Ninety-eighth Advisory Committee on Animal Feedingstuffs meeting
11th June 2025 – Online meeting

ACAF	FSA
Nick Wheelhouse (Chair)	Krystle Boss
Barry Bradford	Emily Davies
Martin Briggs	David Evans
Emily Burton	Edward Fuller
Katrina Campbell	Rebecca Greenaway
Nick Jonsson	Beth Hall
Hannah Kane	Emily Hudson
Susan MacDonald	Michelle Hutchinson
Chris McAlinden	David Kovacic
Donald Morrison	Kaila Lee
Derek Renshaw	Francisco Matilla
Mike Salter	Barry Maycock
Christel Wake	James Metcalfe
Helen Warren	Claire Moni
	Shila Sultana
	Abigail Timothy
	Alba Ureña Rusillo

1. Apologies

Apologies were received from Adam Smith.

2. Welcome

The Chair welcomed members of the Committee, Secretariat and observers from the Devolved Administrations.

3. Risk Assessment update

The Regulated Products Team Leader Francisco Matilla-Garcia reminded Members of the updated fees and expenses guidance, acknowledging that fees can vary depending on meeting participation and complexity of items. Members were also informed that preparation for ad hoc meetings or other relevant Committee work can be claimed as well. A brief update was also provided in relation to the SPS (Sanitary and Phytosanitary) Agreement.

4. Policy update

Animal Feed Policy Adviser, Beth Hall, informed Members that Policy have been working on both implementing the reform SI for the removal of renewals and on the

GB register of feed additives. It was also mentioned that the number of applications coming into the system has been reduced as a result of the removal of renewals, as expected.

5. Minutes from 97th Meeting

The Committee reviewed the minutes from the 97th ACAF meeting and provided feedback to be reviewed by the Secretariat.

6. RP1605 Titanium dioxide

Christel Wake declared a direct conflict and left the meeting for the item.

The Rapporteurs for this item had compiled the studies evaluated by EFSA and COM into two tables. The Rapporteurs considered the *in vivo* data more relevant to conclude on the genotoxicity of the additive. EFSA and COM had applied different criteria for reliability in the studies evaluated and that is why the regulatory bodies had reached different conclusions. The Rapporteurs noted that the Committee should decide between one approach or the other.

Concerns were raised over the implications of two Committees in the UK having conflicting conclusions.

The Rapporteurs noted that genotoxicity is mainly evaluated as an indicator of carcinogenicity. However, no evidence could be drawn from the studies that E 171 is carcinogenic.

The Secretariat reminded Members that this assessment was being drafted post COT and COM opinions as a follow-on document rather than a report started from scratch. COT, COM and ACAF opinions would be directed to Policy, who would then make an informed decision about the legislative status of the additive.

The Secretariat noted that COM had also highlighted that the assessment had been proved difficult due to the lack of OECD-compliant studies available, as well as other uncertainties.

The ACAF Members broadly agreed with the COM conclusions which stated '*there is little evidence in the literature to suggest that there is a health concern related to in vivo genotoxicity induction by TiO_2'* but Members clarified that it was their opinion that the volume of studies was not the problem but rather the interpretation of the studies as a whole did not give clear indication about whether E171 presented a genotoxic hazard (to target species, consumers and users). Members agreed with the COM conclusion that "*Currently a definitive assessment of the safety of food grade E171 is difficult when there are no high-quality OECD-compliant studies that adequately incorporate the study design considerations and characterisation of the nanoparticulate fraction present in E171*.", further adding that concern remained specifically over the nanoparticle fraction of E171. The Rapporteurs indicated that while E171 is not classed as a nanomaterial, the nanoparticle fraction had not been

sufficiently addressed, particularly in relation to the safety of the user/ worker as they are likely to be directly exposed to TiO_2.

Regarding the question to Members concerning whether they accepted the NOAEL derived from the EOGRT study, the rapporteurs stated that, in principle, they would agree with it. However, it was noted that if the additive is considered to be genotoxic, it would not be appropriate to set a maximum safe limit for target species, as there would not be a level without risk.

Regarding the exposure assessment for the target species, the Secretariat indicated that it was conducted based upon inclusion levels of 0.2 and 3% (worst-case scenario). These values had been provided by the pet food industry, as there is not a maximum inclusion level described in the legislation. Members noted that, as a tracer, the additive is normally used in the range of 0.1-0.5%. Members advised that the inclusion level of TiO_2 in feed raw materials derived from human food waste is expected to be significantly lower than 3%, although it was considered a source of uncertainty. Members stated that they will retrieve relevant information concerning the typical inclusion level of waste from human food in feed and of the additive used in trials as a tracer to refine the exposure assessment.

Members highlighted an error in the exposure table. The Secretariat stated that this would be addressed after the meeting and re-presented to the Committee in the next draft discussion paper for their conclusions on exposure.

Taking into account the ADME data showing minimal absorption from the gut and minimal deposition in the liver of rats, the fact that the additive is used as an indigestible tracer, and the multiple dilution factors applied, Members indicated that consumer exposure from the use of TiO_2 in animal feed was likely to be low. However, Members further noted that EFSA had reported that there was some evidence that ingested nanoparticles of TiO_2 could accumulate in edible tissues.

Members highlighted that they were unaware of any epidemiological studies suggesting that the additive should raise a concern, despite it being authorised for a long time.

Regarding worker safety, the rapporteurs assumed, based on the available data, that the additive could be inhaled and deposited in the lungs.

7. Dossier for assessment: RP2105 Saccharomyces cerevisiae CNCM I-1079

Helen Warren declared an indirect conflict of interest but remained in the meeting for the discussion.

The Committee assessed an application for the additive *Saccharomyces cerevisiae* CNCM I-1079, which falls under the category “zootechnical additives”, functional group “gut flora stabilisers”. The additive is already authorised for use as a gut flora stabiliser in Suidae, and the applicant is seeking authorisation for a new use in dogs and all other Canidae. The Committee were asked to assess efficacy only.

The Committee noted that it was unclear in the dossier on how the additive is to be administered to dogs and other Canidae. **The applicant would be asked to provide additional information on how the additive is included in the feed.**

Members reviewed the efficacy study provided to examine the effect of the additive on the digestive status and reproductive performance of dogs and the benefit in their offspring. The Committee noted that efficacy has been previously demonstrated in sows. It was agreed that any effects in sows were biologically relevant to Canidae; therefore, a single study in dogs was sufficient.

Members raised concerns with the experimental design of the study. The Committee noted there were minor improvements in some endpoints, although the relevance of some of the performance parameters tested were questioned. Members acknowledged the challenges associated with defining relevant endpoints in such a study.

Members noted that the study has now been published; the publication includes additional endpoints not included in the original dossier that demonstrate evidence of significant effects. The Committee therefore concluded that the additive has the potential to be efficacious in dogs and other Canidae at the dose proposed by the applicant.

8. Dossier for assessment: RP2163 B-Act

No conflicts were declared for this item.

The Committee assessed an application for the additive B-Act®, which contains the active agent *Bacillus licheniformis* DSM 28710. The additive falls into the category “zootechnical additives”, functional group “gut flora stabilisers”. The Committee were asked to assess efficacy only.

The additive is currently authorised for use in avian species, but the applicant is seeking authorisation for a new use in weaned piglets, pigs for fattening, minor growing porcine species and all reproductive swine species. In support of the application, the applicant provided three long-term efficacy studies in weaned piglets, and six studies in sows, covering the period of approximately two weeks prior to parturition and lactation.

The Committee reviewed the studies in weaned piglets and noted significant improvements in some performance parameters. However, Members raised concerns over the high level of morbidity and antibiotic treatment observed in one of the trials and queried whether the study should be considered suitable for assessment.

The Committee reviewed the studies provided in lactating sows. There were concerns over the design of several trials. Members were unable to accept one of the studies and required additional information for two of the studies. **The applicant would be asked to provide additional information on the layout of the housing for these trials.**

Members noted high levels of *Bacillus* spp. in the control feed for one of the trials. Although this was considered a quality concern, the Committee agreed that this was

likely to lessen any difference between treatment groups. The observed improvements in performance parameters in the treatment group could therefore be attributed to the additive.

Overall, the Committee agreed that evidence of efficacy in sows was variable but there appeared to be potential for the additive to increase survivability and growth performance of the piglets.

Addendum – Members further reviewed the trial in weaned piglets offline and agreed that it was suitable for assessment. Members therefore concluded that the additive had the potential to be efficacious in weaned piglets, and that this could be extrapolated to other minor growing porcine species. Members also further reviewed one of the trials in sows offline but did not consider it suitable for assessment.

9. Dossier for assessment: RP2187 Pediococcus pentosaceus

Helen Warren declared an indirect conflict of interest but remained in the meeting for the discussion.

Members evaluated an application for a new authorisation in all animal species for this additive, which falls into the category “technological additives”, functional group “silage additives”.

The active agent is *Pediococcus pentosaceus* NCIMB 12674. The additive also contains cryoprotectants, but members were satisfied that the other components of the additive did not pose a hazard. Members recognised that the applicant had not provided evidence that analysis for particle size distribution and dusting potential were performed to a standard method (e.g. ISO, BS, DIN etc.), noting also a high coefficient of variation between batches for dusting potential. However, given the significant potential for dusting it was deemed unnecessary to request additional information from the applicant.

Members noted that the original Certificates of Analysis (CoA) for testing of impurities had not been provided, and that evidence of accreditation had not been supplied for all testing laboratories. **The applicant would be asked to provide the original CoA’s and evidence of the laboratory accreditation.**

Members reviewed the characterisation of the strain and were satisfied that taxonomic identification as *P. pentosaceus* had been confirmed. It was noted that the strain was deposited in a culture collection a considerable time ago; **the applicant would be asked to provide evidence of genetic stability over time**. Members noted that a search of the whole genome sequence (WGS) data against the ResFinder database did not return any hits for antimicrobial resistance genes, and a search against the CARD database returned only “loose” hits. However, members raised a concern that phenotypic resistance had been demonstrated to three antimicrobials; **the applicant would be asked to analyse the loose hits identified in the search against the CARD database and provide additional evidence that the resistance to these antimicrobials was intrinsic to *P. pentosaceus*.**

The Committee reviewed the manufacturing process and the HACCP plan submitted by the applicant and noted that the HACCP plan did not specify the manufacturing site. **The applicant would be asked to provide an updated HACCP plan.** It was noted that the additive was intended to be used in water, but this was not reflected on the label. **The applicant would be asked to include instructions for use in water on the product label, including stability.**

The Committee noted that the organism is suitable for the EFSA Qualified Presumption of Safety (QPS) approach, and therefore agreed the additive could be considered safe for target species, consumer and the environment. The Committee evaluated user safety, and determined that as a microbial additive, it should be considered a respiratory sensitiser. The additive had a high dusting potential and high proportion of particles smaller than 50 µm, therefore measures to minimise respiratory exposure would be recommended. Skin and eye irritation studies and a skin sensitisation study had not been provided, so the Committee concluded that the additive is a potential skin and eye irritant and potential skin sensitiser. Measures to reduce exposure to eyes and skin would be recommended. A safety data sheet (SDS) was not provided; **the applicant would be asked to provide a SDS and advised that they may wish to include recommendations to limit respiratory, dermal and eye exposure.**

Members reviewed the efficacy studies provided in moderately difficult and difficult to ensile materials and agreed that additional information was required. **The applicant would be asked to provide a more detailed description of the methodology used in each study.** The Committee noted that no studies had been submitted in easy to ensile forages and agreed that any conclusion could not be extrapolated to easy to ensile materials. **The applicant would be asked to submit additional data or accept that a conclusion on efficacy in easy to ensile forages could not be made.**

10. Dossier for assessment: RP2252 Vitamin B12/Cyanocobalamin

The Committee assessed the application for additive Vitamin B12/Cyanocobalamin. The additive falls under the category “nutritional additives,” functional group “vitamins, pro-vitamins and chemically well-defined substances having a similar effect”, the additive is for use in all animal species.

The Committee discussed the applicant’s lack of information and supporting evidence regarding the identity and characterisation of the production species and concluded that **the applicant would be asked to carry out analysis of WGS data to support the applicant’s claims regarding species identification, origin, genetic modifications, and genetic stability**.

Members commented that an RFI had been sent to the applicant and that the applicant had failed to provide the unredacted EFSA opinions that were referenced throughout the dossier.

It was noted that the applicant observed a significant decrease of Vitamin B12 production in an assay performed as evidence of genetic stability. However, the assay performed did not satisfy the requirements to demonstrate genetic stability. **The applicant would be asked to comment on this observation and provide further information on the fermentation process.**

The Committee identified several issues regarding the information and evidence provided for the detection of AMR, toxins, and virulence genes within the production strain and in the final product. **The applicant would be asked to carry out analysis and provide the methods used to identify AMR, toxins and virulence genes within the production strain and final product and to also prove each batch of the additive contains no products relating to virulence genes.**

When using databases to detect AMR/ virulence genes, the applicant used query sequence hits of >=90% identity**. The applicant would be asked to repeat analysis using >=80% identity as stated in the Guidance.**

The applicant concluded that the AMR of the strain is of no concern as the resistance is intrinsic to the species. **The applicant would be asked to provide evidence from literature that supports this claim and also provide an updated literature search with information relating to toxigenicity and virulence for humans and target species as per the Guidance.**

The Committee has noted that there is potential for endotoxins and cyanide to be present in the additive. **The applicant would be asked to provide evidence that endotoxins and cyanide are routinely tested for in both the additive preparation and the active substance and to confirm if cyanide is included in the manufacturing process in excess or if it is a limiting substrate. Additionally, the applicant would be asked to provide information related to the treatment and testing of the water used in production and to provide a rationale for the absence of routine pathogen monitoring in both the additive preparation and the active substance.**

Multiple annexes were provided as evidence of stability however the Committee noted some discrepancies within the data. **The applicant would be asked to clearly demonstrate stability when the additive vitamin B12 1% is used in feed**. **Additionally, the applicant would be asked to comment on the deterioration in pig feed after months 1-3 and provide clarity on the starting values. The applicant would also be asked to provide other evidence that the additive can be heat treated to the time/temperatures for all animal species and to include this on the label.**

The Committee has noted that no information has been provided to demonstrate the absence of DNA from the production strain in the final product. **The applicant would be asked to demonstrate absence of DNA from the production strain in the final product.**

The Committee determined that not enough evidence or information has been presented by the applicant on the specific strain used or the safety of the additive, and they are unable to form an opinion. **The applicant would be asked to provide**

information on the relationship between the different production strains mentioned in the EFSA opinions. Additionally, an up-to-date extensive literature search would be requested for *Ensifer adhaerens* CICC 11008s with regards to the safety of the additive.

11. Response to RFI: RP2071 Enterosure Conc

Emily Burton declared a direct conflict of interest and left the meeting for the discussion.

The Committee evaluated the additional information provided and noted that the applicant had confirmed authorisation is requested for Enterosure Conc only, not Enterosure. Characterisation of the small particle fraction of Enterosure by scanning electron microscopy had been provided. Data on particle size distribution of Enterosure Conc had been previously seen and showed an absence of a fraction of small particles requiring further investigation by electron microscopy. Members noted that the images were poor quality; however, as the small particle fraction was anticipated to be the calcium carbonate carrier, no further information would be required from the applicant.

Members evaluated the response to the request for evidence demonstrating that each bacterial strain is present in equal amounts within the additive. The Committee acknowledged the technical challenges associated with quantifying individual *Bacillus* spp. strains in a mixture and were satisfied that the manufacturing procedures implemented would ensure that the three microorganisms are present in approximately equal proportions.

The Committee reviewed the updated whole-genome sequence analysis provided by the applicant and agreed that the antimicrobial resistance genes detected were intrinsic to the species and not located on a plasmid. Members reviewed the additional data provided to demonstrate compatibility with coccidiostats and agreed with the updated conditions of use proposed by the applicant with respect to compatibility with coccidiostats. Members were satisfied that the additional information provided regarding the manufacturing process and the proposed label addressed the queries raised.

The Committee evaluated the additional information provided regarding the tolerance study. As the active agents are microorganisms, taken together with the fact that all three organisms are suitable for the QPS approach, Members concluded that the additive is safe for the target species.

Members evaluated the additional information provided for efficacy, but concerns remained over the experimental design of one of the trials. **The applicant would be asked to provide additional information.**

12. Response to RFI: RP2157 Bovacillus® 10 and Bovacillus® WS

Martin Briggs declared an indirect conflict of interest and stayed in the meeting for the discussion.

Members were satisfied with the evidence provided in relation to an AMR gene that had not been discussed previously. An updated label detailing the stability of the additive in water and during pelleting was provided, as well as data to demonstrate the homogeneous distribution of the additive in water. More recent SDS, FAMI-QS certificates and HACCPs for each manufacturing plant were provided, in addition to the quantitative composition of the fermentation media used. With regards to the stability of the additive, the applicant accepted that the Committee could only conclude on stability at 25°C for 2 years.

Members highlighted that the minimum use level of the additive in water can be established based on the daily dose per animal (9.6 x 10^9 CFU per cow) and the daily water intake. The conditions of use label states that the dosage should supply a minimum of 3.8 × 10^8 CFU/kg complete feed, or minimum 7.4 x 10^7 CFU/L drinking water. **The applicant is asked to justify the dosage of the additive in drinking water based on the daily water consumption of the average cow.**

13. Draft safety assessments: RP1696

The Committee was presented with the final draft of the Safety Assessment document for application RP1696. The Committee provided feedback on final corrections and approved the opinion to be finalised and sent to Risk Managers.

13. Any other business

An update on upcoming applications was also provided.

Next ACAF meeting: 24th July 2025 on Microsoft Teams.