SCIENTIFIC PANEL ON ADDITIVES AND PRODUCTS OR SUBSTANCES USED IN ANIMAL FEED (FEEDAP)

183rd Plenary Meeting

24-26 June 2025

09:00-18:00 / 09:00-18:00 / 09:00-13:00

MINUTES – Agreed on 2 July 2025

Location: EFSA, Parma

Attendees:

- **Panel Members:**

  Giovanna Azimonti, Eleftherios Bonos, Henrik Christensen, Mojca Durjava, Birgit Dusemund,[1] Ronette Gehring, Boet Glandorf, Maryline Kouba, Marta López-Alonso, Francesca Marcon,[2] Carlo Nebbia, Alena Pechová, Miguel Prieto, Ilen Röhe, Katerina Theodoridou and Roberto Edoardo Villa (Chair).

- **Hearing Experts:**

  Not applicable.

- **European Commission and/or Member States representatives:**

  Konstantinos Evangelopoulos, Francesca Moretti (DG SANTE).

- **EFSA:**

  FEEDCO Unit: Montserrat Anguita, Nicole Bozzi Cionci, Rosella Brozzi, Rafaella Christodoulou, Joana P. Firmino, Jaume Galobart, Mary Bridget Gilsenan, Eleni Gkimprixi, Davide Guerra, Orsolya Holczknecht, Matteo Lorenzo Innocenti, Maria Kolona, Eirini Kouloura, Marianna Kujawa, Paola Manini, Maria Mountricha, Natasa Mikulic, Alberto Navarro-Villa, Jordi Ortuño, Edgar Pérez, Elisa Pettenati, Fabiola Pizzo, Joana Revez, Jordi Tarrés-Call, Piera Valeri and Maria Vittoria Vettori.

- **Others:**

  Maria Casagrande participated as a contractor (ref. OC/EFSA/FIN/2019/01) for agenda item 9.3.a, via teleconference.

1. Welcome and apologies for absence

The Chair welcomed the participants. The Panel welcomed Edgar Pérez as guest scientist in the FEEDCO Unit.

2. Adoption of agenda

The agenda was adopted after the inclusion of the item "Copper lysinate sulfate as nutritional additive for all animal species (EFSA-Q-2024-00001)".

3. Declarations of interest of Panel members

In accordance with EFSA's Policy on Independence[3] and the Decision of the Executive Director on Competing Interest Management[4], EFSA screened the Annual Declarations of Interest filled out by the Panel members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

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1 Attended via webconference
2 Apologies on 26 June 2025.
3 Policy on Independence
4 Competing Interest Management

4. Agreement of the minutes of the 182nd FEEDAP Panel plenary meeting held on 6-7 May 2025 via teleconference

The minutes of the 182nd FEEDAP Plenary meeting were agreed by written procedure on 13 May 2025.[5]

5. Report on written procedures

The Panel adopted the following opinions by written procedure:

- 25-hydroxycholecalciferol as nutritional additive for salmonids, other fish species and all other animal species (EFSA-Q-2024-00273) adopted on 20 May 2025

6. Scientific outputs submitted for discussion/adoption

6.1 Bentonite (1m558i) as technological additive for all animal species (EFSA-Q-2022-00801)

This question refers to the renewal of the authorisation under Article 14 of Regulation (EC) No 1831/2003 of bentonite as a technological additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation and safety. The Panel unanimously adopted the opinion.

6.2 4-Hydroxy-2,5-dimethylfuran-3(2H)-one as sensory additive for all animal species with the exception of cats and dogs (EFSA-Q-2023-00722)

This question refers to the authorisation under Article 4 of Regulation (EC) No 1831/2003 of 4-hydroxy-2,5-dimethylfuran-3(2H)-one as sensory additive for all animal species with the exception of cats and dogs.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.3 Copper lysinate sulfate as nutritional additive for all animal species (EFSA-Q-2024-00001)

This question refers to the authorisation under Article 4 of Regulation (EC) No 1831/2003 of copper lysinate sulfate as a nutritional additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.4 *Bacillus velezensis* CECT 5940 (4b1822) as zootechnical additive for laying hens and other bird species kept for egg production purposes (EFSA-Q-2024-00008)

This question refers to the authorisation under Article 4 and the modification of the conditions of the authorisation under Article 13 of Regulation (EC) No 1831/2003 of *Bacillus velezensis* CECT 5940 (4b1822) as zootechnical additive for laying hens and other bird species kept for egg production purposes.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

[5] https://www.efsa.europa.eu/sites/default/files/2025-05/feedap250506-07_m_0.pdf

6.5 L-Histidine and L-histidine monohydrochloride monohydrate from *Corynebacterium glutamicum* KCCM80389 for all animal species (EFSA-Q-2024-00031)

This question refers to the authorisation under Article 4 of Regulation (EC) No 1831/2003 of L-histidine and L-histidine monohydrochloride monohydrate from *Corynebacterium glutamicum* KCCM80389 as a nutritional and sensory additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.6 *Pediococcus pentosaceus* NCIMB 12674 for all animal species (EFSA-Q-2024-00222)

This question refers to the authorisation under Article 4 of Regulation (EC) No 1831/2003 of *Pediococcus pentosaceus* NCIMB 12674 as a technological additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The draft opinion will be presented for possible adoption in a future plenary or by written procedure.

6.7 Belfeed B MP/ML (endo-1,4-beta-xylanase EC 3.2.1.8 produced by *Bacillus subtilis* LMG S-15136) for gestating sows (EFSA-Q-2024-00263)

This question refers to the authorisation under Article 4 of Regulation (EC) No 1831/2003 of Belfeed B MP/ML (endo-1,4-beta-xylanase EC 3.2.1.8 produced by *Bacillus subtilis* LMG S-15136) as a zootechnical additive for gestating sows.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.8 Endo-1,4-beta-xylanase (EC 3.2.1.8) and endo-1,3-beta-glucanase (EC 3.2.1.6) as zootechnical additives for chickens for fattening and reared for laying, laying hens, turkeys for breeding purposes, for fattening and reared for breeding and minor poultry species (EFSA-Q-2024-00301)

This question refers to the renewal of the authorisation under Article 14 of Regulation (EC) No 1831/2003 of endo-1,4-beta-xylanase (EC 3.2.1.8) and endo-1,3-beta-glucanase (EC 3.2.1.6) as a zootechnical additive for chickens for fattening and reared for laying, laying hens, turkeys for breeding purposes, for fattening and reared for breeding and minor poultry species and to the authorisation of its use as a zootechnical additive for all poultry species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.9 Taurine (3a370) as nutritional additive for *Canidae*, *Felidae*, *Mustelidae* and carnivorous fish and all poultry and all porcine species (EFSA-Q-2024-00394)

This question refers to the authorisation under Article 4 and the renewal of the authorisation under Article 14 of Regulation (EC) No 1831/2003 of taurine (3a370) as a nutritional additive for *Canidae*, *Felidae*, *Mustelidae* and carnivorous fish and all poultry and all porcine species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.10 Beta-carotene (3a160(a)) as nutritional additive for all animal species (EFSA-Q-2024-00504)

This question refers to the renewal of the authorisation under Article 14 of Regulation (EC) No 1831/2003 of beta-carotene (3a160(a)) as a nutritional additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation and safety. The Panel unanimously adopted the opinion.

6.11 Preparation of *Weizmannia faecalis* DSM 32016 (4b1900) as a zootechnical additive for all poultry species for fattening, reared for breeding and laying and ornamental birds (EFSA-Q-2024-00562)

This question refers to the modification of the conditions of the authorisation under Article 13 of Regulation (EC) No 1831/2003 of a preparation of *Weizmannia faecalis* DSM 32016 (4b1900) as a zootechnical additive for all poultry species for fattening, reared for breeding and laying and ornamental birds.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation and safety. The Panel unanimously adopted the opinion.

6.12 Folic acid (3a316) for aquatic species (EFSA-Q-2024-00576)

EFSA was requested to deliver an opinion on the safety of folic acid (3a316) as a nutritional additive for aquatic species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product safety. The Panel unanimously adopted the opinion.

6.13 *Lactiplantibacillus plantarum* DSM 4787 (ATCC 55943) (1k20729) (EFSA-Q-2024-00698), *Lactiplantibacillus plantarum* DSM4784 ATCC53187 (DSM 18112) (1k20726) (EFSA-Q-2024-00699), *Lactiplantibacillus plantarum* DSM 4785 (DSM 18113) (1k20727) (EFSA-Q-2024-00700), *Lactiplantibacillus plantarum* DSM 4786 (DSM 18114) (1k20728) (EFSA-Q-2024-00701), *Lactiplantibacillus plantarum* DSM 5284 (ATCC 55944) (1k20730) (EFSA-Q-2024-00702), *Lentilactobacillus buchneri* LN4637 / ATCC PTA-2494 (1k20734) (EFSA-Q-2024-00703) and *Lentilactobacillus buchneri* LN40177 / ATCC PTA-6138 (1k20740) (EFSA-Q-2024-00704) as technological additives for all animal species

EFSA was requested to deliver an opinion on the characterisation of *Lactiplantibacillus plantarum* DSM 4787 (ATCC 55943), *L. plantarum* DSM4784 ATCC53187 (DSM 18112), *L. plantarum* DSM 4785 (DSM 18113), *L. plantarum* DSM 4786 (DSM 18114), *L. plantarum* DSM 5284 (ATCC 55944), *Lentilactobacillus buchneri* LN4637 / ATCC PTA-2494 and *L. buchneri* LN40177 / ATCC PTA-6138 as technological additives for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation. The Panel unanimously adopted the opinion.

6.14 6-phytase produced by *Komagataella phaffii* CGMCC 7.370 for all pigs and all avian species (EFSA-Q-2024-00714)

EFSA was requested to deliver an opinion on the efficacy of 6-phytase produced by *Komagataella phaffii* CGMCC 7.370 as a zootechnical additive for all pigs and all avian species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product efficacy. The Panel unanimously adopted the opinion.

6.15 Acacia gum for all animal species (EFSA-Q-2025-00163)

EFSA was requested to deliver an opinion on the safety and efficacy of acacia gum as a technological additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product safety and efficacy. The Panel unanimously adopted the opinion.

6.16 Preparation of monensin sodium (Coxidin®) produced with *Streptomyces cinnamonensis* 28682 as coccidiostat for chickens for fattening and chickens reared for laying (EFSA-Q-2025-00167)

EFSA was requested to deliver an opinion on the safety of a preparation of monensin sodium (Coxidin®) produced with *Streptomyces cinnamonensis* 28682 as a coccidiostat for chickens

for fattening, chickens reared for laying, turkeys for fattening and turkeys reared for breeding.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product safety. The Panel unanimously adopted the opinion.

6.17 Botanically defined flavourings from Botanical Group 18 - Gymnosperms (Coniferales, Ginkgoales) for all animal species and categories: Ginkgo tinctures for all animal species and ginkgo extract for horses, dogs, cats, rabbits and guinea pigs (EFSA-Q-2025-00215)

EFSA was requested to deliver an opinion on the efficacy of ginkgo tinctures as a sensory additive for all animal species and ginkgo extract as a sensory additive for horses, dogs, cats, rabbits and guinea pigs.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product efficacy. The Panel decided that further discussion is needed and requested the working group to submit a revised opinion in a future Plenary.

6.18 Botanically defined flavourings from Botanical Group 01 - Lamiales for all animal species and categories: Basil tincture (EFSA-Q-2025-00324)

This question refers to the authorisation under Article 4 and the re-evaluation under Article 10 of Regulation (EC) No 1831/2003 of basil tincture as a sensory additive for all animal species.

The opinion was discussed and endorsed in the previous plenary meeting but could not be adopted as the EURL report was not available. The EURL report has been received and the Panel unanimously adopted the opinion.

6.19 Botanically defined flavourings from Botanical Group 01 - Lamiales for all animal species and categories: Lavender tincture (EFSA-Q-2025-00325)

This question refers to the authorisation under Article 4 and the re-evaluation under Article 10 of Regulation (EC) No 1831/2003 of lavender tincture as a sensory additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.20 Botanically defined flavourings from Botanical Group 01 - Lamiales for all animal species and categories: Peppermint tincture (EFSA-Q-2025-00326)

This question refers to the authorisation under Article 4 and the re-evaluation under Article 10 of Regulation (EC) No 1831/2003 of peppermint tincture as a sensory additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.21 Botanically defined flavourings from Botanical Group 01 - Lamiales for all animal species and categories: Wild thyme tincture (EFSA-Q-2025-00327)

This question refers to the authorisation under Article 4 and the re-evaluation under Article 10 of Regulation (EC) No 1831/2003 of wild thyme tincture as a sensory additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

6.22 Botanically defined flavourings from Botanical Group 01 - Lamiales for all animal species and categories: Sage tincture (EFSA-Q-2025-00328)

This question refers to the authorisation under Article 4 and the re-evaluation under Article 10 of Regulation (EC) No 1831/2003 of sage tincture as a sensory additive for all animal species.

The Panel discussed the draft scientific opinion, and in particular assessed data regarding product characterisation, safety and efficacy. The Panel unanimously adopted the opinion.

7. Other scientific topics for information/discussion

7.1 Compendium of botanicals

The Panel was given an overview of the latest activities in EFSA with regard to the Compendium of botanicals.[6]

8. Update on new mandates since the previous meeting

8.1 New applications under Regulation (EC) 1831/2003

The Commission has forwarded to EFSA the following new applications of feed additives seeking authorisation under Regulation (EC) No 1831/2003 since the last Plenary meeting. These applications were presented to the Panel:

EFSA-Q number	Subject
EFSA-Q-2025-00295	*Bacillus subtilis* DSM 33862 and *Lentilactobacillus buchneri* DSM 12856 as technological additives for all animal species
EFSA-Q-2025-00315	*Ligilactobacillus salivarius* PS21603 as zootechnical feed additive for weaned piglets
EFSA-Q-2025-00353	6-phytase produced with *Komagataella phaffi* DSM 328547 as zootechnical additive for fish
EFSA-Q-2025-00354	L-Lysine monohydrochloride produced with *Corynebacterium glutamicum* CGMCC 23982 as nutritional additive for all animal species
EFSA-Q-2025-00368	Astaxanthin diacetate produced with *Yarrowia lipolytica* ML21751 as a sensory additive for fish
EFSA-Q-2025-00376	Xylanase (EC 3.2.1.8) and beta-glucanase (EC 3.2.1.6) as zootechnical additive for pigs for fattening

8.2 Valid applications under Regulation (EC) No 1831/2003

Applications considered valid for the start of the assessment:

EFSA-Q number	Subject	Valid on
EFSA-Q-2024-00599	Canthaxanthin (2a161g) as sensory additive for chickens and minor poultry species for fattening, laying poultry and poultry reared for laying, ornamental fish and ornamental birds	06/05/2025
EFSA-Q-2024-00671	3-nitrooxypropanol as zootechnical additive for calves, lambs, kids and other ruminants for rearing (for future reproduction) and for fattening and bovines, ovines, caprines and other ruminants for fattening and reared for reproduction	20/05/2025

[6] https://www.efsa.europa.eu/en/data-report/compendium-botanicals

EFSA-Q number	Subject	Valid on
EFSA-Q-2024-00726	Endo-1,4-beta-xylanase produced with *Trichoderma reesei* CBS 146249 and endo-1,3(4)-beta-glucanase produced with *Trichoderma reesei* CBS 143945 (4a15) as zootechnical additive for all avian species, pigs for fattening, suckling and weaned piglets, lactating sows and minor porcine species	20/05/2025
EFSA-Q-2025-00010	*Saccharomyces cerevisiae* CNCM I-4407 (4b1702) as zootechnical additive for dogs	23/05/2025
EFSA-Q-2025-00019	Endo-1,4-beta-xylanase (EC 3.2.1.8) produced with *Trichoderma reesei* (ATCC PTA-5588), alpha-amylase (EC 3.2.1.1) produced with *Bacillus licheniformis* (ATCC SD-6525) and protease (EC 3.4.21.62) produced with *Bacillus subtilis* (CBS 148232) as zootechnical additive for all poultry	14/05/2025
EFSA-Q-2025-00157	L-Valine produced with *C. glutamicum* CCTCC 20232578 as nutritional additive for all animal species	05/05/2025
EFSA-Q-2025-00159	Preparation of benzoic acid, thymol, eugenol and piperine as zootechnical additive for all poultry	20/05/2025

8.3 New questions under Regulation (EC) No 178/2002

EFSA-Q number	Subject
EFSA-Q-2025-00263	Butylated hydroxytoluene (BHT) for all animal species

9. Feedback from Scientific Committee/Scientific Panels/EFSA/European Commission/EURL

9.1 Scientific Committee

The Chair of the Panel provided an update of the discussions held during the last plenary meeting of the Scientific Committee.

9.2 Scientific Panel(s) including their Working Groups

The Panel was informed about the decision of the Working Group on Microbiology to start implementing the requirement set in the 'EFSA statement on the requirements for whole genome sequence analysis of microorganisms intentionally used in the food chain' as concerns the provision of complete genomes (EFSA, 2024)[7]. According to the above-mentioned Statement, the provision of complete genomes is compulsory for bacteria and viruses and recommended for yeasts and filamentous fungi. The FEEDAP Panel invites applicants to follow this updated Statement when submitting WGS data.

9.3 EFSA

a) The Panel was given an overview of the activities regarding the implementation of the Collaborative Secure Risk Assessment Production (CORSA) project, especially with regards the upcoming changes for the access to the application dossiers and collaboration regarding the post-transparency applications.

b) The Panel was also given an update on the current and future activities.

[7] https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2024.8912

9.4 European Commission/EURL

a) Recommendation on opinion on lutein-rich extract

The European Commission requested a clarification regarding a recent opinion on lutein-rich extract from *Tagetes erecta* (EFSA-Q-2023-00483), in which the FEEDAP Panel recommended that in the specifications of the lutein-rich extract, hexane should be below the VICH Guideline limit of 290 mg/kg. The EC requested clarification on whether the limit for hexane should apply to the extract before its mixing with other ingredients to produce the final preparation or to the preparation(s) to be placed on the market.

The Panel notes that the limits set for hexane, or any other residual solvents, are intended to protect the target animals to the exposure to these compounds. Therefore, in general, when limits for residual solvents are recommended, these are intended to apply to the additive to which animals will be exposed.

The European Commission also requested clarification on whether this limit could apply to another lutein/zeaxanthin extract currently authorised (2a161bi). The Panel considers that the same recommendation would apply to that extract or to any other lutein-rich extracts that are authorised in the EU.

b) Recommendation on opinions on additives containing copper

The Panel has adopted recently two opinions on additives consisting of copper (copper(II)-betaine complex for all animal species (EFSA-Q-2024-00682) and copper bislysinate for all animal species (EFSA-Q-2023-00901)). In these opinions, the Panel included the following recommendation "The Panel notes that some breeds of dog are particularly sensitive to copper toxicity (EFSA FEEDAP Panel, 2016).[8] It is recommended that this is indicated in the label of the feed supplemented with copper".

The intention of the Panel when including such recommendation was to raise the attention of feed manufacturers and veterinarians to the sensitivity of some breeds of dogs to copper toxicity, and to consider the copper content in the diets for these animals.

The Panel acknowledged that this recommendation might lead to some confusion as not all individuals of these breeds are affected by this condition. Moreover, it is not possible to define a copper level in feed above which this condition is developed. Therefore, the Panel agreed to remove the recommendation from the two above-mentioned opinions.

10. Any other business

10.1 Errata in opinion on clinoptilolite

The Panel adopted on 19 March 2025 the opinion on the safety and efficacy of clinoptilolite of sedimentary origin for all animal species (EFSA-Q-2022-00474). After the publication several errors were identified in the data reported regarding the characterisation of the additive. These errors were corrected and an updated opinion will be republished.

10.2 Next meeting

The next meeting will be held on 16-18 September 2025 via teleconference.

[8] https://efsa.onlinelibrary.wiley.com/doi/full/10.2903/j.efsa.2016.4563