprehensive data, prediction equations, and reference values for Zebu, beef crossbred, and dairy crossbred cattle fed tropical diets.

South African Society for Animal Science (SASAS)

SASAS News



sasas

South African Society for Animal Science

The 56th Annual Congress of the South African Society for Animal Science was held from 7 to 9 July 2026 in Cape Town, South Africa. The congress theme: **Gearing up – Animal Science and Beyond**

focused on how animal science fits in with the broader agricultural industry. Honorary attendees included Prof Sibusiso Moyo (Deputy Vice-Chancellor Research, Innovation and Postgraduate Studies, Stellenbosch University), Dr Mohale Sebopetsa (Head of Department: Western Cape Department of Agriculture) and Prof Kennedy Dzama (SASAS Honorary president and Dean of the Faculty of AgriScience, Stellenbosch University). From keynote speakers addressing mycotoxin concerns from the viewpoint of plant pathologists (Dr Lindy Rose), to integrating livestock within conservation agriculture systems according to an agronomist (Prof Pieter Swanepoel) the congress encouraged animal scientists to consider how they can break down silos and work collectively with the wider agricultural science community. The congress also hosted three discussion panels discussing pressing issues on foot and mouth disease (moderated by Dr Bennie Grobler), the continued collaboration of veterinarians and animal scientists (moderated by Prof Norman Casey) and the necessity for industry and academia to work together to ensure the sustainability of both sectors (moderated by Dr Helet Lambrechts). The annual general meeting was held at the congress, and new committee members were announced (Mr Heiko Köster and Dr Helet Lambrechts were re-elected and Mrs Bonita Cilliers were elected to council for the first time).

With a record attendance of 360 delegates, the congress floor was a vibrant scene of new collaborations! Various prestigious awards were also bestowed by Prof Carina Visser (SASAS President) at the gala evening hosted at the Two Oceans Aquarium. Awards included the SASAS Gold Medal to Prof Louwrens Hoffman and Dr Japie van der Westhuizen, the SASAS Silver Medal to Dr Linky Makgahlela and Mr David Brandt and the President's award to Mr Thys Meyer for his contribution in the development and coordination of the Beef Genomics Program in South Africa.



From left to right: Prof Kennedy Dzama, Prof Carina Visser, Dr Mohale Sebopetsa, Prof Sibusiso Moyo



Group photo of delegates, Lagoon Beach Hotel, Cape Town, South Africa



From left to right: Mr Thys Meyer, Dr Linky Makgahlela, Prof Carina Visser, Prof Lourens Hoffman, Dr Japie van der Westhuizen

News from Science

A conventional hatchery vs “on-farm” hatching of broiler chickens: hatching process dynamics, and biochemical and production welfare indicators

This study evaluates on-farm hatching (OFH) as a welfare-friendly alternative to conventional hatchery hatching (HH). Researchers compared eggs hatched in a traditional hatcher with two OFH systems, placing eggs either on litter or plastic trays. Results showed no significant difference in overall hatchability between the methods, although OFH chicks began hatching 12 to 15 hours later. Crucially, OFH produced superior quality hatchlings, with significantly lower mortality and defect rates (0.2–0.3%) compared to the conventional method (2.1%). Furthermore, conventionally hatched chicks exhibited pronounced metabolic and endocrine stress, indicated by elevated levels of corticosterone, noradrenaline, and glucose. While HH chicks had higher initial body weights, final broiler performance remained unaffected. Ultimately, OFH effectively reduces peri-hatch stress and enhances early chick quality without compromising final production, provided farm environments are properly managed. [Read the full article on Animal.](#)



Effects of heat stress on water intake in Holstein dairy cows: A systematic review and meta-analysis

This systematic review and meta-analysis investigates the impact of heat stress (HS) on the drinking behaviour of lactating Holstein cows, an essential factor for animal welfare and productivity as global temperatures rise. Analysing 17 eligible studies published between 1985 and 2024, researchers found a significant correlation between water consumption and the temperature-humidity index (THI). Specifically, cows exposed to HS consumed an average of 10 litres more water per day compared to those in thermoneutral conditions. Furthermore, meta-regression revealed a clear linear sensitivity, showing that water intake increases by approximately 1.5 litres for every single unit rise in the THI. Providing a robust

quantitative assessment, these findings are crucial for modern dairy production systems, offering valuable insights for optimizing water management planning, detecting early heat load, and developing effective climate-resilience strategies. [Read the full article on Journal of Dairy Science.](#)



Multi-omics analysis reveals concentration-specific mechanisms underlying nanoplastic-induced muscle dysfunction and locomotor impairment in large yellow croaker

This study investigates the sublethal effects of polystyrene nanoplastics (PS-NPs) on the skeletal muscle and swimming performance of the migratory large yellow croaker. Following a 30-day exposure to varying PS-NP concentrations, researchers noted significant growth inhibition and impaired sustained and burst swimming capacities. Ultrastructural analysis revealed progressive muscle damage, including severe sarcomere disintegration. Integrated omics profiling identified primary toxicity mechanisms like cytoskeletal disruption and metabolic decoupling. These adverse effects escalated concentration-dependently, progressing from endocrine disruption at low doses to oxidative stress, ferroptosis, and autophagy at higher levels. Ultimately, these findings directly link NP-induced molecular muscle damage to severe locomotor deficiency. This proves that sublethal plastic pollution critically undermines essential survival behaviours like migration and predator avoidance, highlighting the urgent need to incorporate behavioural metrics into environmental risk assessments. [Read the full article on Aquaculture.](#)

Next-generation nutritional frontiers in livestock: from postbiotics to precision epigenetics

Global livestock production faces severe climate, disease, and sustainability challenges, necessitating innovative nutritional strategies. Next-generation solutions prioritize postbiotics, functional amino acids, microbial proteins, nanotechnology, and epigenetics. Postbiotics enhance gut immunity and reduce antibiotic reliance,

while functional amino acids boost stress resilience. Microbial proteins and nanocarriers improve nutrient absorption, simultaneously lowering environmental costs. A key paradigm shift is nutritional epigenetics, where specific metabolites alter DNA expression to optimize animal growth, reproduction, and heat tolerance. The sector's future relies on epigenome-guided diets, parental programming, digital twin models, and synthetic biology. Ultimately, these scientific advances redefine nutrition as a primary driver of agricultural resilience and sustainability. Realizing this vision, however, demands interdisciplinary collaboration, rigorous validation, and equitable implementation across the farming world. [Read the full article on Nature.](#)

News from Industry, Governments and International Organizations

Sustainability is a herd effort: Involving teams in the daily routine

Imagine a world championship Formula 1 team preparing for the season finale. The constructor has invested hundreds of millions of euros in the car and in its highly advanced technology. On paper, it is the most efficient, technologically advanced, and ruthlessly fast machine on the track. In the dairy industry, we are racing on the exact same track. [Read the full article on DairyGlobal.](#)



Webinar on demand: Dairy Prime – where science meets the right post-milking choice

Reducing carbon emissions at farm level doesn't have to mean lower productivity or major investment. In many systems, the biggest gains come from targeting feed-related hotspots, such as using nutrients more

precisely, reducing land-use-change ingredients, and safely increasing low-footprint by-products. Incremental improvements in feeding and day-to-day management can add up. With better information, producers can cut the farm's footprint while strengthening business resilience through volatile feed markets, fluctuating pig prices, and the impact of climate change. [Read the full article on PigProgress.](#)



Job Offers

Associate Professor / Professor at Aarhus University, Denmark

Aarhus University is hiring an associate professor or professor in digital phenotyping, spanning plants, insects and farmed animals. Hosted at the [Centre for Quantitative Genetics and Genomics \(QGG\)](#), this role sits at the interface of research and application, from AI driven phenotyping pipelines to industry partnerships and spin outs. Open to full academic appointment or joint appointment with an industry or public sector partner. Start: 1 April 2027. Deadline: **10 September 2026**. For more information [read the job vacancy](#).

Publications

I. New technical articles have been recently published on [Engormix](#):

I. "[Optimizing Milk Production Through Precision Nutrition](#)"

II. "[How Artificial Intelligence Reduces Costs in Agribusiness Production Management](#)"

III. “Reproductive System of a Sow and How to Improve Breeding Rates”

IV. “Mycotoxin Risk Management Strategies and Recommendations”

Other news

SAVE THE DATE, REGISTER AND JOIN US | Launch of new FAO publication “Global assessment of the contribution of livestock to food security, sustainable agrifood systems, nutrition and healthy diets”

Launch of new FAO publication “Global assessment of the contribution of livestock to food security, sustainable agrifood systems, nutrition and healthy diets” will be held on 22 September 2026 from 12:15 to 13:15 at FAO headquarters, Rome, Italy. FAO is developing a comprehensive, science- and evidence-based global assessment of the contribution of livestock to food security, sustainable agrifood systems, nutrition and healthy diets, considering environmental, economic and social sustainability. The assessment consists of three component documents. This launch event will present the key findings and interlinkages of the three documents as well as the highlights of the third document focusing on the contribution of the livestock sector to food security and sustainable agrifood systems – benefits, constraints, synergies and trade-offs and share insights from stakeholders. Read the first component document: [Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes](#) and the second: [Drivers of supply and demand of terrestrial animal source food](#). [Register here](#) to attend the event in person **by August 15**.



EUDR: a challenge or an opportunity for the competitiveness of the European livestock sector?

The [European Union Deforestation Regulation \(EUDR\)](#), which requires that commodities and derived products placed on the EU market be “deforestation-free“, was introduced to reduce the contribution of European consumption to global deforestation and forest degradation. The sectors concerned include cattle, soy, cocoa, coffee, palm oil, rubber and timber. For the cattle sector, this means that beef, hides, and other derived products may be marketed in the European Union only if accompanied by a traceability system that demonstrates they originate from land that has not been subject to deforestation after 31 December 2020.

Operators must also conduct due diligence, collect the geographical coordinates of the plots of origin, and retain all documentation necessary to demonstrate compliance. But what will be the real economic effects of the regulation? And will the EUDR provide a competitive advantage or impose an additional burden on European livestock farms? [Read the full article on European Livestock Voice.](#)



Meetings and Conferences

WAAP invites you to check the validity of the dates for every single event published below and in the Calendar of the website, due to the state of sanitary emergency that World is currently dealing with.

Event	Date	Location	Information
77th EAAP Annual Meeting	7 – 11 September 2026	Hamburg, Germany	website
14th International Conference on Goats	18 – 22 September 2026	Chongqing, China	website
EU AgRI 2040 Conference – “Future-proofing EU Agri-Food through research and innovation”	24 – 25 September 2026	Brussels, Belgium	website
IMAR – International Meeting on Animal Reproduction	26 – 30 October 2026	Viçosa, Brazil	website
21st Asian-Australasian Association of Animal Production Societies Animal Science Congress	28 – 31 October 2026	Hanoi, Vietnam	website
Future Grasslands 2026	11 – 12 November 2026	Telford, UK	website

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

The **World Animal Science News** is the Official WAAP Newsletter. This interesting update about activities of the global animal science community presents information on leading research institutions in the entire world and also informs on developments in the industry sector related to animal science and production. The Newsletter is sent to all WAAP member organizations and to their associates. You are all invited to submit information for the newsletter. Please send information, news, text, photos and logo to waap@waap.it.

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