

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Wednesday, January 9, 2013, 3:00pm EDT**

Attending: Tracy Favre, Chair (TF), Wendy Fulwider (WF) (Vice chair), Mac Stone (MS), Calvin Walker (CW), Colehour Bondera (CBo), Nick Maravell (NM), Joe Dickson (JD)

Absent: Jean Richardson (JR)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Name	National List Section	Rvwvr	Meeting	Technical Review requested (TR)?	Vote	Notes
Amino Acids for Pet Food proposal 2012 Original Petition	205.603	MS	Spr 2013	Yes		Petition sent to LS on 2/7/12. Petition found sufficient. TR forwarded to contractor 03 20 12. TR sent to LS 08 06 12. TR deemed sufficient 08 16 12. Withdrawn at fall 2012 NOSB mtg
Methionine in organic poultry feed proposal	205.603	MS	Fall 2013	Yes		TR received 11/15/11.
Aquaculture - Chlorine proposal	205.609 205.611	JD	Spr 2013	No Crops 2011 TR Crops 2006 TR Crops 1995 TR Livestock 2006 TR Handling 2006 TR		Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested
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Proposal	NL Section	Rvwvr	Meeting	Technical Review?	Vote	Notes
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Vaccines from Excluded Methods (GMO Vaccines fall 2012 update)		JR/N M	Spr 2013 Fall 2013	Yes (revised and sent 12/5/11)		TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12 Fall 2012 Proposal

* Highlight indicates committee action needed

Agenda:

- Approve notes from December 18 call
- Discuss Chlorine checklist
- Update on Canadian organic aquaculture transcripts
- Methionine (in organic poultry feed)
- Pet food amino acids
- Recap/discussion of the aquaculture call.

Discussion:

- Notes from the December 18 call approved with no changes.
- Recap/discussion of the January 7 aquaculture call - the overall consensus was that the history and background information was helpful but the group was disappointed that there was little time for questions, so they would like to continue the discussion. The plan is to continue having conversations to glean more information and specificity, and be able to use that, and hopefully the as-yet-to-be-completed proposed rule when evaluating the substances. The members felt that if the rule isn't available it will make the future work difficult, and asked if the proposed rule would actually provide guidance that would be helpful for evaluating the substances. The group suggested asking Max Mayeaux to participate on another call to help clarify specific questions, and give a little more background. MS suggested adding extra calls to work on this and the group discussed having combined calls with Crops for more general info, then getting into specifics. Members also discussed the possibility of engaging Dr. Mayeaux in reviewing the checklist, as was discussed with the Crops Subcommittee. There is time on the agenda for aquaculture at the spring 2013 meeting.
- The Subcommittee discussed the Chlorine checklist, and decided that without the aquaculture piece it would be prudent to put off voting on this. The group agreed that it's difficult to come to a decision about materials without a proposed rule. The members decided to write first drafts then when the proposed rule is ready, finish the documents, and then vote. The chair asked about using the chlorine checklist as an example or test case to put forth to the community for comment for the spring meeting. CW suggested making the document broader, with chlorine as a specific example. The group discussed the specifics of the checklist and made some minor edits: CBo will circulate the checklist he wrote for Crops

- Update on Canadian organic aquaculture transcripts – several documents were circulated to the group prior to the call.
- Methionine proposal might be delayed until the fall (change noted in table above). Results from the working group (WG) are delayed which will likely delay the entire process. The checklist is complete but the NOP is making some technical edits.
- JR, WF and CW noted that they visited an aquaculture facility in Providence while at the fall 2012 meeting and felt it was extremely useful to see the processes first hand.
- Pet food amino acids-discussion deferred to next call due to lack of time.

Future Call Schedule:

January 9, 2013 3:00 EST

- Discuss Chlorine checklist
- Update on Canadian organic aquaculture transcripts
- Discuss Methionine update
- Pet Food Amino Acids checklist

January 15, 2013 3:00 EST

- Continue Discussion on Chlorine checklist
- Discuss pet food amino acids checklist/proposal

February 5, 2013 3:00 EST

February 19, 2013 3:00 EST

March 5, 2013 3:00 EST

March 19, 2013 3:00 EST

Spring 2013 Milestones	Target date
NOP – Complete tentative agenda	February 8, 2013
Spring 2013 proposals due to NOP	February 12, 2013
NOP - Post proposals, Publish FRN, Open public comment	February 19, 2013
Subcommittees submit tentative workplans to NOP	March 1, 2013
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Workplans finalized on ES call	March 29, 2013
Spring 2013 NOSB Meeting – Portland, OR	April 8-11, 2013

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Wednesday, January 15, 2013, 3:00pm EDT**

Attending: Tracy Favre, Chair (TF), Wendy Fulwider (WF) (Vice chair), Colehour Bondera (CBo),

Absent: Jean Richardson (JR), Mac Stone (MS), Nick Maravell (NM), Joe Dickson (JD), Calvin Walker (CW)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
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Petitioned Materials						
(feed binder)				(Crops)		requested on 9/18/12
Sodium chlorite, Acidified (SCA)	205.603	CW/J D?	Fall 2013	2008 TR		Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12
Subcommittee Projects						
Proposal	NL Section	Rvwr	Meeting	Technical Review?	Vote	Notes
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Agenda:

- Approve notes from January 9, 2013 call
- Continue Discussion on Chlorine checklist
- Discuss pet food amino acids checklist/proposal

Discussion:

- Notes from the January 9 call not approved due to lack of quorum.
- The Chlorine checklist discussion was deferred until the lead person could participate. CBo noted that he completed a checklist for Chlorine for the Crops Subcommittee that could be applicable for Livestock as well, and would like to discuss this further. While waiting for the aquaculture practice-standards-proposed rule to be published by the NOP, the group feels it is wise to delay the vote until they know how the standards would allow that substance to be used.
- Pet Food Amino Acids: The National List Manager (LBrines) asked the group to prepare two checklists: one for Taurine for cats and one for all the other amino acids. TF will contact MS about this.
- Aquaculture. The group discussed various aspects of the aquaculture schedule, and a member asked that the chair connect CW and Max Mayeaux, Program Specialist USDA/NIFA, since CW has already done a large amount of research and work. The same member also noted that this situation is complicated by the fact that a lot of time has lapsed since the initiation of the aquaculture materials, without the publication of a rule. The chair will work with the NOSB chair to schedule upcoming aquaculture calls for the Crops and Livestock subcommittees. For clarification, the NOP added that the NOSB is now reviewing substances that were originally petitioned in 2007 and 2008 because the Aquaculture Working Group had petitioned the various synthetic substances for addition to the National List after the NOSB had recommended regulatory language to the NOP. The group will continue this discussion on the next call.

Future Call Schedule:

January 9, 2013 3:00 EST

- Discuss Chlorine checklist
- Update on Canadian organic aquaculture transcripts
- Discuss Methionine update
- Pet Food Amino Acids checklist

January 15, 2013 3:00 EST

- Continue Discussion on Chlorine checklist - deferred to next call
- Discuss pet food amino acids checklist/proposal

February 5, 2013 3:00 EST

- Continue Discussion on Chlorine checklist
- Continue discussion/vote on pet Food Amino Acids checklists

February 19, 2013 3:00 EST

March 5, 2013 3:00 EST

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Wednesday, February 5, 2013, 3:00pm EDT**

Attending: Tracy Favre, Chair (TF), Wendy Fulwider (WF) (Vice chair), Colehour Bondera (CBo), Jean Richardson (JR), Mac Stone (MS), Nick Maravell (NM), Joe Dickson (JD), Calvin Walker (CW), Francis Thicke (FT)

Absent: none

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

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Agenda:

- Approve notes from January 9 and January 15, 2013 call
- Final vote on Pet Food amino acids
- Update from Jean Richardson on the GMO ad hoc committee and where their document stands
- Discussion of the LS work plan

Discussion:

- Notes from the January 9 call approved with no changes.
- Notes from the January 15 call approved with no changes.
- Final vote on Pet Food amino acids - MS summarized the proposal, noting that all of the amino acids are derived through agricultural products and the only amino acid found essential is Taurine for cats, because taurine gets degraded with heat, so it must be supplemented.. The members suggested some minor proofreading edits, such as adding references and line numbers from the TR, removing the duplicative vote count, and removal of some redundant information.

- **Vote on Pet Food Amino Acids:**

Motion to classify the following amino acids as synthetic; Arginine, Methionine, Cystine, Lysine, Taurine, Tryptophan, Threonine, Histidine, Isoleucine, Leucine, Phenylalanine, Tyrosine, and Valine

Motion by: MS

Seconded by: JR

Additional discussion: None

Yes: 9 No: 0 Absent: 0 Abstain: 0 Recuse: 0

Motion to list the following amino acids; Arginine, Methionine, Cystine, Lysine, Taurine, Tryptophan, Threonine, Histidine, Isoleucine, Leucine, Phenylalanine, Tyrosine, and Valine; on 205.603 for use in organic pet food

Motion by: MS

Seconded by: CBo

Additional discussion: The group discussed the wording of the motion and the omission of the word Taurine.

Yes: 0 No: 9 Absent: 0 Abstain: 0 Recuse: 0

Motion to list taurine (CAS # 107-35-7) on 205.603(d) as a feed additive for use in cat food only

Motion by: MS

Motion seconded: JR

Yes: 8 No: 0 Absent: 0 Abstain: 1 Recuse: 0

- GMO ad hoc committee/Vaccines Working Group (VMWEM) - two separate entities. One is an NOSB Subcommittee and one an outside group with NOP and NOSB representation. The group discussed the Interim report from the Vaccines working group, and whether or not they needed to vote on this item to pass it to the full Board. Members concluded that the most effective procedure, and one utilized in the past, was for the LS Subcommittee to formally acknowledge the receipt of the report, vote on whether or not they will pass the document to the Board, and if so, then request whether NOP is able to post the document on regulations.gov. for public comment.

Vote on GMO Vaccines Working Group Interim report

Motion to forward to the full NOSB the MO Vaccines Working Group (VMWEM) interim report.

Motion by: JR

Seconded by: NM

Yes: 7 No: 0 Absent: 2 Abstain: 0 Recuse: 0

ABS note: The call ran long, and two members had to leave before the vote was taken.

Future Call Schedule:

January 15, 2013 3:00 EST

Continue Discussion on Chlorine checklist - deferred to next call

Discuss pet food amino acids checklist/proposal

February 5, 2013 3:00 EST

Continue Discussion on Chlorine checklist

Continue discussion/vote on pet Food Amino Acids checklists

February 19, 2013 3:00 EST

Workplans

March 5, 2013 3:00 EST

March 19, 2013 3:00 EST

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Guests: Jay Feldman (JFe), George Lockwood (GL)

Absent: Nick Maravell (NM)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

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Agenda:

- Approve notes from February 5 call
- AWG commentary - George Lockwood
- 2013 Work plan

Discussion:

- Notes from the February 5 call approved with no changes
- George Lockwood participated on the call to provide information about aquaculture topics that the Subcommittee is preparing to review. The original Working Group was made up of 12 members with diverse backgrounds and included growers, environmentalists, and aquatic animal feed experts. The Working group worked closely with the NOSB Livestock Committee. The members asked questions and discussed various aspects of aquaculture, including the differences between organic and conventional aquaculture, environmental issues, feed and facilities, stocking rates, fish meal and net pens, which were all areas and concerns that were discussed and/or addressed when the Working Group developed it's standards. With regard to stocking rates, Mr. Lockwood added that although the WG discussed this issue they did not write species specific standards, and instead left that to the growers.
- Workplan: Omnivore diets. The group discussed how to move ahead with this workplan item and decided to submit a second discussion document (Version 2) with the first round of public comments incorporated.

Future Call Schedule:

February 19, 2013 3:00 ET

George Lockwood: Aquaculture operations and SPECIFICALLY about differences between Organic and conventional AQ Workplans

March 5, 2013 3:00 ET

Guest: Becky Goldberg, Pew Caritable Trust, and former NOSB member, regarding the impact of Aquaculture on the environment (MS will confirm)

March 19, 2013 3:00 ET
Jim Pierce - Perspectives on aquaculture

May 7, 2013 3:00 ET
Fish feed and fish meal discussion with identified expert. Potentially moved to May 21

May 21, 2013 3:00 ET

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Guests: Becky Goldberg (Pew Charitable Trust) (BG), George Lockwood (Aquaculture Working Group) (GL)

Absent: Joe Dickson (JD), Mac Stone (MS), Francis Thicke (FT)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

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Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611					
Subcommittee Projects						
Proposal	NL Section	Rvwr	Meeting	Technical Review?	Vote	Notes
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Agenda:

- Approve notes from February 19 call
- Guest Speaker
- 2013 Work plan

Discussion:

- Notes from February 19 call approved with no changes
- Continuing with our series of guest speakers on aquaculture was Becky Goldberg, of the Pew Charitable Trust. The chair asked that Becky speak about open/closed net pens and to compare and contrast conventional and organic aquaculture. The Aquaculture working group looked at many aspects of aquaculture, including introduction of non-endemic species, feed stock, predator prey disruptions, production in net pens, etc. Becky noted that there are differences between conventional and organic in all of these areas. A member asked about fishmeal and feeding organic fish non-organic fishmeal. According to the past recommendations, the meal has to be organically sourced in order to be used as feed. Becky added that a previous NOSB struggled with this same issue and came up with proposed recommendations that they felt were adequate at that time. A member noted that based on a comment sent in by Food and Water Watch, the science had changed a bit since the NOSB recommendation was written, and this needed to be revisited. GL added that the NOSB had already made its recommendation on practice standards and the issues under consideration now are the petitions for various synthetic substances to be used in organic aquaculture. The guests spoke to questions about how various substances, such as vitamins, interact when introduced into an aquatic environment, and the differences between the interactions in a terrestrial system. A member added that there were no longterm studies and so this is a difficult issue to decipher, while another member offered that there was longterm documentation available of both fish production and aquaculture systems. He added that although some aspects of our modern

systems are new, many of them are based on systems that are thousands of years old.

- Biologics: Vaccines for Aquatic Animals - are in wide use in organic, and GL feels they are fine and should not be of concern. A member noted that if good management practices are in place, vaccines are not necessary. GL was uncertain of the GM status of vaccines used in aquaculture.
- NM will ask someone from Food and Water Watch to sit it on a future call. MA will send NM supporting documents so he can forward them to the Food and Water Watch contact prior to call.

Future Call Schedule:

March 5, 2013 3:00 ET

Aquaculture speaker series guest: Becky Goldberg, regarding the impact of Aquaculture on the environment

March 19, 2013 3:00 ET

Aquaculture speaker series guest: Jim Pierce - Perspectives on aquaculture-fishmeal and fishfeed. Aquaculture speaker series guest:

April 2, 2013

Aquaculture speaker series guest: Patty Lovera and colleague (Food and Water Watch)

May 7, 2013 3:00 ET

May 21, 2013 3:00 ET

Spring 2013 Milestones	Target date
NOP – Complete tentative agenda	February 8, 2013
Spring 2013 proposals due to NOP	February 12, 2013
NOP - Post proposals, Publish FRN, Open public comment	February 19, 2013
Subcommittees submit tentative workplans to NOP	March 1, 2013
Discuss workplans on ES call	March 8, 2013
NOP provides written comments on workplans to NOSB	March 11, 2013
Public comment closes	March 19, 2013
NOP - Send compiled public comments to NOSB	March 25, 2013
Workplans finalized on ES call	March 29, 2013
Spring 2013 NOSB Meeting – Portland, OR	April 8-11, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, March 19, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Wendy Fulwider (WF) (Vice chair), Colehour Bondera (CBo), Harold Austin (HA), Jean Richardson (JR), , Mac Stone (MS), Francis Thicke (FT), Calvin Walker (CW), Joe Dickson (JD), Jay Feldman (JFe) –sitting in

Guests: Jim Pierce, Oregon Tilth

Absent: John Foster (JFo), Nick Maravell (NM)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Melissa Bailey (MB)-sitting in , Mark Bradley-sitting in

Workplan

Petitioned Materials						
Name	National List Section	Rvwvr	Meeting	Technical Review requested (TR)?	Vote	Notes
2012 Amino Acids for Pet Food proposal 2012 Original Petition	205.603	MS	Spr 2013	Yes	02 05 13	Petition sent to LS on 2/7/12. Petition found sufficient. TR forwarded to contractor 03 20 12. TR sent to LS 08 06 12. TR deemed sufficient 08 16 12. Withdrawn at fall 2012 NOSB mtg
Methionine in organic poultry feed proposal	205.603	MS	Fall 2013	Yes		TR received 11/15/11.
Aquaculture - Chlorine proposal	205.609 205.611	JD	Fall 2013	No Crops 2011 TR Crops 2006 TR Crops 1995 TR Livestock 2006 TR Handling 2006 TR		Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested
Aquaculture – Tocopherols	205.611	CW/C Bo	Fall 2013	Yes 1995 TAP rvw		Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12
Aquaculture – Vitamins proposal	205.611	CW	Fall 2013	Yes		Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12
Aquaculture - Trace Minerals Petition	205.611	CW	Fall 2013	Yes		Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12

Petitioned Materials						
Aquaculture – Lignin sulfonate (feed binder)	205.611	CW/J D?	Fall 2013	Yes Feb 2011 TR – (Crops)		Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12
Sodium chlorite, Acidified (SCA)	205.603	CW/J D?	Fall 2013	2008 TR		Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611					
Subcommittee Projects						
Proposal	NL Section	Rvwr	Meeting	Technical Review?	Vote	Notes
Omnivore diets (methionine)-proposal		TF/C W	Fall 2013 DD #2	Yes		Disc doc from Fall 2012
Vaccines from Excluded Methods (GMO Vaccines update)		JR/N M	Spr 2013 Fall 2013	Yes 2011 (revised and sent 12/5/11)		TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12 Fall 2012 Proposal

* Highlight indicates committee action needed

Agenda:

- Approve notes from March 5 call
- Guest Speaker
- 2013 Work plan

Discussion:

- Notes from March 5 call approved with no changes
- Continuing with our series of guest speakers on aquaculture. Jim Pierce of Oregon Tilth joined the call. Jim introduced himself as a 30-year fish farmer, and described his professional and personal experience with aquaculture, which included trout, game fish, and prawns. He also worked with George Lockwood on the Aquaculture Working Group and feels that the recommendations that were put forth by the previous NOSB captured the discussions and decisions very well.
- Members asked questions about prawns, which were not mentioned specifically in the recommendations, fish feed, and pelleted feed. Jim noted that farmers are very conservative with feed because it is expensive and they strive to control for waste. Jim also discussed water quality in closed systems versus open systems, and noted that the Europeans have looked at water quality standards fairly thoroughly. Members also asked questions about net pens, biofilm, critical control points, Operating System Plans (OSPs), alternatives to fish meal in fin fish, stocking rates, bioaccumulation, organic colors used for pigmentation, and vaccines. Jim discussed all of these aspects and provided references for follow up questions: Rahm @ QCS certifies about 30 aquaculture facilities in South America. (Both MB and MS have his contact info), Chris Nelson of SilverCup Feeds, UT could answer questions about bioaccumulation. Members of the group added that they are interested in creating one standard, because there's not much clarity about organically labeled aquaculture and what standards it's certified to. The

chair asked that members send any other questions to her and MA by end of business on Thursday so she can forward them.

Future Call Schedule:

March 19, 2013 3:00 ET

Aquaculture speaker series guest: Jim Pierce - Perspectives on aquaculture-fishmeal and fishfeed.

April 2, 2013

Aquaculture speaker series guest: Patty Lovera and colleague (Food and Water Watch)

May 7, 2013 3:00 ET

May 21, 2013 3:00 ET

Spring 2013 Milestones	Target date
NOP – Complete tentative agenda	February 8, 2013
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NOP - Send compiled public comments to NOSB	March 25, 2013
Workplans finalized on ES call	March 29, 2013
Spring 2013 NOSB Meeting – Portland, OR	April 8-11, 2013

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, April 2, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Colehour Bondera (CBo), Jean Richardson (JR), Mac Stone (MS), Calvin Walker (CW), Wendy Fulwider (WF) (Vice chair), Nick Maravell (NM), Joe Dickson (JD), Jay Feldman (JFe) –sitting in, Harold Austin (HA)-sitting in

Guests: Patty Lovera, Food & Water Watch (FWW), Meredith Moore, FWW

Absent: Francis Thicke (FT)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Mark Bradley (MBr)-sitting in

Workplan

Petitioned Materials						
Name	National List Section	Rvwvr	Meeting	Technical Review requested (TR)?	Vote	Notes
2012 Amino Acids for Pet Food proposal 2012 Original Petition	205.603	MS	Spr 2013	Yes	02 05 13	Petition sent to LS on 2/7/12. Petition found sufficient. TR forwarded to contractor 03 20 12. TR sent to LS 08 06 12. TR deemed sufficient 08 16 12. Withdrawn at fall 2012 NOSB mtg
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Aquaculture - Chlorine proposal	205.609 205.611	JD	Fall 2013	No Crops 2011 TR Crops 2006 TR Crops 1995 TR Livestock 2006 TR Handling 2006 TR		Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested
Aquaculture – Tocopherols	205.611	CW/C Bo	Fall 2013	Yes 1995 TAP rvw		Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12
Aquaculture – Vitamins proposal	205.611	CW	Fall 2013	Yes		Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12
Aquaculture - Trace Minerals Petition	205.611	CW	Fall 2013	Yes		Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12

Petitioned Materials						
Aquaculture – Lignin sulfonate (feed binder)	205.611	CW/J D?	Fall 2013	Yes Feb 2011 TR – (Crops)		Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12
Sodium chlorite, Acidified (SCA)	205.603	CW/J D?	Fall 2013	2008 TR		Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611					
Subcommittee Projects						
Proposal	NL Section	Rvwr	Meeting	Technical Review?	Vote	Notes
Omnivore diets (methionine)-proposal		TF/C W	Fall 2013 DD #2	Yes		Disc doc from Fall 2012
Vaccines from Excluded Methods (GMO Vaccines update)		JR/N M	Spr 2013 Fall 2013	Yes 2011 (revised and sent 12/5/11)		TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12 Fall 2012 Proposal

* Highlight indicates committee action needed

Agenda:

- Approve notes from March 5 call
- Guest Speaker
- 2013 Work plan

Discussion:

- Notes from March 19 approved as is, without changes
- As part of the ongoing aquaculture speaker series, the Livestock Subcomm welcomed two people from Food and Water Watch: Patty Lovera and Meredith Moore (fisheries and aquaculture, fisheries imports). Members asked the guests specific questions regarding aquaculture, fish feed, residues/toxins, differences between farmed fish and wild fish, and current research in the field. The speakers echoed what many other guests have said, that feed costs are prohibitively high, so aquaculturists are very efficient with feed, and tend to not waste it. The Chair asked if the members had any questions regarding the specific materials that have been petitioned. A member asked the guests to address the differences between terrestrial and aquatic environments. Follow on questions included the idea that a terrestrial system is not wild, while an aquatic system is, and if having a fallow period would help. Meredith Moore offered to forward some docs to the group for further reading. TF also asked if the guests would be willing to write out some of their answers and send them to the group
- Pet Food Amino Acids. The group discussed the public comments and specifically the comments from the Pet Food Institute, who indicated that of the 13 amino acids that were petitioned, only 4 were really necessary. The group further discussed the new information provided by the Pet Food Institute that the NRC had increased the amino acid requirement for threonine for dogs and that complete and balanced rations would need more threonine than was currently provided in those dogs foods. The group discussed various options including leaving the

proposal as is (Taurine for cats only), and adding methionine and lysine for dogs and cats to expand the category in marketplace. The second option does not satisfy the criteria for review, and although they are in support of market accessibility, this is not the criteria by which they must determine merit. The group also discussed the fact that there are new standards in progress at this time.

- The Chair reminded everyone that the fall agenda is aggressive, and noted that CW had a very large workload of aquaculture items and asked if he wanted to distribute any or work on them jointly. He answered with a resounding yes, and would like to have co-reviewers. CW will decide which items he will distribute and discuss them on the next call.

Future Call Schedule:

March 19, 2013 3:00 ET

Aquaculture speaker series guest: Jim Pierce - Perspectives on aquaculture-fishmeal and fish feed.

April 2, 2013

Aquaculture speaker series guest: Patty Lovera and colleague (Food and Water Watch)

May 7, 2013 3:00 ET

May 21, 2013 3:00 ET

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, May 7, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Jean Richardson (JR), Mac Stone (MS), Francis Thicke (FT), Colehour Bondera (CBo)

Absent: Nick Maravell (NM), Joe Dickson (JD), Wendy Fulwider (WF) (Vice chair), Calvin Walker (CW)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Yes	TR received 11/15/11.		Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested		Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	Yes 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. TR sent to LS on 04 16 13. TR suff due 06 17 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR Suff due 06/28/13.		Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	Yes	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR expected May 2013		Fall 2013
Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR expected May 2013		Fall 2013

Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suffic due 07 08 13		Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition Sufficiency do ASAP		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012			DD-statement Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12			Interim/ Final? Report Fall 2013

* Highlight indicates committee action needed

Agenda:

- Approve notes from April 2 call
- Discuss workplan/schedule

Discussion:

- Notes from April 2 approved with no changes.
- Members discussed the workplan schedule (see below) and assigned lead reviewers for the workplan items in the above table. The group will have a preliminary discussion about the history of methionine on next call.
- The Livestock Subcommittee will proceed with the Omnivore Diets proposal and will add this to the Research Priorities List.
- JR will report to the group on the July 16th call, the status of the Vaccines from Excluded Methods working group.
- The group had a general discussion about Aquaculture and the various petitions before them.

Future Call Schedule:

May 7, 2013 3:00 ET

May 21, 2013 3:00 ET

Methionine - Preliminary discussion, background recap (MS)

Aquaculture - Biologics: Vaccines for Aquatic Animals (JR)

June 4, 2013 3:00 ET

Aquaculture - Tocopherols (TF/CBo)

Aquaculture – Chlorine (JD)

June 18, 2013 3:00 ET

Sodium Chlorite (JD)

Aquaculture – Vitamins/Trace Minerals (CW)

July 2, 2013 3:00 ET

Aquaculture – Lignin sulfonate (feed binder) (JR)

Omnivore diets discussion (TF/CW)

July 16, 2013 3:00 ET

Vaccines from Excluded Methods (VMWEM update) update (JR)

August 6, 2013 3:00 ET

August 20, 2013 3:00 ET

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	
Discuss workplans on ES call	
NOP provides written comments on workplans to NOSB	
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 21-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, May 21, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Jean Richardson (JR), Mac Stone (MS), Francis Thicke (FT), Colehour Bondera (CBo), Calvin Walker (CW), Joe Dickson (JD)

Absent: Nick Maravell (NM), Wendy Fulwider (WF) (Vice chair)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Mark Bradley (MB)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
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Aquaculture – Tocopherols	205.611	TF/CBo	Yes 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. TR sent to LS on 04 16 13. TR suff due 06 17 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR suff due 06/28/13.		Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	Yes	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR expected May 2013		Fall 2013
Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR expected May 2013		Fall 2013

Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suffic due 07 08 13		Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012			DD-statement Fall 2013
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* Highlight indicates committee action needed

Agenda:

- Approve notes from May 7 call
- Discuss workplan/schedule

Discussion:

- Notes from May 7 approved with no changes.
- Methionine: Preliminary discussion, background recap (MS) – MS presented a cursory overview of this substance to get the sense of the Subcommittee before drafting a document. Many members felt that the information contained within the petition was anecdotal and not based on research or science. A member added that bird health and animal welfare should trump anything else. The group discussed variables in the administration of methionine and various enforcement scenarios. The members also discussed the fact that a previous NOSB recommendation included a lower amount of methionine than the scientifically based number because the NOSB wanted organic producers to eventually stop using synthetic methionine. MS is going to seek more information from a researcher at the University of KY.
- Aquaculture - Biologics: Vaccines for Aquatic Animals (JR) -The group consensus was that the petition lacked specificity. There was no environmental impact statement, no information about toxicity, and no alternatives listed. The group discussed the need for a TR, which they feel is complicated by the fact that the petitioners are asking for both GMO and non-GMO vaccines. Members discussed various paths forward, including: having the Vaccines Working group (VMWEM) look at the petition, since they are working on this question anyway; adding an annotation, and not allowing the GMO vaccines part; or splitting the petition and asking for a TR for the non-GMO portion. The Livestock Subcommittee voted a year ago to not allow GMO vaccines as a group, so for consistency the group feels that they cannot approve this portion,

although they would be willing to consider individual vaccines made with excluded methods, JR will compile a list of questions for the group so they can determine how to move forward. The LS found the petition sufficient as is and decided to request a TR. TF will send note to L Brines with their request. The workplan table above was edited to reflect this request. A member added that the format and comprehensiveness of the past TR (see link above) was very useful and would like to see if that can be replicated.

Future Call Schedule:

- May 21, 2013 3:00 ET
 - Methionine - Preliminary discussion, background recap (MS)
 - Aquaculture - Biologics: Vaccines for Aquatic Animals (JR)
- June 4, 2013 3:00 ET
 - Aquaculture - Tocopherols (TF/CBo)
 - Aquaculture – Chlorine (JD)
- June 18, 2013 3:00 ET
 - Sodium Chlorite (JD)
 - Aquaculture – Vitamins/Trace Minerals (CW)
- July 2, 2013 3:00 ET
 - Aquaculture – Lignin sulfonate (feed binder) (JR)
 - Omnivore diets discussion (TF/CW)
- July 16, 2013 3:00 ET
 - Vaccines from Excluded Methods (VMWEM update) update (JR)
- August 6, 2013 3:00 ET
- August 20, 2013 3:00 ET
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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, June 4, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Mac Stone (MS), Colehour Bondera (CBo), Calvin Walker (CW), Joe Dickson (JD), Nick Maravell (NM)

Absent: Jean Richardson (JR), Francis Thicke (FT), Wendy Fulwider (WF) (Vice chair)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
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Aquaculture - Trace Minerals	205.611	CW/FT	Yes	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR expected May/June 2013		Fall 2013
Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR expected May 2013		Fall 2013

Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Fall 2013
Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suff due 07 08 13		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012			DD-statement Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12			Interim/ Final? Report Fall 2013

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve notes from May 21 call
- Discuss workplan/schedule

Discussion:

- Notes from May 21 approved with no changes.
- Aquaculture - Tocopherols (TF/CBo) – The petition was found sufficient and the group discussed the draft TR that was sent to the group April 16. The LS found the TR sufficient and the Chair will send LBrines notice.
- Aquaculture - Chlorine (JD). The Livestock Subcommittee did not request a new TR because they felt that the previous TRs are sufficient. JD will distribute the draft checklist to the group for review. Members discussed the petitioned use of this material, and several people noted that there was some confusion about the use of chlorine as a disinfectant. The petition indicates use in containers for the culture of live feed such as algae, rotifers and copepods, as well as culture water in containers. The lead reviewer will reread the petition to clarify what the exact use is, and will also compare the Livestock and Crops petitions for Chlorine to see if they are identical. A member noted that the 2006 TR was informative and it notes that chlorine is foundational.
- The group indicated that they would like to participate on the July 16th Crops Subcommittee call, if an aquatic plant representative from the Aquaculture Working Group is going to join.

Future Call Schedule:

June 4, 2013 3:00 ET

Aquaculture - Tocopherols (TF/CBo)

June 18, 2013 3:00 ET

Aquaculture – Chlorine (JD) - review checklist

Sodium Chlorite (JD)

Aquaculture – Vitamins/Trace Minerals (CW)

July 2, 2013 3:00 ET

Aquaculture – Lignin sulfonate (feed binder) (JR)

Omnivore diets discussion (TF/CW)

July 16, 2013 3:00 ET

Vaccines from Excluded Methods (VMWEM update) update (JR)

Aquaculture - Tocopherols (TF/CBo) checklist review

August 6, 2013 3:00 ET

August 20, 2013 3:00 ET

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	
Discuss workplans on ES call	
NOP provides written comments on workplans to NOSB	
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 21-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, June 18, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Mac Stone (MS), Colehour Bondera (CBo), Calvin Walker (CW), Nick Maravell (NM), Jean Richardson (JR), Francis Thicke (FT), Wendy Fulwider (WF) (Vice chair), Joe Dickson (JD)

Absent: none

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Mark Bradley (MB)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Yes	TR received 11/15/11.		Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested	06 18 13	Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	Yes	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR expected June 2013		Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR expected late June/early July 2013		Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Fall 2013
Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suff due 07 08 13		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012			DD-statement Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12			Interim/Final? Report Fall 2013

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from June 4, 203 call
- Aquaculture – Chlorine (JD) - review checklist
- Acidified Sodium Chlorite (JD)
- Aquaculture – Vitamins/Trace Minerals (CW)

Discussion:

- Notes from June 4 approved with no changes
- Aquaculture overview (TF). TF spoke with the NOP prior to the LS call about the forthcoming aquaculture standards, and the NOP noted that the underlying principle of the standards is the same regardless of the materials: must maintain or improve the natural ecosystem functions. Therefore the full burden of implementation is not the responsibility of the NOSB, as the regulations will provide that. Chlorine in culture water was used as an example: Although chlorine is fairly toxic it does have approved uses on the NL, and certifiers will use the standard at §205.200 as an overarching principle. Members also discussed the timing of their reviews in light of the impending rule, and the NOP indicated that past Boards have approved materials without a rule and instead relied on previous Board recommendations. If the group bases their action on that premise, then it will prevent a delay, as there will be materials ready for use when the rule is released. The group also discussed the intent for the fall meeting, and the NOP noted that the LS shouldn't feel pressured to get all the materials reviewed in the fall if they are not

ready. The majority of members indicated that they would support moving forward with all items that are ready and not delaying, in the interest of future workplans. One member noted that he was not comfortable moving forward with some of the materials using soil based systems as the platform for making judgments about aquatic systems. The topic of fish meal was also discussed, as the group had previous concerns about this. The consensus was that because of the safety nets already in the regulation, it is no longer a concern. The chair asked that if any members had lingering concerns, they reread any pertinent materials and prepare any discussion points for the next call.

- Aquaculture - Chlorine (JD) – As a follow up to a previous conversation, JD collected additional detailed information about the use of chlorine in "culture water" and confirmed that this use is not materially different from others used in disinfecting surfaces and equipment. The water is sanitized in closed tanks and would be subject to the same effluent controls required by the annotation. This use does not relate to open systems such as net pens or fish ponds. The fundamental question is whether chlorine in aquatic systems may be different than chlorine in soil based system. The lead reviewer feels that chlorine usage is no different in crops, livestock, or handling especially with the restrictive annotation and the language in the regulation that requires ecosystem health. A member asked about the EPA clean water act and the legal limit of 4 ppm for drinking water, and the group consensus was that it is important to respect the regulatory authority of the EPA and it is not within the NOSB's purview to question it. It was also reiterated that since the regulations require maintenance and improvement of the ecosystem, this is not a problem. A member also noted that chlorine can be very toxic to fish, so growers are very prudent with its quantity and usage, so as to protect their product. JD will finalize the checklist based on subsequent conversations and the group chose to vote on this substance.

Vote: Motion to classify chlorine as synthetic

Motion by: JD

Seconded by: JR

Additional Discussion: none

Yes: 9 No: 0 Abstain: 0 Absent: 0 Recuse: 0

Motion to add chlorine to 205.611 as petitioned (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite) to the National List sec 205.611(x).

Motion by: JD

Seconded by: CW

Discussion: A member asked if the group can still make this specific motion if there is currently no section 611 on the National List. The NOP indicated it was fine, and if any alterations need to be made, the program can do it.

Yes: 7 No: 1 Abstain: 1 Absent: 0 Recuse: 0

- Aquaculture – Vitamins (CW) - mirrors Chlorine review, so the group felt that no further discussion was needed. The group found sufficient June 18. The Chair will send an email to the National List Manager indicating their determination. The Subcommittee proceeded to vote.

Motion to classify vitamins for aquatic animals as petitioned as synthetic

Motion by: JR

Seconded by: CW

Discussion: none

Yes: 9 No: 0 Abstain: 0 Absent: 0 Recuse: 0

Motion to add vitamins for aquatic animals as petitioned at §205.611

Motion by: CW

Seconded by: MS

Discussion: A member asked if GMOs were an issue in vitamin production and should be addressed in an annotation. Another member noted that since GE is an excluded method it is already prohibited and does not need to be reiterated in an annotation.

Yes: 9 No: 0 Abstain: 0 Absent: 0 Recuse: 0

Note: Will hold voting open for CBo who, because the call ran late, had to leave for another meeting.

ABS note: CBo voted via email June 18, 2013, and the numbers above were changed to reflect his vote.

- Acidified Sodium Chlorite (JD) - JD asked if FT and WF could look at the TR since they both have extensive expertise in livestock.

Future Call Schedule:

June 4, 2013 3:00 ET

Aquaculture - Tocopherols (TF/CBo)

June 18, 2013 3:00 ET

Aquaculture – Chlorine (JD) - review checklist

Acidified Sodium Chlorite (JD) – postponed due to lack of time

Aquaculture – Vitamins (CW) –discuss checklist

July 2, 2013 3:00 ET

Acidified Sodium Chlorite (JD) - TR sufficiency

Aquaculture - Lignin sulfonate (feed binder) (JR)

Omnivore diets discussion (TF/CW)

July 16, 2013 3:00 ET

Vaccines from Excluded Methods (VMWEM update) update (JR)

Aquaculture - Tocopherols (TF/CBo) checklist review

August 6, 2013 3:00 ET

August 20, 2013 3:00 ET

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013

NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	
Discuss workplans on ES call	
NOP provides written comments on workplans to NOSB	
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 21-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, July 2, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Mac Stone (MS), Calvin Walker (CW), Nick Maravell (NM), Jean Richardson (JR), Francis Thicke (FT), Wendy Fulwider (WF) (Vice chair)

Absent: Joe Dickson (JD), Colehour Bondera (CBo)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Yes	Proposal. TR received 11/15/11.		Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested	06 18 13	Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	Yes	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13		Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR expected early July 2013.		Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Spring 2014
Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suff due 07 08 13		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)- proposal	TF/CW	Yes	Disc doc from Fall 2012			final report on discussion doc Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12			Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from June 18, 2013 call
- Acidified Sodium Chlorite (JD) - TR sufficiency
- Omnivore diets discussion (TF/CW)

Discussion:

- Notes from June 18 approved with no changes.
- MS announced that the fall meeting will be 3 days long, and asked that each of the Subcommittees think about any proposals that may be delayed in case we need to make more time for discussion. The options include the following: eliminate items as they drop off organically, delay aquaculture proposals wholesale until the spring 2014 meeting, or send proposals out for comment but delay voting until the spring 2014 meeting. The Chair asked for any additional discussion. Members feel it's important to put forth documents for discussion so the public knows that the group is moving forward with their work, while the meeting length is the limiting factor. Members are also cognizant of the amount of work and effort and don't want to lose momentum. The NOSB chair noted that it might be beneficial put forth a document for comment, and then delay the vote until the following meeting, allowing them to fully digest

and incorporate public comments. The Chair feels that they could potentially finish all of the aquaculture proposals for the fall 2013 meeting, with the exception of the Biologics: Vaccines for Aquatic Animals.

- Acidified Sodium Chlorite (JD) - TR sufficiency –postponed until July 16, 2013
- Omnivore diets discussion (TF/CW) – The overall sentiment is that the group would like to produce a statement or discussion document. CW provided a great summary of public comment for this project at the spring 2013 meeting. The Members feel that because there was not a lot of public or trade support they will not pursue it further except to put forth a final statement at the fall 2013 meeting indicating the NOSBs position on access to the outdoors.
- The Chair informed the group about the Handling Subcommittees sunset review of glycerin and asked for feedback as it is on the National List with uses for Livestock. The goal is to make sure any decisions made in the Handling Subcommittee don't negatively impact Livestock.

Future Call Schedule:

June 18, 2013 3:00 ET

- Aquaculture – Chlorine (JD) - review checklist
- Acidified Sodium Chlorite (JD) – postponed due to lack of time
- Aquaculture – Vitamins (CW) –discuss checklist

July 2, 2013 3:00 ET

- Acidified Sodium Chlorite (JD) - TR sufficiency
- Omnivore diets discussion (TF/CW)

July 16, 2013 3:00 ET

- Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback)
- Aquaculture - Lignin sulfonate (feed binder) (JR) - TR sufficiency
- Aquaculture - Tocopherols (TF/CBo) checklist review
- Aquaculture - Trace Minerals (CW/FT) - TR sufficiency

August 6, 2013 3:00 ET

- Aquaculture - Lignin sulfonate (feed binder) (JR) - TR sufficiency
- Aquaculture - Trace Minerals - checklist review
- Methionine in organic poultry feed

August 20, 2013 3:00 ET

- Omnivore diets (methionine)

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	

Discuss workplans on ES call	
NOP provides written comments on workplans to NOSB	
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 21-24, 2013

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, July 16, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Mac Stone (MS), Calvin Walker (CW), Nick Maravell (NM), Jean Richardson (JR), Francis Thicke (FT), Wendy Fulwider (WF) (Vice chair), Colehour Bondera (CBo)

Absent: Joe Dickson (JD)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Mark Bradley (MB)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
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Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes 2013 TR	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	Yes –waiting for sufficiency	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13 . TR found sufficient 07 16 13		Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 07 08 13. TR suff due 09 09 13 . TR found sufficient 07 16 13		Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Spring 2014
Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. Suff due 07 08 13		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012			final report on discussion doc Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12			Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from July 2, 2013 call
- Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback)
- Aquaculture - Lignin sulfonate (feed binder) (JR) - TR sufficiency
- Aquaculture - Tocopherols (TF/CBo) checklist review
- Aquaculture - Trace Minerals (CW/FT) - TR sufficiency

Discussion:

- Notes from July 2 approved with no changes.
- Acidified Sodium Chlorite (JD). WF and FT were going to provide feedback to JD, but the topic was postponed until the next call.
- Aquaculture - Lignin sulfonate (feed binder) (JR) – The group discussed the TR which they found sufficient. Lignin sulfonate is a byproduct of wood pulp and is used a feed binder. It's particularly useful in aquatic fish feed because it takes a long time to dissolve, and the Aquaculture Working Group (AWG) feels it's an excellent option. It is presently on National List at §205.601 in

terrestrial crop production. The checklist will be ready to review on the next call. TF will send note to Lisa Brines that the TR is sufficient.

- Aquaculture - Tocopherols (TF/CBo) checklist review- CBo/TF circulated a draft checklist to the group and asked for input in order to complete it. The members discussed various questions including: whether or not tocopherols are derived by a naturally occurring process (irrelevant because this material is being petitioned is synthetic); If there are natural alternatives (Rosemary extract is an alternative but alone it alters the flavor and in combination with another material it is very effective); and the commercial availability of tocopherols that are manufactured via less toxic processes (i.e. without hexane). The group discussed the possibility of including an annotation regarding not allowing hexane extracted tocopherols and not allowing tocopherols which had any feedstock that may have been GMO. The Subcommittee is considering including questions in the proposal, and feels that if they do not glean the information they need, they have the option of deferring the vote at the fall meeting until they can discuss and research it further. The group agreed that the goal is to move the proposal forward and collect public comment and feels that there is enough info to complete the checklist. CBo and TF will flesh out the checklist and concentrate the questions to forward to the members, including the Board members who will be visiting the Aquaculture facility in Maine at the end of July.
- Aquaculture - Trace Minerals (CW/FT) – The lead reviewer found the TR sufficient, and noted that the checklist was already completed and circulated to the group. The members will discuss the checklist on the next call. The Chair will send a note to the National List Manager indicated that the TR is sufficient.

Future Call Schedule:

July 16, 2013 3:00 ET

- Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback) -postponed
- Aquaculture - Lignin sulfonate (feed binder) (JR) - TR sufficiency
- Aquaculture - Tocopherols (TF/CBo) checklist review
- Aquaculture - Trace Minerals (CW/FT) - TR sufficiency

July 30, 2013 3:00 ET

- Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback)
- Aquaculture - Trace Minerals - checklist review/vote
- Aquaculture - Lignin sulfonate (feed binder) (JR) - review checklist/vote
- Aquaculture - Tocopherols (TF/CBo)- discuss draft proposal/vote?

August 6, 2013 3:00 ET

- Methionine in organic poultry feed- Review proposal? Cklist? Vote?

August 20, 2013 3:00 ET

- Omnivore diets (methionine) - discuss/vote

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
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NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	September 11, 2013
Discuss workplans on ES call	September 13, 2013
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Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
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Fall 2013 NOSB Meeting – Louisville, KY	October 22-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, July 30, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Jean Richardson (JR), Francis Thicke (FT), Joe Dickson (JD), Colehour Bondera (CBo), Wendy Fulwider (WF) (Vice chair), Calvin Walker (CW)

Absent: Mac Stone (MS), Nick Maravell (NM)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Nov 2011	Proposal. TR received 11/15/11.		Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested	06 18 13 Revised annotation and will revote via email 07 30 13	Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	2013 TR	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	July 2013	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13. TR found sufficient 07 16 13	07 30 13	Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	July 2013 Feb 2011 TR (Crops)	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 07 08 13. TR suff due 09 09 13 . TR found sufficient 07 16 13	07 30 13	Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)	NA	Spring 2014
Sodium chlorite, Acidified (SCA)	205.603	JD	May 2013 2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. TR found suff 07 30 13		Fall 2013
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)- proposal	TF/CW	Yes	Disc doc from Fall 2012			final report on discussion doc Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12		NA	Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from July 16, 2013 call
- Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback)
- Aquaculture – Chlorine (JD) revote
- Aquaculture - Trace Minerals (TF)- checklist review/vote
- Aquaculture - Lignin sulfonate (feed binder) (JR) - review checklist/vote
- Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote?
- Research Priorities
- Report about aquaculture field trip from Jean

Discussion:

- Notes from July 16 approved with no changes.
- Acidified Sodium Chlorite (JD) - The group discussed the TR and noted that it provided a thorough assessment of alternative materials. JD asked that FT and WF provide input into the review since they both have backgrounds in livestock. WF added that based on community input, the need is not there and will discuss this on a future call. The group found the TR found sufficient, and TF will send L. Brines a note regarding their determination.

- Aquaculture - Chlorine. The annotation in the original proposal (which was voted on June 18) was altered for consistency with other uses in Crops so the group chose to re-vote on this item. The modified language reads:

Chlorine Materials are petitioned for use in aquatic livestock production, to be added to 205.611 - *Synthetic substances allowed for use in organic aquatic animal production* as follows: (x) Chlorine materials—disinfecting and sanitizing food contact surfaces, *Except*, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (Calcium hypochlorite; Chlorine dioxide; and Sodium hypochlorite). JD will send the annotations to the group and the members will vote via email.

Note: MA will add the votes to the notes after email vote is completed.

Follow-up note: After further discussion, the NOP suggested a change to the annotation, so the group withdrew this vote and revoted on Chlorine during the August 6, 2013 call

Motion to add Chlorine Materials to § 205.611: with the following annotation: Chlorine materials—disinfecting and sanitizing food contact surfaces, *Except*, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (Calcium hypochlorite; Chlorine dioxide; and Sodium hypochlorite).

Motion by: JD

Seconded by: TF

Yes: No: 0 Abstain: 0 Absent: 0 Recuse: 0

TF: Y, FT: , JR: Y, JD: Y, CW: , CBo: N, WF: , MS: , NM:

- Aquaculture - Trace Minerals – The group briefly discussed trace minerals noting that they are required and that there doesn't seem to be a difference between trace minerals in landbased vs. aquatic environments. The group proceeded to vote.

Motion to classify trace minerals as synthetic

Motion by: CW

Seconded by: FT

Discussion: none

Yes: 7 No: 0 Abstain: 0 Absent: 2 Recuse: 0

Motion to add trace minerals as petitioned on section 205.611

Motion by: FT

Seconded by: CW

Discussion: none

Yes: 7 No: 0 Abstain: 0 Absent: 2 Recuse: 0

FT will revise the checklist and add the votes and send it to the group, the Chair and MA.

- Aquaculture - Lignin sulfonate (feed binder) (JR) – The lead reviewer summarized the proposal for the group, indicating that the material fails all review criteria and there are several alternatives. Lignin Sulfonate is synthetic and currently approved for Crop production. JR briefed the members about the Maine aquaculture tour and noted that one producer in Maine did not

use lignin sulfonate as a feedbinder, but used two alternatives instead. JR asked several experts (fish nutritionists, aquaculturists etc.) about the need for this material and got consistent answers about the lack of essentiality and necessity. Members also discussed the European standards, CODEX standards and producer standards. SU asked if water temperature was a factor i.e. what about catfish in warmer water? JR will seek more information about this.

Motion to classify Lignin sulfonate, CAS numbers: 8062-15-5 (lignin sulfonic acid), 8061-51-6 (lignin sulfonic acid, sodium salt), 9009-75-0 (sodium lignosulfonate), 8061-54-9 (magnesium lignosulfonate), 8061-53-8 (ammonium lignosulfonate) and 8061-52-7 (calcium lignosulfonate) as synthetic.

Motion by: JR

Seconded by: CW

Discussion: none

Yes: 6 No: 0 Abstain: 0 Absent: 3 Recuse: 0

Motion to add Lignin sulfonate, CAS numbers: 8062-15-5 (lignin sulfonic acid), 8061-51-6 (lignin sulfonic acid, sodium salt), 9009-75-0 (sodium lignosulfonate), 8061-54-9 (magnesium lignosulfonate), 8061-53-8 (ammonium lignosulfonate) and 8061-52-7 (calcium lignosulfonate) on section 205.611 of the National List without annotation

Motion by: JR

Seconded by: JD

Discussion: none

Yes: 0 No: 6 Abstain: 0 Absent: 3 Recuse: 0

- Aquaculture - Tocopherols (TF/CBo) - Deferred to August 6 call
- Research Priorities - Deferred to August 6
- Aquaculture field trip. JR gave a brief report of the Maine aquaculture visit that several of the Board members made. They looked at several facilities in the region, both net pens and open systems, and also met with oyster farmers. In response to a couple of questions that the Board members posed prior to the visit - Vaccines are all non-GMO, net pens are farmed for 1.5 years then left to fallow, much like one would do with a land based system.

Future Call Schedule:

July 30, 2013 3:00 ET

Acidified Sodium Chlorite (JD) - TR sufficiency (WF and FT will provide feedback)

Aquaculture - Trace Minerals - checklist review/vote -done

Aquaculture - Lignin sulfonate (feed binder) (JR) - review checklist/vote -done

Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote? - deferred to August 6

Discuss Research Priorities - deferred to August 6

August 6, 2013 3:00 ET

Methionine in organic poultry feed- Review proposal? Cklist? Vote?

Acidified Sodium Chlorite (JD) – Review checklist. WF and FT will provide feedback

Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote

Discuss Research Priorities

August 20, 2013 3:00 ET

Omnivore diets (methionine) - discuss/vote

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	September 11, 2013
Discuss workplans on ES call	September 13, 2013
NOP provides written comments on workplans to NOSB	September 23, 2013
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 22-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, August 6, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Francis Thicke (FT), Colehour Bondera (CBo), Calvin Walker (CW), Mac Stone (MS)

Absent: Nick Maravell (NM), Joe Dickson (JD), Jean Richardson (JR), Wendy Fulwider (WF) (Vice chair)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Yes	Proposal. TR received 11/15/11.		Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested	Original vote 06 18 13 Revised annotation revote 08 06 13	Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13		Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes 2013 TR	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	2013 TR	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13. TR found sufficient 07 16 13	07 30 13	Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops) 2013 TR	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 07 08 13. TR suff due 09 09 13. TR found sufficient 07 16 13	07 30 13	Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)	NA	Spring 2014
Sodium chlorite, Acidified (SCA)	205.603	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. TR found suff 07 30 13		Fall 2013

Other projects

Project	Contact	TR Reqst?	Notes	Vote	Meeting
Omnivore diets (methionine)- proposal	TF/CW	Yes	Disc doc from Fall 2012		final report on discussion doc Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12	NA	Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from July 30, 2013 call
- Methionine in organic poultry feed - Review proposal? Cklist? Vote?
- Acidified Sodium Chlorite (JD) - Review checklist. WF and FT will provide feedback deferred to next meeting
- Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote
- Discuss Research Priorities
- Vote on revised Chlorine checklist annotation

Discussion:

- Notes from July 30 approved with no changes.
- Methionine in organic poultry feed - Although the proposal is not completed yet the group discussed the framework and content they would like to include. The petitioner does not seek to increase the overall levels of methionine that are allowed, but instead would like to regulate the

amounts that are administered at certain stages of a bird's life, supplying more or less, depending on the need and stage of development. The members discussed animal welfare issues related to levels of methionine and potential alternatives that may exist, which may not currently be available in adequate quantities. MS will have a document ready for the group to review on the next conference call. The group also discussed the public comments received, which were supportive of the change to methionine levels at different stages over the life of a bird. A member noted that with this small change, they may not change the world, but they can help the chickens.

- Acidified Sodium Chlorite (JD). WF and FT will provide feedback to JD. discussion was deferred to next call.
- Aquaculture - Tocopherols (TF/CBo) - CBo updated the checklist and members briefly discussed the TR and the information about alternative methods. CBo will have the document ready for the August 20 call.
- Discuss Research Priorities – A member suggested methionine as a potential topic for the research priorities. Another member suggested research on salmonella in pasture raised poultry. The members were asked to send suggestions to the Chair via email so she can forward them to ZS for inclusion on the Research Priorities list. CW offered to send the list from last year to the group to review, in case there were potential topics that were not included last time.
- Revised Chlorine checklist annotation – the NOP suggested a language change to the chlorine annotation to be consistent with chlorine guidance after the vote was taken during the last call, so it was revised and the Subcommittee revoted:

Chlorine Vote: ABS note: 5 members were present to vote and the voting was left open so the absent members could vote via email. MA will send email asking for members to cast their vote by Friday August 9.

Motion to classify chlorine materials (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite) as synthetic. (From the original vote June 18)

Motion by: JD

Seconded by: JR

Yes: 9 No: 0 Absent: 0 Abstain: 0 Recuse: 0

Motion to add chlorine materials (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite) to §205.611 with the following annotation: Chlorine materials - Disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water in direct animal contact (for example, culture water) shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

Motion by: MS

Seconded by: CW

Yes: No: 0 Abstain: 0 Absent: 0 Recuse: 0

TF: Y, FT: Abstain, JR: Y, JD: Absent, CW: Y, CBo: N, WF: Y, MS: Y, NM: Absent

ABS NOTE: Vote was retaken and completed August 20. See LS Notes from August 20 for final tally

Future Call Schedule:

August 6, 2013 3:00 ET

- Methionine in organic poultry feed- Review proposal? Cklist? Vote?
- Acidified Sodium Chlorite (JD) – Review checklist. WF and FT will provide feedback
- Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote
- Discuss Research Priorities

August 20, 2013 3:00 ET

- Confirm vote on Chlorine
- Omnivore diets (methionine) - discuss/vote
- Tocopherols - discuss/vote
- Acidified Sodium Chlorite (JD) - vote

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	September 11, 2013
Discuss workplans on ES call	September 13, 2013
NOP provides written comments on workplans to NOSB	September 23, 2013
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NOP - Send compiled public comments to NOSB	~October 7, 2013
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Fall 2013 NOSB Meeting – Louisville, KY	October 22-24, 2013

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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, August 20, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Francis Thicke (FT), Colehour Bondera (CBo), Mac Stone (MS), Nick Maravell (NM), Joe Dickson (JD), Wendy Fulwider (WF) (Vice chair)

Absent: Jean Richardson (JR), Calvin Walker (CW)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU), Mark Bradley (MBr)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	Yes	Proposal. TR received 11/15/11.	08 20 13	Fall 2013
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05/30/12. Petition found sufficient 07 03 12. No TR requested	Original vote 06 18 13 Revised annotation revote 08 06 13 and 08 20 13	Fall 2013
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05/30/12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13	08 26 13 (via email)	Fall 2013
Aquaculture – Vitamins	205.611	CW/FT	Yes 2013 TR	Petition sent to LS on 05/30/12. Response due ~07/30/12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04/29/13. TR found suff 06 18 13.	06 18 13	Fall 2013
Aquaculture - Trace Minerals	205.611	CW/FT	2013 TR	Petition sent to LS on 06/08/12. Response due ~08/08/12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13. TR found sufficient 07 16 13	07 30 13	Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops) 2013 TR	Petition sent to LC on 06/18/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 07 08 13. TR suff due 09 09 13. TR found sufficient 07 16 13. WITHDRAWN BY PETITIONER 8/6/13	07 30 13 WITH-DRAWN BY PETITIONER 08 06 13	Fall 2013
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Spring 2014
Acidified Sodium chlorite (ASC)	205.603(a)(b)	JD	2008 TR	Petition sent to LS on 06/12/12. Petition found sufficient 9/18. TR requested on 9/18/12. TR sent to LS 05 08 13. TR found suff 07 30 13	08 20 13	Fall 2013

Other projects

Project	Contact	TR Reqst?	Notes	Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012	NA	final report on discussion doc Fall 2013
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12	NA	Interim/Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from August 6, 2013 call
- Confirm vote on Chlorine
- Methionine in organic poultry feed- discuss/vote
- Tocopherols - discuss/vote
- Acidified Sodium Chlorite (JD) - vote

Discussion:

- Notes from August 6 approved with no changes
- Confirm vote on Chlorine - done. See below.

Vote on Chlorine:

Motion to classify chlorine materials (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite) as synthetic. (From the original vote June 18 when all members were present)

Motion by: JD

Seconded by: JR

No Additional discussion

Yes: 9 No: 0 Absent: 0 Abstain: 0 Recuse: 0

Motion to add chlorine materials (Calcium hypochlorite, chlorine dioxide, sodium hypochlorite) to §205.611 with the following annotation: Chlorine materials - Disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water in direct animal contact (for example, culture water) shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

Motion by: JD

Seconded by: TF

No further discussion

Yes: 5 No: 1 Abstain: 1 Absent: 2 Recuse: 0 (Vote was completed August 20 and via email prior to the call)

- Methionine in organic poultry feed. MS discussed the document which was circulated prior to the call, indicating the change in rate but not overall amount of methionine. MS will make some minor edits to some of the language in the current document and add some questions the Subcommittee discussed on the call today and finalize the proposal.

Vote on Methionine in organic poultry feed

Motion to accept the following amendment at §205.603(d): DL–Methionine, DL–Methionine—hydroxy analog, and DL–Methionine—hydroxy analog calcium (CAS #'s 59-51-8, 583-91-5, 4857-44-7, and 922-50-9) -for use only in organic poultry production at the following maximum average ton of 100% synthetic methionine in the diet over the life of the bird: Laying and broiler chickens – 2 pounds; Turkeys and all other poultry – 3 pounds.

Motion by: MS

Seconded by: FT

No further discussion

Yes: 7 No: 0 Abstain: 0 Absent: 2 Recuse: 0

- Acidified Sodium Chlorite (ASC) (JD). Members discussed ASC and proceeded to vote. Two of the members with expertise in dairy and livestock felt that this was not essential, and that there are alternatives already on the National List. A member added that if ASC was wholly organic then it would make sense to keep it, but given that there are alternatives it doesn't seem necessary.

Acidified Sodium Chlorite Vote:

Motion to classify Acidified Sodium Chlorite (CAS # 7758-19-2 (sodium chlorite) and CAS #

14998-27-7 (chlorous acid) as synthetic.

Motion by: JD

Seconded by: CBo

Yes: 8 No: 0 Absent: 1 Abstain: 0 Recuse: 0 (JR voted synthetic via email 08 20 13)

Motion to list Sodium Chlorite, Acidified (CAS #s 13898-47-0 (Chlorous Acid), 7758-19-2 (Sodium Chlorite)) to section 205.603(a) and 205.603(b) of the National List annotated as follows:
Sodium Chlorite, Acidified – Allowed for use on organic livestock as a pre and post teat dip treatment. Acidified with lactic acid or other GRAS acid.

Motion by: JD

Seconded by: CBo

No further discussion

Yes: 0 No: 8 Abstain: 0 Absent: 1 Recuse: 0 (JR voted N via email 08 20 13)

- Tocopherols (CBo). CBo felt that we do not have enough time to vote on this without more discussion and added that it would be more useful to have a clear summary so everyone is sure about what we are voting on. CBo and TF will discuss this, write a summary and send it out for email vote by end of the day Thursday (August 22). The Chair will ask that members cast their votes by Monday afternoon, August 26th.

The vote was taken via email and finalized August 26, 2013

Motion to classify Tocopherols as petitioned as synthetic.

Motion by: TF

Seconded by: CBo

Yes: 9 No: 0 Absent: Abstain: 0 Recuse: 0

Motion to list Tocopherols on section 205.611 of the National List for use in aquatic livestock production with the following annotation: Tocopherols derived from vegetable oils, not extracted using volatile synthetic solvents, are allowed as ingredients in aquatic livestock production when rosemary extracts are not a suitable alternative.

Motion by: TF

Seconded by: CBo

No further discussion

Yes: 9 No: Abstain: 0 Absent: Recuse: 0

- The meeting was adjourned

Future Call Schedule:

August 6, 2013 3:00 ET

Methionine in organic poultry feed- Review proposal? Checklist? Vote?

Acidified Sodium Chlorite (JD) – Review checklist. WF and FT will provide feedback

Aquaculture - Tocopherols (TF/CBo) - discuss draft proposal/vote

Discuss Research Priorities

August 20, 2013 3:00 ET

Confirm vote on Chlorine - done

Methionine in organic poultry feed - discuss/vote -done

Tocopherols - discuss/vote- deferred to email

Acidified Sodium Chlorite (JD) – vote -done

September 3, 2013 3:00 ET

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
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**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, September 3, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Francis Thicke (FT), Colehour Bondera (CBo), Mac Stone (MS), Nick Maravell (NM), Joe Dickson (JD)

Absent: Jean Richardson (JR), Calvin Walker (CW), Wendy Fulwider, Vice Chair (WF)

Staff: Michelle Arsenault (MA) (Advisory Board Specialist (ABS)), Scott Updike (SU)

Workplan

Petitioned Materials						
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Aquaculture - Trace Minerals	205.611	CW/FT	2013 TR	Petition sent to LS on 06 08 12. Response due ~08 08 12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13. TR found sufficient 07 16 13	07 30 13	Fall 2013

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops) 2013 TR	Petition sent to LC on 06 18 12. Petition found sufficient 9 18 12. TR requested on 09 18 12. TR sent to LS 07 08 13. TR suff due 09 09 13. TR found sufficient 07 16 13. WITHDRAWN BY PETITIONER 08 06 13	07 30 13 WITH-DRAWN BY PETITIONER 08 06 13	Fall 2013
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Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012. Work is completed. No final report will be presented		NA	NA
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12 05 11)	Fall 2012 Proposal TR sent to LC on 06 23 11; Sufficiency response rec'd 10 26 11; revised TR sent to LC 12 05 11; TR accepted as sufficient on 02 07 12		NA	Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from August 20, 2013 call
- Discuss spring 2014 workplan

Discussion:

- Notes from August 20 approved with no changes
- The members discussed the Crops Subcommittee plan to set up a seminar series on aquaculture similar to the one the Livestock Subcommittee conducted, in an effort to move the CS proposals forward for the spring 2014 NOSB meeting. The Crops members had expressed a discomfort with the level of preparedness which is why the 5 Crops aquaculture proposals were tabled, and TF asked if the LS members felt comfortable with the proposals they put forth. Although some members expressed their hesitation, the overall sense was that the Livestock proposals were better defined and that there was no reason to delay. The group discussed various aspects of this decision such as receipt of public comment, and the release of the final rule, which they feel will not alter the outcome as they have a fairly clear sense of what the final rule will include. MS added that the aquaculture proposals will lend itself to a round-robin discussion at the fall meeting, and will include this information in the introduction to the LS session at the meeting.

- Spring 2014 workplan. The Subcommittee will finalize the Vaccines from Excluded Methods (GMO Vaccines update) and report out during the spring 2014 meeting. The update will include a status update and notice that since the Working Group completed its task it is going to be disbanded. Aside from this, the only item on the LS workplan is Aquaculture - Biologics: Vaccines for Aquatic Animals.
- Methionine - TF and CW will work on some language to finalize this doc.
- The LS meeting was adjourned

Future Call Schedule:

August 20, 2013 3:00 ET

- Confirm vote on Chlorine - done
- Methionine in organic poultry feed - discuss/vote -done
- Tocopherols - discuss/vote- deferred to email
- Acidified Sodium Chlorite (JD) – vote -done

September 3, 2013 3:00 ET

Workplan

September 17, 2013 3:00 ET

October 1, 2013 3:00 ET

October 15, 2013 3:00 ET

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	September 11, 2013
Discuss workplans on ES call	September 13, 2013
NOP provides written comments on workplans to NOSB	September 23, 2013
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	October 11, 2013
Fall 2013 NOSB Meeting – Louisville, KY	October 22-24, 2013

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, November 5, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Colehour Bondera (CBo), Jean Richardson (JR), Calvin Walker (CW), Mac Stone (MS)

Absent: Francis Thicke (FT), Joe Dickson (JD), Nick Maravell (NM), Wendy Fulwider, Vice Chair (WF)

Staff: Michelle Arsenault (MA), Scott Updike (SU)

Workplan (Will be replaced with updated version after November Executive Call)

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Methionine in organic poultry feed	205.603	MS	2011 TR	Proposal. TR received 11 15 11.	08 20 13	Spring 2014
Aquaculture - Chlorine	205.609 205.611	JD	No Crops 2011 Crops 2006 Crops 1995 Livestock 2006 Handling 2006	Petition sent to LS on 05 30 12. Petition found sufficient 07 03 12. No TR requested	Original vote 06 18 13 Revised annotation revote 08 06 13 and 08 20 13	Fall 2013 Meeting cancelled
Aquaculture – Tocopherols	205.611	TF/CBo	2013 TR 1995 TAP rvw	Petition sent to LS on 05 30 12. Petition found sufficient 08 06 12. TR requested 08 06 12. Draft TR sent to LS on 04 16 13. TR found sufficient 06 04 13	08 26 13 (via email)	Fall 2013 Meeting cancelled
Aquaculture – Vitamins	205.611	CW/FT	Yes 2013 TR	Petition sent to LS on 05 30 12. Response due ~07 30 12. Petition found sufficient 08 06 12. Requested joint TR with Minerals 08 06 12. TR sent to LS 04 29 13. TR found suff 06 18 13.	06 18 13	Fall 2013 Meeting cancelled
Aquaculture - Trace Minerals	205.611	CW/FT	2013 TR	Petition sent to LS on 06 08 12. Response due ~08 08 12. Petition found sufficient 08 06 12? Requested joint TR with Vitamins 08 06 12. TR sent to LS 06 25 13. Suff due 08 27 13. TR found sufficient 07 16 13	07 30 13	Fall 2013 Meeting cancelled

Aquaculture – Lignin sulfonate (feed binder)	205.611	JR	Yes Feb 2011 TR (Crops) 2013 TR	Petition sent to LC on 06 18 12. Petition found sufficient 9 18 12. TR requested on 09 18 12. TR sent to LS 07 08 13. TR suff due 09 09 13. TR found sufficient 07 16 13. WITHDRAWN BY PETITIONER 08 06 13	07 30 13 WITH-DRAWN BY PETITIONER 08 06 13	NA
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for fall 2013 meeting)		Spring 2014
Acidified Sodium chlorite (ASC)	205.603(a)(b)	JD	2008 TR	Petition sent to LS on 06 12 12. Petition found sufficient 09 18. TR requested on 09 18 12. TR sent to LS 05 08 13. TR found suff 07 30 13	08 20 13	Fall 2013 Meeting cancelled
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Omnivore diets (methionine)-proposal	TF/CW	Yes	Disc doc from Fall 2012. Work is completed. No final report will be presented		NA	NA
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12 05 11)	Fall 2012 Proposal TR sent to LC on 06 23 11; Sufficiency response rec'd 10 26 11; revised TR sent to LC 12 05 11; TR accepted as sufficient on 02 07 12		NA	Interim/ Final? Report Spring 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from September 3, 2013 call
- Discuss public comments re: Chlorine, Methionine and Tocopherols

Discussion:

- Notes from September 3, 2013 approved with no changes
- Public comments re: Chlorine, Methionine and Tocopherols. The group discussed various comments submitted for the fall 2013 proposals and whether or not any of the proposals will need to be revised based on this feedback. MS will review the comments on Methionine and the group will discuss them on the November 19 call. Upon initial review, it appears that this proposal will be revised for the spring 2014 meeting. A member suggested that it might be helpful to read the proposal and comments from the perspective of an inspector and consider how they would develop a template for inspection. The group will review the comments on the chlorine proposal and have scheduled the follow-up discussion for December 3, 2013.
- The group discussed the appropriate level of detail in the NOSB proposals; the NOP indicated that certain details are helpful for the rulewriting process. The NOP also discussed how

recommendations with implications for large economic costs, such as the costs predicted for the animal welfare recommendation, can delay the rule writing process. In general, the more detailed the proposal, including good estimates of costs, the easier and faster it is for NOP to complete the rule writing process.

- Aquaculture - Vitamins (CW) and Trace Minerals (FT). The comments received do not warrant changes to the current proposals. The members noted that the NOSB did receive several comments about reviewing the aquaculture materials without having a published rule, which the commenters were opposed to. The NOP indicated that the aquaculture rule may be delayed until the spring due to various factors.
- The group discussed additional workplan items including prioritization of the research priorities.
- The workplan table has been updated with the 2014 workplan items and will replace the one above in the next set of notes. Additionally, a 2014 milestone timeline has been added below and will replace the fall 2013 milestones.

Future Call Schedule:

September 17, 2013 3:00 ET-cancelled
 October 1, 2013 3:00 ET (CANCELLED)
 October 15, 2013 3:00 ET (CANCELLED)
 November 5, 2013 3:00 ET
 November 19, 2013 3:00 ET
 Discuss Public comments for fall 2013 proposals
 Methionine - discuss public comments
 Tocopherols - discuss public comments
 December 3, 2013 3:00 ET
 Chlorine - discuss public comments
 December 17, 2013 3:00 ET
 Aquaculture - Biologics: Vaccines for Aquatic Animals

Fall 2013 Milestones	Target date
NOP – Complete tentative agenda	August 9, 2013
Fall 2013 proposals due to NOP	August 27, 2013
NOP - Post proposals, Publish FRN, Open public comment	September 3, 2013
Subcommittees submit tentative workplans to NOP	September 11, 2013
Discuss workplans on ES call	September 13, 2013
NOP provides written comments on workplans to NOSB	September 23, 2013
Public comment closes	October 1, 2013
NOP - Send compiled public comments to NOSB	~October 7, 2013
Workplans finalized on ES call	CANCELLED
Fall 2013 NOSB Meeting – Louisville, KY	CANCELLED

Spring 2014 Milestones	Target date
Subcommittee requests technical reports for Sunset 2016 substances	Jan 15, 2014
NOSB Training meeting	Feb 4 - 5, 2014
NOP – Complete tentative agenda	Feb 7, 2014
Fall 2013 proposals due to NOP	Feb 26, 2014
NOP - Post proposals, Publish FRN, Open public comment	Mar 10, 2014
Subcommittees submit tentative workplans to NOP	Mar 12, 2014
Discuss workplans on ES call	Mar 14, 2014
NOP provides written comments on workplans to NOSB	Mar 28, 2014
Public comment closes	Apr 8, 2014
Workplans finalized on ES call	Apr 11, 2014
NOP - Send compiled public comments to NOSB	Apr 14, 2014
Spring 2014 NOSB Meeting – San Antonio, TX	~Apr 28- May 1, 2014

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock Subcommittee (LS) Meeting Notes
Tuesday, November 19, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Colehour Bondera (CBo), Jean Richardson (JR), Mac Stone (MS), Francis Thicke (FT), Wendy Fulwider, Vice Chair (WF), Joe Dickson (JD), Calvin Walker (CW), Jay Feldman (JFe) - sitting in

Absent: Nick Maravell (NM)

Staff: Michelle Arsenault (MA), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for mid Dec.)		Proposal Spr 2014
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12		NA	Interim/ Final? Report Fall 2014

* Yellow highlight indicates committee action needed

Agenda:

- Approve Notes from November 5, 2013 call
- Discuss Public comments for fall 2013 proposals
- Methionine - discuss public comments
- Tocopherols - discuss public comments

Discussion:

- Notes from November 5, 2013 approved with no changes
- Public comments for fall 2013 proposals - The members discussed various aquaculture comments and noted that many of the commenters were uncomfortable with the idea of making decisions about materials without standards in place. It was noted on an earlier Subcommittee call that the publication of the standards has taken significant time and the NOP

does not have a set date for proposed rule release. SU informed the group that he recently met with various USDA entities, and several groups asked about recommendations from the NOSB, as they are very interested. These groups also expressed their view that it would be easier to get the standards through the clearance process if there are finalized materials recommendations ready. The Subcommittee discussed its concern about reviewing materials with the appropriate rigor without the standards in place and noted a prior situation in which this complicated matters. The members discussed how to proceed. A straw poll was taken, indicating that members were uncomfortable sending forth additional proposals without having proposed standards published. A member noted that it appears that the public comment has shifted the sentiment of the Subcommittee with regard to voting on aquaculture materials without an aquaculture standard in place. TF requested that SU inform the program about this change. Members were supportive of moving ahead and re-reviewing the aquaculture substances without the published standard with the understanding that they may make changes or defer the vote based on new information from public comment or if the regulation is not published by the spring meeting date. MS suggested developing a matrix containing information about the materials under review, their uses, who uses them vs. who doesn't, and brief definitions of systems. JR will forward existing data sets that can provide the foundation for the matrix and MS will compile it and forward it to Dr. Tidwell for further input or feedback. The group also discussed developing specific targeted questions for future guest speakers which will help focus the issues under review. JD offered to forward these targeted questions to colleagues knowledgeable in the area of aquaculture.

- Methionine - Review of public comment. Egg producers are in accordance with the proposed adjustment in methionine levels and can adapt, but the broiler groups feel that the NOSB's recommendation is not ideal for animal welfare. It appears that both groups have animal welfare issues at the forefront and are not basing their arguments on economics. A member asked if the NOSB should differentiate between these groups and rewrite the proposal accordingly. The members also discussed the certifier community and the need for a better feed tag verification system. MS will meet with a state feed official and to discuss options to accommodate the certifiers so they can inspect accurately. The NOP mentioned public comments that indicated an increased death rate: 100,000 out of 30 million organic broilers may have died as a result of the lowered methionine standard. The NOP added that because broilers have a short life span, averaging over the life of the bird is not as valuable a tool for them as it is for layers. The Subcommittee discussed how to proceed and feels that for now they have a strong recommendation and will leave the proposal as is. The group will revisit this on the December 3 call.

Future Call Schedule:

November 5, 2013 3:00 ET

November 19, 2013 3:00 ET

Discuss Public comments for fall 2013 proposals

Methionine - discuss public comments

December 3, 2013 3:00 ET

Methionine - moving forward. Modification or leave as is?

Assign Crops aquaculture materials. MA will attach the last Crops notes with the materials that need to be reassigned.

Discuss matrix on aquaculture

Discuss potential for expert testimony

December 17, 2013 3:00 ET

Tocopherols - discuss public comments

Chlorine - discuss public comments

Aquaculture - Biologics: Vaccines for Aquatic Animals if TR is back.

Spring 2014 Milestones	Target date
Subcommittee requests technical reports for Sunset 2016 substances	Jan 15, 2014
NOSB Training meeting	Feb 4 - 5, 2014
NOP – Complete tentative agenda	Feb 7, 2014
Fall 2013 proposals due to NOP	Feb 26, 2014
NOP - Post proposals, Publish FRN, Open public comment	Mar 10, 2014
Subcommittees submit tentative workplans to NOP	Mar 12, 2014
Discuss workplans on ES call	Mar 14, 2014
NOP provides written comments on workplans to NOSB	Mar 28, 2014
Public comment closes	Apr 8, 2014
Workplans finalized on ES call	Apr 11, 2014
NOP - Send compiled public comments to NOSB	Apr 14, 2014
Spring 2014 NOSB Meeting – San Antonio, TX	~Apr 28- May 1, 2014

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock/Aquaculture Subcommittee (LS) Meeting Notes
Tuesday, December 3, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Jean Richardson (JR), Mac Stone (MS), Francis Thicke (FT), Joe Dickson (JD), Colehour Bondera (CBo), Calvin Walker (CW), Jay Feldman (JFe) - sitting in

Absent: none

Staff: Michelle Arsenault (MA), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for mid Dec.)		Proposal Spr 2014
Aquaculture-CO₂	205.609	TF/CBo	No	Petition sent to CS on 5 30 12. Will rqst modification from petitioner (for use pattern). Updated petition was deemed sufficient. TR deemed unnecessary.		Proposal Spr 2014
Aquaculture-Chlorine	205.609 and 205.611	JD	No	Petition sent to CS on 5 30 12. Determine petition sufficiency. CS requested clarification from petitioner 11 20 12. TR deemed suff 11 20 12. Aquaculture TR deemed unnecessary. Sent follow up questions to petitioner. Response deemed sufficient.		Proposal Spr 2014
Aquaculture-Micronutrients	205.609	FT/CW	2010 TR (Nickel) 6/2013 Minerals TR	Petition sent to CS on 06 08 12. Petition sufficiency response due 08 08 12? CS sent request to NL Mgr 12 04 12 for additional info. Questions clarified by petitioner. Petition found sufficient 06 18 13 and 07 02 13. TR deemed unnecessary.		Proposal Spr 2014

Aquaculture- Lignin sulfonate (chelating agent for aquatic plants)	205.609	JR	2/2011 Crops TR 7/2013 TR Aquatic Animals TR	Petition sent to CS on 07 03 12. Petition Sufficiency Response due 09 04 12. CS sent request to NL Mgr 12 04 12 for additional info and TR. Questions clarified by petitioner. Petition found sufficient 06 18 13 and 07 02 13.		Proposal Spr 2014
Aquaculture- plant production Vitamins (B1, B12, H) List at \$205.609		FT/CW	4/2013 Aquatic Animals TR	Petition sent to CS 08 10 12. Petition Sufficiency response due 10 10 12. Petition found sufficient 06 18 13.		Proposal Spr 2014

Other projects

Project	Contact	TR Reqst?	Notes	Vote	Meeting
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12	NA	Interim/ Final? Report Fall 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from November 19, 2013 call
- Methionine: Determine if proposal needs modification
- Assign Crops aquaculture materials (added to table above)
- Discuss matrix on aquaculture (MS)
- Discuss potential for expert testimony

Discussion:

- Notes from November 19, 2013 were approved with no changes
- Methionine: The lead reviewer, MS, is still conducting research and follow-up conversations based on the public comments. The only aspect in question is whether or not there should be a difference for broilers vs. layers. On the last call, the group indicated that they did not support making this distinction in the proposal. A member posed a question to the group about how an inspector would verify the levels, concerned that it would be difficult or impossible to do so. Members discussed public comments that addressed the death rate of birds based on the change in methionine levels. The NOP offered some information gleaned from the the organic broiler producer who submitted the public comments about death rates: The rates that were reported were based on a comparison of death rates for a small percentage of birds (10 million) using the old methionine allowance as the baseline and comparing the death loss of 10 million birds after the reduction in methionine levels. The NOP noted that this was a very small

sampling size: ~ less than 1.0 %. One LS member stated this was not a scientific study and could not be used as a basis on which to make decisions. The members reemphasized the public support of the inclusion of animal welfare aspects, which were of primary concern. MS will provide an update on the Dec 17 call.

- Assign Crops aquaculture materials (added to table above)
 - The LS Chair asked that people review petitions and TR/checklists and share their recommendations with the rest of the Subcommittee.
 - The Chair feels that the five aquaculture materials that were moved from Crops should be reviewed by the same people who conducted the reviews for Crops, or who reviewed the same/similar material for Livestock: lignin sulfonate (JR), vitamins, micronutrients (FT, CW), Chlorine (JD), and CO2 (TF/CBo). She also asked that the members review the past conversations about why the materials were tabled. The goal is for the Subcommittee to conduct a robust review and complete the checklists in a consistent manner, so the proposals can be presented with a systems perspective as opposed to individual materials. Tocopherols and Chlorine need to be added back onto the workplan table because they will be revised.
 - Aquaculture – Biologics: Waiting for TR, which is expected in late December
 - The group discussed the path forward and would like to be ready whether or not the standards are released by the spring 2014 NOSB meeting. A member noted the uneasiness about the lack of resolution and would like to move things forward while respecting the groups' and publics' uneasiness with having no standards.
 - A member indicated that there is a minority opinion for some of the aquaculture materials and would like to make sure that both perspectives are represented. The members discussed the best way to write the proposals to reflect this, noting that in the past the incorporation of a minority opinion made the document confusing and difficult to read. Another member supported a document with the minority opinion discussed in the discussion section. The voting record will reflect the differences. Another member suggested not using the terms majority and minority and instead discussing all of the aspects in one section without classifying them. The NOSB Chair urged the group to go forth with the proposals based on the understanding that the forthcoming rule will not alter what is currently in existence. This should allay anyone's concerns that the proposals will not align well with the new rule, and won't be as robust.
- Discuss matrix on aquaculture (MS). The matrix is being developed and MS will share the results on next call. In general it appears that an aquaculture system cannot be microbially overloaded because it has repercussions, so the system has a self-correcting nature.
- New Vice Chair. The new Livestock Vice Chair has not been determined yet, but TF will choose someone and let the group know on the next call.
- The LS Chair will solicit questions from the members and forward them to Jim Pierce before he joins the Dec 17 call. Jim can speak to the roles of the certifiers in standards and not just the specific materials.
- The call was adjourned.

Future Call Schedule:

November 19, 2013 3:00 ET

Discuss Public comments for fall 2013 proposals

Methionine - discuss public comments

December 3, 2013 3:00 ET

Methionine. Determine if proposal needs modification

Assign Crops aquaculture materials (added to table above)

Discuss matrix on aquaculture (MS)

Discuss potential for expert testimony

December 17, 2013 3:00 ET

Jim Pierce + additional OTCO expert on plant aquaculture – moved to Livestock/Aquaculture

Subcommittee call (MA sent invitation 11 29 13)

January 7, 2014 3:00 ET

Methionine, Tocopherols - discuss public comments

Chlorine - discuss public comments

Aquaculture - Biologics: Vaccines for Aquatic Animals if TR is back.

January 21, 2014 3:00 ET

February 4, 2014 3:00 ET

February 18, 2014 3:00 ET

Spring 2014 Milestones	Target date
Subcommittee requests technical reports for Sunset 2016 substances	Jan 15, 2014
NOSB Training meeting	Feb 4 - 5, 2014
NOP – Complete tentative agenda	Feb 7, 2014
Fall 2013 proposals due to NOP	Feb 26, 2014
NOP - Post proposals, Publish FRN, Open public comment	Mar 10, 2014
Subcommittees submit tentative workplans to NOP	Mar 12, 2014
Discuss workplans on ES call	Mar 14, 2014
NOP provides written comments on workplans to NOSB	Mar 28, 2014
Public comment closes	Apr 8, 2014
Workplans finalized on ES call	Apr 11, 2014
NOP - Send compiled public comments to NOSB	Apr 14, 2014
Spring 2014 NOSB Meeting – San Antonio, TX	~Apr 28- May 1, 2014

Note: Subcommittee notes may include preliminary discussions regarding substances considered for addition to or removal from the National List. They do not represent official National Organic Program (NOP) policy or regulations. Please see the NOP website for official NOP policy, regulations, and status of substances used in organic production and handling.

**National Organic Standards Board (NOSB)
Livestock/Aquaculture Subcommittee (LS) Meeting Notes
Tuesday, December 17, 2013, 3:00pm ET**

Attending: Tracy Favre, Chair (TF), Joe Dickson, Vice Chair (JD), Jean Richardson (JR), Mac Stone (MS), Francis Thicke (FT), Calvin Walker (CW), Colehour Bondera (CBo), Jay Feldman (JFe) - sitting in, Harold Austin - sitting in

Guests: Jim Pierce, OTCO and Ryan Costello, OTCO

Absent: Staff: Michelle Arsenault (MA), Scott Updike (SU)

Workplan

Petitioned Materials						
Substance	Nat'l List §	Contact	TR requested	Notes	Vote	Meeting
Aquaculture - Biologics: Vaccines for Aquatic Animals	205.611	JR	Y- new TR reqtd 2011 TR (Vaccines made from GMOs)	Petition sent to LS 06 14 12. Petition found sufficient and TR requested on 05 21 13. (NOP note: TR likely won't be back in time for mid Dec.)		Proposal Spr 2014
Aquaculture-CO₂	205.609	TF/CBo	No	Petition sent to CS on 5 30 12. Will rqst modification from petitioner (for use pattern). Updated petition was deemed sufficient. TR deemed unnecessary.		Proposal Spr 2014
Aquaculture-Chlorine	205.609 and 205.611	JD	No	Petition sent to CS on 5 30 12. Determine petition sufficiency. CS requested clarification from petitioner 11 20 12. TR deemed suff 11 20 12. Aquaculture TR deemed unnecessary. Sent follow up questions to petitioner. Response deemed sufficient.		Proposal Spr 2014

Aquaculture- Micronutrients	205.609	FT/CW	2010 TR (Nickel) 6/2013 Minerals TR	Petition sent to CS on 06 08 12. Petition sufficiency response due 08 08 12? CS sent request to NL Mgr 12 04 12 for additional info. Questions clarified by petitioner. Petition found sufficient 06 18 13 and 07 02 13. TR deemed unnecessary.		Proposal Spr 2014
Aquaculture- Lignin sulfonate (chelating agent for aquatic plants)	205.609	JR	2/2011 Crops TR 7/2013 TR Aquatic Animals TR	Petition sent to CS on 07 03 12. Petition Sufficiency Response due 09 04 12. CS sent request to NL Mgr 12 04 12 for additional info and TR. Questions clarified by petitioner. Petition found sufficient 06 18 13 and 07 02 13.		Proposal Spr 2014
Aquaculture- plant production Vitamins (B1, B12, H) List at §205.609		FT/CW	4/2013 Aquatic Animals TR	Petition sent to CS 08 10 12. Petition Sufficiency response due 10 10 12. Petition found sufficient 06 18 13.		Proposal Spr 2014
Methionine in organic poultry feed (MET)-petitioned	205.603	MS	2011 TR	TR received 11 15 11. Proposal being revised for spring 2014 meeting	08 20 13	Spr 2014
Other projects						
Project	Contact	TR Reqst?	Notes		Vote	Meeting
Vaccines from Excluded Methods (GMO Vaccines update)	JR/NM	Yes (revised and sent 12/5/11)	Fall 2012 Proposal TR sent to LC on 6/23/11; Sufficiency response rec'd 10/26/2011; revised TR sent to LC 12/5/11; TR accepted as sufficient on 2/7/12		NA	Interim/ Final? Report Fall 2014

* **Yellow highlight** indicates committee action needed

Agenda:

- Approve Notes from December 3, 2013 call
- Guest speakers for Aquaculture

Discussion:

- Notes from December 3, 2013 call approved with no changes.
- Guests: Jim Pierce and Ryan Costello both of Oregon Tilth (OTCO). Both Jim and Ryan introduced themselves and gave a little background about their experience with organic and aquaculture. Jim participated on a previous call for Livestock and discussed aquaculture systems as well as plants. Ryan has a Master's degree in soils and does reviews for Oregon Tilth. While not an expert in aquaculture, he provided expertise about plants in general. The Subcommittee prepared questions ahead of time and the group spent the hour discussing them. Members discussed various topics including the list of 11 specific materials that were petitioned and how that may or may not affect a systems approach. Jim noted that although the list of petitioned materials is short, is a good start. He also noted that the list was intentionally kept short as a result of a request to the working group, since this was meant to be an initial review. Jim noted that the same strategy was used for livestock; an initial list consisting of only essential materials. In response to a member's question, Jim noted that this shortened list, if approved, would allow organic aquaculture to develop and grow, and feels it's a good starting point. It also allows organic to stand out from conventional aquaculture, which relies on non-organic practices. Jim added that since all of these materials are already listed for other uses, he would support all of them for organic aquaculture.

The group also discussed vitamins and minerals for plants, chlorine, closed systems vs. integrated multi-tropic based systems, organic aquaculture standards vs. conventional standards, and certification of open systems. A member asked about chlorine use in culture water, and JD offered to send the group some information that he received from the petitioner regarding this. Jim noted that fish are very sensitive to chlorine and it's expensive so overuse is self-restricted. Additionally the use of chlorine is restricted by the safe drinking water act.

The group discussed the current standards and the challenge of ensuring compliance. The NOP is proposing minor changes to the current standards and will not alter them drastically. Jim noted that the CA and EU standards which are similar, are working very well, so there wouldn't be a reason to alter them much. Jim also acknowledged that it is commonplace and is the standard operating procedure with the NOSB to move forward with materials review without standards, despite the negative feedback from several commenters about this practice. A member asked for more information about the aforementioned "non-organic practices" in conventional aquaculture. Jim noted that once the organic Standards are released it will highlight the following practices used in conventional aquaculture: lack of nutrient filtering, use of medications, and use and reliance on synthetic inputs. Jim referred the members to other contacts who may be able to answer additional questions regarding ocean based systems and kelp.

- JR offered to contact the folks in Maine who led an aquaculture tour this past summer to ask additional questions.
- The meeting was adjourned.

Future Call Schedule:

December 3, 2013 3:00 ET

Methionine. Determine if proposal needs modification

Assign Crops aquaculture materials (added to table above)

Discuss matrix on aquaculture (MS)
 Discuss potential for expert testimony

December 17, 2013 3:00 ET

Jim Pierce + additional OTCO expert on plant aquaculture – moved from Crops to
 Livestock/Aquaculture Subcommittee call (MA sent invitation 11 29 13)

January 7, 2014 3:00 ET

Methionine, Tocopherols - discuss public comments

Chlorine - discuss public comments

Aquaculture - Biologics: Vaccines for Aquatic Animals. Discuss if TR is back.

January 21, 2014 3:00 ET

February 4, 2014 3:00 ET

February 18, 2014 3:00 ET

Spring 2014 Milestones	Target date
Subcommittee requests technical reports for Sunset 2016 substances	Jan 15, 2014
NOSB Training meeting	Feb 4 - 5, 2014
NOP – Complete tentative agenda	Feb 7, 2014
Fall 2013 proposals due to NOP	Feb 26, 2014
NOP - Post proposals, Publish FRN, Open public comment	Mar 10, 2014
Subcommittees submit tentative workplans to NOP	Mar 12, 2014
Discuss workplans on ES call	Mar 14, 2014
NOP provides written comments on workplans to NOSB	Mar 28, 2014
Public comment closes	Apr 8, 2014
Workplans finalized on ES call	Apr 11, 2014
NOP - Send compiled public comments to NOSB	Apr 14, 2014
Spring 2014 NOSB Meeting – San Antonio, TX	~Apr 28- May 1, 2014