



**AAFCO**  
Association of American Feed Control Officials

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**Ingredient Definition Committee Minutes of 1/18/11 meeting  
Final 2/3/11**

DATE: January 18, 2011

TO: AAFCO Ingredient Definition Committee: members, advisors and investigators and all other interested parties.

RE: 2011 Mid Year Meeting IDC Minutes

The Ingredient Definitions Committee (IDC) met Tuesday January 18, 2011 3:40 – 5:45 PM, Tradewinds Hotel, St Pete Beach, Florida.

A conference call line was available during the meeting and was used by 4 participants. Role sheets were circulated with 171 participants including committee members and advisors. Aaron Elam (vice chair) by phone, Ann Brueck (by phone), Brett Groves, Steve Gramlich (new member), Ricky Schroeder, Shannon Jordre, Kent Kitade (present not-voting), Ali Kashani, Linda Morrison (for Paul Loeven), Sharon Benz (for John Machado), Roger Hoestenbach (New Member), Becky Muir (FDA, New Member) and Richard Ten Eyck (chair). Committee advisors present were: David Dzanis, ACVN; Richard Sellers, AFIA; Jan Campbell, NGFA; Dave Ailor NOPA; David Meeker, NRA; Jill Franks, PFI; Nancy Cook, PFI; Jon Nelson AFIA; Dave Fairfield, NGFA; and new advisor Vincent Sewalt, ETA.

An informal open session focused on Investigator training was held during the first portion of the meeting. Richard Ten Eyck and Sharon Benz presented information on how to submit a petition to AAFCO for a new ingredient definition (or modification) and what the investigator should look for and how to proceed. The power points from the session will be posted on the AAFCO/IDC website.

The chair asked for volunteers to join a work group to help fill the expected gaps in the Investigator list including potential category consolidation of Ingredient groups. The work group will consist of Kevin Armbrust, Richard Ten Eyck, Aaron Elam, Roger Hoestenbach, and Brett Groves. Work group to report back to IDC at the annual meeting.

A motion was made by Brett Groves and seconded by Ricky Schroeder to change the committee purpose statement to:

**Purpose Statement:** Serve as a clearinghouse for the development of feed ingredient definitions and provide and maintain a mechanism for the organization and distribution of information regarding ingredients and their use.

Motion passed.

A motion was made by Brett Groves and seconded by Ali Kashani to move the following 5 tentative definitions to Official status in the OP. There were no comments or discussion. Motion passed

**T6.1 DL-Methionine Hydroxy Analogue Calcium** is a product that contains a minimum of 97% racemic 2-hydroxy-4-(methylthio)butanoic acid calcium salt. The percentage of DL-Methionine Hydroxy Analogue Calcium must be guaranteed. (Adopted 1959, Amended 1974, 1978, 1989, 2005, 2009). 21 CFR 582.5477  
IFN 5-03-087 DL-Methionine Hydroxy Analogue Calcium

**T6.2 DL-Methionine** is a product containing a minimum of 99% racemic 2-amino-4-(methylthio)butanoic acid. The percentage of DL-Methionine must be guaranteed. (Adopted 1957, Amended 1975, 1978, 1989, 2005, 2009). 21 CFR 582.5475  
IFN 5-03-086 DL-Methionine

**T6.7 DL-Methionine hydroxyl analogue isopropyl ester** is a product containing a minimum of 90% racemic 2-hydroxy-4(methylthio)butanoic acid isopropyl ester monomer for use as a source of methionine activity in cattle diets. The percentage of DL-methionine hydroxyl analogue isopropyl ester monomer must be guaranteed. (Adopted 2008, Amended 2009)

**T6.8 DL-Methionine Hydroxy Analogue** is a product containing a minimum of 88% racemic 2-hydroxy-4-(methylthio)butanoic acid. The percentage of DL-Methionine Hydroxy Analogue must be guaranteed. (Proposed 1980, Adopted 1985, Amended 1989, 2005, 2009). 21 CFR 582.5477  
IFN 5-30-281 DL-Methionine Hydroxy Analogue

**T6.9 DL-Methionine Sodium** is a product containing a minimum of 45.9% racemic 2-amino-(methylthio)butanoic acid sodium salt. The percentage of DL-methionine must be guaranteed. (Proposed 1983, Amended 1989, Adopted 1990, Amended 2005, Amended 2009)  
IFN 5-16-730 DL-Methionine Sodium

**New Definitions:** The appropriate section investigator recommended the following new definitions be added into the OP in tentative status after approval of the Committee, Board and Membership:

T 87.26 Castor oil is a triglyceride obtained by the extraction of oil from seeds of the castor bean plant, *Ricinus communis*. It consists predominately of triglyceride ester of fatty acids. It must meet the specifications in the Food Chemical Codex, 5<sup>th</sup> Edition, 2004, and be guaranteed for not less than 87% ricinoleic acid. Castor oil may be safely

used as an anticaking agent, a releasing agent, and as diluent in animal feeds at levels not to exceed 250 ppm in complete feed.

Remarks: *This definition was suggested by FDA in a letter dated 27 December 2010 from Sharon A. Benz, PhD, Director, Div. of Animal Feeds, CVM. Recommended by Roger Hoestenbach. Moved to accept for publication by Shannon Jordre, second by Roger Hoestenbach. No comments were made. Motion passed.*

T 87.27 Formic acid is manufactured by heating carbon monoxide and NaOH under pressure and decomposing the resulting sodium formate with H<sub>2</sub>SO<sub>4</sub>, the resulting formic acid, CH<sub>2</sub>O<sub>2</sub>, has a molecular weight of 46.02. Formic acid may be safely included in swine feed as a pH control agent at levels not to exceed 1.2% in the finished feed.

Remarks: *Formic acid is currently approved for use in hay crop silage up to 2.25% of the silage on a dry weight basis or 0.45% when direct cut under 21 C.F.R. 573.480. This additional approval is confirmed by the 21 December 2010 letter from Bernadette M. Dunham, D.V.M., PhD, Director, CVM. . Recommended by Roger Hoestenbach. Moved to accept for publication by Shannon Jordre, second by Roger Hoestenbach. No comments were made. Motion passed.*

T 57.73 Seaweed-Derived Calcium is the dried ground product resulting from the harvest of skeletal remains of the marine algae species *Lithothamnium corallioides* and *Phymatolithon calcareum*. It is composed of mixtures of calcium carbonate (CaCO<sub>3</sub>) and magnesium carbonate (MgCO<sub>3</sub>) and is intended as a supplemental source of calcium and magnesium for animals. It contains not less than 32% calcium as calcium carbonate and 2.3% magnesium as magnesium carbonate. It shall not contain more than 40 ppm fluorine, 40 ppm iodine, 5 ppm lead, and 5 ppm arsenic.

Remarks: *Definition was modified from the original FDA submission by deleting “as analyzed using ion chromatography” from the submitted version that read “more than 40 ppm fluorine as analyzed using ion chromatography” thereby omitting a reference to a particular method. The referenced method has been shown to be the reliable method for this sample type. Recommended by Mel Bryant. Moved to accept for publication by Shannon Jordre, second by Brett Groves. The form presented to the committee was missing a species name. It was corrected in the motion to accept. Discussion about the lab method was held. Motion passed.*

**T57.265** ~~66-6~~ **Ammonium Chloride** is the product resulting from the neutralization of hydrochloric acid with ammonia generally expressed as NH<sub>4</sub>Cl. It must contain not less than 25.6% nitrogen (equivalent to %160 crude protein). It must contain not more than 0.1% moisture, 0.4% salt (NaCl), 15ppm iron (Fe), 3 ppm arsenic (As), and 10 ppm heavy metals reported as lead. It may be treated with not more than 1.0% tricalcium phosphate to prevent caking. It shall not be made from by-product ammonia recovered from coke oven gas. It is to be used only in feeds for cattle, sheep, and goats as a source of **both** non-protein nitrogen **and chloride** at a level not to exceed 1.0% ammonium chloride in the total daily ration to provide not more than 1.6% equivalent crude protein. Labels for feed containing ammonium chloride include premixes, concentrates, and supplements shall contain adequate directions for use and the following prominent

statements: “CAUTION: Use only as directed. For ruminants (cattle, sheep, and goats) only.”

IFN 8-08-814 Ammonium Chloride

Remarks: *This is AAFCO Ingredient Definition 66.6 Ammonium Chloride with changes. Definition 66.6 to be deleted after approval of 57.265 Recommended by Mel Bryant. Moved to accept for publication by Shannon Jordre, second by Brett Groves. Discussion was held about the best logistics to move the definition. Motion passed.*

**Editorial Changes or Modifications to Existing Definitions:** The appropriate section investigator recommended the following modifications be made in the OP after approval of the Committee, Board and Membership:

T71.300 Camelina meal, extracted, is the product obtained from high-pressure crushing of seed, or from a pre-press solvent extraction process, which removes the oil from the whole seed of the species *Camelina sativa*. The meal may be heated. The meal is the material which remains after most of the oil has been removed. It must not contain less than 30% crude protein **and** a maximum of 12% crude fiber. **It may and typically contains up to 15% or less residual oil.** The meal contains less than 30 micromoles of any mixture of 9-Methylsulfinylnonyl glucosinolate, 10-Methylsulfinyldecyl glucosinolate, and 11-Methylsulfinylundecyl glucosinolate per gram of dry oil free solid. It is used in the diets of broiler chickens, cattle fed in confinement for slaughter, **and laying hen chickens** at an inclusion of no more than 10% of the diet.

Remarks: *Changes based on FDA's Dr. McCurdy's proposed definition after reviewing laying hen research. I also received input from 2 crushing facilities (Oregon and Montana) indicating their facilities produce meal at 8-10% residual oil and usually less. Recommended by Bob Church, Moved by Shannon Jordre, second by Brett Groves to accept edits and leave definition in tentative status. Committee had no questions. Motion passed.*

T71.77 **Canola Meal** low erucic acid low glucosinolate consists of the meal obtained after the removal of most of the oil by **mechanical extraction, or by** direct solvent or prepress solvent extraction process, from the whole seeds of the species *Brassica napus*, *Brassica campestris* or *Brassica juncea*. The oil component of which seed contains less than two percent erucic acid and the solid component of which seed contains less than 5 micromoles of allyl glucosinolate and less than 30 micromoles of any mixture of 3-butenyl glucosinolate, 4-pentenyl glucosinolate, 2-hydroxy-3-butenyl glucosinolate and 2-hydroxy-4-pentenyl glucosinolate, and allyl glucosinolate per gram of air dry, oil free solid. It must contain a maximum of 12% crude fiber and a maximum of 30 micromoles of glucosinolates per gram.

Remarks: *Request to add Mechanical Extraction was from The Canadian Grain Commission (CGC). I sent an email to National Oilseed Processors Associations (NOPA) David Ailor on 10/18/2010 for a response to the request made by the CGC. Information was sent on 11/8/2010 to FDA (Dr. Sharon Benz) for review and comment. Recommended by Bob Church, Moved by Shannon Jordre, second by Brett Groves to*

*accept edits and put definition in tentative status. Committee had no questions. Motion passed.*

T60.98 **L-Carnitine** is a nutritional supplement with a minimum content of 97.0% L-carnitine and a maximum of 0.5% D-isomer. L-carnitine is for use in swine feeds at levels not to exceed 0.1% (1000 ppm) of complete feed, for use in chicken and turkey feeds at levels not to exceed 0.02% (200 ppm) of complete feed, for use in fish feed at levels not to exceed 0.25% (2500 ppm) of complete feed, for use in milk replacers for ruminant animals at levels not to exceed 0.075% (750 ppm) of milk replacer powder. L-Carnitine is also for use in dog foods at levels not to exceed 0.075% (750 mg/kg ppm) of complete feed on a dry matter basis, and for use in cat foods (intended for adult maintenance only) at levels not to exceed 0.10% (1000 mg/kg ppm) of complete feed on a dry matter basis. L-Carnitine is a fatty acid carrier that plays a role in fat oxidation in the body. (Proposed 1997, Amended 1999, Amended 2002, Adopted 2004, Amended 2009, Amended 2011)

*Remarks: New language is marked by an underline, deleted language is marked by a strike-through. The definition has been proposed for editing – to change parts per million (ppm) to milligrams/kilograms (mg/kg), and to delete the reference/restriction allowing this ingredient only in complete pet foods. L-carnitine would now be allowed for use in pet treats or snacks (which are still pet foods). Recommended by Roger Hoestenbach, Moved by Shannon Jordre, second by Brett Groves to accept edits and place definition in tentative status. Clarification was sought that this does not apply to kitten feeds. Committee had no other questions. Motion passed.*

Modify Table 30.1

Definition No. 30.1 Name: Enzyme Table

Classification/ Name	Source Organism	Typical Substrate	Function	Current Supported Uses
<b>Phosphatases</b>				
Phytase	<i>Pichia pastoris</i> expressing an altered phytase gene from a Risk Group 1 <i>Escherichia coli</i>	No change	No change	Increases the digestibility of phytin-bound phosphorus in swine and poultry diets

(Recombinant DNA risk groups are defined by the U.S. National Institutes of Health.)

**Remarks:** *Table 30.1 requires revision. This enzyme/source organism combination needs to be moved above the bold double line in the Phytase classification as enzyme functionality has been demonstrated in swine. Recommended by Mika Alewynse. Moved by Shannon Jordre, second by Brett Groves to accept. Motion passed*

Move to section 99 Withdrawn Ingredients and edit:

~~T71.25 Rapeseed Meal, Mechanically Extracted. Rapeseed meal, (**withdrawn**) mechanically extracted, obtained by grinding the cake which remains after removal of most of the oil by mechanical extraction of the seed from the rapeseed plant (Brassica). It must contain a minimum of 32% protein and a maximum of 12% crude fiber.~~

Remarks: *I have contacted the National Oilseed Processors Association and the Canadian Grain Commission for their input and both have no objection in removing definition 71.25 from the list of AAFCO's feed definitions.*

*Recommended by Bob church. Motion to accept the recommendation and forward it to the board and membership was made by Ricky Schroeder and seconded by Brett Groves. The committee had no questions. Motion passed.*

Edit section 66 to move Ammonium Chloride:

~~**66.6 Ammonium Chloride** is the product resulting from the neutralization of hydrochloric acid with ammonia generally expressed as NH<sub>4</sub>Cl. It must contain not less than 25.6% nitrogen (equivalent to %160 crude protein). It must contain not more than 0.1% moisture, 0.4% salt (NaCl), 15ppm iron (Fe), 3 ppm arsenic (As), and 10 ppm heavy metals reported as lead. It may be treated with not more than 1.0% tricalcium phosphate to prevent caking. It shall not be made from by-product ammonia recovered from coke oven gas. It is to be used only in feeds for cattle, sheep, and goats as a source of non-protein nitrogen at a level not to exceed 1.0% ammonium chloride in the total daily ration to provide not more than 1.6% equivalent crude protein. Labels for feed containing ammonium chloride include premixes, concentrates, and supplements shall contain adequate directions for use and the following prominent statements: "CAUTION: Use only as directed. For ruminants (cattle, sheep, and goats) only."~~

~~— IFN 8-08-814 Ammonium Chloride~~

*add the following to the table at the end of Section 66:*

**Ammonium Chloride**

**See Definition 57.265 in Mineral Products Section; Ammonium Chloride as a source of Non-Protein Nitrogen.**

Remarks: *Editorial change to remove the whole definition from Section 66 because it is being moved to Mineral Products. Recommended by Sharon Benz. Motion to move the definition and place a note at the end of 66 was made by Brett Groves and seconded by Shannon Jordre. Motion passed.*

**Minor Edits:**

Modify definition 60.**20** Dehydrated silage on page 427 2011 OP. Current definition is missing the rest of the number. *Recommended by Roger Hoestenbach. Moved to accept as an edit and leave definition official by Shannon Jordre, second by Brett Grove. Motion passed. This item is minor and will be fixed in the next editing cycle not sent to the board.*

Insert language on Page 366 of the 2011 OP:

**OFFICIAL COMMON AND USUAL NAMES AND  
DEFINITIONS OF FEED INGREDIENTS**

**as established**

**By the Association of American Feed Control Officials**

The **bold print name** and international feed name (IFN) are both acceptable **as** ingredient names, unless designated otherwise in the definition.

Occasionally an item may be suggested as an ingredient in a mixed feed that is not listed in this publication. When this happens, the appropriate investigator should be contacted, a term developed, and the product defined. Some ingredients, e.g. sugar, are so common there is no need to define them.

**Remarks:** *The OP contains the FDA recognized list of common and usual names that should be used on feed labeling. We need to be very clear what the list is. Language is added to help clarify the role of the section. Recommended by Richard Ten Eyck. Motion to accept edits and place in 2012 OP was made by Brett Groves and seconded by Ricky Schroeder. Mr. Ten Eyck explained FDA recognizes, in a compliance guide AAFCO as the source of common and usual ingredient names. Motion passed.*

## Discussion Items:

Richard Ten Eyck asked for additional members for the work group that will edit Page 348. Membership now is: Richard Ten Eyck, Aaron Elam, John Machado, Shannon Jordre, Dave Fairfield, Vince Sewalt, Richard Sellers, Nancy Cook, Emily Helms, Gary Yingley and Christi Smedley. The workgroup will give a progress report to the IDC at the annual meeting.

Neil Lanning gave a report on the Meat and Bone meal Workgroup progress on proposed changes to deal with the calcium and Phosphorus levels in MBM. An audience comment was made that excessive hair is being seen in some MBM. The group is working on revising definitions and will update IDC again at the Annual Meeting. (Neil Lanning, David Meeker, PFI, AFIA, Ricky Schroeder, Richard Ten Eyck)

Neil Lanning gave a report on the Animal Plant Rendered Product Workgroup to report on proposed definition changes to accommodate rendering plant-derived waste. This may involve a new definition. Roger Hoestenbach and Shannon Jordre volunteered to join the work group. Work group will report back to IDC at the annual meeting.

Doug Lueders gave an update on a discussion of Flow agents. The problem is not clearly defined yet and NOPA will present Doug Lueders more information. IDC dropping item unless they hear more.

Richard Ten Eyck gave an update on how AAFCO will handle self-determined GRAS. The discussion is currently at board level and the workgroup for the page 348 edit will deal with the workgroup output.

Colostrum labeling –Neil Lanning is new point of contact.

Maltodextrins – Roger Hoestenbach would like comments on adopting the CFR language, adding “wheat starch or other grains”, consistent with the Canadian regulations, and relocating the definition from 48.25 in the Maize Section to T60.111 in the Miscellaneous Products Section to establish this new definition: *Maltodextrin – is a nonsweet nutritive saccharide polymer that consists of D-glucose units linked primarily by [alpha]-1-4 bonds and that has a dextrose equivalent (D.E.) of less than 20. It is prepared as a white powder or concentrated solution by partial hydrolysis of corn starch, potato starch, rice starch, wheat starch or other grains with safe and suitable acids and/or enzymes.*

6.8 After a brief summary from Mika indicating that ingredients have been removed from the GRAS lists in the OP when other intended uses were added elsewhere in the OP. Ricky Schroeder moved and Brett seconded and the **committee passed a motion** to have the ingredients added back to the GRAS



listings so that they are consistent with the CFR. Mika will follow up by editing the section and bringing it back to the IDC at the Annual Meeting.

Fruit Pomace –Roger Hoestenbach is looking at an ingredient definition submission for a family of fruit Pomaces. Please contact him if you have needs or concerns about fruit Pomaces.

Hydrolized Cassava – Roger Hoestenbach is working on a definition for cassava tops. Please contact him if you have any needs or concerns about this potential ingredient.

Ali Kashani is considering adding Menadione back into the OP. Please contact him if you have any concerns or questions.

The chair invited interested AAFCO members to join the committee.

The chair queried the committee and advisors if the current format of being accommodating to late additions to the meeting agenda is acceptable. One advisor indicated that it may occasionally result in a definition not passing. The majority of the committee indicated they would like the accommodation to continue.

Topics Left from past meetings: (parking lot for future action items)

- a. Edits in Chemical Preservatives Section – Linda B.
- b. Unrefined salt –Mel Bryant
- c. Adding animal fat source to glycerin definition – Linda B. / David Meeker
- d. Direct fed microbial definition 36.14 revisions – Mika
- e. Other Definitions with Chromium levels –Mika
- f.

Meeting adjourned 5:45PM