AAFCO
Association of American Feed Control Officials

2022 MIDYEAR MEETING
COMMITTEE REPORTS

MOBILE, ALABAMA

ALABAMA DEPARTMENT OF
AGRICULTURE & INDUSTRIES

Association of American Feed Control Officials

Contents

Association Business Meeting Minutes

2021 AAFCO Annual Meeting Virtual
August 2, 11:00 am–2:15 pm (EDT)

Agenda

1) **Convene Business Session of the Association**—Erin Bubb, President
    1) Welcome and opening remarks
    2) Announcement of new life members
        - Bob Church, MT
    3) Presentation of awards
        - E.B. Voorhees Award – Nancy Thiex, Life Member, for her long-time dedication to AAFCO and laboratory methods. She embodies the spirit of the Voorhees award as Nancy has demonstrated a commitment to educating, advocating, developing, implementing and representing the best practices and policies for quality lab methods, operations and accreditation. She has represented AAFCO in both national and international forums, and is highly respected by her peers.
        - Distinguished Service Award – Bill Burkholder, FDA, for his dedication and leadership with the Pet Food Committee, pet food expertise and participation in the PFLM project.
        - Distinguished Service Award – Doug Lueders, Life Member, for his dedication and leadership chairing the Model Bill and Regulations Committee.
        - Distinguished Service Award – Bob Church, Life Member, for his leadership in AAFCO.
        - Presidential Award – Susan Hays, AAFCO Executive Director, for her initiative
        - Certificate of Appreciation – Falina Hutchinson, MT Department of Agriculture, for her leadership as investigator for Oil Seed Products, and all of the speaking events she has participated, representing AAFCO Ingredient Definitions process for hemp and hemp products.
    4) Memorials
        - Mary Lee Hasselberger (1939-2021)
2) **Acceptance of committee reports from:** Current Issues and Outreach, Education and Training, Feed and Feed Ingredient Manufacturing, Feed Labeling, Ingredient Definitions, Ingredient Definitions eMeeting 4/1/2021, Inspection and Sampling, Laboratory Methods & Services, Model Bills and Regulations, Model Bills and Regulations eMeeting 3/2/2021, Model Bills and Regulations eMeeting 6/15/21-6/22/21, Pet Food, Proficiency Testing, Strategic Affairs, Technology Committee—Austin Therrell, 2022 President-Elect
   (Reports are published on the AAFCO website on the Annual Meeting 2021 page, left side, under the heading “Committee Reports.”)
   Austin Therrell moves to accept committee reports, Ben Jones Seconds. Motion Carries.
3) **Acceptance of Committee Recommendations**—Austin Therrell, 2022 President-Elect
   Ingredient Definitions Committee
    1) **Publish a new tentative definition: T33.29 Black Soldier Fly Larvae Oil** is the product obtained by mechanically extracting the oil from dried larvae of Black Soldier Fly, *Hermetia illucens*, that have been raised on a feedstock composed exclusively of feed grade materials. It is intended for use in swine and finfish feed as a source of energy consistent with good feeding practices. It consists predominantly of glyceride esters of fatty acids and contains no additions of free fatty acids or other materials obtained from fats. It must contain, and be guaranteed for, not less than 90% total fatty acids, not more than 2% unsaponifiable matter and not more than 1% insoluble impurities. Maximum free fatty acids and moisture must also be guaranteed. If an antioxidant(s) is used, the common name or names must be indicated, followed by the words “used as a preservative”.
       Board Recommends Acceptance. Austin Therrell moves, Robert Tolton Seconds, Motion Carries.
    2) **Publish T60.117 (B) as official and delete the current 60.117.** The new 60.117 to read: “**60.117 Dried Black Soldier Fly Larvae** is the dried larvae of the Black Soldier Fly, *Hermetia illucens*, with or without mechanical extraction of part of the oil, that has been raised on feedstock composed exclusively of feed grade materials. The ingredient must be labeled with guarantees for minimum crude protein and minimum crude fat on an as-fed basis. If oil is mechanically extracted, maximum crude fat must also be guaranteed on the ingredient label.

The ingredient is dried by artificial means to no more than 10% moisture. It is for use in salmonid, poultry, and swine feed as a source of protein and fat consistent with good feeding practices.

Board Recommends Acceptance. Austin Therrell moves, Tom Phillips Seconds, Motion Carries.

3) **Publish in the OP a new tentative definition T60.117 (C) Dried Black Soldier Fly Larvae** is the dried larvae of the Black Soldier Fly, *Hermetia illucens*, with or without mechanical extraction of part of the oil, that has been raised on feedstock composed exclusively of feed grade materials. The ingredient must be labeled with guarantees for minimum crude protein and minimum crude fat on an as-fed basis. If oil is mechanically extracted, maximum crude fat must also be guaranteed on the ingredient label. The ingredient is dried by artificial means to no more than 10% moisture. It is for use in salmonid, poultry, and swine feed and **in adult dog food**, as a source of protein and fat consistent with good feeding practices."

Board Recommends Acceptance. Austin Therrell moves, Tom Phillips Seconds, Motion Carries.

Ingredient Definitions Committee eMeeting 4/1/21:

1) **Publish a tentative definition: T73.309 Urea Formaldehyde Condensation Polymer** is an amino resin that may be used in animal feeds: (a) as a pelleting aid, excluding feed for aquatic species. The free formaldehyde must not exceed 0.1 ppm in the finished pelleted feed, and (b) as an agent to reduce the solubility and fermentation of soybean meal intended for ruminant feed. It must not exceed 1% of the treated soybean meal.

Board Recommends Acceptance. Austin Therrell moves, Ben Jones Seconds. Motion Carries.

2) **Add to table 101.1: AGRN 33 Dried Methylobacterium extorquens biomass**

AGRN (select for detailed record)	Notifier	Substance	Common or Usual Name	Intended Use	Intended Species	Date of Filing	FDA's Letter (select to view letter)
33 (PDF–64 pages)	KnipBio Inc.	Dried *Methylobacterium extorquens* biomass	Dried *Methylobacterium extorquens* biomass	To be used as a source of protein in food for aquaculture crustacean species at a level up to 6% of the diet.	Crustacean species	9/20/19	FDA has no questions. (PDF–4 pages)

Board Recommends Acceptance. Austin Therrell moves, Nathan Price Seconds. Motion Carries.

3) Add to table 101.1: AGRN 34 Dried L-Threonine Fermentation Product

AGRN (select for detailed record)	Notifier	Substance	Common or Usual Name	Intended Use	Intended Species	Date of Filing	FDA's Letter (select to view letter)
34 (PDF–494 pages)	CJ CheilJedang Corporation	Dried L-Threonine Fermentation Product (≥75% L-Threonine) produced by bioengineered *Cornybacterium glutamicum*	Dried L-Threonine Fermentation Product	To be used as a source of the nutrient L-threonine in food for livestock and poultry	Livestock and Poultry	11/26/19	FDA has no questions. (PDF–4 pages)

Board Recommends Acceptance. Austin Therrell moves, Miriam Johnson Seconds. Motion Carries.

Model Bill and Regulations Committee—eMeeting 2/12/21-3/2/21:

The Model Bills and Regulations Committee recommends the following revisions be made to the Model Bills and Regulations, and that the AAFCO Board of Directors review the proposed revisions for future consideration by the Association membership.

Guidelines for Making Therapeutic Diet Claims

AAFCO supports and recommends the following guidelines, as based on FDA CPG 690.150, for dog and cat food products that are intended for use to diagnose, cure, mitigate, treat, or prevent diseases and that are also labeled and/or marketed to provide all or most of the nutrients in support of meeting an animal's total daily nutritional requirements by serving as the pet's sole diet.

1. The product is made available to the public only through a valid veterinarian- client-patient relationship (VCPR) or through retail or internet sales to individuals purchasing the product under the direction of a veterinarian.
2. The product does not present a known safety risk when used as labeled (e.g., when a product labeled for use in dogs or cats with a particular disease would be unsafe in such animals).
3. The product *label* does not include representations that it can be used to treat or prevent disease (e.g., obesity, renal failure).
4. Distribution of labeling and other manufacturer communications that contain representations that the product is intended for treatment or prevention of disease is limited so that it is provided only to veterinary professionals.
5. Electronic resources for the dissemination of labeling information and other manufacturer communications related to the intended use of the product are secured so that they are available only to veterinary professionals.
6. The label and labeling of the product is not false or misleading in other respects (e.g., dog food labeled and promoted for the treatment of cancer with no basis for the claim).
7. The product is not marketed as an alternative to approved new animal drugs.
8. The manufacturer is registered under section 415 of the FD&C Act.
9. The product is manufactured in accordance with CGMPs applicable to animal food (see 21 CFR part 507 subpart B) and other regulations applicable to animal food manufacturing.
10. The product's labeling complies with the current AAFCO Model Regulations and all other food labeling requirements for such products (see 21 CFR part 501).
11. The product contains only ingredients that are GRAS ingredients, approved food additives, or ingredients defined in the most recent version of the *Official Publication*.

The Model Bills and Regulations Committee recommends publishing these guidelines in the AAFCO OP following the guidelines for "human grade" claims on page 157 of the 2021 AAFCO Official Publication.

Board Recommends Acceptance. Austin Therrell moves, Ben Jones Seconds. Motion Carries.

Model Bill and Regulations Committee - eMeeting 6/15/21-6/22/21:

Publish in the 2021 AAFCO OP on page 240, the Common Food Index Policy as a new Guideline in Chapter 5.

Common Food Index Guidelines

Purpose:

The Common Food Index (CFI) is a repository of common foods that may be appropriate for use in animal food and are not defined by AAFCO. These common foods must align with the feed term *Common Foods* in the Feed Terms and Definitions within Chapter 6 of the AAFCO *Official Publication*.

The CFI is intended for ingredients that are considered common foods that do not require a safety assessment. The CFI is not a substitute for the AAFCO process for new feed ingredient definitions; Chapter 6 of the *Official Publication*, alone, maintains the officially recognized feed ingredient definitions.

Subcommittee:

A CFI subcommittee of four (4) AAFCO members will be appointed by the Chair of the Ingredient Definition Committee (IDC).

The subcommittee will investigate the proposed common foods alone or with assistance of experts anytime the subcommittee deems it necessary. Experts are not limited to regulatory officials or academia and may include other stakeholders with relevant knowledge. Experts shall declare any conflicts of interest as a condition of consideration of their participation.
The CFI subcommittee will provide a report of recommendations for modifications to the CFI to the IDC prior to each IDC meeting.

Indexing:

IDC must accept the CFI subcommittee report for addition to the index. IDC challenges to common foods in the subcommittee report can be accomplished with a motion to strike the item(s) in the list prior to report acceptance.
The CFI may be edited immediately upon acceptance of the IDC meeting minutes by the AAFCO Board of Directors (BOD). No further action by the BOD or membership acceptance is required.
The CFI will be maintained on the AAFCO.org website and incorporated into the Online Database of Ingredients (ODI) for reference.

Note:

Feed/food manufacturers are responsible for evaluating and documenting the safety of common foods for their intended use prior to distribution.

Board Recommends Acceptance. Austin Therrell moves, Robert Tolton Seconds. Motion Carries.

Strategic Affairs Committee:

1) **Board Authority Regarding Committee Recommendations –**

Insert the following in Procedures Manual - (August 7, 2020 version, page 23, at the end of Committee reporting, prior to Work Timelines and OP 2021, page 96, Committee Guidelines at the end of the introduction, prior to Committee Work Timelines)

AAFCO implements its vision under the direction of the BOD through the work of committees that provide recommendations to the Association. These recommendations should align with the vision and mission of the Association, the strategic plan and follow the appropriate procedures.

1. Committee Agendas: The Board liaison to the committee should monitor the development of the committee agenda for alignment with the Association policies and strategic plan in the Official Publication.
2. Committee Recommendations:
    a. If a committee recommendation is in conflict with Association By-Laws or procedures the BOD may return the recommendation to the committee pointing out the conflicting policy.
    b. If the BOD disagrees with the committee recommendation, they must pass it to Association membership for a vote. It is appropriate to attach a “Do not pass.” recommendation to the membership. The BOD must put an explanation of their “Do not pass” recommendation in the business meeting agenda.
3. Committees may pass recommendations among each other without BOD recommendations. (e.g. new label nutrient guarantee. Feed Labelling to Model Bill)

Board Recommends Acceptance. Austin Therrell moves, Miriam Johnson Seconds. Motion Carries.

2) **Voting by Proxy –**

Edit in the 2021 OP (page 99) and Procedures Manual – (August 7, 2020 version, page 7)
Changes denoted in red/strikeout
Voting by Proxy
AAFCO board meetings:
If a board member is unable to participate in a board meeting, but ~~still~~ would like to **cast a** vote**(s)**, the board member can designate another board member to ~~vote for them by~~ **serve as their** proxy. The board member must email the President and the board member ~~that will~~ **serving as their** proxy ~~for them~~. The Proxy template may be used, but at minimum, the notification must include the following:

- Board member’s name
- The name of the proxy board member

- The duration of the proxy.

If duration is not specified, the proxy will only be good for one meeting. This must be done prior to the beginning of the board meeting. The president will announce at the board meeting if there are any proxies being used at the meeting. This will be recorded in the minutes.

Committee meetings:

If a committee member is unable to participate in a committee meeting, but ~~still wants to~~ **would like to cast a** vote**(s)**, the committee member can designate another committee member to ~~vote for them by~~ **serve as their** proxy.

The committee member must email the committee chair /co-chair and the committee member **serving as their proxy** ~~that will proxy for them~~. The Proxy template may be used but at minimum the notification must include the following:

- Committee member name
- The name of the proxy committee member
- The duration of the proxy.

If duration is not specified, the proxy will only be good for one meeting. This must be done prior to the beginning of the committee meeting. The committee chair will announce at the beginning of the committee meeting if there are any proxies being used at the meeting. This will be recorded in the minutes.

AAFCO Proxy Voting Procedure

If a Member is unable to participate, but ~~still wants to~~ **would like to cast a** vote**(s)**, the Member must follow the Proxy Voting guidance. The Member may complete this Proxy Voting Form or at minimum, provide the below information in an email to the appropriate persons, as outlined in the Procedures Manual. Completion of the form and notification to the appropriate persons, authorizes the Member designated to vote on the absent Member's behalf.

The completed, signed Proxy Voting Form or an equivalent email notification can be provided to the appropriate person and received in advance or at the Meeting stipulated below in order to exercise the proxy vote.

The form conditions are shown below. It is available at: ***~~website and/or~~ Feed BIN location and/or from Association Management Firm***

Proxy Voting Form Template

_____

Name of Member Agency

_____

Name of Proxy Agency _____

I, (printed name to follow) _____,

Hereby designate ~~Hereby give my proxy to:~~ (printed name to follow)

_____ **as my proxy.**

~~I authorize my~~ **This designation of** proxy **is effective** ~~to vote on my behalf~~ on any item or issue arising at: (stipulated meeting and **meeting** date**(s)**) ~~to follow)~~ _____

~~The proxy designation is valid for the stipulated meeting date(s).~~

Designated Meeting _____

Date(s) of Meeting _____

Signed: _____

Dated: _____

Board Recommends Acceptance. Austin Therrell moves, Ken Bowers Seconds. Motion Carries.

3) **Make Proxy Voting Form Template (above) available as fillable PDF in Feed BIN and from FASS**

Board Recommends Acceptance. Austin Therrell moves, Miriam Johnson Seconds. Motion Carries.

Board of Directors:

1) **The BOD recommends the AAFCO Vision and Mission Statements be revised to align the strategic plan and communication strategy and if passed by membership, published in the Official Publication. Austin Therrell moves, Scott Absher Seconds. Motion Carries.**

VISION

AAFCO is a trusted leader that safeguards animal and human health.

MISSION

AAFCO is a collaborative association that supports members and stakeholders through unified system-based regulation, feed ingredient standards and laboratory operations that promote a safe feed supply.

Nominating Committee:

The nominating committee recommends the 2022 AAFCO Officers and Board of Directors

President: George Ferguson, NC
Past President: Erin Bubb, PA
Secretary Treasurer: Ashlee-Rose Ferguson, WA
President Elect: Austin Therrell, SC
Director 1 Hollis Glen, CO
Director 2 Eric Brady, TN
Director 3 Joshua Arbaugh, WV
Director 4 Laura Scott, CFIA
Director 5 Darrell Johnson, KY

Board Recommends Acceptance. Austin Therrell moves, Stan Cook Seconds. Motion Carries.

This concludes committee and board recommendations needing membership approval.

4) **Credential Report: FASS**

Number of voting members represented: 33
Number of states in attendance: 46
Number of countries: 7 (including USA)
Number of FDA representatives: 74
Number of life members: 8
Total meeting attendance: 407

Current Issues and Outreach Committee Report

2021 AAFCO Annual Meeting Virtual
August 2, 12:30–1:30 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Recommendations: None

Committee Participants

Members Present: Jennifer Combs (KY, Committee Chair), JoLynn Otero NM (Co-Chair), Ali Kashani (WA), Kristen Green (KY), Hollis Glenn (CO), Tim Lyons (MI), Austin Therrell (SC), Kent Kitade (Life Member), Heather Bartley (WI), Alan Keller (IA), Sue Hays (ED)
Advisors Present: David Fairfield (NGFA), Louise Calderwood (AFIA), Steve Younker (AFIA/Milk Specialties), David Dzanis (APPA), David Meeker (NARA), Tomas Belloso (NGFA), Dana Brooks (PFI), Emily Helmes (Enzyme Technical Association)

Committee Report

The meeting started at 12:30 PM with the welcoming/opening remarks by Jennifer Combs, followed by an overview of the strategic charges tasked to Current Issues and Outreach Committee. The action items include the continued redesign AAFCO 101, creating a mentoring engagement plan with implementation and tracking/reporting, and the design of formal structure to our outreach endeavors. Jenny Combs introduced Philosophy Communications representative, Tera Keatts, who gave a brief presentation on the collaborative work that is in progress with AAFCO. Hollis Glenn (CO) then gave an update on the Chapter 6 Public Version and the work on updating the AAFCO hemp policy. Meeting adjourned.

Other Business

None

No further discussion or topics were brought to the attention of the committee and the meeting was adjourned.

Education and Training Committee Report

2021 AAFCO Annual Meeting Virtual
August 3, 2:15–3:15 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Recommendations: None

Committee Participants

Members Present: Marissa Kost – NC, Chris Berg – IA, David Dressler – PA, George Ferguson – NC, Jacob Fleig – MO, Jennifer Godwin – FDA, Kristen Green – KY, Kimberly Hull – FDA, Kevin Klommhaus – FDA, Darlene Krieger – FDA, Rick Manthei – MN, Samantha Moran-Defty – CA, Laura Scott (for Rob Murray) – CFIA, Shaness Thomas – FL, Jim True – KY, Janet Williams – FDA
Advisors Present: Amanda Anderson – PFI, David Fairfield – NFGA, Scott Ringger – AFIA, Patrick Tovey – PFI
Others Present: Sue Hays – AAFCO, Miriam Johnson – NC, Scott Ziehr – CO, Meagan Davis – ToxStrategies

Committee Report

Marissa Kost (Committee Chair) called the meeting to order at 2:15 PM (EDT). Attendance was taken in the waiting room for committee members to establish a quorum. A brief introduction was given for new committee members (Amanda Anderson, PFI & Chris Berg, IA).

Workgroup Updates (5-10 mins)

- Leadership Training – Darlene Krieger, FDA – Reaching back out to LinkedIn for more information regarding costs and change of ownership (or share accounts). Still working on the feedback form with WG. Goal is to narrow down list of courses and provide feedback about how beneficial courses were. Completion by Midyear Meeting in January.
- Training Endorsement Policy & Tables – Marissa Kost, NC – WG is still working on final budget template and plans to hold 1-2 additional meetings to finalize any edits or changes. Will send the final template to the committee for final approval and acceptance. Reviewed details of current budget template.
    - Meagan Davis – suggestion to include video recording in budget template
    - Darlene Krieger – Should LinkedIn license line item be included in this budget template?
    - George Ferguson – Suggest comparing the final budget template with Meagan's final proposal and ask FASS when it's done to return how it really ended up; do this for the first 7-8 of these, save live documents for other to use as examples in the BIN.
    - Ashlee-Rose Ferguson – mentioned to include finance committee with this budget

Feed Administrator's Seminar (FAS) Sub-Committee Update

- FAS 2021 & 2022 Update – Scott Ziehr, CO – this year we held the FAS for the first time as a virtual event (117 attendees total) – more than double what we would have in-person; day 1: change management principles, state updates; day 2: hemp & rendered ingredients in PF; day 3: mycotoxins, intro to philosophy communications; in process of planning FAS 2022 – planning to host in-person in Estes Park, CO, Dr. Temple Grandin will be a keynote speaker next year
    - Dates: May 15-18, 2022

Training Availability Updates

- AITS & BITS Update – Miriam Johnson, NC – Both AITS & BITS will be postponed until 2022; Miriam to reach out in December to begin discussions, will provide additional updates at Midyear 2022. If interested in hosting (previous or new), reach out to Miriam and/or cadre members.
- FDA OTED Training Update – Kimberly Hull & Janet Williams, FDA OTED – Back in Oct 2020, announced it would not deliver instructor led courses in FY21. There are gaps in the AF training need needed to be updated; OTED has been busy updating those courses in our AF course catalog to be ready for virtual delivery in FY22. Updates include: incorporating the comprehensive animal food inspection approach, aligning the AF training learning path, incorporating FDA initiatives such

as elements of systems thinking, elements of the national curriculums standard AF framework, incorporating prerequisite courses to strengthen inspectional and AF commodity foundational knowledge (e.g., evidence collection online course – expected to be ready this Fall). In FY22 OTED plans to deliver 5 offerings of vILT: VM102 (cGMP), VM213 (BSE), VM206 (Medicated Feed), VM230 (VFD), and VM220 (PCAF); registration process will be handled similar to how ILT have been handled in the past. OTED course announcements will be distributed at the beginning of the fiscal year; each course does have set participant capacity limits and established slot allocations for FDA and state participants; OTED does not select participants, FDA program training officers select FDA participants and FDA OP work with state training coordinators in selecting state participants; course schedule, class details, and prerequisites can be accessed on ORAU portal. Courses available starting October 1.

- George Ferguson – the states were recently asked to update their state training coordinator information and contacts; can FDA give us an estimated time for when they will be sending out those calendars so we can begin requesting seats for those courses; of the available seats, what percentage for 2 FSMA related courses (VM102 & VM220), how many do they anticipate being made available for the states? -- The coordination of the slots for the states are handled by the Office of Partnership. Unsure when states will receive their workbook, can reach out to their mailbox to answer any questions that you have; Janet will provide allocations for courses to provide an idea how states need to prioritize.

	Allocations per Course	**FDA**	**State**
VM102	Current Good Manufacturing Practice (CGMP) for Animal Food Regulators Course	19	16
VM201	Drug Residues	34	0
VM206	Medicated Feed	19	11
VM213	BSE Inspections	19	11
VM220	Preventive Controls (PC) for Animal Food Regulators Course	15	15
VM230	Veterinary Feed Directive Inspection Course	19	11

- Chat Box: When should we expect the course pre-registration workbook to be sent out?
  - Tim Weiner (FDA) – Projected release of the training pre-requisite workbook will be this week; please use the mailbox that Kim & Janet referenced – mailboxstatetraining@fda.hhs.gov

- AAFCO Online Training Program Update – Sue Hays, AAFCO Executive Director – Ingredient Definitions Process – ready to roll out once price is established, should be available shortly after Labor Day; Ingredient Submission Workshop – waiting for content to be approved by FDA legal, then will receive price proposal from instructional designer, still very much in development, release anticipated for September-October, follow-up with in-person workshop in January (Mobile, AL); Pet Food Labeling workshop is developing content currently; SMEs are discussing which slides to use and how to package it for online delivery; Feed Labeling Workshop has been approved prior to this by the BOD, can be developed once the FLC is ready to move forward; Understanding the Pet Food Label is approved and this can be developed as well. Provided a preview of slides for the Ingredient Submission Workshop.

Workshop Calendar Request Updates

- Webinar: GRAS & Ingredient Definitions Submission Preparation Workshop – Meagan Davis – Change in name to: Ingredient Submission Online Training (ISOT), all encompassing: will provide useful information for AAFCO ingredient definition petition submission, GRAS notification, or a food additive petition; 12 modules and 7 videos included in online training, ~250 slides in the course; having videos to discuss things such as new guidance for industry 262, explain difference between a GRAS conclusion & GRAS notification; slight delay in expected release, ID stepped away, has hired a new one; estimating training will be available not later than December 1st; pre-requisite for in-person Q&A session planned for Midyear Meeting 2022, last afternoon of the meeting. If Mobile meeting becomes a virtual format; won't delay release of online training modules, considering alternatives (push off F2F to another date, etc.); will be marketed internationally.
  - Midyear Meeting 2022 (Mobile, AL): Face-to-Face portion of ISWS – This portion of the training allows for participants to have face-to-face conversations and ask questions to SMEs;

planning for 3.5-4 hours long; will have had to take the online training course in order to participate in this.

- Annual 2022 (St. Louis, MO): OPEN / Pet Food Labeling Workshop (next in rotation, unless higher priority workshop is required at this time [e.g., PF Label Modernization]) – FLC has nothing planned; Pat Tovey (PFI) – PFI and members support a PF label workshop as it pertains to PF Label Modernization; still too early for this workshop for Annual 2022.

New Business

- CIOC is looking for a volunteer to join their CIOC/Philosophy workgroup to serve as a representative from ETC.
  - After our virtual meeting, Danielle Borchert, MN has volunteered to serve on this workgroup for ETC.

Adjourn (3:15 PM)

Action Item Table

Responsible	Item	Action	Timing / Status
Darlene Krieger	Leadership Training	Creation of feedback form for courses	2022 Midyear Meeting
Marissa Kost	Training Endorsement Policy & Tables	Modify and edit Budget Template (guidance document) to align with online/virtual delivery	2022 Midyear Meeting

Minutes approved 10/07/2021. 15 voting in the affirmative.

Feed and Feed Ingredient Manufacturing Committee Report

2021 AAFCO Annual Meeting Virtual
August 4, 2:00–2:45 pm (EDT)

Committee Recommendations to Board and membership:

Recommendation to send the updated Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients to the Board of Directors for review and recommend that the updated guidelines are published in Chapter Five of the AAFCO OP, AAFCO Model Guidance Documents, following the Analytical Variations (AV) on Page 301 of the 2021 AAFCO Official Publication. (Updated document attached)

Committee Action Items:

1. Mineral Guidelines Working Group: Revise the "Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients".
2. FSMA Implementation Task Force – Working Group 3
   Create action plan to determine the processes of implementing the decision making and method development.
3. Working Group #4 – Inspector Training for Ingredient Manufacturing Inspections:
   Perform gap analysis of FSPCA training for inspectors to determine if AAFCO needs to provide additional training for state inspectors.

Committee Participants

Members Present: Austin Therrell – SC (Co-Chair); Eric Brady – TN (Co-Chair); Bob Church – MT; Stan Cook – MO; Ken Bowers – KS; Ben Jones - TX; Shaness Thomas - FL; Ali Kashani – WA; Doug Lueders – MN; Aaron Baugh – MO; Laura Scott – CFIA; George Ferguson - NC
Via Telephone: None
Advisors Present: Pat Tovey – PFI; Amanda Anderson – PFI; David Meeker – National Renderers Association; Louise Calderwood – AFIA; David Dzanis – APPA; David Fairfield – NGFA; Matt Frederking – NGFA; Dan Danielson – FDA; Justin Henson – FDA; Christina Owens – FDA; Dragun Momcilovic – FDA; Linda Morrison

Committee Report

Eric Brady called the meeting to order 2:00 pm. Members and advisors in the room introduced themselves in the virtual green room. No callers on phone line.
Introductions and Agenda Review, Eric Brady
NEW MEMBERS:
Justin Henson – FDA
Amanda Anderson - PFI
Review of Action Items
Mineral Guidelines Working Group – Bill Burkholder
[Minute report from meeting. Current Tables in current Official Publication. Apparent from the review information must be more clearly stated in text. Years ago Dr. Benz (retired) reviewed both individual amount and total amounts from other groups. These amounts must be combined due to tables being used for individual elements. The 1978 official publication had the original tables.
The tables must be recreated to be usable. The 1978 OP had a table and it was 5 years until the first guideline – 1983-84 OP. Then two drafts were completed. The guidelines have remained the same from the 1986 OP.]
Posted for public comment since January 2020.
Therrell motions to accept the updated Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients as presented from the workgroup.
Brady Seconds.
Discussion:
Laura Scott – Editorial Changes --- LIMIT and LEVEL usage not consistent
Reference to "this committee" – Should say Feed and Feed Ingredient Manufacturing Committee
Table 3 Footnote "D" should reference table 3 not table 2. (Dr. Burkholder agreed)

Chat Comment – Kristie Smedley –Table 3
Pat Tovey – What is the utility for including all species average?
Austin – allow Burkholder to answer.
Louise Calderwood – Thank you for the work. We have concerns. All source average. All species average.
Livestock examples…What is the purpose of guidelines…NOT for REGULATORY Actions.
Austin --- Document is titled GUIDELINES
Motion Carries.
Therrell Motions to send the updated Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients to the Board of Directors for review and recommend that the updated guidelines are published in Chapter Five of the AAFCO OP, AAFCO Model Guidance Documents, following the Analytical Variations (AV) on Page 301 of the 2021 AAFCO Official Publication.
Bowers Seconds.
Dave Fairfield's concerns include the fact that the explanatory text does not expressly clarify this tool is not for regulatory purposes. Echoes concerns for use in regulatory purposes.
Therrell clarification by editorial change.
George Fergusson adding a statement that this is a guideline not intended for use as a model regulation.
Add with other editorials. Clear disclaimer.
MOTION CARRIES.
FSMA IMPLEMENTATION TASK FORCE UPDATES
Working Group #3 – Contaminant and Hazard Lab Strategy - Brady
Working Group Charge: Following the identification of contaminants and hazards by FSPCA/FDA, the group will determine action levels and enforcement strategies to provide guidance to the Lab Methods and Services Committee (LMSC) in order to develop a priority list of method development. This Working Group will work in consultation with the FSPCA, Enforcement Issues Committee, Inspection & Sampling Committee, Ingredient Definition Committee and the LMSC
Eric – Presentation held during LMSC. Calls were utilized to develop a survey. The survey results were reviewed during the work group calls.
Next steps and take-aways – Equipment needs, matrix extensions, new method development, training.
Methods include speciation of metals, microbial toxins, vitamins, drugs and drug residues.
Austin – Survey Results posting. Results to be posted after meeting.
Workgroup should remain intact for annual review.
No questions.
Working Group #4 – Inspector Training for Ingredient Manufacturing Inspections - Brady
Working Group Charge: Review materials developed by FSPCA and FDA to determine whether training material for feed ingredient manufacturing from the FSPCA will meet the needs of Inspectors in regards to training. Working group will work in consultation with the Education & Training Committee and the Inspection & Sampling Committee
NO AITS – NO TRAINING.
Ingredient Statement Verification Tool - Therrell
See updates in January.
Canadian Food Inspection Agency Update - Laura Scott
No update.
Other Business: Nutrient Contaminant Workgroup
April 21, 2021, the BOD conducted their monthly meeting. President BUBB introduced the concept of developing model standards for animal food hazards.
Charge Part 1. FFIM committee identifies commercial feed nutrients that if included in amounts in excess of the normal use level could be considered a hazard or adulterant in commercial feed.
Charge Part 2. FFIM committee compile information related to the identified potential hazard in a universally accessible locations for other feed control officials and industry.
Dzanis - Total feed or added nutrients. Identify hazards or set limits
Therrell and Ferguson – Prevalent hazard. Get top 10 hazards.
WORKING GROUP FORMED:
Brady
Therrell
Scott – CFIA

Dzanis ACVM
Tovey – PFI
AFIA
NGFA

Action Items

Responsible	Item	Action	Timing / Status
Mineral Guidelines Working Group	Mineral Guidelines	To review and revise the "Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients". Working Group: Bill Burkholder (lead)	Vote for Approval August 2021
FSMA Implementation Task Force – Working Group 3	Hazard & Contaminant Action Levels and Enforcement Strategies	Work with FSPCA, EIC, ISC, IDC and LMSC to develop a prioritized list of method development once list of contaminants and hazards has been identified by the FSPCA and FDA. A plan of action should be created by the working group to determine the processes of implementing the decision making and method development.	Update: January 2021
FSMA Implementation Task Force – Working Group 4	Inspector Training Development	Gap Analysis performed on FSCPA training to determine if there is any missing education that should be provided to inspectors whom perform feed ingredient manufacturing inspections	Update: January 2021

Meeting Adjourned.

Official Guidelines for Contaminant Levels Permitted in Mineral Feed Ingredients

Section Editor – Jennifer Kormos, Canada

The Mineral Investigation Committee considered the matter of contaminants in mineral feed ingredients for several years before adopting an approach to the problem as reported in the 1978 *Official Publication*. The original approach was combined with toxicity data in the 1980 National Academy of Sciences, National Research Council (NRC) *Mineral Tolerance of Domestic Animals*[1] to produce the guidelines appearing in the *Official Publication* through 2021. Updates to the AAFCO Official Guidelines in 2022 were derived from multiple sources including the 2005 NRC *Mineral Tolerance of Animals*.[2] The 2005 *Mineral Tolerance of Animals* indicates that the expert subcommittee did not consider tissue residues of mineral contaminants with regard to human food safety when setting the various maximum tolerable levels (MTL or tolerance) for minerals. Given the lack of consideration for human food safety by the NRC expert subcommittee, the AAFCO Mineral Guidelines Work Group that updated these Official Guidelines took the approach that if a tolerance for a given mineral was reduced by the 2005 NRC expert subcommittee from the tolerance stated in the 1980 *Mineral Tolerance of Domestic Animals*, the Work Group accepted the reduced amount in the 2005 *Mineral Tolerance of Animals*. If, however, the 2005 NRC expert subcommittee increased a tolerance for a given mineral, the Work Group retained the lesser tolerance from the 1980 *Mineral Tolerance of Domestic Animals*.

The mineral section of the 2022 AAFCO Official Publication contains 141 mineral ingredient definitions for sources of 15 elements to consider in drafting guidelines to limit contaminants. Variables considered and used in guideline development included:

(1) Differing nutrient requirements between species and within species, e.g., young vs. mature, lactating vs. non-lactating, and layers vs. broilers.
(2) Whether the toxicity of a contaminant varies between and within species.
(3) The concentration of a nutrient varies between several ingredient sources. For example, magnesium oxide (MgO) contains 6 times the magnesium (Mg) to an equivalent weight of magnesium sulfate heptahydrate ($MgSO_4$-$7H_2O$), and thus, could contain 6 times the contaminant level compared to magnesium sulfate for an equivalent contaminate burden in a finished product since only one-sixth as much magnesium oxide would be needed to meet a given amount of magnesium.
(4) The range between a nutrient requirement and toxicity for a given element varies greatly. Manganese, for example, is required at about 50 ppm but levels as high as 1,000 to 2,000 ppm can be tolerated.
(5) Knowledge of nutrient requirements and toxicities is incomplete and/or imprecise in many cases.

If the variables are acknowledged, it becomes apparent that precise contaminant limits, fixed at the very brink of toxicity, are impractical. Rather, we must work in much more general and conservative terms, using scientific data to limit, but not exclude some subjective decisions based upon common sense. Safety factors, for example, would be included in the latter category.

With the above factors in mind, the following approach was used in developing the overall recommendations for handling contaminants in mineral feed ingredients proposed in this report.

(1) Determine the all-species average requirement for each of the 15 elements included in the AAFCO mineral definitions if a requirement has been established.[3] These values (Table 1) were adapted from the NRC nutrient requirement recommendations for the species listed in Table 1.
(2) Determine the all-source average content for each element.
(3) Calculate, from the data in (1) and (2) above, the dilution factor needed to meet NRC recommended amounts for each element (Table 2). Example: If the average calcium content from all AAFCO sources is 32% and the NRC recommendation is 1.55%, the dilution factor is 21. In other words, the calcium source will be diluted by a factor of 21 on a complete feed basis.[4]
(4) Come up with a safety factor, which is 2.5 in this report.
(5) Group contaminants according to toxicity following the general guidelines proposed in the 2021 report of the Work Group to this Committee. Five groups, labeled 1 through 5, ordered from least to greatest tolerance, were recommended by the Work Group based on the MTL in Complete Feed (Table 3).
(6) Set limits <u>within each group</u> as follows:
    a. Level for contaminants below which no declaration or labeling for the contaminants is required or deemed appropriate.

b. A range of contaminants' levels permitted in feed ingredients if, but only if, the product is labeled as to the contaminants' levels. "Labeling" here and elsewhere is considered in the broader sense, e.g., "Typical Analysis Specification Sheet" or similar information supplied by the manufacturer to customers.

c. Contaminants' levels above which the product's use as a feed ingredient is prohibited. This guidance does not apply to the primary nutritional element(s) of defined mineral ingredients. Definition 57.119 sodium selenite contains selenium at 460,000 ppm, but selenium from sodium selenite is a primary nutritional element.

(7) Select a dilution factor (see item (3) above) to be used in setting the maximum contaminant level permitted in a feed ingredient without labeling the amount present. A dilution factor of 21 is recommended and was used in arriving at the values in Table 3. This is the lowest value in Table 2 (for calcium) and thus provides the greatest margin of safety.

(8) Calculate the maximum level permitted in ingredients, without labeling, for each of the 5 groups, using the following equation:

$$MLP = (CFL \times DF)/SF,$$

where

MLP is Maximum Level Permitted without labeling (on "Typical Composition Specification Sheets" for example)

CFL is NAS recommended maximum Continuous Feeding Level for the most toxic element in the group

DF is Dilution Factor

SF is Safety Factor

Example:

In Group 1 (Table 3) of inorganic mercury, cadmium, and selenium, inorganic mercury has the least daily tolerance in complete feed at 0.2 ppm. Therefore, if DF = 21 and SF = 2.5, MLP = (0.2 ppm x 21) / 2.5 = 1.7 ppm. Thus, ingredients containing 1.7 (~2) ppm or less of Group 1 contaminants will not raise the level in the total ration above the MTL for any of the contaminants in Group 1.

The MLP values for the other 4 groups were determined similarly.

(9) Determine range of contaminant levels permitted, by group, if levels are stated in the labeling. This is a judgment decision.

(10) Determine contaminant levels, by group, above which an ingredient would be excluded from use in a feed. This is also a judgment decision.

The procedure recommended above provides a systematic approach to establishing contaminant limits in feed ingredients based upon toxicity data in the NRC publications for mineral tolerances of animals and other publicly available information. The equation used to set the limits is designed to handle worst case situations, since it is based upon the most toxic element in each group and assumes the lowest dilution of the ingredient (dilution factor of 21). Thus, an additional margin of safety is provided automatically for all but the most toxic contaminants in each group and the greatest nutrient requirements. This margin of safety comes not just from focusing on the MTL for the most toxic element in the group, but also because the values in the last three columns of Table 3 represent the total amount, that is the sum of the content, of all elements within the Group. That these values represent the sum of the Group, and not just the amount of an individual element within the group, has been a source of confusion by users of the former versions of Table 3. However, a reading of the 1978 minutes of the former AAFCO Mineral Investigation Committee reveals that this is in fact the approach and intent of the group that originally established these guidelines. Table 3 has been reorganized to try and clarify this aspect of the guidelines.

Finally, fluorine is not included in Table 3 because fluorine is closely associated with phosphate ingredients and has been handled successfully for many years by requiring the phosphorus:fluorine ratio to be not less than 100:1. It is recommended this policy continue unchanged.

Notes

1 National Academy of Sciences, National Research Council. *Mineral Tolerance of Domestic Animals* (1980). National Academy Press, Washington, D.C. 20001.

2 National Academy of Sciences, National Research Council. *Mineral Tolerance of Animals Second Revised Edition*, *2005.* National Academy Press, Washington, D.C. 20001.

3 Chromium is believed to be essential, but no minimum requirement has been established for any species, thus, chromium does not appear in Table 1.

4 A Complete Feed is a multi-ingredient product fed to an animal. Examples include, but are not necessarily limited to, total mixed rations, sweet feeds, pelleted feeds or grain mixes. It also can be the summation of the total amount of feedstuffs fed separately at various locations or times within a 24-hour period.

Table 1. Approximate Mineral Requirements (Total Diet Basis - greatest concentration)[a]

Mineral	Swine	Dairy	Beef	Poultry	Aquaculture	Sheep	Goats	All-species Average
Calcium (%)	0.85	0.8	0.71	5	2	0.67	0.79	1.55
Phosphorus (%)	0.7	0.44	0.34	0.6	2	0.45	0.45	0.71
Potassium (%)	0.3	1.35	0.7	1	1.2	0.59	0.78	0.85
Magnesium (%)	0.06	0.4	0.2	0.5	0.35	0.16	0.15	0.26
Sodium (%)	0.4	0.34	0.1	0.23	0.15	0.08	0.12	0.20
Chloride (%)	0.5	1.2	-	0.35	-	0.18	0.29	0.50
Sulfur (%)	-	0.4	0.15	-	-	0.18	0.26	0.25
Cobalt (ppm)	-	0.11	0.1	-	-	0.2	0.12	0.13
Copper (ppm)	10	18	10	16	53	6	26	19.86
Iron (ppm)	100	26	50	80	199	83	71	87.00
Iodine (ppm)	0.14	0.88	0.5	1.7	1.1	0.83	0.81	0.85
Manganese (ppm)	25	24	40	120	13	34	29	40.71
Selenium (ppm)	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.7[c]	0.3[b]	0.3[b]	0.30
Zinc (ppm)	100	73	30	100	200	55	71	89.86

[a]Updated & adopted from National Academy of Sciences, Engineering, and Mathematics, National Research Council (NAS/NRC) recommendations as of 2015.
[b]FDA approved concentration.
[c]Aquaculture species are not included in the selenium food additive regulation.

Table 2. Approximate Dilution Factors and Typical Contaminate Levels of AAFCO Defined Mineral Feed Ingredients

	Recommended Level NAS/NRC[a]	Approx. dil. To meet rec. level[b]	Typical Contamination Levels (ppm)[c]					
			Arsenic	Lead	Mercury	Cadmium	Nickel	Antimony
Calcium	1.55%	2.1×10^1	2.5	5--30	0.05	5--10	--	--
Phosphorus	0.71%	3.5×10^1	2--5	5--30	0.05	5--10	--	--
Potassium	0.85%	5.2×10^1	1	1	1	--	--	--
Magnesium	0.26%	1.1×10^2	1--10	1--20	0.1--5	1	--	--
Sodium	0.20%	1.6×10^2	--	--	0	--	--	--
Chloride	0.50%	8.9×10^1						
Sulfur	0.25%	1.8×10^2	1	1	1	--	--	--
Cobalt	0.13 ppm	2.8×10^6	2--20	1--20	1--20	2--200	800	--
Copper	19.86 ppm	2.5×10^4	3--100	9--600	1	2--100	100	0--20
Iron	87 ppm	2.3×10^3	1--50	1--90	1	--	--	--
Iodine	0.85 ppm	8.5×10^5	2	3	2	1	--	--
Manganese	40.71 ppm	5.1×10^3	1--10	1--90	--	1--20	--	70--200
Selenium	0.3 ppm	1.3×10^6	--	--	1	1--5	1--5	--
Zinc	89.86 ppm	6.0×10^3	10--800	100—2,000	1	80--500	--	10

[a]Values from Table 1, including goats and aquaculture. NAS/NRC stands for National Academy of Sciences, Engineering, and Mathematics, National Research Council.
[b]Dilution factor calculated using mineral ingredient values from the NAS/NRC Nutrient Requirements of Dairy Cattle, Nutrient Requirements of Small Ruminants, and information available to the work group.
[c]Unchanged as Adapted from "NFIA Mineral Ingredient Handbook," National Feed ingredient Association, 1979 edition, and from "AFIA Feed Ingredient Guide," American Feed Industry Association Inc.

Table 3. Official Guidelines Suggested for Contaminants in Individual Mineral Feed Ingredients.

Contaminant Group[a]	Maximum Tolerable Level in Complete Feed (ppm)	Total Level of Group Permitted Without Labeling (ppm)[b,c]	Labeling Required Between Indicated Range (ppm)[b]	Use Prohibited at Levels Above (ppm)[b]
Group 1[d]	**0 – <5**			
Mercury (inorganic)	0.2	**2**	**2-500**	**500**
Cadmium	0.5			
Selenium	2			
Group 2	**5 – <15**			
Arsenic	5[e]			
Iodine	5[f]			
Molybdenum	5[g]	**42**	**42-1000**	**1000**
Cobalt	10			
Lead	10			
Vanadium	10			
Group 3	**15 – <50**			
Copper	15[h]			
Barium	20	**126**	**126-1500**	**1500**
Tungsten	20			
Lithium	25			
Group 4	50 – <150			
Nickel	50[i]			
Antimony	70[j]	**420**	**420-2000**	**2000**
Chromium	100[k]			
Tin	100			
Group 5	150 or >			
Boron	150			
Aluminum	200			
Bromine	200			
Zinc	250[l]	**1260**	**>1260**	**No Limit**
Bismuth	400			
Manganese	400[m]			
Iron	500			

[a]Ordered from most to least toxic within Group.
[b]Values in column represent the total (i.e., the sum) of the content of all elements in the Group.
[c]Calculated as (NRC MTL for most toxic element in the Group * dilution factor of 21) / safety factor of 2.5.
[d]Fluorine is not included in Table 2 because fluorine is closely associated with phosphate ingredients and has been handled successfully for many years by requiring the phosphorus:fluorine ratio to be not less than 100:1
[e]Arsenic 5 for fish, 30 for all other species.
[f]Iodine 5 for horses, 50 for cattle and sheep.
[g]Molybdenum 5 for horse, cattle and sheep.
[h]Copper MTL's are species dependent. MTL's are: 15 for sheep, 40 for cattle, 100 for fish and ducks, 250 for other poultry species, horses and swine.
[i]Nickel MTL for horse, rodent and fish, unchanged from previous.
[j]Antimony MTL for rodents only, unchanged from previous.
[k]Values for chromium III ($Cr^{+}3$). Chromium VI ($Cr^{+}6$) is carcinogenic and typically not incorporated or found in mineral ingredients.
[l]Zinc 250 for fish, 500 for horse, cattle, poultry, rodents.
[m]Manganese 400 for horse, 1000 for swine.

Feed Labeling Committee Report

2021 AAFCO Annual Meeting Virtual
August 3, 1:00–2:00 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Recommendations: None

Committee Participants

Members Present: David Dressler (PA), Erin Bubb (PA), Mika Alewynse (FDA), Mark Ashcroft (UT), Liz Beckman (WA), George Ferguson (NC), Stevie Glaspie (MI), Caitlin Price (NC), Tom Phillips (MD), Richard Ten Eyck (OR), Kelly Yonker (NM), Dragan Momcilovic (FDA)
Advisors Present: Jan Campbell (NGFA), Dave Dzanis (ACVN/APPA), Meghan Dicks (AFIA), James Emerson (USPA), Chris Olinger (NGFA), Kevin Ragland (PFI), Pat Tovey (PFI)
Absent: Heather Bartley (WI), Julia Fidenzio (APPA), Emily Helmes (ETA), Steve Yonker (AFIA)

Committee Report

The meeting was called to order by David Dressler at 1:00 PM EDT. A quorum was established while committee members were in the waiting room (12 of 13).

Vitamin D3 Guarantees for Rabbits

- Due to ongoing mortality of rabbits from Vitamin D toxicity, discussion was held to determine if the guarantees within the model regulations for rabbit feed should contain a maximum Vitamin D3. A comment was made that we should focus on total Vitamin D, not just D3. The discussion included concerns about the analytical variations for the testing method and the proximity from a required level and a toxic level. From a regulatory stance, a feed that would be acceptable may appear toxic due to the analytical variation.
- Going forward, more research would be needed to determine the nutrient requirements and potential toxicity of Vitamin D for rabbits. There would also need to be improved testing methods for Vitamin D. Neither of these would be within the scope of the feed labeling committee.
- No action on this topic was made by the committee.

OP Updates

- Discussion was held to determine if any section of the AAFCO Official Publication needs to be updated. This included potentially removing (2)(c) from the Broilers, Breeders guarantees within the model regulations for chicken feed. George Ferguson recommended creating a workgroup to review the Feed Labeling Committee sections and provided recommended edits back to the committee.
- MOTION: George Ferguson moves that the Feed Labeling Committee set up a workgroup to review their sections of responsibility in the OP, recommend any needed edits and have a report returned to the committee 60 days prior to the 2022 Mid-Year meeting. Liz Beckman seconds. MOTION PASSES.

Common Food on Feed Labels

- With the acceptance of the common foods term, this topic was added to the agenda to see if there is any information that should be present on a feed label, or if there is any safety data or documentation a firm would need to maintain if a common food is listed as an ingredient on the feed label.
- There was no discussion or actions made on this topic.

Future Workshops

- With the ongoing desire for training, a discussion was held to determine if there should be a Medicated Feed Labeling Workshop and a Non-Medicated Feed Labeling Workshop held during a future AAFCO meeting.
- Sue Hays mentioned the Non-Medicated Feed Labeling Workshop has been approved by the AAFCO Board of Directors to move to an online format. There is still a need for subject matter experts to review content and select topics that should be included in this online course.

- Since the Non-Medicated Feed Labeling Workshop is being moved to an online format, a question was posed to the committee to see if there was interest in holding the Medicated Feed Labeling Workshop in 2023 or 2024.
- The committee did not take any action to have future workshops.

Meeting adjourned at 2:00 PM EDT

Action Item Table

Responsible	Item	Action	Timing / Status
David Dressler	OP Updates	Convene workgroup to review FLC's sections of the OP and determine if any areas need edited.	Report back to the committee with workgroup recommendations by November 15, 2021.

Ingredient Definitions Committee Report

2021 AAFCO Annual Meeting via Webinar
August 2, 3:30–5:00 pm (EDT)
August 3, 3:30–5:00 pm (EDT)
August 5, 11:30 am–12:30 pm (EDT)

Minutes approved by committee September 16, 2021
Video recording of the meeting is posted on the performedia site for the annual meeting:
https://www.aafco.org/Meetings/Annual/2021
Video recording of the 8/5 meeting is posted in the BIN at
https://aafco.mocaworks.com/viewer/?eID=1955665.

Recommendations to the Board and Association Membership

When needed, text is presented in Appendix A.

1) Publish a tentative definition: **T12.8 Barley Protein Concentrate** and withdraw **12.6 Barley Distillers Protein concentrate** if T12.8 is accepted by Association Membership.
2) Publish a tentative definition: **T33.29(A) Black Soldier Fly Larvae Oil** (T33.29 to remain in place)
3) Add to table 101.1: AGRN 36 **Marine Microalgae Oil** (for dogs)
4) Add to table 101.1: AGRN 37 **Marine Microalgae Oil** (for cats)
5) Publish a new **table 90.27** concerning vitamin names in ingredient statements on finished pet foods. Insert at 2021 OP rev 1 page 508 after table 90.26 foot notes.
6) Make the following changes in ODI: (tentative changes do not go into ODI) **

ODI Action	Name	Reference	Comments
Delete Ingredient Name Delete Reference	Barley Distillers Protein Concentrate	12.6	Business meeting xx/xx/xxxx
Add Ingredient name //add reference	Marine Microalgae Oil	Table 101.1	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin A (Vitamin A Acetate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin A (Vitamin A Palmitate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin A (Vitamin A Propionate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_1 (Thiamine Hydrochloride)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_1 (Thiamine Mononitrate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_2 (Riboflavin)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_2 (Riboflavin-5-phosphate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_3 (Niacin)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_3 (Niacinamide)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Choline (Choline Pantothenate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Choline (Choline Chloride)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Choline (Choline Bitartrate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Choline (Ferric Choline Citrate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_5 (Calcium Pantothenate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_5 (Choline Pantothenate)	Table 90.27	Business meeting xx/xx/xxxx

ODI Action	Name	Reference	Comments
Add Ingredient name // add reference	Vitamin B_5 (D-Pantothenyl Alcohol)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_5 (Sodium Pantothenate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_6 (Pyridoxine Hydrochloride)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_7 (Biotin)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin B_9 (Folic Acid)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin C (Ascorbic Acid)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin C (L-Ascorbyl-2-polyphosphate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin C (Calcium Ascorbate)*	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin C (Calcium L-Ascorbyl-2-Monophosphate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin C (Erythorbic Acid)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin D_2 (Ergocalciferol)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin D_3 (Cholecalciferol)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin E (α-Tocopherol Acetate)	Table 90.27	Business meeting xx/xx/xxxx
Add Ingredient name // add reference	Vitamin E (Tocopherols)	Table 90.27	Business meeting xx/xx/xxxx

Board Action
To be considered in November 2021

Association Action
To be considered in January 2022

Recommendations Not Needing Further Association Review
a) Edit an official definition for **57.168 Selenomethionine Hydroxy Analogue** to align with the CFR revisions.
b) Edit an Official definition for **87.20 <u>Guanidinoacetic Acid</u>** to align with the CFR revisions.

Referrals to Other AAFCO Committees: None

Committee Report August 2–5, 2021

Session 1

Committee met virtually. Committee member roll call on Google Doc was Displayed by Kent Kitade. A quorum was present. All 23 voting members were present. The chair asked if any regulators would like to join the committee. No volunteers came forward.

***ODI updating—in order to add transparency of the impact of committee decisions on the Online Database of Ingredients (ODI) label validation tool, the committee recommendations will include a table of the anticipated changes to ODI to reflect changes to common or usual names and/or references in the OP. It is anticipated this table will also appear in the front of the OP with the dates of adoption by the Association Membership. OP section editors are responsible for the accuracy of the ODI updates.*

1) *Hemp Update – Falina Hutchinson, MT Ingredient definition was submitted in February in 2021. CVM has asked the firm some questions. The BOD would like to do a round table discussion, preferably in person

2) Publish a new tentative definition **T12.8 Barley Protein Concentrate**. CVM recommended publishing the definition but indicated that the old definition language (12.6) be deleted concurrently. The new definition indicates a different manufacturing process. Discussion was held on use of the old definition. CVM indicated that it had reached out to several stakeholders and did not find that there is anyone marketing under the existing definition. The intended use only covers fish (not pets). Dan King moved to publish the tentative definition and delete 12.6. Jacob Fleig seconded. Motion passed with no objections.
3) Withdraw 12.6 Barley Distillers Protein Concentrate, covered in the motion in agenda item #2 – Dan King
4) Edit a tentative definition **T33.29 Black Soldier Fly Larvae Oil**. The change was to add adult dog food in the intended use. This includes treats for adult dogs. Discussion was held on using the edit process to add new species to the intended use. Bernadette Mundo moved to edit the tentative definition T33.29, Mark LeBlanc seconded. After discussion, voting 6 aye /FDA abstained/ 12 nay. *Motion failed*. Definitions adding new species should go in front of Association Membership. Bernadette Moved to add a new tentative definition **T33.29(A)** as displayed on the screen (see Appendix A) Brett Groves seconded. Motion passes with one nay. Existing tentative to remain in place
5) Edit an Official Definition for **57.168 Selenomethionine Hydroxy Analogue** (CFR amendment) – Motion to edit 57.168 to align with the recently updated CFR regulation. Language adds use for complete feed for beef cattle and dairy cattle, limit feeding to beef cattle, and free-choice feeding for beef cattle. Mark LeBlanc moved to edit 57.168 as displayed. Stan Cook seconded. Motion passes unanimously.
6) Edit an Official Definition for **87.20 Guanidinoacetic Acid**- CVM moved to edit 87.20 as displayed on the screen, amendment changed broiler chicken and turkey to poultry. Mark LeBlanc seconded. Poultry means the same as in Title 7 of the CFR (any kind of domesticated bird, including, but not being limited to, chickens, turkeys, ducks, geese, pigeons, and guineas). Motion passes unanimously.
7) Add to table 101.1: AGRN 36- Nathan Price moved to add AGRN 36 **Marine Microalgae Oil** Mark LeBlanc seconds. This entry is for dogs. FDA letter restricts use rate and species. Motion passes unanimously.
8) Add to table 101.1: AGRN 37- Nathan Price moved to add AGRN 37 **Marine Microalgae Oil** Brett Groves seconds. This entry is for cats. FDA letter restricts use rate and species. Motion passes unanimously.
9) ~~Add to table 101.1: AGRN XX- Nathan Price (5 min)~~
10) **90.27 (NEW Table)** Pet food parenthetical Vitamin common name table Tom Phillips moved to publish new table 90.27 (version 4 was displayed) in the OP. Jacob seconded. Discussion covered MSBC, Inositol and other vitamins. Session 1 time ran out and the committee recessed until the next day. Tom will update the table before next IDC session to address concerns.

Session 2

August 3, 2021, 3:30–5:00 pm (EDT)

Discussion continued on table 90.27 with 23 of 24 members present virtually. Falina Hutchinson joined the committee. Kent Kitade was absent.

Tom Phillips presented a revised **table 90.27** version 08/02/2021. After discussion and a couple edits the motion passed unanimously.

11) (session 2) Dave Edwards, CVM provided an update on ingredient definition review performance. New staff are onboard and getting up to speed. CVM completed 41 of 45 (91%) AAFCO feed ingredient definition reviews on time so far in fiscal year 2021.
12) Common Food Index subcommittee report– Richard Ten Eyck, Dave Phillips. Non-defined workgroup is working on procedures. The guideline on CFI went through the MBRC and was accepted by Association membership this week. The guideline will be placed in chapter 5, but not as an SUIP. Users should view the CFI as an enhancement to the ODI tool. The CFI procedures need to come back to IDC and then go to strategic affairs for incorporation into the procedures manual.
13) (moved to end of session 2 agenda) MSBC Workgroup Report -Austin Therrell, This expert panel met 5 times and formulated a couple recommendations. The workgroup felt that MSBC was safe and suitable for use as a source of vitamin K activity in the food for all animals. Austin moved to accept the workgroup report, Jacob Fleig seconded. PFI provided the workgroup a literature search

on vitamin K and Nestle Purina provided feeding data. This information is proprietary in nature and was not shared with IDC. Charlotte Conway, FDA/CVM noted that she was a member of the workgroup but reiterated that CVM has consistently stated that additional data is needed to expand intended uses in the ingredient definition of MSBC. Laura Scott, CFIA indicated their approval of MSBC would not cover pet food. *Motion to accept the report passed unanimously with CVM abstaining.*

The Chair thanks the committee for the time spent working out a path forward on this topic. It was difficult to get all stakeholders onto the same page using small groups. Discussion continues on day 3.

14) Report from workgroup reviewing animal proteins - Stan Cook The workgroup has been meeting monthly. No work products were presented. Some discussion covered whether an expert panel is needed to better describe materials used for pet food and changes in processing over the last several decades. They will have another update for IDC in January.
15) ~~**Review use of finished feed vs complete feed in chapter 6 of the OP – CVM (10 min)~~ pushed to October

Session 3

August 5, 2021, 11:30 am–12:30 pm (EDT)
Video stored at: https://aafco.mocaworks.com/viewer/?eID=1955665
The third session was called to order shortly after 11:30AM Eastern. Kimberly Truett, WA joined as a new IDC member. 21 / 25 members were present. Members Absent: George Ferguson, Brett Groves, Mark LeBlanc, and Kelli Younker
Agenda Item 13 was carried forward to session 3:
After some questions on MSBC and discussion about the expert workgroup report. Tom Phillips offered language for a definition. "**T90.XX Menadione Sodium Bisulfite Complex** is the water-soluble, crystalline complex of menadione and sodium bisulfite. Menadione Sodium Bisulfite Complex provides a source of Vitamin K activity in animal feed. The compound may be safely used for animal feed in accordance with good manufacturing and feeding practices. The vitamin may also be listed as Vitamin K_3 (Menadione Sodium Bisulfite Complex)."
Two recommendations were made by the MSBC expert working group. Their first recommendation was broken into two actions. Their second recommendation was not taken up by the committee.
MSBC Action 1.) AAFCO publish a guideline in chapter 5 ***(need draft language from work group)*** that provides consensus that Menadione Sodium Bisulfite Complex (MSBC) be used as a safe and suitable source of Vitamin K activity in the food for all animals in the United States in accordance with good manufacturing and feeding practices. Motion: Erin Bubb 2nd: Laura Scott Motion Passes, FDA abstain *Richard is crafting draft language*.
MSBC Action 2.) That AAFCO pursue defining additional intended uses of **Menadione Sodium Bisulfite Complex** in chapter 6. Motion: Stan Cook 2nd: Dave Dressler motion passes unanimously
Discussion was held on the workgroup's second recommendation for the committee to review the PFI white paper. Concerns surrounded use of a confidential information in committee work. There was interest in a redacted version of the document. No motion came forward from the committee.

16) Discussions on changing established common or usual names: (pushed to the next meeting)
    a. topic 1 (Corn Gluten Meal):– Dan King (20min)
    b. topic 2 (Bagasse)- Mark LeBlanc (10 min)
    c. Workgroup report on sunsetting (withdrawing) procedures for common or usual names in the OP. – (need a new lead) (10 min)
17) ICG workgroup report – Richard Ten Eyck (Pushed to the next meeting)
18) Update on the ingredient submission workshop modules – Meagan Davis (update was given in Education and Training earlier in the week)
19) Online training modules for ingredient requests. – Sue Hays, E.D. attempted to run but the LMS froze after about 2 minutes. Need to play it again in October. Discussion continued on timing of the release and pricing.
20) Adjourned approximately 1:13 PM EDT

Announcements

A. Next Meetings: October 19, 2021, Noon Eastern
B. New Investigators:

C. **Stale Ingredients:** The following are being removed from consideration as definition requests. Please submit a new request if still desired.

D. Parking Lot topics:
   a. Facilitate a round table discussion on the use of hemp in animal food.
   b. Establish a feed term for “Finished Feed” and “Total Ration.”
   c. NANP Subcommittee report –have not met -Ashley Shaw /Casey/Al
   d. ODI Subcommittee report – working on getting ODI changes table in front of OP –Jacob, Kelly
   e. **FROM PFC (draft):** *Vitamin common names for pet food should be addressed by IDC independent of the PFLM project. Information from the qualitative consumer research should be provided to the IDC. Work of the IDC common vitamin name workgroup should be quantitively consumer panel tested preferably at the same time as the PFLM changes.*
   f. Remove calcium Lignin Sulfonate from ODI.
   g. Human Grade feed term edits accepted by IDC in January 2021 are being held until the human grade guidelines are passed out of model bill committee.
   h. Review use of finished feed vs complete feed in chapter 6 of the OP – CVM (10 min) (feed term?)
   i. Bring tentative definitions up for review to move to official.
   j. Set up MSBC guideline editing workgroup.
   k. Establish plan and timelines for defining MSBC.
   l. Discussions on changing established common or usual names:
   m. Review use of finished feed vs complete feed in chapter 6 of the OP
   n. Update on Ingredient submission modules
   o. Announce access of Ingredient Definition Process learning modules.

Minutes approved 9/16/21 with the following members not voting: George Ferguson, Kent Kitade, Mika Alewynse, Stan Cook, James Embry, Dave Phillips, Tom Phillips, Kelli Younker, Cory Skier and Falina Hutchinson.

Appendix A: Ingredient Definitions Committee Meeting, August 2–5, 2021

Minutes

T12.8 Barley Protein Concentrate is the dried protein fraction of barley prepared by enzymatic hydrolysis of starch, beta glucans, and fiber. The ingredient is prepared from barley that is dehulled or of a hulless variety. It must not contain less than 60% crude protein on a dry matter basis. The finished ingredient should not contain more than 10% moisture. It is to be used in the feed of fish as a source of protein. (proposed 2022)

T33.29(A) Black Soldier Fly Larvae Oil is the product obtained by mechanically extracting the oil from dried larvae of Black Soldier Fly, *Hermetia illucens*, that have been raised on a feedstock composed exclusively of feed grade materials. It is intended for use in swine, finfish feed, **and adult dog food**, as a source of energy consistent with good feeding practices. It consists predominantly of glyceride esters of fatty acids and contains no additions of free fatty acids or other materials obtained from fats. It must contain, and be guaranteed for, not less than 90% total fatty acids, not more than 2% unsaponifiable matter and not more than 1% insoluble impurities. Maximum free fatty acids and moisture must also be guaranteed. If an antioxidant(s) is used, the common name or names must be indicated, followed by the words “used as a preservative”. (proposed, xxx; amended xxx)
Add to table 101.1

AGRN (select for detailed record)	Notifier	Substance	Common or Usual Name	Intended Use	Intended Species	Date of Filing	FDA's Letter (select to view letter)
36 Part 1 (PDF, 1,023 pages) Part 2 (PDF, 1,023 pages)	Veramaris USA LLC	Marine microalgae oil from *Schizochytrium* sp.	Marine Microalgae Oil	To be used as a source of long chain polyunsaturated fatty acids (PUFAs), docoahexanoic acid (DHA) and eicosapentaenoic acid (EPA) in canned and dry/extruded dog foods	dogs	1/2/20	FDA has no questions. (PDF, 4 pages)

AGRN (select for detailed record)	Notifier	Substance	Common or Usual Name	Intended Use	Intended Species	Date of Filing	FDA's Letter (select to view letter)
37 Part 1 (PDF, 400 pages) Part 2 (PDF, 585 pages)	Veramaris USA LLC	Marine microalgae oil from *Schizochytrium* sp.	Marine Microalgae Oil	To be used as a source of long chain polyunsaturated fatty acids (PUFAs), docoahexanoic acid (DHA) and eicosapentaenoic acid (EPA) in canned and dry/extruded cat foods	cats	6/29/20	FDA has no questions. (PDF, 4 pages)

Add a New Table 90.27
Table 90.27 Vitamin Ingredient Nomenclature for Labeling of Finished Pet Foods.
The names in the Label Listing column may be used to represent the vitamins in the right hand column in finished foods and treats for dogs and cats. This table is intended to aid in the labelling of pet foods and provide more familiar names for vitamins for consumers. This table is not intended to list all available

vitamins for use in pet food. In all cases the ingredient definition should be reviewed to ensure that it is appropriate for the intended use.

Label Listing	AAFCO Ingredient Definition or 21 CFR listing
Vitamin A (Vitamin A Acetate)	90.25 Vitamin A Acetate
Vitamin A (Vitamin A Palmitate)	90.25 Vitamin A Palmitate
Vitamin A (Vitamin A Propionate)	90.25 Vitamin A Propionate
Vitamin B1 (Thiamine Hydrochloride)	90.25 Thiamine Hydrochloride
Vitamin B1 (Thiamine Mononitrate)	90.25 Thiamine Mononitrate
Vitamin B2 (Riboflavin)	90.25 Riboflavin
Vitamin B2 (Riboflavin-5-phosphate)	21 CFR 582.5697 Riboflavin-5-phosphate
Vitamin B3 (Niacin)	90.25 Niacin; nicotinic acid
Vitamin B3 (Niacinamide)	90.25 Niacinamide; nicotinamide
Choline (Choline Pantothenate)	90.25 Choline Pantothenate
Choline (Choline Chloride)	90.25 Choline Chloride
Choline (Choline Bitartrate)	90.26 Choline Bitartrate
Vitamin B5 (Calcium Pantothenate)	90.25 Calcium Pantothenate
Vitamin B5 (Choline Pantothenate)	90.25 Choline Pantothenate
Vitamin B5 (D-Pantothenyl Alcohol)	21 CFR 582.5580 D-Pantothenyl Alcohol
Vitamin B5 (Sodium Pantothenate)	21 CFR 582.5772 Sodium Pantothenate
Vitamin B6 (Pyridoxine Hydrochloride)	90.25 Pyridoxine Hydrochloride
Vitamin B7 (Biotin)	90.25 Biotin
Vitamin B9 (Folic Acid)	90.25 Folic Acid
Vitamin C (Ascorbic Acid)	90.25 Ascorbic Acid
Vitamin C (L-Ascorbyl-2-polyphosphate)	90.25 L-Ascorbyl-2-polyphosphate
Vitamin C (Calcium Ascorbate)*	90.25 Calcium Ascorbate
Vitamin C (Calcium L-Ascorbyl-2-Monophosphate)	90.25 Calcium L-ascorbyl-2-monophosphate
Vitamin C (Erythorbic Acid)	90.25 Erythorbic Acid (Iso ascorbic acid)
Vitamin D2 (Ergocalciferol)	21 CFR 582.5950 Vitamin D2
Vitamin D3 (Cholecalciferol)	21 CFR 582.5953 Vitamin D3
Vitamin E (α-Tocopherol Acetate)	90.25 a-tocopherol acetate
Vitamin E (Tocopherols)	90.25 Tocopherol (a-tocopherol)

Notes: * Vitamin C activity in dry feeds of < 13% moisture only.

Edits Not Needing Association Action

57.168 Selenomethionine Hydroxy Analogue

[R,S-2-hydroxy-4-methylselenobutanoic acid (CAS 873660-49-2)] is manufactured by the reaction of elemental selenium with methyllithium to form a methylseleno salt, which is then reacted with R,S-2-hydroxybutyrolactone to form a salt of 2-hydroxy-4-methylselenobutanoic acid. After acidification and purification, the additive consists of not less than 39.5 percent total selenium by weight with a selenomethionine hydroxy analogue content of not less than 98 percent of total selenium. The total organic selenium content of the additive is not less than 99 percent of total selenium.

(a) The selenomethionine hydroxy analogue meets the following specifications:
  (1) Arsenic, not more than 2 parts per million (ppm);
  (2) Cadmium, not more than 1 ppm;
  (3) Lead, not more than 1 ppm; and
  (4) Mercury, not more than 1 ppm.

(b) Selenium, as selenomethionine hydroxy analogue, is added **to feed as follows:**
  (1) In complete feed for chickens, turkeys, swine, **beef cattle, and dairy cattle** at a level not to exceed 0.3 ppm.
  (2) In feed supplements for limit feeding for beef cattle at a level not to exceed an intake of 3 milligrams per head per day.
  (3) In salt-mineral mixtures for free-choice feeding for beef cattle up to 120 ppm in a mixture for free-choice feeding at a rate not to exceed an intake of 3 milligrams per head per day.

(c) To ensure safe use of the additive, in addition to the other information required by the Federal Food, Drug, and Cosmetic Act, the label and labeling of selenomethionine hydroxy analogue in its packaged form shall contain:

(1) The name, selenomethionine hydroxy analogue;
(2) Minimum and maximum guarantees for a total selenium content of not less than 2.08 percent (weight/weight) and not more than 2.24 percent;
(3) Minimum guarantee for selenomethionine hydroxy analogue content of not less than 5.2 percent;
(4) The following statement, “Storage Conditions: Selenomethionine hydroxy analogue must be stored in a closed package at temperatures not higher than 20°C (68°F).”; and
(5) An expiration date not to exceed 1 year from the date of manufacture.

(d) Selenomethionine hydroxy analogue, shall be incorporated into each ton of complete feed by adding no less than 1 pound of a premix containing no more than 272.4 milligrams of added selenium per pound.

(e) The premix manufacturer shall follow good manufacturing practices in the production of selenium premixes. Inventory, production, and distribution records must provide a complete and accurate history of product production. Production controls must assure products to be what they are purported and labeled. Production controls shall include analysis sufficient to adequately monitor quality.

(f) The label or labeling of any selenium premix shall bear adequate directions and cautions for use including this statement: “Caution: Follow label directions. The addition to feed of higher levels of this premix containing selenium is not permitted.”

21 CFR 573.920 (Adopted 2020, Amended 2022)

87.20 Guanidinoacetic Acid.

The food additive, guanidinoacetic acid, may be safely used in **poultry feeds** in accordance with the following prescribed conditions:

(a) The additive is manufactured by reacting glycine with cyanamide in an aqueous solution.

(b) The additive is used or intended for use at levels not to exceed 0.12 percent of the complete feed:
(1) to spare arginine in broiler chicken and turkey feeds, or
(2) as a precursor of creatine in poultry feeds.

(c) The additive consists of not less than 97 percent guanidinoacetic acid [N- (aminoiminomethyl)-glycine] (CAS 352-97-6) by weight.

(d) The additive meets the following specifications:
(1) Dicyandiamide not to exceed 0.5 percent;
(2) Cyanamide not to exceed 0.01 percent;
(3) Melamine not to exceed 15 parts per million (ppm);
(4) Sum of ammeline, ammelide, and cyanuric acid not to exceed 35 ppm; and
(5) Water not to exceed 1 percent.

(e) To assure safe use of the additive in addition to the other information required by the Federal Food, Drug, and Cosmetic Act:
(1) The label and labeling of the additive, any feed premix, and complete feed shall contain the name of the additive.
(2) The label and labeling of the additive and any feed premix shall also contain:
(i) A statement to indicate that the maximum use level of guanidinoacetic acid must not exceed 0.12 percent of the complete feed for **poultry**; and
(ii) Adequate directions for use.

21 CFR 573.496 (adopted 2018, amended 2022)

Appendix B: Ingredient Definitions Committee Meeting, October 28, 2021

Meeting via Webinar
October 28, 2021, 3:30–5:00 pm (EDT)

Video recording of the meeting is posted in the BIN at:
https://aafco.mocaworks.com/viewer/?eID=1989425

Recommendations to the Board and Association Membership

When needed, text is presented in Appendix B1. Workgroup reports are in Appendix B2.

1) Move T**73.430(A) L-Lactic Acid** from tentative to official, Set up new subsection "Sequestrants (73.426- 449)" in the Official Publication.
2) Publish the MSBC document at the end of OP chapter 5.
3) Make the following changes in ODI: (tentative changes do not go into ODI) **

ODI Action	Name	Reference	Comments
Add Ingredient name // add reference	L-Lactic Acid	73.430	Business meeting xx/xx/xxxx

***ODI updating—in order to add transparency of the impact of committee decisions on the Online Database of Ingredients (ODI) label validation tool, the committee recommendations will include a table of the anticipated changes to ODI to reflect changes to common or usual names and/or references in the OP. It is anticipated this table will also appear in the front of the OP with the dates of adoption by the Association Membership. OP section editors are responsible for the accuracy of the ODI updates.*

Board Action

To be considered in November 2021

Association Action

To be considered in January 2022

Recommendations Not Needing Further Association Review: None

Referrals to Other AAFCO Committees: None

Committee Report October 28, 2021

The Committee met virtually with over 140 attendees. Committee member roll call on Google Doc was Displayed by Kent Kitade. A quorum was present with 18 out of 25 voting members present including Richard Ten Eyck, Laura Scott, Kent Kitade, Mika Alewynse, Ken Bowers, Erin Bubb, Stan Cook, Dave Dressler, James Embry, Ashlee-Rose Ferguson, Jacob Fleig, Darrell Johnson, Ali Kashani, Dan King, Dave Phillips, Nathan Price, Cory Skier, Kimberly Truett, Charlotte Conway (FDA). (no vote), Jennifer Kormos. CAN.(no vote)

Absent: George Ferguson, Maggie Faba, Brett Groves, Falina Hutchinson, Mark LeBlanc, Tom Phillips, Kelli Younker, Shannon Jordre (FDA). (no vote)

1) *Hemp Update – Falina Hutchinson, MT, Ingredient definition was submitted in February in 2021. CVM has asked the firm some questions. The BOD would like to do a round table discussion, preferably in person Chair provided an update that the Hemp Coalition, Hemp Oil FAP is close to submission.
2) Move T**73.430(A) L-Lactic Acid** from tentative to official, Set up new subsection "Sequestrants (73.426- 449)" in the Official Publication. Jacob Fleig moves, Ken Bowers Seconds, Motion Passed
3) Common Food Index Procedures– Kent Kitade Discussion was very brief. Expect more in January. Still needs to run procedures past the non-defined workgroup. Common food index subcommittee is Kent Kitade, David Phillips, Katie Simpson and Jo Lynn Otero. Discussion continued on the basics of differences between common food and GRAS ingredients as well as approved intended uses.
4) MSBC Workgroup Report -Austin Therrell (not present). Richard Ten Eyck presented a document "Recommendation for use of Menadione Sodium Bisulfite Complex (MSBC) in Animal Feed" that had been re-written by some of the MSBC expert panel members. A motion to include the document in the OP at the end of chapter five (page 333) was moved by Nathan Price, was seconded by

Jacob Fleig. After significant discussion including moving the conclusion to the top of the document and whether the entire document should go into the OP the *motion passed with all in favor and none opposed.* Jean Hofve mentioned that there are additional studies showing adverse effects of MSBC that are not included in this document. This document is not the expert panel report and recommendations. The committee accepted that report in August of 2021. Discussion continued about when this document would be removed or shortened without conclusion. There was good support for the document. Leah Wilkinson asked if this document would next go to model bill? After discussion the BOD liaison agreed that this document does not need to go through model bill committee. The document will go to the BOD for recommendations and onto Membership for acceptance to be published in the OP. The committee thanks the panel for the extra work! The workgroup is disbanded.

5) Review use of finished feed vs complete feed in chapter 6 of the OP – CVM This has evolved into a workgroup being led by Kimberly Truett. Plan more time to deal with it in January. She is looking for input for regulators and industry.
6) Discussions on changing established common or usual names:
    a. topic 1(Corn Gluten Meal):– Dan King Discussion covered some of the history of the definition. How do we go about changing names when industry changes their nomenclature? Industry is in favor of changing the name. The “gluten” in the name is misleading. At what point does an ingredient definition get reviewed? Direct fed microbials (36.14) need to be part of this conversation or updating process. Lactobacillus is undergoing a nomenclature change. Discussion continued on what level of data would be needed to make a change. No conclusions were made or actions taken.
    b. topic 2 (Bagasse)- Mark LeBlanc (not covered)
    c. Workgroup report on sunsetting (withdrawing) procedures for common or usual names in the OP. – (need a new lead) The scope of this workgroup will be expanded to include how to change a common or usual name. Workgroup members currently include Leah Wilkinson AFIA, PFI, Kristi Smedley, Jean Hofve, NGFA Dave Fairfield, US Poultry James Embry , Ken Bowers, Dave Edwards and Maggie Faba.
7) ICG workgroup report 6/23/21– Richard Ten Eyck The workgroup had good discussions around the resistance to regulators recognizing ICG’s and to firms sharing them widely. Jacob Fleig moved to accept the workgroup report. Motion seconded by Laura Scott. Motion passed unanimously. Report is attached in Appendix B2.
8) Update on the ingredient submission workshop modules – Meagan Davis CVM slide content is complete, CVM is working on narration and being sent to the instructional designer soon. On track to be ready late spring 2022. The face to face workshop will be held in August 2022 at annual meeting (St. Louis). Nathan Price is co-chair on the project. They will have additional updates in January.
9) Online training modules for ingredient requests (IDP). – Sue Hays, E.D. Course available 11/1/21. Link here Course is intended for formulators, AAFCO members wanting a better understanding of the process of bringing ingredients into the marketplace.
10) Discussion on Pet Food ingredients – How are intended species identified in the OP? Most questions are coming from pet food formulators. Desire is to gather information for developing future training. Good discussion of common or usual name sources including ODI.
11) Adjourned 5PM EDT

Announcements

A. Next Meetings: January 2022 MOBILE, ALABAMA!
B. New Investigators:
C. **Stale Ingredients:** The following are being removed from consideration as definition requests. Please submit a new request if still desired.
D. Parking Lot topics:
    a. Facilitate a round table discussion on the use of hemp in animal food.
    b. NANP Subcommittee report –have not met -Ashley Shaw /Casey/Al
    c. ODI Subcommittee report – working on getting ODI changes table in front of OP –Jacob, Kelly
    d. **FROM PFC (draft):** *Vitamin common names for pet food should be addressed by IDC independent of the PFLM project. Information from the qualitative consumer research should*

be provided to the IDC. Work of the IDC common vitamin name workgroup should be quantitively consumer panel tested preferably at the same time as the PFLM changes.

e. Remove calcium Lignin Sulfonate from ODI.
f. Human Grade feed term edits accepted by IDC in January 2021 are being held until the human grade guidelines are passed out of model bill committee.
g. Bring tentative definitions up for review to move to official.

Minutes were approved 11/17/21 with the following members not voting: Laura Scott, George Ferguson, Kent Kitade, Mika Alewynse, Dave Dressler, James Embry, Dave Phillips, Tom Phillips and Kelli Younker.

Appendix B1: Ingredient Definitions Committee, October 28, 2021, Minutes

Changes for OP page 455 to move 73.430 to official:
~~Tentative~~ Sequestrants (73.426- 449)
~~T~~73.430~~(A)~~ L-Lactic Acid a sequestrant with a minimum content of 97% L-lactic acid on a dry matter basis for use in dry cat food products (less than 20% moisture). It is intended for use as a dental plaque and tartar control agent for adult maintenance cat food at levels not to exceed 1.2% on a dry matter basis. (Proposed 2021 rev. 1)

For addition to the AAFCO Official Publication 2021 rev1 at page 333 (end of chapter 5):

Recommendations for Use of Menadione Sodium Bisulfite Complex (MSBC) in Animal Feed
Editor: Chair of Ingredient Definitions Committee

In 2021 AAFCO convened a panel of experts to provide policy recommendations for the use of Menadione Sodium Bisulfite Complex (MSBC) for intended uses beyond poultry feed. The panel recommended that Menadione Sodium Bisulfite Complex may be used as a safe and suitable source of Vitamin K activity in the food for all animals in the United States in accordance with good manufacturing and feeding practices. To reach their conclusion the expert panel carefully examined:

1. Confidential industry data demonstrating the safety of MSBC in both short- and long-term feeding studies at usual dietary inclusion rates.
2. An independent scientific literature review of MSBC and related compounds.
3. The 2014 European Food Safety Authority (EFSA) publication “Scientific Opinion on the safety and efficacy of vitamin K3 (menadione sodium bisulphite and menadione nicotinamide bisulphite) as a feed additive for all animal species.”

In addition to the above, the expert panel noted that MSBC and the structurally related Menadione Nicotinamide Bisulfite (MNB) are authorized for use as vitamin K active substances in food for all animals in the European Union (EU) under Commission Regulation No. 2015/2307 (EC 2015) and in Canada under Schedule IV, Part I of the Feed Regulations, 1983 (CFIA 2020).

Review of Vitamin K and Vitamin K Active Substances[1].

In his experiments to determine whether cholesterol was a dietary essential, Henrik Dam discovered a new substance, which he named vitamin K. In 1929, he observed a hemorrhagic syndrome in chicks fed a diet from which the sterols were extracted. Eventually, an active, anti-hemorrhagic factor was isolated from alfalfa and was identified as a vitamin K substance. The characterization of this anti-hemorrhagic factor was done by Edward Doisy of St. Louis University. Dam and Doisy shared the Nobel Prize in 1943 for the discovery of vitamin K and its chemical nature (Suttie 2009).

The major clinical sign of vitamin K deficiency noticed in all species is the impairment of blood coagulation. Clinical signs include, but are not limited to, increased clotting time and hemorrhage. Vitamin K deficiency can also lead to impaired bone mineralization due to inadequate levels of osteocalcin, a protein involved in bone mineralization.

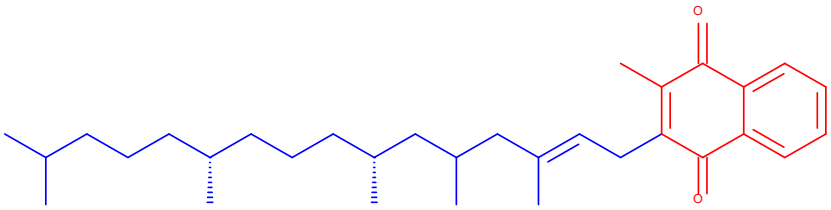
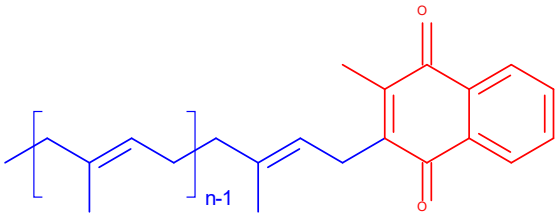
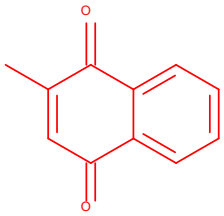
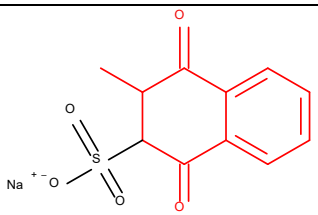
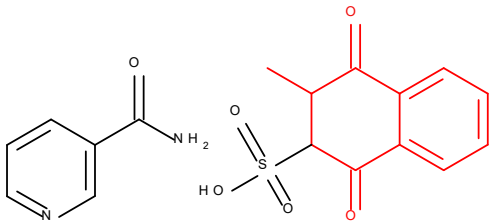
Deficiencies may result from inadequate vitamin K in the diet, disruption of microbial synthesis within the gut (e.g., antibiotic use), inadequate absorption from the intestine, ingestion of vitamin K antagonists (substances that counteract the effect of vitamin K), or the inability of the liver to utilize available vitamin K. In many species, under normal health conditions endogenous synthesis of vitamin K is sufficient to meet metabolic needs without the requirement for a dietary source. However, in addition to medical conditions and/or use of therapeutic agents that may result in impaired synthesis, absorption or utilization of vitamin K, acquired vitamin K deficiencies may also occur due to other dietary factors. For example, cats fed commercial canned diets high in salmon or tuna were found to suffer prolonged coagulation times, gastrointestinal and hepatic hemorrhages and death (Strieker et al., 1996). However, these signs were not observed when the animals were given supplemental phylloquinone (vitamin K_1). High dietary intake of sources of long-chain omega-3 fatty acids may also result in signs of vitamin K deficiency (Mameesh and Johnson, 1959; Saker et al., 1998). Because other fat-soluble vitamins may compete and hence interfere with vitamin K absorption, the addition of high levels of tocopherols to retard oxidation (for either preservative or nutritional reasons) in the food may be an aggravating factor in the development of a vitamin K deficiency. Vitamin K is generally known to exist in three forms, two of them are naturally occurring and one is a synthetic analogue which can be found naturally on normal Vitamin K metabolic pathways:

- **Vitamin K1**, also known as phytonadione or phylloquinone, is the form of vitamin K that occurs naturally in plants.

- **Vitamin K2**, or menaquinone, also naturally occurring, is the fat-soluble form of vitamin K synthesized by the bacteria in the intestinal tract. Bacteria can synthesize a range of related forms of this vitamin. These vitamin K analogues are collectively known as K2 and can be designated by length of sidechain, e.g., MK-4, MK-7, etc.
- **Vitamin K3**, also known as menadione, is the synthetic, water soluble analogue of vitamin K that can be converted to K2 by bacteria in the intestine. Enzymes in mammalian and avian tissues are also capable of converting menadione to the active forms of vitamin K. Menadione is also a metabolite of Vitamin K active substances consumed orally (Thijssen 2006, Hirota 2013).

The structures of the different vitamin K forms are shown in Figure 1. Vitamin K1 and K2 contain a common 2-methyl-1,4-napthoquinone ring but differ in terms of the length and degree of saturation of the polyisopropenoid side chain at position 3. In vitamin K1 the side chain is a phytyl substituent comprising 4 isoprenyl units of which one is unsaturated, whereas in vitamin K2 a variable number of isoprenyl units are present in the unsaturated form. Vitamin K3 contains the same 2-methyl-1,4-napthoquinone ring but the alkyl side chain is replaced with a hydrogen (menadione) or sulfate derivative (eg, sodium bisulfite). The menadiones must undergo prenylation in the intestinal tract and tissues in order to become a biologically active form (menaquinone form) of vitamin K which can be utilized by the animal.

Figure 1: Structure of the Different Forms of Vitamin K

Vitamin K1 - phylloquinone		
		
Vitamin K2 – menaquinones (n = 1 to 13; e.g., MK-4, n=4; MK-7, n=7)		
		
Vitamin K3 – menadiones		
		
Menadione	Menadione sodium bisulfite complex (MSBC)	Menadione nicotinamide bisulfite (MNB)

As mentioned above, Vitamin K3 refers to a group of water soluble menadiones which are converted in the intestinal tract of animals to vitamin K2 (menaquinones) and then absorbed. The menadione content of MSBC is approximately 50% by weight, and that of MNB approximately 44% (EC 2015). This general group of menadiones has been shown to be metabolized by the same pathways in all animals studied (Hirota 2013, Okano 2008, Terachi 2011). Under normal physiological conditions, lipid soluble vitamins K_1 and K_2 can be absorbed in cooperation with bile acid and pancreatic enzymes (Shearer 1975). Absorbed phylloquinone is partly converted to MK-4 consistent with menadione acting as an intermediate metabolite (Thijssen 1996, Okano 2008). The release of menadione can occur in the intestine and it can undergo

prenylation both in the intestine and tissues. Menadione is expected to be absorbed from both the small intestine and colon of animals by passive diffusion (NRC 2006).

Ever since its initial discovery, vitamin K has been known to be important in the clotting process of blood, because of its involvement in the synthesis of four plasma clotting proteins. These proteins are factor II (prothrombin) and factors VII, IX, and X. More recent studies have shown that vitamin K also plays a role in calcium metabolism. According to Vitamin Tolerances of Animals (NRC 1987), the dietary adequacy of vitamin K is often defined as the amount of the vitamin needed to maintain normal levels of plasma vitamin K-dependent clotting factors.

Poultry, such as broiler chickens and turkeys, are more likely to develop signs of vitamin K deficiency than other species of animals, which can be attributed to their short digestive tract and the fast rate of food passage. Ruminant animals such as cattle and sheep do not appear to need a dietary source of vitamin K under normal health conditions due to the microbial synthesis of this vitamin that occurs in rumen. However, a dietary source may be important in preruminant animals (e.g., calves and lambs). Since horses are herbivores, notwithstanding factors that may interfere with synthesis, absorption or utilization their vitamin K requirements are typically met by consumption of vitamin K sources present in plants and from microbial synthesis in the lower gut. In comparison, omnivorous and carnivorous monogastrics such as swine, dogs, and cats, may be less efficient at gut synthesis as well as less likely to consume large quantities of vitamin K-containing plant materials than horses or ruminants.

Different sources of vitamin K_3, including those that are listed in the Association of American Feed Control Officials' Official Publication as accepted for use in animal feed, are broadly denoted as Vitamin K Active Substances (VKAS). There are two VKAS that are prior sanctioned for use in poultry feed. (Prior sanction means that these vitamin K active substances were used in poultry feeds prior to 1958, so they have a history of safe use, and they are the subject of a formal FDA sanction of the ingredient for a particular use; the sanction is generally in the form of a letter from FDA stating that the use is acceptable.) These prior sanctioned substances are menadione and menadione sodium bisulfite complex (MSBC). These two compounds are also widely used in other types of animal feeds, including pet foods, as animal nutritionists often formulate diets with vitamin K active substances in order to prevent vitamin K deficiencies.

Menadione dimethylpyrimidinol bisulfite and menadione nicotinamide bisulfite are vitamin K active substances that are regulated as food additives for use in animal feed. Federal regulation 21 CFR 573.620 lays out how menadione dimethylpyrimidinol bisulfite must be used in feed. Menadione dimethyl pyrimidinol bisulfite is a nutritional supplement for the prevention of vitamin K deficiency in chicken and turkey feeds at a level not to exceed 2 g per ton of complete feed, and in the feed of growing and finishing swine at a level not to exceed 10 g per ton of complete feed.

Menadione nicotinamide bisulfite is also used as a nutritional supplement for both the prevention of vitamin K deficiency and as a source of supplemental niacin in poultry and swine. Federal regulation 21 CFR 573.625 states that this substance can be added to chicken and turkey feeds at a level not to exceed 2 g per ton of complete feed, and to growing and finishing swine feeds at a level not to exceed 10 g per ton of complete feed.

Substances with vitamin K activity are often added to animal diets to ensure that animals do not develop vitamin K deficiencies. Even though many vegetable sources, particularly leafy greens (e.g., spinach, kale, and collard) and cruciferous vegetables (e.g., broccoli and Brussels sprouts) contain fairly high amounts of vitamin K, very little is known about the actual bioavailability of the vitamin from these sources. According to Vitamin Tolerances of Animals (NRC 1987), based on the limited amount of available information, vitamin K did not result in toxicity when high amounts of phylloquinone, the natural form of vitamin K, are administered by oral or other means. In human nutrition, the Food and Drug Administration considers the inclusion of commercially available phylloquinone (chemically synthesized, but identical to that naturally occurring in plants) not only to be "safe and suitable" for its intended use in infant formulas, but also a required component of all formulations (FDA, 1996). Although FDA does not expressly list or affirm this use of phylloquinone in infant formulas (or any other use) to be GRAS (Generally Recognized as Safe), an independent review of the available information did conclude that that phylloquinone, when manufactured in accordance with specifications set forth for use in infant formulas and other foods for human consumption, to be GRAS when fed at nutritional levels for its intended use in foods formulated for dogs and cats (Delaney and Dzanis, 2018),

It is also noted that menadione, the synthetic vitamin K usually used in animal feed, can be added up to levels as high as 1,000 times the dietary requirement without seeing any adverse effects in animals,

except when used parentally in horses. Vitamin K and the vitamin K active substances serve important roles in providing an essential nutrient in animal diets.
A survey of the feed industry performed by the American Feed Industry Association found that MSBC is added to the feed of the following species at the inclusion rates provided in the following table. The broad use of MSBC in feed for all species has been a common practice for over 15 years according to the records of one vitamin premix manufacturer.

Table 1 Typical Inclusion Levels

Species	MSBC mg/Kg dry feed
Broilers	6 - 8
Layers	6 - 10
Ducks	6 - 7
Geese	6 - 10
Quail, pheasants, partridge	4 - 8
Ostrich, Emu	4 - 8
Turkeys	6 - 8
Swine, grower/finisher	4 - 8
Swine, starter	10 - 12
Bovine calves	1 - 3
Cattle	1 - 5
Cervids	2 - 3
Sheep	0.5 - 1
Goats	0.3 - 1
Salmon & Trout	16 - 24
Tilapia & catfish	10 - 20
Shrimp	8 - 14
Tropical Fish	16 - 24
Horses	6 - 20
Rabbits	2 - 4
Mink	2
Small rodents	0.5 - 1
Dogs	3 - 5
Cats	2 - 4

Review of Safety Studies
An important consideration when reviewing adverse effects of menadione and related compounds is the route of exposure; parenteral (especially intravenous) versus oral administration. As previously described, all vitamin K active substances have the same 2-methyl-1,4-napthoquinone ring as part of their chemical structure. Excess exposure of red blood cells (RBC) to menadione can cause methemoglobin formation *in vitro* by an oxidative reaction with hemoglobin with the formation of reactive oxygen species, often resulting in lysis (Winterbourn 1979, Chung 2001). Menadione has also been shown to exert oxidative stress in cells and cause lesions in multiple organs (including heart, lung and kidney) in rats following 5 intravenous injections of menadione at 100 and 150 mg/kg bodyweight, given every other day (Chiou 1997).
From NRC 1987:

> *The toxicity of menadione is undoubtedly not related to its role as a precursor for tissue synthesis of an active form of vitamin K but because of its chemical properties as a quinone.*

The adverse effects of menadione on RBCs (e.g., methemoglobinemia, Heinz Body anemia, hemolytic anemia) have been shown in clinical cases where menadione has been given by the intravenous route (Rebhun 1984, Maxie 1992, Fernandez 1984) with kidney damage and death reported in some animals. Under experimental conditions, animals have been shown to tolerate great excesses of menadione when administered by the oral route, with extreme levels of menadione (when compared with nutritionally adequate levels) causing similar adverse effects to RBCs in animals as was observed *in vitro* as well as that seen when menadione was administered by the intravenous route.
In a repeated dose oral toxicity study, rats were provided by gavage 0 (control), 250, 350 or 500 mg/kg bodyweight menadione daily suspended in acacia gum for 30 days (Molitor 1940). The weight of the

animals was recorded daily and blood was sampled at weekly intervals. Administration of menadione had no effect on the growth of the rats, and levels of up to 350 mg/kg bodyweight/day were not associated with any adverse effects on overall health. Menadione was reported by the authors to be lethal at 500 mg/kg bodyweight, with animals dying sporadically over the 30-day feeding period. No adverse effects on blood parameters were reported in rats provided 250 mg/kg bodyweight/day of menadione but a dose of 350 mg/kg bodyweight/day was associated with a notable decrease in erythrocyte count and hemoglobin concentrations (Molitor 1940). The apparent No-Observed-Adverse-Effect-Level (NOAEL) from this 30-day study was 250 mg menadione/kg bodyweight/day. Assuming the rats consumed 50 g DM (dry matter)/kg bodyweight/day (5% body weight as DM intake), the equivalent dietary level of menadione would equal 5,000 mg/kg DM food.

In a series of studies that were broad based but limited in design and detail, Ansbacher 1942 evaluated the acute and chronic oral toxicity of menadione in several different species, specifically mice, chickens, rats, rabbits, cats, dogs and monkeys. Acute oral toxicity studies were conducted in mice, chicks and rabbits and median lethal doses (LD50) of 620 mg/kg bodyweight, 804 mg/kg bodyweight and between 230 and 280 mg/kg bodyweight, respectively, were determined. Two cats were provided menadione daily at 2 mg/kg bodyweight orally for 72 days without adverse effects to blood parameters or tissue pathology. Two additional cats were given menadione daily orally at 50 mg/kg bodyweight for 13 days, again without adverse effects to blood or tissues. Assuming a cat consumes 15 -50 g DM/kg bodyweight/day (depending on life stage), the dose of 2 mg/kg bodyweight/day of menadione is equivalent to a dietary level of 40 -133 mg menadione/kg DM food. Similarly, the menadione dose level of 50 mg/kg bodyweight/day tolerated by cats for 13 days, equates to a dietary menadione level of 1,000 mg/kg DM food. For comparison, the AAFCO Cat Food Nutrient Profiles consider 0.1 mg/kg DM of food as adequate for nutritional purposes.,

In an analogous study (Ansbacker 1942), two dogs were provided a daily 2 mg/kg bodyweight of menadione orally for 73 days with no reports of adverse effects. Assuming a dog consumes 15-40 g DM/kg bodyweight/day (depending on life stage), the menadione dose level of 2 mg/kg bodyweight/day tolerated by dogs over the 73-day period is equivalent to a menadione dietary level of 50 - 128 mg/kg DM food.

In other additional studies of menadione given orally (Ansbacher 1942), two 18-day old puppies provided daily with 40 or 80 mg/kg bodyweight of menadiol dipropionate (an alternative source of menadione) exhibited temporary anemia. When repeated oral doses of menadione were administered to rabbits, 28-36 daily doses of 4 mg/kg body weight were well tolerated. Also, monkeys (1/group) provided with 1 mg/kg bodyweight of menadione for 12 or 50 days did not exhibit any treatment-related effects.

The effects of menadione on the cardiovascular system of rats was evaluated in a study by Melgar et al. (1991). Sprague-Dawley rats received gradually increasing oral doses of menadione for 6 weeks, starting at 5 mg/kg bodyweight per day and increasing to 20 mg/kg bodyweight per day in the third week and 40 mg/kg bodyweight per day in the fifth week of treatment. An electrocardiogram, blood pressure change, and hematological analysis were performed in weeks 2, 4 and 6 as well as before and after treatment. At the end of the experiment, the hearts of 2 rats/group were processed for electron microscopy. Heart, spleen and liver weights were determined and subjected to histopathological examinations. The administration regime was generally well tolerated with no effects of menadione on growth or hematology parameters. Some alternations in blood pressure were reported as well as an increase in spleen weight.

Summary of Safety Review

Taken together, the available toxicological data indicate that under the conditions of intended use in the diet as a vitamin K active substance at levels consistent with the nutritional requirements of the animal, menadione and by extrapolation, MSBC is not expected to be associated with any adverse effects. LD50 values of greater than 200 mg/kg bodyweight and up to 804 mg/kg bodyweight were determined for a range of different animal species. An apparent 30-day rat NOAEL of 250 mg menadione/kg bodyweight/day was shown, equal to dietary level of 5000 mg/kg DM.

By comparison, supplementation of the diet of cats with 0.1 mg menadione/kg DM food (“0.1 mg Vitamin K/kg DM in diets containing >25% fish on a DM basis.”, AAFCO 2021) is equivalent to an intake of approximately 2 µg/kg body weight/day. The NRC 2006 recommends the diets of adult dogs and growing puppies are supplemented with 22 µg and 44 µg menaquinone/kg bodyweight/day, respectively, well below levels tolerated in experimental diets. Similarly, 72- and 73-day feeding studies in cats and dogs, respectively, reported that intakes of 2 mg menadione/kg bodyweight/day were not associated with any adverse effects, which is around 1,000 time higher than the nutritional level of vitamin K supplementation

in cats, and 90 and 45 times higher than for adult dogs and growing puppies, respectively. See Table 1 for typical use levels.
The primary adverse effects observed at high levels of oral supplementation with menadione in rats and other animals were decreases in red blood cell count and blood hemoglobin levels.

EFSA Review Summary:

The safety of MSB (identical to MSBC, but not complexed with additional bisulfite in the final product) and MNB for use as vitamin K active substances in feed for all animal species was evaluated by the European Food Safety Authority in 2014 (EFSA, 2014). On the basis that vitamin K1, K2 and K3 share a common metabolic fate in animals, EFSA considered the body of available published and unpublished absorption, distribution, metabolism and excretion (ADME) and toxicology data on all forms of vitamin K in its evaluation. Overall, EFSA concluded that acute toxicity of menadione or its derivatives is reached at levels exceeding the requirements of animals for vitamin K by a factor of at least 1,000, and therefore, MSBC and MNB does not pose a safety concern for target animals under practical conditions of use.

Conclusion

The expert panel recommended that Menadione Sodium Bisulfite Complex may be used as a safe and suitable source of Vitamin K activity in the food for all animals in the United States in accordance with good manufacturing and feeding practices.

Footnotes

1. Majority of content, unless specifically referenced, taken from (FDA 2008): https://www.fda.gov/animal-veterinary/safe-feed/vitamin-k-substances-and-animal-feed Accessed October 5, 2021.

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Appendix B2: Ingredient Definitions Committee, October 28, 2021, Minutes

Workgroup Reports accepted by IDC:
ICG workgroup report to IDC 6/23/21

Recommendations: None at this time.

Discussion:

The workgroup took a 24 month pause but came back together on 6/10/21. We reviewed the workgroup goals and progress made on them the last 2 years. Then discussed some of the barriers for firms sharing Independent Conclusions of GRAS for an intended use and ways to motivate the sharing.
The goal is to decrease the duplication of effort by state regulators as they see the ICG ingredients on labels or during inspections as well as decrease the time to market for new ingredients.
Additional staff at CVM is letting the technical reviews they perform move faster. AAFCO has decreased the amount of time a new definition has to sit in tentative status.
Currently ICG's are being collected by regulators and being placed in the feed BIN regulator only reading room.
We discussed offering industry incentives to share ICG's into the BIN.
Some of the barriers discussed for the sharing of ICG's:

- Concern with competitors gaining access to the data
- Concern with regulators without adequate knowledge evaluating the packages (and sharing their conclusion)
- Firms no longer having control of the information
- Concerns over disparity of state acceptance.

Concerns over current ICG's in the marketplace (these are generalities):

- Quality of ICG's still varies widely
- Lack of knowledge for how to assemble an adequate safety data package to support a ICG
- Firms relying on non-public information for their conclusions
- Suppliers not willing to share ICG with customers
- Firms not understanding the role of intended use.

Why industry uses ICG's

- Perception that the spirit of the GRAS regulation is not being implemented at CVM (human food GRAS functions differently)
- GRAS notices are being held to a higher standard than a food additive petition (perception).

Next Steps: Meet again on 7/13/21 8:30AM PST

Laboratory Methods and Services Committee Report

2021 AAFCO Annual Meeting Virtual
August 4, 11:00 am–1:45 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Actions: None

Committee Participants

Members Present: Ametra Berry, Georgia Dept. of Agriculture; Josh Arbaugh, West Virginia Dept. of Agriculture; Brenda Snodgrass, AAFCO PT; William Hoek, New York Dept. of Agriculture; H. Dorota Inerowicz, Office of the Indiana State Chemist; Kristi McCallum, Colorado Dept. of Agriculture; Lei Tang, FDA/CVM; Hemakanthi De Alwis, FDA/CVM/OR; Mary Koestner, Missouri Dept. of Agriculture; Michele Swarbrick, Michigan Dept. of Agriculture; Nancy Thiex, Life Member; Patty Lucas, Florida Dept. of Ag and Consumer Services; Rebecca Moseley, Alabama Dept. of Agriculture; Robin Johnson, Montana Dept. of Agriculture; Sally Flowers, Kansas Dept. of Agriculture; Sharon Webb, University of Kentucky Regulatory Services; Srinu Chigurupati, FDA / ORA / Office of Regulatory Science; Tai Ha, Nebraska Dept. of Agriculture; Tom Phillips, Maryland Dept. of Agriculture

Advisors Present:

Andy Crawford, Consultant; Ken Riter, Nestle-Purina Analytical Labs; David Fairfield, National Grain and Feed Association; Kyle Bennett, Neogen; Lars Reimann, Eurofins; Leo Schilling, Eurofins; Pat Tovey, Pet Food Institute; David Dzanis, American Pet Products Association; Jeff Horst, Agri-King, Inc.

Committee Report

1) Welcome, Introductions, & Adoption of Agenda- K. McCallum & S. Webb
    a. Meeting called to order at 11:02 am, EDT
    b. Motion to accept Agenda- Sally Flowers, KS
    c. 2nd- Tom Phillips, MD
    d. Motion passes unanimously
2) Review of Committee Roster and Appointments- K. McCallum
    a. Please email Kristina.mccallum@state.co.us with any changes
3) Presentation, Laboratory Capability Survey Results, Co-chairs
    a. High Priority Methods Vitamin D
       Dioxin
       Pentobarbital- FDA has an official method Toxic Metals- Equipment and Training
    b. Lars Riemann suggest prioritizing based on regulatory needs rather than number of labs that lack the capability.
4) Round Table Discussion- Next Steps; Method Needs- Call for working group volunteers; Status of Method Needs on Website, Co-Chairs
    a. A LMSC Working Group Spreadsheet was created by Kristi McCallum and was circulated to committee members and advisors. New Working Group leaders were assigned for each group created. The Working Group Spreadsheet is attached to the minutes.
    b. Fat Soluble Vitamin Working Group- Vitamin D was added to the existing Working Group
    c. The Mycotoxin Working Group needs a lead as Kyle Bennett cannot continue in this role. If you would like to volunteer to lead the mycotoxin working group, please contact Kristina.mccallum@state.co.us
    d. Drug Residues Working Group was added - Leo Schilling will be point of contact but this group also needs a lead.
    e. Microbiology Working Group was added – Kristi McCallum is the lead
    f. Pesticide Residues Working Group was added - Kristi McCallum is the lead. Perhaps a collaboration with AAPCO (Michelle Swarbrick and Sally Flowers will reach out to contacts)
    g. Next steps: Each Working Group will determine:

i. Method Needs Statements for those analytes where method development is needed (Vitamin D).
ii. Training is needed: A training plan and proposal for the AAFCO BOD to review/approve to help train laboratories who may have the testing equipment for a method but lack trained staff.
iii. Existing methods are available and develop Best Practice Guidelines are needed.

5) Presentation, Vitamin D HPLC Method, Dr. Ken Riter, PhD with Nestle-Purina Analytical Laboratories (NPAL)
   a. Contact Dr. Riter for the method and any questions.
   b. Email: Ken.Riter@purina.nestle.com
6) Presentation, Public Health Laboratory System Database and Training Resources, Susie Zanto and Lorelei Kurimski - The PHLSD is finished and available for State Ag labs to add their capability. Contact robyn.randolph@aphl.org for the access to this database and to add your state capability data. Please consider adding your data so that the database is useful. If your lab is not a member of APHL and would like to be, please contact Robyn Randolph (see above).
7) Other Discussion: A method is needed for the analysis of glucosamine/chondroitin and alternative carbohydrates in feed - Lars Reiman would be willing to work with someone to research this. If you have a method, please email Kristina.mccallum@state.co.us
8) Adjournment on August 4, 2021, at 01:35 PM EDT

Appendix A: Presentations

Attachments:

To view the AAFCO Method Needs 2020 Survey Results
https://www.aafco.org/Regulatory/Committees/Laboratory-Methods-and-Services#minutes
To view the AAFCO 2021 Laboratory Capability Survey
https://www.aafco.org/Portals/0/SiteContent/Meetings/Annual/2021/Committee-Reports/LMSC_2021_Lab_Capability_Survey.pdf
To view the AAFCO 2021 Laboratory Capability Survey Results
https://www.aafco.org/Portals/0/SiteContent/Meetings/Annual/2021/Committee-Reports/LMSC_AAFCO_2021_Laboratory_Capability_Survey_Results.pdf
To view the AAFCO 2021 Hazards and Contaminants Survey Results
https://www.aafco.org/Portals/0/SiteContent/Meetings/Annual/2021/Committee-Reports/LMSC_Hazards_and_Contaminant_Survey_Presentation.pdf
To view the presentation on vitamin D
https://www.aafco.org/Portals/0/SiteContent/Meetings/Annual/2021/Committee-Reports/LMSC_Riter-VitaminD-August-2021.pdf
For a list of presentations given during this meeting, please see the AAFCO Laboratory Methods and Services committee website at the following link:
https://www.aafco.org/Regulatory/Committees/Laboratory-Methods-and-Services#minutes

Model Bills and Regulations Committee Report

2021 AAFCO Annual Meeting Virtual
August 4, 3:00–3:45 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Actions: None

Committee Report

Model Bills and Regulations Committee Chairman Doug Lueders called the meeting to order at 3 p.m. eastern on Aug. 4, 2021. He welcomed committee members, industry advisers and guests who were present.

Other committee members participating in the meeting were: Dan King, Committee Vice-Chair (Minnesota), Ken Bowers (Kansas), Eric Brady (Tennessee), David Dressler (Pennsylvania), George Ferguson (North Carolina), Darrell Johnson (Kentucky), Ben Jones (Texas), Sherrie Krolczyk (FDA), Eric Nelson (FDA), Richard Ten Eyck (Oregon), and Scott Ziehr (Colorado).

Industry advisers participating were Meghan Dicks and Steve Younker (AFIA), Dave Dzanis (APPA/ACVN), Emily Helmes (ETA), Jan Campbell and David Fairfield (NGFA), and Angele Thompson and Pat Tovey (PFI).

AAFCO Executive Director Sue Hayes and AAFCO Executive Assistant Melissa Kunze also participated in the meeting.

Minutes from Previous Committee Meetings

Chairman Lueders noted that minutes from the committee's Jan. 21, 2021 virtual meeting were previously approved on March 5, and minutes from the committee's e-meetings conducted on Feb. 17 – March 2 and June 15 – 22 were approved on March 5 and June 22, respectively. All minutes are posted on the AAFCO website and in the Feed BIN, and included within the 2021 AAFCO Annual Meeting Committee Report Book.

Labeling Work Group Report

The work group established to consider potential changes to AAFCO's definition for "labeling" intends to provide recommendations during the 2022 AAFCO Mid-Year Meeting.

Mr. Ziehr assumed the position of chairman for the work group, which previously had been held by Mr. Ferguson. Other individuals serving on the work group are Bill Burkholder, Jan Campbell, Meghan Dicks, Karen Donnelly, David Dressler, Dave Dzanis, and Angele Thompson.

Flavors Work Group Report

The work group established to evaluate issues associated with 21 CFR 501.22 flavor requirements and make recommendations on whether AAFCO should address reported that it is still considering the topic and anticipates providing a report during the 2022 AAFCO Mid-Year Meeting. The work group is chaired by Dan King. Other individuals serving on the work group are Bill Burkholder, Jan Campbell, Meghan Dicks, Karen Donnelly, David Dressler, Dave Dzanis, and Angele Thompson. Richard Ten Eyck and Austin Therrell were added as state regulator participants to the work group to provide additional input on possible state-level issues.

New Business

Colors

Chairman Lueders requested the Flavors Work Group also consider requirements associated with animal food colors within CFR 21 501.22 and make recommendations on whether, and, if so, how AAFCO should address.

Human Grade Pet Food Guidelines

At the request of the AAFCO Pet Food Committee, the committee took no action during the meeting related to the Guidelines for Human Grade Pet and Specialty Pet Food Claims. Chairman Lueders stated the Pet Food Committee desired additional time for public comment on the guidelines prior to AAFCO taking further actions. He also stated that it was likely the committee would conduct an e-meeting to consider the guidelines prior to the 2022 AAFCO Mid-Year Meeting after the public comment period ends on Oct. 22.

Adjournment
Chairman Lueders asked whether there was any other business to be considered by the committee. Given that none was identified, the committee meeting was adjourned at approximately 3:30 p.m. eastern On behalf of the Model Bills and Regulations Committee, I respectfully submit this report and request acceptance of the report by the AAFCO Board of Directors and the Association membership.

Pet Food Committee Report

2021 AAFCO Annual Meeting Virtual
August 2, 1:45–3:15 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Actions: None

Committee Participants

Members Present: Liz Beckman (WA – Co-chair), Stan Cook (MO – Co-chair), Chris Berg (IA), William Burkholder (FDA- CVM), Charlotte Conway (FDA-CVM), George Ferguson (NC), Kristen Hamilton (ID), Madison Fink (MO), Kristen Green (KY), Tiffany Leschishin (MN), JoLynn Otero (NM), Caitlin Price (NC), Katie Simpson (IN), Austin Therrell (SC), James Embry (TX)
Advisors Present: Bill Bookout (NASC), Louise Calderwood (AFIA), Dave Dzanis (APPA), James Emerson (US Poultry and Egg), Dave Fairfield (NGFA), Ryan Frank AFIA), Jean Hofve (PWA), David Meeker (NARA), Chris Nash (PFAC), Angele Thompson (PFI), Pat Tovey (PFI), Tim Law (NARA)
Others Present: Susan Hays (AAFCO Executive Director), Melissa Kunze (AAFCO Executive Assistant), Performedia personnel

Committee Report

Human Grade Working Group – Caitlin Price, NC
Finalized guidelines in May and sent recommendations to PFC which passed by e-vote in late May. Guidelines are currently with MBRC to be voted on this week. If approved, PFC and MBRC will jointly send to the AAFCO BOD. The Guidelines and Feed Term for Human Grade will move together. If both pass, it is expected to be ready for membership vote at mid-year 2022. The audit should become available after the guidelines are approved.
Some chat comments regarding having human food facilities register also as a feed facility and conflict between Part 507 and part 117. The facility must be registered with FDA since commercial feed producing facilities must be inspected by an entity that inspects pet food as the end product. FDA does not approve products, only inspects facilities for compliance with the rules.
Post meeting update – at the MBRC meeting, a motion passed to remove the HG guidelines from the MBRC meeting agenda and to be sent back to PFC. The guidelines have been posted and are open for comments until 8/27/21. Caitlin Price has resigned from the NC Department of Ag; George Ferguson and Austin Therrell will be the work group leads. PFC is appreciative the work Caitlin has done on this work group.
PFLM Update – Liz Beckman, WA
Slides available.
PFLM Working groups draft model regulations are available on the AAFCO/PFC website (posted in July) and are available for public comment. PFLM WG hope to send recommendations to PFC in November, 2021. Next steps involve review by MBRC then membership vote. The website also has information to register for future PFLM Webinars to provide opportunity for comments and questions. The WG would like to receive comments/questions on a rolling basis over the 90-day comment period.
PFLM Implementation WG – Stan Cook, MO
Slides available.
State surveys regarding implementation are currently with the states for comments. The goal is to best understand each state's adoption process for new regulations in order to facilitate implementing the new PFLM regulations. It is very important to get a response from each state. Next step will be to analyze results of the survey. Group is developing models/best management practice for different types of state adoption methods in order to facilitate.
Some states will require an industry fiscal impact. Industry partners helped collaborate on categories/criteria for fiscal impact of pet food labeling changes. Implementation timing will be key: shorter 'rush' timing would result in increased costs.
Overall goal is to create a timeline for state adoption and post that to the public PFC website.

Copper WG – Dr. Bill Burkholder, FDA
Slides available.
February Viewpoint article published in the JAVMA indicated that the authors believed increased incidence of copper-associated hepatopathy in dogs was due to a change in the type of copper used in premixes. The authors suggested that AAFCO consider reinstating a maximum value and to lower the minimum 0.9 to maximum 1.1 mg/1000 kcal. The WG was formed to consider the matter. The WG is waiting on some long term feeding trials from industry. At present, it does not appear that the data supports such a drastic reduction and tightening of the range.
The authors were not asked to participate in the WG because they have already reached a conclusion which is presented in the article.
States are encouraged to supply lab results to the WG for additional consideration.
Pet Food Forum/Pet Food Training Modules – Sue Hays, AAFCO/Katie Simpson, IL
2021 Pet Food Forum will be held September 22-24 in person. AAFCO will not have a booth this year, but Hollis Glenn and Sue will be attending.
AAFCO originally planned to hold a Pet Food Labeling Workshop at the Pet Food Forum, but due to COVID-19 AAFCO has switched gears to Pet Food Training Video Modules. These segments would be shorter. The group hopes to share more information at the mid-year meeting.
New Training and Outreach Sub-Committee - Liz Beckman, WA
Slides available.
A sub-committee is being formed with Chris Berg as chair to plan/develop/maintain training opportunities and current training and outreach materials, bringing in subject matter experts in the area of need; coordinate with ETC and provide recommendations to the PFC. This group will take over/merge with some existing workgroups.
Meeting concluded at 2:33 ET.

The slide show that goes with this report can be viewed at the following link:
https://www.aafco.org/Portals/0/SiteContent/Meetings/Midyear/2022/Committee-Reports/Pet_Food_2021_Annual.pdf

Proficiency Testing Program Committee Report

2021 AAFCO Annual Meeting Virtual
August 3, 11:45 am–12:45 pm (EDT)

Committee Recommendations: None

Board Recommendations: None

Association Actions: None

Committee Participants

Members Present (Voting): Brenda Snodgrass – PT Program (Chair/Program Manager), Life Member (OK); Louise Ogden – PT Program (Vice-chair/Quality Manager), Life Member (MN); Nancy Thiex – Thiex Analytical Solutions, Life Member (SD); Kristi McCallum – CO; Ametra Berry – GA; Michelle Swarbrick – MN; Tai Ha – NE; Quintin Muenks – MO; Patty Lucas – FL; Sharon Webb – KY; Tom Phillips – MD (Ingredients Definitions Committee Liaison); Josh Arbaugh -WV (Board of Directors Liaison); Gail Swinford – FDA (Primary), Janna Hutchinson – FDA (Alternate), Sue Humphries- FDA (Alternate)
Advisors Present: Bob Kieffer – PT Program, Able Laboratories; Amy Kieffer – PT Program, Able Laboratories; Andy Crawford – PT Program, Crawford Consulting Services; Lars Reimann – AFIA (Primary); Susan Wiegert – AFIA (Alternate); Ken Riter – PFI (Primary); Pat Tovey – PFI (Alternate); Frank Sikora – Magruder PT Program

Committee Report

Committee Activities
See Action Item Table
Sub-Committee Activities: None
Committee Minutes

1. Welcome & Call to Order – Brenda Snodgrass called the meeting to order at 11:45 AM EDT. The agenda was reviewed and approved.
2. Program Leadership and Administrative Update
    a. QA Manager Position: This position will be open January 1, 2022. Brenda would like to recruit a volunteer from a regulatory lab to perform internal audits, document control and prepare for audits from ANAB. The person should be familiar with ISO 17025 and or ISO 17043. This would take about 20 hours a month (~ 5 hours a week on average). If we are unable to recruit a volunteer AAFCO voting member, the position will be offered to a contractor with qualifying experience.
3. Customer Surveys - Louise
    a. Unusual Matrices in Feed and Pet Food Laboratories: This survey was sent to 251 Animal Feed and Pet Food laboratories participating in the PT Program. 54 laboratories responded. Matrices that laboratories are receiving include gummy bears, pizza dough, chocolate, ice cream treats, bakery waste, casava meal, meal worms, potato chips, wrapped candies, horse treats with peppermint candies wrapped inside, donuts, cookies, cakes, raw ground meat, mink food, chew bones, jerky treats, vegan/paleo inspired treats and food, and CBD treats for dogs
    Hemp: 12 laboratories are analyzing for the presence of cannabinoids in animal feeds and pet foods.
    Algae biomass: 13 laboratories are analyzing algae biomass/seaweed for proximate analysis, fatty acids and metals.
    We spoke with the World Wildlife Fund – Algae Biomass – They may be able to donate algae biomass to the program.
4. Update from Able Laboratories
    a. Able Laboratories added a jaw crusher for their preparation process to crush difficult feed ingredients and feed. The jaw crusher was used to process (grind) the Dry Dog Feed for Animal Feed round #202125 (May 2021)
    b. As Bob and Amy Kieffer (Manager and Owner of Able Laboratories, Inc.) transition to retirement their daughter Mo Kieffer will be transitioning to the primary operator of Able

Laboratories. Mo is relocating to Pikeville, TN and will begin technical and operations training in September 2021. This training will be done by Bob & Amy over an appropriate time frame determined by Able Laboratories. Training on the ISO 17043 Quality System requirements will be done by Louise Ogden prior to her departure on January 1, 2021.

5. Drugs In Animal Feeds – Panel Discussion – Eric Brady (TN), Austin Therrell (NC), George Ferguson (SC).
   a. Background – Medications in animal feeds – Veterinary Feed Directives – increasingly difficult to get in VFD medication in a form that can be added to feed matrices. Even with the required veterinary subscriptions most are administered via the animal's water supply, orally, or as an injectable. None of these medicated formulations are appropriate for inclusion in a Type II or Type III Feed ration
   b. Presentation attached.
6. Adjournment at 12:45 AM EDT

Action Item Table

Responsible	Item	Action	Timing / Status
Committee Chair (Program Manager) & AV WG Volunteers	Analytical Variations from Official Publication	Internal Report on AV misuse, obsolescence, and proposed replacement/guidance.	2021 Annual Meeting/Paused due to Chair availability/ Resuming action in 4th Quarter of 2021

The slide show on Veterinary Feed Directives can be viewed at the following link:
https://www.aafco.org/Portals/0/SiteContent/Meetings/Midyear/2022/Committee-Reports/PTP_Committee_Panel_Presentation_on_VFDs.pdf

Strategic Affairs Committee Report

2021 AAFCO Annual Meeting Virtual
August 4, 4:00–5:30 pm (EDT)

Committee Recommendations

- **Report acceptance.**
- **Recommend:**

A. Board Liaison role,
Procedures Manual, page 13, delete bullet:

- Appoint BOD members as liaisons on each committee and to external associations (e.g., NASDA, AFDO) to serve as special representatives of the BOD. Liaisons assist the BOD in keeping track of issues in other organizations and provide opportunities for exchange of information between AAFCO and related organizations. Liaisons speak to AAFCO policy issues when called upon to represent national issues. They are obligated to check with the BOD to ensure messaging reflects current BOD direction. Liaisons also provide a continuous point of contact as they serve for several years and are not changed annually.

After the General Operating Procedures bullets and before the last paragraph describing Tables 1 and 2, insert:

The BOD has the authority to appoint members as liaisons to AAFCO committees and external associations (e.g., NASDA, AFDO). The purpose of these liaisons is to represent the BOD and serve as a conduit for communication and representation between the two groups. Board members will be appointed as liaisons to specific committees, whereas the BOD may appoint any AAFCO member to serve as a liaison with an external association. Expectations for these liaisons (in either role) are detailed below:

- BOD liaison to an AAFCO Committee
  - Communicate directives from the BOD to the committee.
  - Serve as special representative of the BOD.
  - Assist the BOD in keeping track of committee issues.
  - Speak to AAFCO policy issues.
  - Ensure messaging reflects current BOD direction.
  - Provide a continuous point of contact.
  - Review and contribute to committee agenda.
  - Assist Committee Chair to ensure the minutes capture the committee intent, actions, and recommendations accurately.
- AAFCO/BOD liaison to an external association:
  - In addition to the list above, the primary role of the external liaison is to ensure clear communications between the two organizations by serving as the contact point.
  - Ensure the Board understands the other organization.
  - Represents AAFCO and AAFCO mission to that organization.
  - Monitor the business and activities of the external organization and provide regular reports and updates to the BOD on any items of note.
  - Identify issues that arise between external group and AAFCO.

B. President-Elect Role and Duties,
Procedures Manual, Page 16-17 substitute existing section with:

President-Elect

The President-Elect must be knowledgeable on key issues of the association. The role of the President-Elect is both supportive and strategic. The broad range of duties of the President-Elect are designed to familiarize the upcoming President with committee business, strategic affairs and association leadership to help the President-Elect be an effective association President.

The President-Elect performs the duties of the President in the absence of the President or in the event of the President's inability or refusal to act. When so acting, the President-Elect shall have all the powers of and be subject to all the restrictions upon the President. The President-Elect serves as a member of the BOD and performs such other duties as may be assigned by the President or BOD. The person in this position normally does not serve as a committee or task force chair.

General Operating Procedures:

- Serve as the committee coordinator. The President-Elect is responsible for ensuring each committee report is complete and accurate. The Committee Coordinator should assist the committee chair to identify any conflicts before the BOD meetings. When clarity on a report is needed, the President-Elect informs the committee chair of the problem and requests clarification before the information is presented to the BOD. If conflicts cannot be resolved prior to the BOD meeting, the committee chair is requested to attend the BOD meeting where discrepancies will be pointed out for discussion and resolution. The President-Elect must be well enough acquainted with the background of proposed changes, and other matters, to facilitate questions and answers with the committee chair. (e.g., reason for and need of change, problems presently being encountered, how change will help, what has happened in the past, where the committee recommendation may be in error, etc.). This is extremely important to avoid the necessity of postponing action until the next meeting because of confusion and to expedite BOD meetings. Other duties of Committee Coordinator:
    1. Coordinate with Executive Director, Executive Assistant and Committee Liaisons to advise Committee Chairs on meeting the AAFCO timelines for their meeting agendas, meeting minutes and other responsibilities.
    2. Convene meetings of Committee Chairs immediately preceding and following the Annual and Midyear meetings to foster committee collaboration and communication with the BOD.
    3. Remain accessible to committee chairs, regulated industry and consumer groups for assistance, directions and advice.
        - Serve as Vice-Chair to the Ingredient Definition Committee.
        - Serve as member of the Finance Committee.
        - Serve as member of the Executive Committee.
        - Initiate BOD recommendations to the membership at Annual and Midyear Business Meetings

C. Create a fillable format for the template to make changes to the Procedures Manual. Make it available on the website and in the Feed BIN. Include a link to the template in the Administrative Procedures and Policies section of the Procedures Manual. Form below:

Updating the AAFCO Procedures Manual Form

Instructions

Complete this form to propose and facilitate the process of updating any component of the AAFCO Procedures Manual. Examples and descriptions are provided to assist with the accurate completion of this form. Where applicable, replace the examples with requested content. Add as many duplicate tables in the Updates section as needed. Refer to the Legend for guidance.

Legend

<Date> version of the AAFCO Procedures Manual	**Keep/Revise/Remove**
Specify location and current language	Name(s) of proposer(s) Action: Revise/Remove
Proposed Revision	Name of author(s)

MM/DD/YYYY Proposed Revision [Use this row if subsequent revisions are made as a result of Committee/Workgroup review, etc.]	Name of author(s)

Purpose
Update the description of <insert description> described in the AAFCO Procedures Manual
Reason
Updating the description of <insert description> will remedy <insert specifics>.
Updates

<Location in Manual>	**Keep/Revise/Remove**
Current language	Above option (Name(s) of proposer)
Proposed Revision	(Name of author)

Name of Form Submitter and Reviewers: <Names>
Progress Tracking

Date of Form Submission:	<MM/DD/YYYY>
Date of Committee Review:	<MM/DD/YYYY>
Decision of Workgroup/Committee/ Review:	<Insert description of discussion and final decision>
Date Sent to Board of Directors:	<MM/DD/YYYY>
Date of Board of Directors Review:	<MM/DD/YYYY>
Decision of Board of Directors Review:	<Insert description of discussion and final decision>
Inputted into Procedures Manual:	☐ Yes ☐ No
Which version:	<MM/DD/YYYY>

D. Finance Committee description,
Procedures Manual, page 33 substitute existing section with:
Purpose
Oversees financial planning to provide strategic advice, financial stability and support to the BOD. The committee maintains familiarity with the revenue, expense, and investments elements of AAFCO to assist the Secretary-Treasurer in managing and meeting strategic objectives and to assure management strategies that support AAFCO's long-term financial sustainability.
Membership
Members should be those who have served in executive level AAFCO positions or persons who by right of employment in their professions have relevant finance and money management experience and are familiar with the fiscal policy and philosophy of the organization. The Secretary-Treasurer will serve as the Chairperson. The committee should consist of no less than five members, including the Board members. Committee members should include:

- The current President
- The President-Elect and at least one other Board member
- At least 2 Past Presidents
- Leadership representing the major revenue generating AAFCO programs; (e.g. Proficiency Testing Program, Official Publication management, meetings and trainings); and,
- Leadership from the Strategic Affairs Committee (SAC)

General Operating Procedures
The Finance Committee:

- Shall provide support to the Secretary-Treasurer and to the BOD in developing fiscal scenarios to attain strategic goals, and provide management options for the BOD.
- Works with other committees or persons to gather data for fiscal analyses related to strategic goals under consideration.
- Reviews and recommends adoption of strategies related to AAFCO finances to the BOD by the Secretary-Treasurer.
- Reviews investment policy strategies periodically and makes recommendations to the BOD for updates.
- Prepares the annual budget, with support from the Executive Director, for review and approval by the BOD.
- Gathers and supplies year-end reporting for the BOD.
- Makes arrangements for audits of AAFCO finances and responds to questions but should not participate as auditors.

E. Complimentary OP/BIN Subscription Procedure,
Procedures Manual, Administrative Procedures and Policies section, insert:

Complimentary OP/BIN subscription Procedure:
Requests for comp OP/BIN or comp BIN subscriptions must be submitted via an application to the AAFCO President and Executive Director with confirmation from the Committee Chair.
Most people will be encouraged to purchase BIN or OP access as part of their work with AAFCO. Exceptionally, participants may need to request complimentary BIN or OP access.
Eligible to receive complimentary OP/BIN access on request:

Committee Chairs
Active Committee Members and Investigators
Voting Members* in Good Standing
Members (Regulators)
Life Members
FDA staff working on ingredients – Annual List to come from the Director, Division of Animal Feeds
Contractors to AAFCO – Executive Director, FASS personnel, PTP Manager, etc.

*Voting members (current membership dues have been paid) receive one online OP/BIN subscription automatically. Requests for additional complimentary online OP/BIN subscriptions by a member should follow the application process.
Complimentary 2-week OP/BIN Retail access:

Workshop or training attendees
Annual or Midyear Registrants (Member and Non-Member)

Eligible to receive complimentary BIN access:

Active Committee Advisors
Participants on Projects or Work Groups
Other interested parties

The starting point for our process to request a complimentary OP/BIN subscription is an application. This application will be housed on the FASS database system, similar to an AAFCO member meeting registration.

1. The application is requested from the Executive Assistant at aafco@aafco.org.
2. The Executive Assistant will provide the completed application to the Committee Chair and request the Committee Chair's confirmation that the Committee Chair agrees with providing a complimentary OP/BIN subscription to the Applicant.
3. The Executive Assistant shares the application with the President and Executive Director. After their separate reviews of the application, the President and Executive Director will communicate their recommendation on the status of the application to the Executive Assistant. The options for the recommendation are:
    a. Approved – Comp OP/BIN subscription begins as soon as possible and ends on day 365.
    b. Declined – without cause.

Complimentary OP/BIN subscribers have the same benefits as paid subscribers.

Annual renewal of the Comp OP/BIN subscription is allowed. Renewal requests follow the same process as the initial request. Renewal requests may begin 45 days ahead of the subscription expiration date.
A complimentary OP/BIN subscription may not be assigned to another individual. Should the Applicant leave the sponsoring organization, the sponsoring organization may initiate the Comp OP/BIN subscription procedure by submitting a new application for the successor.

Board Recommendations:

- Report accepted – add date

Association Actions:

- Report accepted – add date

Full Committee Members: Linda Morrison, Nancy Thiex, Dave Edwards, Scott Ziehr, Jennifer Godwin, Erin Bubb, Doug Lueders, **Brenda Snodgrass, Ken Bowers,** Chad Linton, Mark LeBlanc, **Kent Kitade, Ali Kashani, Ashlee-Rose Ferguson (Board Liaison), Richard Ten Eyck (BIN Coach), Stan Cook, Vice Chairperson**
(Stan - Committee Chat; Erin - Audience Chat)
By-Laws Sub-Committee: Ken Bowers, Erin Bubb, Doug Lueders, **Richard Ten Eyck**
Committee Advisors: Dave Fairfield, Dave Dzanis, Bob Ehart, **Leah Wilkinson,** Nancy K. Cook, **Kristi Krafka,** Julia Fidenzio
Bold indicates the person was present.

Committee Report

1. By-Laws Sub-Committee: Update (Ken)
   a. Clarify Board Liaison role for Procedures Manual (Appendix 1)
      Motion to accept Sub-Committee report - Ken; second - Scott; Motion carries.
      - Prior reports indicate this does not require By-Laws change.
      - WG: Shannon, Erin, Ken, Scott, Sue (lead)

      Motion to accept Board Liaison edits to the Procedures Manual (page 13) per Appendix 1 - Dave; second - Stan; Motion carries.
   b. Clarify Committee Coordinator Role for Procedures Manual (Appendix 2)
      Motion to accept Sub-Committee report - Ken; second - Dave; Motion carries.
      - Prior reports indicate this does not require By-Laws change.
      - WG revised to include those who were committee coordinators in past: Erin (lead), Ken, Mark and Stan

      Motion to accept Committee Coordinator Role edits to the Procedures Manual (page 16-17) per Appendix 2 - Dave; second - Ken; Motion carries.
2. Strategic Planning 2017-20
   - Key progress is recorded in Appendix 3: Strategic Plan 2017-2020 updates from Annual 2021. Edits are in bold, italic text.
3. Strategic Planning 2021-24 - Update
   - Priority Goals as well as Vision and Mission Statement have been updated; Activities, deliverables and responsibilities that were to be developed by the Board/Chairs at Seminar 2020 have been deferred due to COVID-19. It is hoped that this can be done virtually in Fall 2021 or in person at Midyear 2022. Once done they will be presented for member acceptance.
   - Vision and Mission Statements updated again and accepted by Members Aug. 2, 2021 (General Session);

   Action: Follow up on AGM question regarding need for "comma" between feed ingredient and standards in Mission Statement.
4. Procedures Manual
   a. Draft template suggested for Procedures Manual changes (Appendix 4)
      - WG: Kent, Ashlee-Rose and Sue
      - Suggestion to make it a Google document for sharing/editing and password protect it

- Discussion: Use fillable format for template and make it available on the website and in the Feed BIN; Include link to template in Procedures Manual

Motion to accept Template to make changes to Procedures Manual - Ashlee-Rose; second - Stan; Motion carries.

b. Update/clarify Secretary-Treasurer description
   - WG: Kent (lead) with support of Ashlee-Rose and Sue
   - Needs more work
   - By-Laws representatives will join group:
   - Report by end of November for Committee consideration Midyear 2022

c. Update Finance Committee description
   - Approved by Finance Committee February 16, 2021

Motion to accept Finance Committee description substitution in the Procedures Manual (page 35) per Appendix 4 - Ken; second - Dave; Motion carries.

d. Complimentary OP/BIN subscription Policy (Appendix 5)
   - Discussion: modify paid voting members to voting members in good standing
   - Placement in Procedures Manual placement in Administrative Procedures section

Motion to accept Complimentary OP/BIN Subscription Policy for inclusion in the Procedures Manual per Appendix 5 - Erin; second - Dave; Motion carries.

e. Privacy Policy Draft (Appendix 6)
   - Board charge: the Strategic Affairs Committee with reviewing drafted language for the AAFCO Privacy Policy and consulting with the Attorney to come up with a proposed policy and report back to the Board of Directors.
   - First draft developed by Sue Hays with assistance from FASS and legal support
   - Identify placement in Procedures Manual
   - Work Group formed: Erin, Sue, Jacob (Technology Comm. Rep), Scott, FASS rep
   - Timeline: Review and revise draft for discussion Midyear 2022

f. Resolutions Policy Draft (Appendix 7)
   - Discussion: Policy presented is from AFDO who have used resolutions successfully. Resolutions are listed on AFDO website. Investigate use for AAFCO. It was noted that AFDO membership is constituted differently than that of AAFCO.
   - Placement in Procedures Manual
   - Work Group formed: Stan, Erin, Hollis, Ashlee-Rose
   - Timeline: Review and present recommendation for discussion Midyear 2022

5. Other Business

Motion (Evote ~ mid-September 2021) to accept August 4, 2021 Annual SAC meeting report - ??, second - ??. Motion ??.

Action Item Table

Responsible	Item	Action	Timing / Status
By-Laws (Ken) (WG: Sue (lead) Shannon, Erin, Ken, Scott)	Clarify Board Liaison role	Provide additional detail in the Procedures Manual and OP to make the role of the Board liaison clearer respecting review of committee agendas and reports.	Complete
By-Laws (Ken) (WG: Erin (lead), Ken, Mark, Stan)	Clarify Committee Coordinator Role	Review Procedures Manual and OP to clarify committee coordinator role and key activities with respect to the process; could include ED as process leader.	Complete
WG: Kent, Ashlee-Rose, Sue + By-Laws Sub Committee	Secretary-Treasurer description	Update/clarify Secretary-Treasurer description in Procedures Manual	Review revealed potential impact to By-Laws and need to consider revision to other descriptions; By-Laws Sub Committee added to WG; Report by end of November for Committee consideration Midyear 2022

Responsible	Item	Action	Timing / Status
WG: Kent, Ashlee-Rose	Template for Procedures Manual changes	Draft template suggested for Procedures Manual changes. SAC feedback to Kent by March 1. Finalize for SAC acceptance	Complete
WG: Kent, Ashlee-Rose, Sue	Finance Committee description	Finance Committee WG updating description; once accepted by Finance Committee it will be forwarded to SAC for Procedures Manual update	Complete
WG: Dave E. (lead), Richard, Sue, Kent, Doug	Complimentary OP/Bin subscriptions	Develop a policy related to procedures for complimentary OP/Bin subscriptions	Complete
WG: Erin, Sue, Jacob (Technology Comm. Rep), Scott, FASS rep	Privacy Policy	Reviewing drafted language and consult with legal to finalize	Review and revise for discussion Midyear 2022
WG: Stan, Erin, Hollis, Ashlee-Rose	Resolutions Policy	Review AFDO policy and consider for AAFCO	Review and present recommendation for discussion Midyear 2022
Linda / Board	Mission Statement	Follow up on AGM question regarding need for “comma” between feed ingredient and standards in Mission Statement.	Fall Board meeting with available time.

Appendix 1: BOD Liaisons—Internal and External

Task: to clarify Procedures Manual section under BOD General Operating Procedures
Workgroup submission to SAC chair on 4-14-21
The workgroup was tasked with clarifying the section in the January 2021 version of the AAFCO Procedures Manual, Board of Directors, General Operating Procedures, bullet point 3 discussing the appointment of members as liaisons to committees and external organizations. The members of the workgroup included:

- Sue Hays, leader
- Shannon Jordre
- Erin Bubb
- Ken Bowers
- Scott Ziehr

The workgroup met twice in the month of April 2021 and developed the following proposed language for consideration by the AAFCO SAC.
From v. January 2021 Procedures Manual language, page 13:
Appoint BOD members as liaisons on each committee and to external associations (e.g., NASDA, AFDO) to serve as special representatives of the BOD. Liaisons assist the BOD in keeping track of issues in other organizations and provide opportunities for exchange of information between AAFCO and related organizations. Liaisons speak to AAFCO policy issues when called upon to represent national issues. They are obligated to check with the BOD to ensure messaging reflects current BOD direction. Liaisons also provide a continuous point of contact as they serve for several years and are not changed annually.
Following discussion, the workgroup proposes the following revision to this section of the AAFCO Procedures Manual:
The BOD has the authority to appoint members as liaisons to AAFCO committees and external associations (e.g., NASDA, AFDO). The purpose of these liaisons is to represent the BOD and serve as a conduit for communication and representation between the two groups. Board members will be appointed as liaisons to specific committees, whereas the BOD may appoint any AAFCO member to serve as a liaison with an external association. Expectations for these liaisons (in either role) are detailed below:

- BOD liaison to an AAFCO Committee
  - Communicate directives from the BOD to the committee.
  - Serve as special representative of the BOD.
  - Assist the BOD in keeping track of committee issues.
  - Speak to AAFCO policy issues.
  - Ensure messaging reflects current BOD direction.
  - Provide a continuous point of contact.
  - Review and contribute to committee agenda.
  - Assist Committee Chair to ensure the minutes capture the committee intent, actions, and recommendations accurately.
- AAFCO/BOD liaison to an external association:
  - In addition to the list above, the primary role of the external liaison is to ensure clear communications between the two organizations by serving as the contact point.
  - Ensure the Board understands the other organization.
  - Represents AAFCO and AAFCO mission to that organization.
  - Monitor the business and activities of the external organization and provide regular reports and updates to the BOD on any items of note.
  - Identify issues that arise between external group and AAFCO.

Appendix 2: Committee Coordinator Role Clarification for Procedures Manual

Work Group Report: President-Elect Role and Duties as defined in the Procedures Manual
Page 16,17 AAFCO Procedures Manual: Suggested edits
President-Elect

The President-Elect must be knowledgeable on key issues of the association. The role of the President-Elect is both supportive and strategic. The broad range of duties of the President-Elect are designed to familiarize the upcoming President with committee business, strategic affairs and association leadership to help the President-Elect be an effective association President.

The President-Elect performs the duties of the President in the absence of the President or in the event of the President's inability or refusal to act. When so acting, the President-Elect shall have all the powers of and be subject to all the restrictions upon the President.

The President-Elect serves as a member of the BOD and performs such other duties as may be assigned by the President or BOD. The person in this position normally does not serve as a committee or task force chair.

General Operating Procedures:

~~Propose a list of incoming committee chairs, committee members, investigators, task forces and industry advisors for the Annual Meeting at which she/he is nominated for president. The proposed list shall be prepared for BOD review by April, immediately preceding the Annual Meeting at which the President-Elect is nominated for President.~~

- Serve as the committee coordinator. ~~and is vice-chair of the IDC.~~ The President-Elect is responsible for **ensuring** ~~proofreading~~ each **committee report is complete and accurate. The** Committee Coordinator **should assist the committee chair** to **identify** ~~eliminate~~ any conflicts before the BOD meetings. ~~and presentation to the members.~~ When clarity on a report is needed, the President-Elect informs the committee chair of the problem and requests clarification before the information is presented to the BOD. If conflicts cannot be resolved prior to the BOD meeting, the committee chair is requested to attend the BOD meeting where discrepancies will be pointed out for discussion and resolution. The President-Elect must be well enough acquainted with the background of ~~all~~ proposed changes, and other matters, to ~~answer~~ **facilitate** questions **and answers with the committee chair**. (e.g., reason for and need of change, problems presently being encountered, how change will help, what has happened in the past, where the committee recommendation may be in error, etc.). This is extremely important to avoid the necessity of postponing action until the next meeting because of confusion and to expedite BOD meetings. **Other duties of Committee Coordinator:**
  4. **Coordinate with Executive Director, Executive Assistant and Committee Liaisons to advise Committee Chairs on meeting the AAFCO timelines for their meeting agendas, meeting minutes and other responsibilities.**
  5. ~~Organize and~~ Convene meetings of Committee Chairs immediately preceding and following the Annual and Midyear meetings to foster committee collaboration and communication **with the BOD**.
  6. Remain accessible to committee chairs, ~~investigators~~, regulated industry and consumer groups for assistance, directions and advice.
  - Serve as Vice-Chair to the Ingredient Definition Committee.
  - **Serve as member of the Finance Committee.**
  - **Serve as member of the Executive Committee.**
  - **Initiate BOD recommendations to the membership at Annual and Midyear Business Meetings**

Appendix 3: Strategic Plan 2017–2020

Updated Goals 2017-2020	
Strengthen organizational infrastructure	
1	Manage and pursue revenue generating opportunities to maintain a sound financial base
2***	Pursue hiring executive support
3	Evaluate the effectiveness of the organization of AAFCO for continuous improvement
4	Provide leadership skills enhancement to develop and support AAFCO leaders
5	Optimize resource sharing opportunities
6	Enhance internal communication efficiencies and documentation within the association
Promote and enhance membership participation (internal)	
7**	Identify opportunities to increase member agency participation
8*	**Develop and provide professional development and technical training opportunities in support of feed programs**
9*	**Enhance collaboration, communication and cooperation among regulatory agencies**
10**	Communicate and document AAFCO benefits and accomplishments
Emphasize feed and food safety	
11	Continue developing member feed safety programs in alignment with FSMA and IFSS
12*	**Promote and support laboratory technology, methods, quality systems and collaboration**
Vitalize partnerships with external stakeholders	
13	Identify key stakeholders and working partners and common goals
14	Develop and maintain professional relationships with stakeholders and affiliated organizations
Strengthen international presence	
15	Participate in relevant international meetings as resources permit
16	Invite International attendees to association activities
17	Provide a forum for international discussions on feed safety

*** Top 3 priority goals**

** Adequate progress was made on the first three; Goal 7 was initially identified as a fourth goal. The Board/Chairs subsequently added goal 10 October 2018 - January 2019.

*** Board priority action completed February 2018

Top 3 Priority Goals [FSMA TF activities integrated]

Updated text: italics/bold

Results from the State Agriculture Laboratory Capability survey were received, compiled and presented at LMSC. LMSC formed new working groups for the hazards identified and created tables with an outline of each new working group, the lead and volunteers. LMSC members/advisors were contacted asking for volunteers. The LMSC will be starting work on drafting a Method Needs Statement for Vitamin D.
Since hazards change, LMSC plans to send an annual survey to regulators in order to capture new hazards or other analytical compounds of interest and adjustment method development as appropriate.

Group 1: Mark Leblanc, Nancy Thiex, Ken Bowers, Meagan Davis, and Dave Dressler

Outcome	Activity	Resources Needed	Timeline	Responsibility
Strategy: Emphasize feed and food safety Goal 12: Promote and support laboratory technology, methods, quality systems and collaboration				
12.1 ** Fund AOAC method development and validation	Review list, remove those that aren't relevant and prioritize the remainders. Identify resources to clear out analytical method needs backlog. Use existing strategy to identify method needs and prioritize them to continuously identify new needs (includes sample preparation)	Funds People	Methods needs survey completed (pathogens and vitamins top). General priority list established. Vitamin and mineral workgroup in progress and have some funding requests. Mycotoxin methods are well established and most labs analyze with no method needs work to be done. CTC/OTC working group is validating HPLC and LCMS method. Vitamins remain as the most needed AOAC method development. Pathogens analyses are well established AOAC methods (no need here). Will require review of the methods list together with the hazard list to reprioritize. See survey summary sent by Nancy Thiex 2019.10.28.	LMSC with ISC support

Outcome	Activity	Resources Needed	Timeline	Responsibility
			Need to identify resources to address backlog thereafter. 3-5 years to address backlog. August 2018: Sugars and fructans methods submitted for ERP at AOAC A; FDA hazard guidance published January 23, 2018 insufficient for use. Basic FDA guidance available late 2019 to Contract inspection states. Working with FFIMC (12.2) (WG: Eric, Sharon, Kristi, Josh, Jenny, Nancy) to develop annual state survey to prioritize and select hazards to advance method development. Survey sent to regulators Dec. 2020. Results presented by J. Arbaugh and E. Brady at LMSC. Results available through LMSC. Identified toxic metal, microbial pathogen, toxins, vitamins, drug (medicating and residue level) and pesticides. Next step was to identify gaps in labs and potential causes of capabilities (identify equipment needs, matrix extension work, new method validation, future training opportunities and best practice guidance). ***August 2021: Results from the State Agriculture Laboratory Capability survey were received, compiled and presented at LMSC. LMSC formed new working groups for the hazards identified and created tables with an outline of each new working group, the lead and volunteers. LMSC members/advisors were contacted asking for volunteers. This will be an ongoing process. The LMSC will be starting work on drafting a Method Needs Statement for Vitamin D. Since hazards change, LMSC plans to send an annual survey to regulators in order to capture new hazards or other analytical compounds of interest and adjustment method development as appropriate.*** **Complete**	
Combined with 12.3 (below)	~~Identify resources to perform additional (field) sample collection studies~~	~~Funds Equipment People~~	~~6 months to identify resources 1 year to develop adequate protocols 3 years to perform additional sample collection studies~~	~~1. ISC 2. LMSC~~
12.2 *** FSMA TF Item 3: priority setting and method development for contaminants/ hazards **(Combined**	Determine the contaminants, hazards, matrix and action levels to provide guidance to LMSC to inform method development. Integrate collaboratively into	Subject matter experts Funds Equipment	Alliance decided not to develop specific hazard guidance information. FDA assumed the work and published hazard guidance January 23, 2018. Next steps: complete method needs statement for LMSC. Up to 3 years for subsequent method development and validation (dependent on whether there is existing method). Bob Waltz is lead (including LMSC	FFIMC lead, EIC, ISC, IDC and LMSC

Outcome	Activity	Resources Needed	Timeline	Responsibility
with activity 9.2 in FFIMC WG)	current LMSC priorities		representation). August 2018: WG report - FDA guidance doesn't contain a hazard specific list or action levels. Levels are critical to inform method development. Basic FDA guidance available late 2019 to Contract inspection states. Group will deliberate refocusing to identify what can be done (e.g. identify hazards from those suggested that are higher risk (toxicity/likelihood/impact) for which levels were used for regulatory action in prior incidents. Once guiding principles established, WG could transition to Sub-Committee to formally interface with LMSC to guide ongoing method needs (new or improved). January 2020, Lead Eric Brady formed WG (Austin, Jenny, Josh, Kristi, Sharon, Nancy) and organized call to review 2019 (Thiex) lab survey did around all methods and states needs to align understanding. Will develop another survey of states to identify most important hazards, obtain consensus on top 10 for LSMC to develop/validate methods. Survey sent to regulators Dec. 2020. Results presented by J. Arbaugh and E. Brady at LMSC. ***August 2021: See 12.1*** **Complete**	
12.3 ** Validation of sampling methods	a) Perform field sampling method validation including sampling equipment and sample type. b) Establish sampling methods needs statement (**Complete**). Identify resources and develop adequate protocols to perform additional (field) sample collection studies.	Funds Equipment People Time	a) Activities: needs statement, RFP, contract, evaluation. Expect it will take 2 years. b) 6 months to establish sampling method needs statement. 6 months to identify resources 1 year to develop adequate protocols. 5 years to perform sampling method validation. Will flow from 1.1 **Complete June 2018:** Laboratory sampling guideline. Work group established (ISC and LMSC reps) to develop RFP. August-December 2018: RFP developed and issued. Starting with bag/probe sampling and several types of feed (particle sizes), analytes (e.g. protein, fat, fiber, Ca, P, Zn) under consideration need to include high, middle and low concentration as well as residue levels; consulted with Andy to address statistical validity. Three proposals received mid 2019 and assessed. Two proposals successful; moving forward with contract with UK; second proposal exceeds budget and may not be needed if UK study suffices. January 2021: UK Preliminary report presented. Report	ISC with LMSC support

Outcome	Activity	Resources Needed	Timeline	Responsibility
			available through ISC. ***August 2021 Update: Data analysis for publication and presentation at LMSC in progress***	
12.4 ** **Collaboration between feed programs and laboratories that perform feed sample analysis and laboratory participation in AAFCO**	Encourage participation and attendance by state labs by programs and encourage communication between labs/programs. Reach out to states to encourage laboratory participation (letter/email) in AAFCO.	Time People	November 2017: Letter from President (Ken) to state Directors/Commissioners. LMSC WG for outreach to states and federal laboratories that are not attending to work on increasing participation (especially AFRPS). August 2018: Ongoing effort by LMSC to develop initiatives to increase collaboration. **Complete**	AAFCO Board (President) LMSC EIC

Group 2: Kristen* Green, Doug Lueders, Richard* Ten Eyck, Abe Brown, Stan Cook, Kelsey* Luebbe, Dave* Edwards, Erin* Bubb

Outcome	Activity	Resources Needed	Timeline	Responsibility
Strategy: Promote and enhance membership participation (internal) **Goal 9: Enhance collaboration, communication and cooperation among regulatory agencies**				
9.1 ** Share compliance letters/enforcement actions. Coordination of enforcement action.	~~Categorize Listserv topics to Feed BIN~~ **Being done as part of Food Shield (next item)**	~~Administrative support Feed Bin~~	~~Archive Listserv is searchable. Categorization of active Listserv North Carolina also has a "mini" Listserv. It is informal, but has national data. Membership for regulators is vetted in order to control access.~~ **Made a component of item below.**	~~EIC to designate lead with FASS support - Jennifer~~
	Share compliance letters and enforcement actions (**State and Federal**)	Guidance from subject matter experts	Call January 2018: Need searchable and secure IT solution; can be done fairly easily and quickly according to Food Shield IT expert. Confidential company info release could be an issue for states. August 2018: WG, Surveyed 700 members, 44 responded (6%) regarding needs. RFP developed and sent to 4 companies. Three responded with proposals. WG turnover necessitated change in members. George Ferguson, Erin Bubb and Richard Ten Eyck reviewed the 3 proposals and made recommendation to EIC. Food Shield proposal accepted and Board approved proceeding. Search features are being adjusted. Expect to be functional within 6 months. August 2019 demo stage. January 2020: Communication challenges finalizing. Expect to be complete	EIC to designate lead with FASS support

Outcome	Activity	Resources Needed	Timeline	Responsibility
			and functional soon. ***August 2021 Update needed from WG***	
	~~Share Division of Animal Feed letters~~ **Being done as part of Food Shield (item above)**		**Made a component of item above.**	~~EIC to designate lead and coordinate with FDA as necessary; FASS to support~~
	Enforcement Issues Committee can pick up topics – coordinate and enhance committee action		No action due to lack of members willing to lead. 2020: New leadership seeking additional members and developing ideas/suggestions for coordinated enforcement activities ***August 2021 Update: Considering developing criteria for identifying, coordinating and documenting coordinated events***	EIC to designate lead with FASS support – Members
	Consider development of core report (similar to that of FDA (Pet Net, Animal Net) (frequency to be determined)	Listserv EIC IDC Any committee	January 2020: Other compliance reporting (see 9.1) and Pet Net/Livestock Net is available. Low value developing core report. Activity discontinued.	EIC to designate lead with FASS support
9.2 *** FSMA TF part of Item 3: Enforcement strategy for contaminants/ hazards **(Combined with activity 12.2 in FFIMC WG)**	~~Determine the contaminants, hazards, matrix, action levels and enforcement strategy to provide guidance to LMSC to inform method development and priority setting.~~		~~Alliance decided not to develop specific hazard guidance information. FDA has assumed the activity; work product published January 23, 2018.~~	~~FFIMC lead, EIC, ISC, IDC and LMSC~~
9.3 ** **Enhanced use of Feed BIN**	Identify activities to enhance use	Financial support	**Complete January 2017** (activities detailed in Feed BIN)	CIOC
9.4 ** **Coordinate with NASDA to develop a framework for state feed programs to deliver FSMA implementation**	Provide data and information for NASDA grant application (AAFCO is sub-contractor) and subject matter experts to support framework development.	AAFCO subject matter experts	Grant application successful and SME identified. Framework developed and finalized late 2018. Will be tracked via grant reporting obligations. **Complete 2018**	NASDA-AAFCO-FDA FSMA Steering Committee (AAFCO reps: Linda, Ali, Bob W., Richard)
9.5 *** **FSMA TF Item 1: Align Model Bill with needed authorities to Implement FSMA**	Make recommendations to align the Model Bill with needed authorities to implement FSMA		**Complete January 2017**	MBRC
9.6 *** **FSMA TF Item 2: Transition AAFCO GMPs to FSMA GMPs and**	a. Develop a plan for states that have adopted AAFCO's model GMPs to		**Complete August 2016**	a. FFIMC with MBRC and PFC b. FFIMC with

Outcome	Activity	Resources Needed	Timeline	Responsibility
convert AAFCO Model Feed Safety Program Plan to AFRPS	transition to FSMA GMPs. b. Remove Model Feed Safety Plan from OP (archive for historical reference) and use AFRPS instead			OP section editor and Feed Safety Coordinator
9.7 *** FSMA TF Item 6: Develop communication plan for AAFCO specific FSMA implementation activities ***(See 10.1)***	a. Develop an AAFCO Communication Plan to better inform b. Develop a model communication plan for states to use for outreach to regulated parties		Framework developed (activities detailed in Feed BIN). 2017 initiated biannual newsletter. Draft plan developed February 2017 included both generic and ongoing activities. August 2018: Revising to make generic. Ongoing activities will be part of CIOC regular work. Expect to finalize for Board/member approval January 2019. January 2020: Given state of FSMA implementation, a comm plan is considered too late. FSMA specific activity discontinued. Instead, a generic comm plan will be developed as part of 10.1 (9.7 integrated within).	CIOC

Group 3: Dan Danielson, Ali Kashani, and Tim Weigner

Outcome	Activity	Resources Needed	Timeline	Responsibility
Strategy: Promote and enhance membership participation (internal) **Goal 8: Develop and provide professional development and technical training opportunities in support of feed program**				
8.1 ** **AFRPS – draft curriculum for examples. Available training needs to meet standards**	Extract all resource (training) needed to meet Standard 2 Crosswalk to IFPTI; AITS/BITS; ORAU; CVM, FEMA Identify gaps and approach land grant universities	Subject matter experts. Potential travel for non-Co-Ag contract states	Work group formed. Covers 8.1 and 8.2. Document finalized. Need mechanism to keep updated, likely via George's group. Developed training calendar in FeedBIN and been adding to calendar. Point of contact and ongoing addition - Jeff; also seeking industry input so their training can be input. WG disbanded. **Complete Spring 2018 See 8.2**	ETC together with ISC
8.2 ** **Directory/ listing of trainings available**	Once training needs and model training plan are done (above), catalogue courses and categorize as basic and advanced	FASS support	Work group formed. Covers 8.1 and 8.2. Catalogued and categorized (per vote 8.1 above). Basic/Advanced terminology means different things for AAFCO (BITS/AITS), IFPTI and potentially individual states. Decided that categorization would also contain disclaimer allowing state discretion in courses they require for their inspectors. **Complete Spring 2018: See 8.1** In FeedBIN. WG disbanded.	ETC

Outcome	Activity	Resources Needed	Timeline	Responsibility
			August 2018: Not on Strategic Plan, but identified via ETC. Investigating software program that could track training of AAFCO members (Learning Management System). Considered 5 firms, including Knowledge Vault who declined. Selected 2 (Litmos and DigitalChalk (also used by NGFA)) for full demonstration. Both met all needs. DigitalChalk favoured and most price effective: $8.4K for 500 active users. Recommendation/motion approved: move forward to Board to proceed with RFP (especially the 2 firms) to acquire a system.	
8.3 ** **Model training framework**	Develop model document for joint inspection (OJT – on the job training) for feed. ~~Develop model training plan.~~ Not "developing model training plan" per follow-up conversation with Tim W., Dan D. and Ali K.	Subject matter experts. Potential travel for non-Co-Ag contract states	Work group formed. Drafted (3 part: policy overview, training plan (modified yearly for employee) and forms). ISC supplied material to ETC who drafted document. (Jim True interface as he is on both committees). August 2018: Comments back from ISC and incorporated, no additional comments - presented final model training manual to committee; audited against animal feed standards (2 and some of 3, as well as sampling and work planning). Recommend use and revisions thereafter. Document has been shared with the Committee throughout the process. Committee approved August 2018 and Board/members accepted January 2019. **Complete.**	ETC (George F. lead) and ISC
8.4 *** FSMA TF Item 4: Develop training material not covered through Alliance work product	Verify if training material for feed ingredient manufacturing from the (FSPCA) Alliance meets the needs of inspectors and revise as needed and include in directory of training material	Subject matter experts. Potential travel for non-Co-Ag contract states	Evaluated the GMP inspection of feed manufacturers against feed ingredient manufacturers and feel the general manufacturing inspection training is adequate for both. 2018: Eric worked with Jenny FDA to review AITS. Some material was trialed at AITS, June 2019 and AITS was standardized. January 2021:Training reviewed with AAFCO curriculum. AITS common elements align with FDA inspection approach. **Complete.**	FFIMC & ISC supported by ETC
8.5 *** FSMA TF Item 5: Review and revise the Feed Inspector's Manual to support FSMA	Review and revise the Feed Inspector's Manual to make sure it supports FSMA	Subject matter experts. Potential travel for non-	August 2019 Update: Comprehensive review by FDA and WG with FASS formatting. Approved by ISC. **Complete.**	ISC supported by LMSC and ETC

Outcome	Activity	Resources Needed	Timeline	Responsibility
implementation	implementation	Co-Ag contract states. FASS support for publication, including printing/ FeedBIN costs.		

**** Top 3 outcomes identified at May 2nd, 2016 planning session**
***** FSMA TF outcomes integrated into 2017-2020 Strategic Plan**

Additional 2 Priority Goals
January 19, 2019 Participants: Bob Geiger, Kristen Green, Susan Hays, Amanda Anderson, Richard Ten Eyck, Erin Bubb, Hollis Glenn, Miriam Johnson, Dave Phillips, Kent Kitade, Stan Cook, George Ferguson, Austin Therrell, Ken Bowers, Ali Kashani, Katie Simpson, Kristie McCallum (attendees contributed to both goals)

Outcome	Activity	Resources Needed	Timeline	Responsibility
Strategy: Promote and enhance membership participation (internal) **Goal 7: Identify opportunities to increase member agency participation - January 2021 *Workplan and working groups drafted to address all of Goal 7***				
7.1 Conduct survey of membership needs supplemented with direct communication	Develop survey to identify who (member and person) is not participating and why. Individuals to conduct direct communication are identified based on relationship. Develop talking points to support conversations (standard language, script, news/updates, specific asks (e.g. committee members), identify state specific needs). Group results by similar circumstances. Identify needs. Target inactive AFRPS states (talking points - how AAFCO supports AFRPS, offer CEU, offer AFRPS session at meetings). Develop recruiting strategies (What we can do for then and them for us), action plan and implement.	$$ for CEU courses, time at meetings	Active member list supplied by FASS for working group review. Survey developed and approved by Board to send out in February 2021. Compile and review results in March. ***UPDATE: Engagement survey results are in, evaluated & plan being developed.***	Board CIOC ED CEU specific committee ETC
7.2 Mentoring	Hold new member session during meeting Follow up to encourage engagement. Regionally, active states contact inactive states with news, updates and invites. Targeted scholarships. Hold meetings in states/regions with decreased participation.		Develop list of target states and person responsible. Develop list of mentors to match with mentees. Develop talking points, scholarship program and mentoring engagement plan. New member session formalized 2019-20, pairing new attendees with ambassadors.	CIOC Board

Outcome	Activity	Resources Needed	Timeline	Responsibility
	Support mentorship/mentor (e.g. sub-committee) to host training/workshops		2021: WG postponed AAFCO 101 and mentoring due to virtual meetings. ***UPDATE: AAFCO 101 slide set now a video; AAFCO 101 & Ambassador program gearing up for January 2022 meeting. The original thoughts centered on in person meetings; COVID stalled plans.***	
7.3 Provide events at Mid Year and Annual to inspire all member agencies to attend and participate	Events established based on membership survey and ongoing intelligence gathering. Events should consider needs of both large and small agencies (determine what these are). Design events that lead to innovation and nontraditional solutions. Increase opportunities for ideas to be heard and let them know ideas are welcome. Develop standardized documented procedure. Schedule events in the middle of the meeting versus front/back of regular meeting. Increase professionalism of meetings (Committees are prepared and actively conduct work at meetings). Offer more education/training at meeting (identify needs, consider AFRPS/new outside groups (USDA))	Speaker funding	Ongoing intelligence gathering established (e.g. post meeting evaluation, outreach to states). Needs list developed, actioned and tracked. Surveys (CIOC Engagement Survey and Midyear Exit Survey) will allow for a clearer plan to be developed. ***UPDATE: AAFCO 101 slide set now a video; AAFCO 101 & Ambassador program gearing up for January 2022 meeting. The original thoughts centered on in person meetings; COVID stalled plans.***	ETC with technical support from relevant committees
7.4 Formulate and communicate positions on emerging issues (e.g., hemp, ICG) **(Transferred to 10.1)**				

Outcome	Activity	Resources Needed	Timeline	Responsibility
Strategy: Promote and enhance membership participation (internal) **Goal 10: Communicate and document AAFCO benefits and accomplishments**				
10.1 Enhance Communication tools. **Integrated 10.2, 10.3, 10.4 and 10.5 Integrated 9.7**	Strengthen Current Issues and Outreach Committee Develop an AAFCO Communication Plan to better inform (from 9.7). Develop relevant talking		Summer 2020 RFP issued to engage communications firm to address communications needs and comm	CIOC New Technology Committee? Issue specific Committee

Outcome	Activity	Resources Needed	Timeline	Responsibility
	points with cohesive message, not just listing top benefits of committees (ask at seminar, ask members what they think the bullet point messages should be. Formulate and communicate positions on emerging issues (e.g., hemp, ICG). Communicate benefits of AAFCO for Lab group (e.g. AAFCO support for ISO), success and relevance of proficiency testing program. Develop and publicize resolutions to support the AAFCO feed/food safety vision and goals. Collect case studies of AAFCO's successes and how they increased feed safety (e.g. BSE regs, botanicals, proficiency testing protocol ISO certification, ingredient definitions, early development of model regulations, good samples). Identify target audience, as message will vary. Identify delivery format (handout/pamphlet, newsletters, website, FeedBIN, social media) Develop schedule to keep Website content updated. Issue shorter newsletters more frequently (monthly). Maintain electronic list of upcoming meetings. Identify communication tools to utilize (dashboard, surveys). Facebook page: start with monthly newsletter, AAFCO press releases (increased frequency), communicates big items (consider activist comments). Consider having FASS post, someone else puts together content/format and review comments (ask COSDA for help). Consider contracting social media management firm.		plan. Proposals evaluated, firm selected and 2021 contract initiated. WG established to onboard Philosophy and support contract work. January 2021: Firm supporting development of Comm Plan. ***August 2021 Update: Long-term Philosophy workgroup created that will be responsible for reviewing proposed content. Building a member toolkit to strategically plan how each event, publication, announcement etc. is handled & subsequently rolled out. Communication plan is in progress with WG identifying key elements and tactics to fulfill charge. Hoping to chart activities.***	(technical input)
~~10.2 Newsletters 10.3 Website kept updated 10.4 FeedBIN~~	~~Shorter more frequent issuance (monthly), (?)~~			~~CIOC Board New Tech Committee?~~

Outcome	Activity	Resources Needed	Timeline	Responsibility
10.2 Communicate individuals accomplishments (awards, recognition) directly to their supervisors/commissioners via recognition letter	Each individual supplies names and contact information for supervisor, commissioner and other important senior managers to copy. Create a capture form that aligns with recognition/award. Capture contact information from all program employees (title, role, etc.), way for person to update and verify as well as sign up for AAFCO notices by preference. Automate process to generate thank you letter to identified key member directors/commissioners after each meeting (Annual/Midyear) that promotes key successes at meeting and thanking them for supporting program employee attendance and participation.		George Ferguson offered to provide support Consider automating letter to senior management relative to members receiving awards. Work with FASS to capture data in Member profiles to automate process. ***UPDATE: Data collection designed, proposed and MocaWorks quote approved by Board to begin work.***	CIOC
10.3 Promote ODI to feed label reviewers/generators	Encourage states to use to help industry buy in (e.g. require ODI report with label; promote industry use to generate labels pre-market (benefit is increased OP sales and revenue to improve AAFCO)		January 2021: Work with Philosophy on best way to distribute ***UPDATE: Activities to be tackled by the Long-Term Philosophy workgroup. Key current topics took priority in the last 2 months postponing action on this particular item.***	CIOC Feed Labeling Committee New Technology Committee ongoing support
10.4 How to distribute Spotlight On (**Internal**)	Utilize press releases/surveys Draft language for mini ListServ (Board/Kristen start) and see if picked up; if not outreach is next step).		***August 2021: Activities to be tackled by the Long-Term Philosophy workgroup.***	CIOC Pet Food Committee New Technology Committee

Participants:

Name	Priority voting pre-meeting	Attended May 2, 2016	AAFCO role
Mark LeBlanc	X	X	Board
Ken Bowers	X	X	Board/Chair Subc.
Richard Ten Eyck		X	Board/Chair
Ali Kashani	X	X	Board/Chair
Dan Danielson	X	X	Board/Co-Chair
Stan Cook	X	X	Board/Chair
Erin Bubb	X	X	Board
Robert Geiger			Board

Name	Priority voting pre-meeting	Attended May 2, 2016	AAFCO role
Kristen Green	X	X	Board
Eric Nelson			FDA advisor
Dave Edwards		X	FDA advisor
Abe Brown		X	FDA advisor
Tim Weigner		X	FDA advisor
Tim Lyons			Chair
Meagan Davis	X	X	Chair
Dave Dressler		X	Co-Chair
Chad Linton			Co-Chair
Nancy Thiex	X	X	Co-Chair
Aaron Price	X		Co-Chair
Doug Lueders	X	X	Chair
Linda Morrison	X	X	Chair
Bob Waltz	X		Feed Safety Coord
Kelsey Luebbe		X	Co-Chair

Appendix 4: Updating the AAFCO Procedures Manual Form

Instructions
Complete this form to propose and facilitate the process of updating any component of the AAFCO Procedures Manual. Examples and descriptions are provided to assist with the accurate completion of this form. Where applicable, replace the examples with requested content. Add as many duplicate tables in the Updates section as needed. Refer to the Legend for guidance.
Legend

<Date> version of the AAFCO Procedures Manual	**Keep/Revise/Remove**
Current language ● Notes [Example: Kent or Linda: Insert good past example]	Above option (Name(s) of proposer(s)) [Example: Revise (Kent)]
Proposed Revision [Example: Kent or Linda: Insert good past example]	(Name of author(s)) [Example: (Kent)]
MM/DD/YYYY Proposed Revision [Create this row in the Updates table(s) if subsequent revisions are made as a result of Committee/Workgroup review, etc.]	(Name of author(s))

Purpose
[Example purpose] Update the description of <insert description> described in the AAFCO Procedures Manual
Reason
[Example reason] Updating the description of <insert description> will remedy <insert specifics>.
Updates

<Location in Manual>	**Keep/Revise/Remove**
Current language ● Notes	Above option (Name(s) of proposer)
Proposed Revision	(Name of author)

Name of Form Submitter and Reviewers: <Names>
Progress Tracking

Date of Form Submission:	**<Month DD, YYYY>**
Date of Committee Review:	<Month DD, YYYY>
Decision of Workgroup/Committee Review:	<Insert description of discussion and final decision>
Date Sent to Board of Directors:	<Month DD, YYYY>
Date of Board of Directors Review:	<Month DD, YYYY>
Decision of Board of Directors Review:	<Insert description of discussion and final decision>
Inputted into Procedures Manual:	☐ Yes ☐ No
Which version:	<Month DD, YYYY>

Appendix 5: AAFCO Finance Committee Description

(approved by Finance Committee February, 16, 2021)
Procedures Manual review and update:
Substitute the following language in the Procedures Manual, page 33 (August 7, 2020 version):
Purpose
Oversees financial planning to provide strategic advice, financial stability and support to the BOD. The committee maintains familiarity with the revenue, expense, and investments elements of AAFCO to assist the **Secretary**-Treasurer in managing and meeting strategic objectives and to assure management strategies that support AAFCO's long-term financial sustainability.
Membership
~~The committee should consist of no less than five members including the two ex officio members and no more than seven members.~~ Members should be those who have served in executive level AAFCO positions or persons who by right of employment in their professions have relevant finance and money management experience and are familiar with the fiscal policy and philosophy of the organization. ~~The President-Elect and Secretary-Treasurer should generally serve as ex officio members. Also, the Chair of the Strategic Affairs Committee (SAC), or, if not the Chair, at least one representative from the SAC should be represented in the membership of the committee.~~ **The Secretary-Treasurer will serve as the Chairperson. The committee should consist of no less than five members, including the Board members. Committee members should include:**

- **The current President**
- **The President-Elect and at least one other Board member**
- **At least 2 Past Presidents**
- **Leadership representing the major revenue generating AAFCO programs; (e.g. Proficiency Testing Program, Official Publication management, meetings and trainings); and,**
- **Leadership from the Strategic Affairs Committee (SAC)**

General Operating Procedures
The Finance Committee:

- ~~The Secretary-Treasurer serves as the Committee Chair.~~
- ~~The committee should not participate in audits of AAFCO finances other than to respond to questions posed by auditors.~~
- ~~The committee~~ **Shall** provide support to the **Secretary**-Treasurer and to the BOD in developing fiscal scenarios to attain strategic goals, and provide management options for the BOD.
- **Works** with other committees or persons to gather data for fiscal analyses related to strategic goals under consideration.
- **Reviews and recommends** adoption of strategies related to AAFCO finances to the BOD by the **Secretary**-Treasurer.
- **Reviews investment policy strategies periodically and makes recommendations to the BOD for updates.**
- **Prepares the annual budget, with support from the Executive Director, for review and approval by the BOD.**
- **Gathers and supplies year-end reporting for the BOD.**
- **Makes arrangements for audits of AAFCO finances and responds to questions but should not participate as auditors.**

Existing Procedures Manual language for reference:
Purpose
Oversees financial planning to provide strategic advice, financial stability and support to the BOD. The committee maintains familiarity with the revenue, expense, and investments elements of AAFCO to assist the Treasurer in managing and meeting strategic objectives and to assure management strategies that support AAFCO's long term financial sustainability.
Membership
The committee should consist of no less than five members including the two ex officio members and no more than seven members. Members should be those who have served in executive level AAFCO positions or persons who by right of employment in their professions have relevant finance and money

management experience and are familiar with the fiscal policy and philosophy of the organization. The President-Elect and Secretary-Treasurer should generally serve as ex officio members. Also, the Chair of the Strategic Affairs Committee (SAC), or, if not the Chair, at least one representative from the SAC should be represented in the membership of the committee.

General Operating Procedures

- The Secretary-Treasurer serves as the Committee Chair.
- Reviews and recommend adoption of strategies related to AAFCO finances to the BOD by the Treasurer.
- The committee should not participate in audits of AAFCO finances other than to respond to questions posed by auditors.
- The committee shall provide support to the Treasurer and to the BOD in developing fiscal scenarios to attain strategic goals, and provide management options for the BOD.
- Work with other committees or persons to gather data for fiscal analyses related to strategic goals under consideration.

Working Group Comments:

- Reject maximum; Chair to manage as with other Committees;
- Need some Past Presidents for historical context regarding finances
- Chair will review current Committee membership annually and remove past Presidents >2 as appropriate
- Review Committee to ensure members are active to meet quorum and representation for Committee functioning; as such, the Committee does not need to be disbanded and reformed

Existing Committee Members for reference:

Ashlee-Rose, Ali, Erin, George, Kristen, Kent, Linda, Ken, Stan, Mark L., Doug L., Hollis, Brenda S., Richard TE

Appendix 6

Objective:
Identify and document the parameters whereby an Applicant receives a complimentary OP/BIN subscription
Procedure:
Requests for comp OP/BIN or comp BIN subscriptions must be submitted via an application to the AAFCO President and Executive Director with confirmation from the Committee Chair.
Most people will be encouraged to purchase BIN or OP access as part of their work with AAFCO. Exceptionally, participants may need to request complimentary BIN or OP access.
Eligible to receive complimentary OP/BIN access on request:

Committee Chairs
Active Committee Members and Investigators
Paid Voting Members*
Members (Regulators)
Life Members
FDA staff working on ingredients – Annual List to come from the Director, Division of Animal Feeds
Contractors to AAFCO – Executive

Director, FASS personnel, PTP Manager, etc.
*Paid voting members receive one online OP/BIN subscription automatically. Requests for additional complimentary online OP/BIN subscriptions by a member should follow the application process.
Complimentary 2-week OP/BIN Retail access:

Workshop or training attendees
Annual or Midyear Registrants (Member and Non-Member)

Eligible to receive complimentary BIN access:

Active Committee Advisors
Participants on Projects or Work Groups
Other interested parties

The starting point for our process to request a complimentary OP/BIN subscription is an application. This application will be housed on the FASS database system, similar to an AAFCO member meeting registration.

4. The application is requested from the Executive Assistant at aafco@aafco.org.
5. The Executive Assistant will provide the completed application to the Committee Chair and request the Committee Chair's confirmation that the Committee Chair agrees with providing a complimentary OP/BIN subscription to the Applicant.
6. The Executive Assistant shares the application with the President and Executive Director. After their separate reviews of the application, the President and Executive Director will communicate their recommendation on the status of the application to the Executive Assistant. The options for the recommendation are:
    a. Approved – Comp OP/BIN subscription begins as soon as possible and ends on day 365.
    b. Declined – without cause.

Complimentary OP/BIN subscribers have the same benefits as paid subscribers.
Annual renewal of the Comp OP/BIN subscription is allowed. Renewal requests follow the same process as the initial request. Renewal requests may begin 45 days ahead of the subscription expiration date.
A complimentary OP/BIN subscription may not be assigned to another individual. Should the Applicant leave the sponsoring organization, the sponsoring organization may initiate the Comp OP/BIN subscription procedure by submitting a new application for the successor.

Appendix 7: Association of American Feed Control Officials (AAFCO) Privacy Policy (Draft)

Charge to SAC:
Develop a privacy policy for AAFCO that informs people on the information that AAFCO collects and how that information might be used.
Begin draft text submitted to the Board for review and referral to SAC on May 20, 2021:
This privacy policy will explain how AAFCO uses the personal data we collect from you when you use our website.
Topics:

- What data do we collect?
- How do we collect your data?
- How will we use your data?
- How do we store your data?
- Marketing
- What are your data protection rights?
- What are cookies?
- How do we use cookies?
- What types of cookies do we use?
- How to manage your cookies?
- Privacy policies of other websites
- Changes to our privacy policy
- How to contact us

What data do we collect?
AAFCO collects the following data:

- Personal identification information (Name, email address, phone number, etc.)
- **[Add any other data AAFCO collects – credit card info for online sales, address, etc.]**
    - The addresses, shipping information, and credit card is used for processing of registrations, orders, and subscriptions. Only the last 4 digits of the credit cards is retained for reference.
    - User submitted data for participation in AAFCO programs.
    - User submitted profile pictures.
    - User submitted documents.
    - Information about visits to the web sites are logged. This can include the IP address of the visitor, pages visited, and dates/times.

How do we collect your data?
You directly provide AAFCO with most of the data we collect. We collect data and process data when you:

- Register online or place an order/subscription for any of our products or services.
- Voluntarily complete a customer survey or provide feedback on any of our message boards or via email.
- Use or view our website.
- **[Add any other ways AAFCO collects data]**
    - User submitted data for participation in AAFCO programs.

AAFCO may also receive your data indirectly from the following sources:

- **[Add any indirect source of data AAFCO has]**
    - User generated data sourced from the Feed BIN
    - Contact information submitted by Agencies about their employees

How will we use your data?
AAFCO collects your data so that we can:

- Process your order and manage your account.
- Email you regarding upcoming events and available opportunities we think you might like.
- **[Add how else AAFCO uses data]**
    - **Enable your participation in AAFCO programs.**

If you agree, AAFCO will share your data with other organizations so that they may offer you their products and services. (John Dillard asked if this applies, Sue Hays said “No, we don’t share this data”

- [List organizations that will receive data]
- AAFCO provides information to the Feed BIN to enable subscription to the AAFCO online OP.

When AAFCO processes your order, it may send your data to, and also use the resulting information from, credit reference agencies to prevent fraudulent purchases.

How do we store your data?

(Kevin Wolter added “Specific details of security information is not recommended.”

AAFCO will keep your **[enter type of data]** for **[enter time period]**. Once this time period has expired, we will delete your data by **[enter how you delete users' data]**. (Kevin Wolter added: “AAFCO has provided no instructions to FASS with regard to retention of customer information.”)

Marketing

AAFCO would like to send you information about products and services of ours that we think you might like, as well as those of partner organizations. (John Dillard asked if this applies. Sue Hays replied “It might. Sometimes, we share information on trainings from AFDO or FDA.”

- [List partner companies here]

If you have agreed to receive marketing, you may always opt out at a later date.

You have the right at any time to stop AAFCO from contacting you for marketing purposes or giving your data to other organizations.

If you no longer wish to be contacted for marketing purposes, please click here.

https://www.aafco.org/cvweb/cgi-bin/memberdll.dll/info?wrp=GDPRComp.htm

What are your data protection rights?

AAFCO would like to make sure you are fully aware of all of your data protection rights. Every user is entitled to the following:

The right to access - You have the right to request AAFCO for copies of your personal data. We may charge you a small fee for this service.

The right to rectification - You have the right to request that AAFCO correct any information you believe is inaccurate. You also have the right to request AAFCO to complete information you believe is incomplete.

The right to erasure - You have the right to request that AAFCO erase your personal data, under certain conditions.

The right to restrict processing - You have the right to request that AAFCO restrict the processing of your personal data, under certain conditions.

The right to object to processing - You have the right to object to AAFCO’s processing of your personal data, under certain conditions.

The right to data portability - You have the right to request that AAFCO transfer the data that we have collected to another organization, or directly to you, under certain conditions.

If you make a request, we have one month to respond to you. If you would like to exercise any **of these rights, please contact us at our email:**

Call us at: 217-356-4221

Or write to us:

AAFCO

Attn: Data Protection Request

1800 S Oak St

Champaign, IL 61820

What are cookies?

Cookies are text files placed on your computer to collect standard Internet log information and visitor behavior information. When you visit our websites, we may collect information from you automatically through cookies or similar technology.

For further information, visit allaboutcookies.org.

How do we use cookies?

AAFCO uses cookies in a range of ways to improve your experience on our website, including:

- Keeping you signed in and provide a personalized experience.
- Understanding how you use our website
- **[Add any uses AAFCO has for cookies]**

What types of cookies do we use?

There are a number of different types of cookies, however, our website uses:

- Functionality – AAFCO uses these cookies so that we recognize you on our website and remember your previously selected preferences. These could include what language you prefer and location you are in. A mix of first-party and third-party cookies are used.
- Advertising - AAFCO uses these cookies to collect information about your visit to our website, the content you viewed, the links you followed and information about your browser, device, and your IP address. AAFCO sometimes shares some limited aspects of this data with third parties for advertising purposes. We may also share online data collected through cookies with our advertising partners. This means that when you visit another website, you may be shown advertising based on your browsing patterns on our website. (John Dillard asked if this applies, Sue Hays said "No.")
- **[Add any other types of cookies your company uses]**

How to manage cookies

You can set your browser not to accept cookies, and the above website tells you how to remove cookies from your browser. However, in a few cases, some of our website features may not function as a result.

Privacy policies of other websites

The AAFCO website contains links to other websites. Our privacy policy applies only to our website, so if you click on a link to another website, you should read their privacy policy.

Changes to our privacy policy

AAFCO keeps its privacy policy under regular review and places any updates on this web page. This privacy policy was last updated on January 19, 2021.

How to contact us

If you have any questions about AAFCO's privacy policy, the data we hold on you, or you would like to exercise one of your data protection rights, please do not hesitate to contact us.

Email us at: aafco@aafco.org
Call us: 217-356-4221
Or write to us at:
AAFCO
Attn: Privacy Policy Request
1800 S Oak St
Champaign, IL 61820

Appendix 8

Excerpt from: https://www.afdo.org/resolutions/

AFDO resolutions

Each year prior to the AFDO Annual Educational Conference, resolutions are submitted to the AFDO Board of Directors for consideration.

It is through this process that members, committees and regional affiliate associations surface concerns, and suggested action, relating to legislative, regulatory and technical issues as they apply to foods, drugs, cosmetics, medical devices and consumer product safety issues.

All resolutions reviewed and approved by the Board of Directors are presented to the membership during the Annual Business meeting on Wednesday for consideration and vote for adoption.

After the annual conference actions are taken to carry out those resolutions adopted by the membership. These actions may include referral to one of the federal agencies for consideration, letters to Congress or to other organizations, or referral to the appropriate AFDO committee (i.e., development of an AFDO position paper, model code or other action).

AFDO Policy No.: 23 Resolutions

I. POLICY

To establish protocols for the receipt and consideration of Resolutions submitted through the AFDO Executive Director that involves time frames, format, and detailed procedures.

II. PROCEDURES:

1. In January of each year, the Executive Director shall call for resolutions by contacting the Regional Affiliate Presidents, Regional Affiliate AFDO Board Members, and AFDO Committee Chairs.
2. Proposed resolutions will be accepted only if they come from an AFDO member or affiliate association. If needed for explanatory purposes, a resolution should be accompanied by a statement (not to exceed one page) summarizing the purpose of and the justification for the proposed resolution.
3. The Executive Director shall review all proposed resolutions as to clarity and form and may modify language if deemed advisable, as long as the intent is not changed and is in consultant with the sponsor. The Executive Director may consolidate resolutions that are similar in content and intent and so indicate when presenting the revised resolution to the Board.
4. The Executive Director shall also prepare and present those additional resolutions which by tradition are of a memorial or recognition nature or in good etiquette and are appropriate for the Association at the time and place of its annual meeting.
5. All proposed resolutions reviewed and approved by the Executive Director shall be submitted to the Board of Directors no later than 10 days prior to their meeting just prior to the annual meeting for review and recommendations. Board members are expected to have reviewed each proposed resolution prior to the meeting to expedite the review process by the Board.
6. The Executive Director shall be responsible for the posting of the proposed resolutions which are to be presented for membership approval. A copy of each shall be made available for review by the membership at least one day prior to the annual business meeting.
7. All resolutions reviewed and approved by the Board of Directors shall be presented to the membership during the annual business meeting by the Executive Director, with the Board of Director's recommendations of approval or disapproval.
8. Resolutions may be offered for voting individually or in a group of resolutions identified as a "consent calendar". Consent calendar resolutions are those assembled as a single voting item by the Board of Directors prior to the voting session on the assumption that they are non-controversial. All proposed resolutions must be publicized and posted in a designated area, clearly identified as individual or consent calendar items, at least one day prior to the annual business meeting. Prior to the vote, upon a member request or otherwise, the presiding chair may move any individual resolution from the consent calendar to be voted upon individually. Any resolution publicized as outlined in this procedure prior to the meeting may be voted upon "as published" versus reading the resolution.
9. Floor action on resolutions shall be by majority vote of the members present and constituting a quorum.

10. If the provisions of paragraphs 1-6 cannot be met, resolutions may be presented from the floor during the annual business meeting provided:
    A. The purpose/intent as to form and clarity has been approved in advance by the AFDO Board of Directors,
    B. Such resolutions shall be considered after all other resolutions have been acted upon.
11. Following the annual business meeting, a copy of all resolutions approved by the members shall be supplied to all regional associations.
12. The AFDO Board of Directors shall initiate all action required by the approved resolutions and will attempt to achieve the resolutions intent during the ensuing year.