

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday January 3, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Zea Sonnabend (ZS); Emily Oakley (EO); Jesse Buie (JB); Harriet Behar (HB); Harold Austin (HA); Joelle Mosso (JM) - observer; Tom Chapman - observer; Asa Bradman - observer, Steve Ela - observer

Absent: Carmela Beck (CBe)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016.	TBD	Spr 2017
Anaerobic Digestate 205.203	ZS, EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16	May 17, Jul 5	Spr 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16	Aug 2, Aug 16 Aug 30 Sept 6 Oct 4	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16 AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Oct 4	Fall 2017
Sodium Citrate 2016 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16 TR - Handling, Citric acid and salts (2015)	Sep 6	Fall 2017

Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Ammonium Nonanoate	FT		Petition sent to CS 11 09 16. Petition suff/TR request due 01 09 16. CS rejected petition 12 20 16.	Dec 20	NA
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	Spr 2017?
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	ZS		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Jul 5	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. Sufficiency due 02 27 17	Feb 2, Feb 23, Jul 19	Spr 2017
Prohibition of NPEs in Inerts annotation change	ZS	DD	on hold	TBD	TBD
Marine materials (marine algae and extracts)	JR/EO	DD	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. On hold as Handling develops proposal	Feb 2, 2016; Dec 20, 2016	TBD
Newspaper - annotation change	ZS/HB		NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016	Feb 21	TBD

Hydroponics/bio ponics	ZS, JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Feb 15	Spr 2017?
Container and greenhouse production	ZS	Proposal ?		NA	Fall 2017
Research Priorities	All	NA	RPs due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	ZS/HB	NA	Originated in MS. Proposal or Disc doc?		Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Calcium hypochlorite 205.601(a)	FT	N		Jan 3	Summary Spr 17
Chlorine dioxide 205.601(a)	FT	N		Jan 3	"
Sodium hypochlorite 205.601(a)	FT	N		Jan 3	"
Herbicides, soap- based 205.601(b)	EQ/SB	N		Jan 31	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Jan 17	"
Boric acid 205.601(e)	HB/JM	N		Jan 31	"
Sticky traps/barriers 205.601(e)	EO	N		Jan 17	"
Copper sulfate 205.601(i)	ZS/SE	N		Jan 31	"
Coppers, fixed 205.601(i)	ZS/SE	N		Jan 31	"

Humic acids 205.601(j)	CBe/AB	N	2012 TR for oxidized lignite/humic acid derivatives	Jan 31	"
Micronutrients: Soluble boron products 205.601(k)	ZS/HB	N		Jan 17	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	ZS/HB	N		Jan 17	"
Vitamin B1 205.601(j)	CBe/EO	N		Jan 17	"
Vitamin C 205.601(j)	CBe/EO	N		Jan 17	"
Vitamin E 205.601(j)	CBe/EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of December 20
- Reassign 2019 Sunset Materials from outgoing members to incoming members/schedule discussion dates
- Biodegradable biobased mulch film
- Update from hydroponics sub-subcommittee
- Adjourn

Discussion

- **Crops Subcommittee notes of December 20** were approved with no changes
- **2019 sunset meeting 1 reviews:**
 - o Chlorine Materials (Calcium Hypochlorite, Chlorine Dioxide, Sodium Hypochlorite) (FT). The chlorine materials were reviewed recently and the lead incorporated the questions that the NOSB posed in the previous review: one on alternatives, and one asking about the need for all three chlorine materials. The group members felt the questions were appropriate and should be included. The lead noted that commenters have suggested that the NOSB look at all sanitizers as a group, which the NOSB may do at a later time. A member informed the group that chlorine materials are under review at the EPA.
 - o Lead Salts (FT). Lead salts are listed as a non-synthetic material that is prohibited. The lead noted there were no specific questions for public comment, as there is strong consensus that these materials should be prohibited in organic.
 - o Members made some suggestions for the new NOSB members on how to begin reviews.

- o A member noted that while many of the previous reviews were well written, sticky traps could use some revision. ZS offered to assist the new lead with the review.
 - o ZS informed the group that she had been contacted by the EPA for information regarding copper products, as these are under re-registration review.
- **Reassign 2019 Sunset Materials/schedule discussion dates.** See table above and discussion schedule below.
- **Biodegradable biobased mulch film.** The lead circulated a draft document and summarized the background information, including the previous NOSB recommendation and subsequent response from the NOP. The group discussed the document, and the lead will make modifications based on the conversation. The group will discuss the document again in February.
- **Hydroponics** - deferred to next call
- **Other business** - none
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

December 20, 2016

Ammonium nonanoate (FT). Petition sufficiency/TR request?

Marine materials (EO). Keep on agenda or not?

January 3, 2017

Strengthen and clarify the requirements for use of organic seed (NOP 5029)

Hydroponics discussion document

Reassign 2019 Sunset Materials/schedule discussion dates

January 17, 2017

Strengthen and clarify the requirements for use of organic seed (NOP 5029)

Hydroponics discussion document

2019 Sunsets: discuss potential questions for public comment for first posting

Biodegradable biobased mulch film (HB/AB)

Sticky traps/barriers (EO)

Soluble boron products (HB)

Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)

Vitamin B1, Vitamin C, Vitamin E (EO)

Tobacco dust (nicotine sulfate) (HB)

January 31, 2017 (rescheduled from Feb 7)

2019 Sunsets: discuss potential questions for public comment for first posting

Herbicides, soap-based (SB)

Boric acid (HB/JM)

Copper sulfate (SE)

Coppers, fixed (SE)

Humic acids (AB)

February 15, 2017. Additional call

Biodegradable biobased mulch film (HB/AB) - TR sufficiency if available.

February 21, 2017

Newspaper - annotation change

March 7, 2017

March 21, 2017

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017
 June 20, 2017
 July 18, 2017
 August 1, 2017
 August 15, 2017
 September 5, 2017
 September 19, 2017
 October 3, 2017
 October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Spring 2017 Milestones	2017 Target date
New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017
NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017
Discuss work agendas on ES call	Mar 17, 2017
Public comment closes	Mar 30, 2017
NOP - Send compiled public comments to NOSB	Apr 5, 2017
Work agendas finalized on ES call (last call before fall meeting)	Apr 7, 2017
Public comment webinar	Apr 13, 2017
Spring 2017 NOSB meeting – Denver, CO	Apr 19-21, 2017 (W-F)

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**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday January 17, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Zea Sonnabend (ZS); Emily Oakley (EO); Jesse Buie (JB); Harriet Behar (HB); Harold Austin (HA); Carmela Beck (CBe); Joelle Mosso (JM) - observer; Tom Chapman (TC) - observer; Asa Bradman (AB) - observer, Steve Ela (SE) - observer; Scott Rice (SR) - observer; Sue Baird (SB) - observer;

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
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Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Ammonium Nonanoate	FT		Petition sent to CS 11 09 16. Petition suff/TR request due 01 09 16. CS rejected petition 12 20 16.	Dec 20	NA
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	TBD
Other Topics					
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Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
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Hydroponics/bio ponics	ZS, JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Jan 17, Feb 15	Spr 2017?
Container and greenhouse production	ZS	Proposal ?		NA	Fall 2017
Research Priorities	All	NA	RPs due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	ZS/HB	NA	Originated in MS. Proposal or Disc doc?		Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

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Vitamin E 205.601(j)	CBe/EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

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Agenda

- Approve Crops Subcommittee notes of January 3
- Strengthen and clarify the requirements for use of organic seed (NOP 5029)
- 2019 Sunsets: discuss potential questions for public comment for first posting
 - o Biodegradable biobased mulch film (HB/AB)
 - o Sticky traps/barriers (EO)
 - o Soluble boron products (HB).
 - o Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)
 - o Vitamin B1, Vitamin C, Vitamin E (EO)
 - o Tobacco dust (nicotine sulfate) (HB)
- Hydroponics proposal
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes of January 3** approved with no changes.
- **Transition update.** A member provided an update from the Exec call regarding the new administration. The NOP feels there is support for the organic program, but progress might be slowed.
- **Strengthen and clarify the requirements for use of organic seed (NOP 5029) (ZS).** The lead summarized the draft document as well as her process for reviewing such projects, for the benefit of the new members. The group discussed the phrase "continuous improvement" and whether this

provision would need to be addressed by rulemaking (vs. guidance). The lead argued for why this phrase should be included while not being too prescriptive. Document is in progress and not complete.

- **2019 Sunsets**
 - Biodegradable biobased mulch film (HB/AB). Added info to template and included some questions.
 - Soluble boron products (HB). The lead noted that there was very little public comment. A member suggested that the lead add a sentence to the summary indicating that the CS supports the annotation change, which was recommended by the NOSB in 2015, but has not yet gone through rulemaking.
 - Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB). There was very little public comment about the micronutrients during the last review.
 - Tobacco dust (nicotine sulfate) (HB). Tobacco dust is a prohibited non-synthetic and has been since 1995. The lead noted it is on the hazardous substance list.
 - Sticky traps/barriers (EO). The lead edited the language from the previous review to clarify the summary, and felt that no additional questions were necessary.
 - Vitamin B1, Vitamin C, Vitamin E (EO). The lead used the previous review, which she noted as clear and comprehensive, and will add an additional question about the use of vitamins, as a result of the removal of antibiotics for crop use from the NL.
- **Hydroponics** proposal. Several members of the Crops Subcommittee are working on the draft document for hydroponics. The NOP will meet with this subgroup next week via conference call to provide feedback about the format and intent. The group discussed some wording in the document, including the phrase “biologically recalcitrant”, and references to the statute/regulations. A member urged the group to submit both this document and the container document at the same time. The leads indicated that the container document would not be completed for the April meeting.
- **Other business** - none
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

January 3, 2017

Strengthen and clarify the requirements for use of organic seed (NOP 5029)
Hydroponics discussion document
Reassign 2019 Sunset Materials/schedule discussion dates

January 17, 2017

Strengthen and clarify the requirements for use of organic seed (NOP 5029)
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 Vitamin B1, Vitamin C, Vitamin E (EO)
 Tobacco dust (nicotine sulfate) (HB)

January 31, 2017 (rescheduled from Feb 7)

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 Herbicides, soap-based (SB)
 Boric acid (HB/JM)
 Copper sulfate (SE)
 Coppers, fixed (SE)

Humic acids (AB)

February 15, 2017. Additional call

Biodegradable biobased mulch film (HB/AB) - TR sufficiency

Hydroponics discussion document - discuss/vote

February 21, 2017

Newspaper - annotation change - TR sufficiency

March 7, 2017

March 21, 2017

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017

June 20, 2017

July 18, 2017

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August 15, 2017

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September 19, 2017

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October 17, 2017

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Absent: Dave Mortensen (DM)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

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Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

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Agenda

- Approve Crops Subcommittee notes of January 17
- 2019 Sunsets: discuss potential questions for public comment for first posting
 - o Herbicides, soap-based (SB)
 - o Boric acid (HB/JM)
 - o Copper sulfate (SE)
 - o Coppers, fixed (SE)
 - o Humic acids (AB)
- Hydroponics
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes of January 17** approved with a correction to the entry for hydroponics which indicated it was a discussion document, not a proposal.
- **2019 Sunsets: discuss potential questions for public comment for first posting**
 - o Herbicides, soap-based (SB). Deferred to next call
 - o Boric acid (HB/JM). The lead summarized the substance and the previous review. A member suggested the addition of questions regarding use.
 - o Copper sulfate, Coppers, fixed (SE). The lead summarized the material and noted that he included the information from the 2015 review. Use has not changed since the last review, but

he did note that it has become critical for fireblight, since antibiotics were removed from the National List.

- Humic acids (AB). The lead summarized the substance, noting that many growers consider it essential. The group discussed the fact that humic acid is derived from coal or coal-like substances.
- **Hydroponics (EO).** One of the leads summarized the previous work on this topic and the group discussed the proposal. A member noted the complexity of this subject since there is a lack of definitive standards. For the benefit of the new members, a member explained that hydroponics has been allowed to be certified based on inputs alone, and not as a separate system. Some new members expressed concern that they have not had adequate time to digest the information and would prefer that the Subcommittee put forth a discussion document and not a proposal for vote for the Spring meeting. Members discussed whether a proposal on container-based production should be released at the same time as the proposal on hydroponics/aquaponics/aeroponics. The CS will discuss this further on the next call.
- **Other business.** Development of a biodegradable biobased mulch discussion document will be deferred to the Fall 2017 meeting to allow for further discussion.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

January 17, 2017

Strengthen and clarify the requirements for use of organic seed (NOP 5029)
Hydroponics discussion document
2019 Sunsets: discuss potential questions for public comment for first posting
Biodegradable biobased mulch film (HB/AB)
Sticky traps/barriers (EO)
Soluble boron products (HB)
Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)
Vitamin B1, Vitamin C, Vitamin E (EO)
Tobacco dust (nicotine sulfate) (HB)

January 31, 2017 (rescheduled from Feb 7)

2019 Sunsets: discuss potential questions for public comment for first posting
Herbicides, soap-based (SB)
Boric acid (HB/JM)
Copper sulfate (SE)
Coppers, fixed (SE)
Humic acids (AB)

February 15, 2017. Additional call

2019 Sunsets: discuss potential questions for public comment for first posting
Herbicides, soap-based (SB)
Hydroponics - Discuss/vote
Strengthen and clarify the requirements for use of organic seed (NOP 5029) - Discuss/vote

February 21, 2017

Newspaper - annotation change - TR sufficiency

March 7, 2017

March 21, 2017

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017
 June 20, 2017
 July 18, 2017
 August 1, 2017
 August 15, 2017
 September 5, 2017
 September 19, 2017
 October 3, 2017
 October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Spring 2017 Milestones	2017 Target date
New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017
NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017
Discuss work agendas on ES call	Mar 10, 2017
Public comment closes	Mar 30, 2017
NOP - Send compiled public comments to NOSB	Apr 5, 2017
Work agendas finalized on ES call (last call before fall meeting)	Apr 7, 2017
Public comment webinar	Apr 13, 2017
Spring 2017 NOSB meeting – Denver, CO	Apr 19-21, 2017 (W-F)

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday February 15, 2017 3:00 pm ET**

Present: Francis Thicke, Chair (FT); Harriet Behar (HB); Asa Bradman (AB); Jesse Buie (JB); Steve Ela (SE); Emily Oakley (EO); Joelle Mosso (JM); Dave Mortensen (DM); Sue Baird (SB); Ashley Swaffar (AS)

Absent: Devon Pattillo (DP)

Staff: Michelle Arsenault (MA); Jessica Walden (JW); Paul Lewis (PL)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17	TBD	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017	May 17, Jul 5	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16	Aug 2, Aug 16 Aug 30 Sept 6 Oct 4	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16 AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Oct 4	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16 TR - Handling, Citric acid and salts (2015)	Sep 6	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Jul 5	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	Feb 2, Feb 23, Jul 19, Feb 21	TBD
Prohibition of NPEs in Inerts annotation change	ZS	DD	on hold	TBD	TBD
Marine materials (marine algae and extracts) on the National List	EO	DD	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16.	Feb 15	Spr 2017
Newspaper - annotation change	HB		NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17	Feb 21	Fall 2017

Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	DD	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Jan 17, Feb 15	Spr 2017
Container and greenhouse production		Proposal		NA	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS.	Feb 15	Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Calcium hypochlorite 205.601(a)	FT	N		Jan 3	Summary Spr 17
Chlorine dioxide 205.601(a)	FT	N		Jan 3	"
Sodium hypochlorite 205.601(a)	FT	N		Jan 3	"
Herbicides, soap-based 205.601(b)	SB	N		Feb 15	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Jan 17	"
Boric acid 205.601(e)	HB/JM	N		Jan 31	"
Sticky traps/barriers 205.601(e)	EO	N		Jan 17	"
Copper sulfate 205.601(i)	SE	N		Jan 31	"
Coppers, fixed 205.601(i)	SE	N		Jan 31	"

Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Jan 31	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jan 17	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jan 17	"
Vitamin B1 205.601(j)	EO	N		Jan 17	"
Vitamin C 205.601(j)	EO	N		Jan 17	"
Vitamin E 205.601(j)	EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of January 31
- 2019 Sunsets: discuss potential questions for public comment for first posting
 - o Herbicides, soap-based (SB)
- Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB) - Discuss/vote
- Marine Algae (EO) – Discuss/vote
- Aeroponics/Hydroponics/Aquaponics - Discuss/vote
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes of January 31** were approved with a minor change to a reference to a member as the lead author.
- **2019 Sunsets:**
 - o Herbicides, soap-based (SB). The lead summarized the material and its uses. Soap based herbicides was reviewed in 2015, at which time the NOSB recommended relisting. The Subcommittee has included two questions for the first posting regarding usage and alternatives.
- **Strengthen and clarify the requirements for use of organic seed (NOP 5029).** The lead summarized the draft proposal regarding the addition of items to the NOP policy guidance 5019 on commercial availability, use and purchase. The members discussed the inclusion of planting stock in the document, which the lead will add. The Subcommittee moved to a vote.

Motion to accept the amendments to the NOP guidance document regarding the use of organic seed (NOP 5029). The motion in the proposal is stated as follows: "Motion to accept all additions as described in the Proposal section above, to both the National Organic Program Regulation and the National Organic Program 5029 Guidance."

Motion by: FT

Seconded by: JB

Additional discussion: none

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

- **Marine Algae Listings on the National List (EO).** The lead summarized the draft proposal noting that both the Crops and Handling Subcommittees are submitting proposals on the same topic. The goal of the proposal is to provide clarity about what marine materials are on the list. While the majority of the materials on the National List are handling materials, there is one Crops material. A member asked about the classification of marine algae as synthetic.

Motion to annotate the marine algae listings at 205.601 as follows:

(j) As plant or soil amendments.

(1) Aquatic plant extracts (other than hydrolyzed) derived from brown seaweeds, class Phaeophyceae. –Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount use is limited to that amount necessary for extraction.

Motion by: EO

Seconded by: JB

Additional discussion: none

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

- **Aeroponics/Hydroponics/Aquaponics.** The group discussed the history of this complex topic and the reasons why the NOSB is addressing it at this time. The previous recommendation (2010) was not specific or clear enough, and the NOP was not able to implement the recommendation. Therefore the NOP asked that the NOSB re-review it. The group discussed the process for voting on this document, noting that it is a discussion document, and a vote was taken to move it out of Subcommittee to the full Board.

Motion to accept the discussion document on Aeroponics/Hydroponics/Aquaponics.

Motion by: FT

Seconded by: EO

Additional discussion: none

Yes: 6 No: 0 Abstain: 2 Absent: 1 Recuse: 0

- **Other Business.**

- The group discussed the possibility of hosting a panel on hydroponics at the Spring meeting, as well as inviting guest speakers to address them on a future Crops call. Members were enthusiastic about gathering as much information and feedback as possible, and supported the idea of having guests on the calls, but felt a panel was not necessary or useful. Additionally, members felt it would be difficult to convene a panel with the appropriate composition, given that the discussion is one of a philosophical nature. One member suggested devoting a considerable amount of time at the April meeting for the Board to discuss this topic as a group and in a public venue, which the group was very supportive of.
- The petitioner for biodegradable biomulch has contacted the NOP about providing extra comments to the Crops Subcommittee. Specifically they wanted to address some questions not

addressed in the technical report. The petitioners will submit public comment to the comment docket.

- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

January 31, 2017 (rescheduled from Feb 7)

2019 Sunsets: discuss potential questions for public comment for first posting

Herbicides, soap-based (SB)

Boric acid (HB/JM)

Copper sulfate (SE)

Coppers, fixed (SE)

Humic acids (AB)

February 15, 2017. Additional call

2019 Sunsets: discuss potential questions for public comment for first posting

Herbicides, soap-based (SB)

Hydroponics - Discuss/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) - Discuss/vote

February 21, 2017

Newspaper - annotation change (HB) - TR sufficiency

Biodegradable Biobased Mulch (HB/AB) - discuss next steps

March 7, 2017

March 21, 2017

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017

June 20, 2017

July 18, 2017

August 1, 2017

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Spring 2017 Milestones	2017 Target date
New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017

NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017
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**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday March 7, 2017 3:00 pm ET**

Present: Francis Thicke, Chair (FT); Harriet Behar (HB); Asa Bradman (AB); Jesse Buie (JB); Steve Ela (SE); Emily Oakley (EO); Joelle Mosso (JM); Dave Mortensen (DM); Sue Baird (SB); Tom Chapman (TC) - observer; Scott Rice (SR) - observer

Absent: Ashley Swaffar (AS)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17	Mar 21	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017	May 17, Jul 5	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16	Aug 2, Aug 16 Aug 30 Sept 6 Oct 4	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16 AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Oct 4	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16 TR - Handling, Citric acid and salts (2015)	Sep 6	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Jul 5	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	Feb 2, Feb 23, Jul 19, Mar 7	TBD
Prohibition of NPEs in Inerts annotation change	ZS	DD	on hold	TBD	TBD
Marine materials (marine algae and extracts) on the National List	EO	DD	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16.	Feb 15	Spr 2017
Newspaper - annotation change	HB		NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Mar 7, Mar 21	Fall 2017

Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	DD	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Jan 17, Feb 15	Spr 2017
Container and greenhouse production		Proposal		NA	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS.	Feb 15	Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Calcium hypochlorite 205.601(a)	FT	N		Jan 3	Summary Spr 17
Chlorine dioxide 205.601(a)	FT	N		Jan 3	"
Sodium hypochlorite 205.601(a)	FT	N		Jan 3	"
Herbicides, soap-based 205.601(b)	SB	N		Feb 15	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Jan 17	"
Boric acid 205.601(e)	HB/JM	N		Jan 31	"
Sticky traps/barriers 205.601(e)	EO	N		Jan 17	"
Copper sulfate 205.601(i)	SE	N		Jan 31	"
Coppers, fixed 205.601(i)	SE	N		Jan 31	"

Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Jan 31	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jan 17	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jan 17	"
Vitamin B1 205.601(j)	EO	N		Jan 17	"
Vitamin C 205.601(j)	EO	N		Jan 17	"
Vitamin E 205.601(j)	EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of February 15
- Newspaper - annotation change (HB) - TR sufficiency
- Biodegradable Biobased Mulch (HB/AB) - discuss next steps
- Hydroponics-further discussion if time allows and members wish
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes** of February 15 were approved with a correction to soap-based herbicides.
- **Newspaper - annotation change (HB).** The previous Crops Subcommittee requested a TR because a question arose about the inks that are being used in newspaper. The lead summarized the information in the TR, and the Crops Subcommittee determined the TR to be sufficient. Members had an initial discussion about the current prohibition of newspaper with colored inks, the prevalence of colored inks, and current use of newspaper in organic production. The CS will discuss how to proceed during the next call.
- **Biodegradable Biobased Mulch (HB/AB).** The group determined TR sufficiency on the last call and proceeded to discuss the next steps. Currently Biodegradable Biobased Mulch is undergoing review for sunset, but the Crops Subcommittee also has a work agenda item to review the listing. The lead explained the history of this material, noting that it was reviewed at the request of the NOP. The NOP received a request from the manufacturer to present some additional information to the

Subcommittee, but the group agreed that any additional communication from the petitioner should be conveyed in writing via the public comment docket and/or through public verbal comments.

- **Research Priorities.** The group discussed assigning a liaison to the Materials Subcommittee for the Research Priorities, and also discussed the process of developing research priorities.
- **Marine algae proposal (EO).** A member received feedback from a stakeholder regarding the marine algae document that will be brought forth at the spring meeting. Although the proposals have not yet been posted for public comment, the CS notes indicated that the document will present nomenclature only and not address sustainability, and the stakeholder wanted to emphasize the need to include sustainability in any future discussions or documents. The lead explained that the initial proposal included this topic, but it became very complex and the CS made the decision to not include it in the proposal.
- **Hydroponics.** Deferred to next call.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

February 15, 2017. Additional call

2019 Sunsets: discuss potential questions for public comment for first posting

Herbicides, soap-based (SB)

Hydroponics - Discuss/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) - Discuss/vote

February 21, 2017 - cancelled

March 7, 2017

Newspaper (HB)- annotation change (HB) - TR sufficiency

Biodegradable Biobased Mulch (HB/AB) - discuss next steps

March 21, 2017

Newspaper (HB) - Discuss possible annotation change (HB).

Hydroponics (ALL) - Discuss if time allows and members wish

Fatty alcohols (JB) - TR sufficiency

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017

June 20, 2017

July 18, 2017

August 1, 2017

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Spring 2017 Milestones	2017 Target date
------------------------	------------------

New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017
NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017
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**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday March 21, 2017 3:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Harriet Behar (HB); Asa Bradman (AB); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Dave Mortensen (DM); Scott Rice (SR) - observer

Absent: none

Staff: Michelle Arsenault (MA); Jessica Walden (JW)

Work Agenda

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Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
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Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16 TR - Handling, Citric acid and salts (2015)	Sep 6	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Jul 5	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	Feb 2, Feb 23, Jul 19, Mar 7	TBD
Prohibition of NPEs in Inerts annotation change	ZS	DD	on hold	TBD	TBD
Marine materials (marine algae and extracts) on the National List	EO	DD	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16.	Feb 15	Spr 2017
Newspaper - annotation change	HB		NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Mar 7, Mar 21	Fall 2017

Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	DD	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Jan 17, Feb 15	Spr 2017
Container and greenhouse production		Proposal		NA	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS.	Feb 15	Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Calcium hypochlorite 205.601(a)	FT	N		Jan 3	Summary Spr 17
Chlorine dioxide 205.601(a)	FT	N		Jan 3	"
Sodium hypochlorite 205.601(a)	FT	N		Jan 3	"
Herbicides, soap-based 205.601(b)	SB	N		Feb 15	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Jan 17	"
Boric acid 205.601(e)	HB/JM	N		Jan 31	"
Sticky traps/barriers 205.601(e)	EO	N		Jan 17	"
Copper sulfate 205.601(i)	SE	N		Jan 31	"
Coppers, fixed 205.601(i)	SE	N		Jan 31	"

Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Jan 31	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jan 17	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jan 17	"
Vitamin B1 205.601(j)	EO	N		Jan 17	"
Vitamin C 205.601(j)	EO	N		Jan 17	"
Vitamin E 205.601(j)	EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of March 7, 2017
- Fatty alcohols (JB) - TR sufficiency
- Newspaper (HB) - Discuss possible annotation change (HB).
- Hydroponics (ALL) - Discuss if time allows and members wish
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes** of March 7, 2017 were approved with no changes
- **Fatty alcohols (JB).** The lead summarized the petition and the group discussed various aspects of it and the TR. Fatty alcohols was previously petitioned, and is being re-petitioned as a plant growth regulator. Fatty alcohols is registered with the EPA specifically for use in tobacco plants, however, the petitioner is requesting use to chemically remove suckers from organic crops, which the CS feels is too broad. While the petitioner is asking approval for use in organic crops, the TR focuses on its current use on tobacco plants. A member noted that there is organic tobacco. The CS also discussed classification of this material as synthetic, the process by which it is manufactured, and if there is a need in the organic community for this material, as there are alternatives. The Crops Subcommittee feels that they cannot move forward without additional questions to the petitioner. JB will write questions and send them to FT for submission to the NOP so that NOP can go back to the petitioner.
- **Newspaper (HB).** The group discussed the annotation and whether or not to remove glossy ink and colors. At this time, the CS feels the annotation should remain. Newspaper will sunset in 2021, so the

CS may look at this as part of the next review. A member noted that since the CS just received a TR, it would not be useful to request another, but they may perhaps request a limited scope TR. The members also discussed the inclusion of questions for the next review, regarding changes in technology for separation of newspaper with and without colored inks and dyes.

- **Hydroponics (ALL).** The group discussed hydroponics and container growing in general. A member suggested that folks review information on container growing, including the fall 2016 NOSB document, since container growing will likely be addressed at the fall 2017 meeting in Jacksonville. There are many aspects that need to be considered such as water recycling, and recalcitrant materials. HB will send out an email with links to various docs.
- **Other Business.** None
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

March 7, 2017

Newspaper (HB)- annotation change (HB) - TR sufficiency

Biodegradable Biobased Mulch (HB/AB) - discuss next steps

March 21, 2017

Newspaper (HB) - Discuss possible annotation change (HB).

Hydroponics (ALL) - Discuss if time allows and members wish

Fatty alcohols (JB) - TR sufficiency

April 4, 2017

April 18, 2017

May 2, 2017

May 16, 2017

June 6, 2017

June 20, 2017

July 18, 2017

August 1, 2017

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Spring 2017 Milestones	2017 Target date
New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017
NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017

Discuss work agendas on ES call	Mar 10, 2017
Public comment closes	Mar 30, 2017
NOP - Send compiled public comments to NOSB	Apr 5, 2017
Work agendas finalized on ES call (last call before fall meeting)	Apr 7, 2017
Public comment webinar	Apr 13, 2017
Spring 2017 NOSB meeting – Denver, CO	Apr 19-21, 2017 (W-F)

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday April 4, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Harriet Behar (HB); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Scott Rice (SR) - observer; Tom Chapman (TC) - observer

Absent: Asa Bradman (AB); Dave Mortensen (DM)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner	Mar 21	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor	May 17, Jul 5, April 4	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16	Aug 2, Aug 16, Aug 30, Sept 6, Oct 4	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16 AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Oct 4	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16 TR - Handling, Citric acid and salts (2015)	Sep 6	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16	Oct 18 Nov 1	Fall 2017
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	ZS	N/A	Update from IWG	NA	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Apr 5	TBD
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Jul 5	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	Feb 2, Feb 23, Jul 19, Mar 7	TBD
Prohibition of NPEs in Inerts annotation change	ZS	DD	on hold	TBD	TBD
Marine materials (marine algae and extracts) on the National List	EO	DD	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16.	Feb 15	Spr 2017
Newspaper - annotation change	HB		NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Mar 7, Mar 21	Fall 2017

Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	DD	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	Jan 17, Feb 15	Spr 2017
Container and greenhouse production		Disc doc/Proposal?		NA	Fall 2017
Research Priorities	All	NA	RPs due to MS Aug 2017	NA	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS.	Feb 15	Spr 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets (TR requests)

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jan 3	Summary Spr 17
Herbicides, soap-based 205.601(b)	SB	N		Feb 15	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Jan 17	"
Boric acid 205.601(e)	HB/JM	N		Jan 31	"
Sticky traps/barriers 205.601(e)	EO	N		Jan 17	"
Copper sulfate 205.601(i)	SE	N		Jan 31	"
Coppers, fixed 205.601(i)	SE	N		Jan 31	"

Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Jan 31	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jan 17	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jan 17	"
Vitamin B1 205.601(j)	EO	N		Jan 17	"
Vitamin C 205.601(j)	EO	N		Jan 17	"
Vitamin E 205.601(j)	EO	N		Jan 17	"
Lead salts 205.602(d)	FT	N		Jan 3	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jan 17	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of March 21, 2017
- Anaerobic digest TR sufficiency (EO)
- Discuss Public Comment
- Other Business
- Adjourn

Discussion

- **Crops Subcommittee notes** of March 21, 2017 were approved with no changes.
- **Anaerobic digestate TR sufficiency (EO).** The lead introduced the topic, and the group discussed the material and the technical report. The discussion covered several topics, including food safety risks, plant-based anaerobic digestate vs. manure-based anaerobic digestate, and compost. The Crops Subcommittee originally asked 6 questions for the TR, and as a result of today's conversation, the CS has determined they would like to request some additional detail in the TR. The TR sufficiency determination will be delayed until after the additional information is provided by the contractor.
- **Discuss Public Comment.** The CS Chair explained the process for presenting materials at the Spring meeting. Members discussed comments for various topics such as the marine algae proposal.
- **Other Business.** None
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

March 21, 2017

Newspaper (HB) - Discuss possible annotation change (HB).

Hydroponics (ALL) - Discuss if time allows and members wish

Fatty alcohols (JB) - TR sufficiency

April 4, 2017

May 2, 2017

May 16, 2017

June 6, 2017

June 20, 2017

July 18, 2017

August 1, 2017

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Spring 2017 Milestones	2017 Target date
New NOSB member orientation	Feb 8, 2017
NOP - Complete Spring 2017 NOSB meeting tentative agenda	Feb 10, 2017
NOSB - Spring 2017 proposals due to NOP	Feb 17, 2017
NOP - Post proposals, Publish FRN, Open public comment	Mar 1, 2017
Discuss work agendas on ES call	Mar 10, 2017
Public comment closes	Mar 30, 2017
NOP - Send compiled public comments to NOSB	Apr 5, 2017
Work agendas finalized on ES call (last call before fall meeting)	Apr 7, 2017
Public comment webinar	Apr 13, 2017
Spring 2017 NOSB meeting – Denver, CO	Apr 19-21, 2017 (W-F)

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday May 2, 2017 3:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Harriet Behar (HB); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Asa Bradman (AB); Dave Mortensen (DM); Scott Rice (SR) - observer; Tom Chapman (TC) - observer

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17	TBD	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in contracting	TBD	Fall 2017
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/ DM/AB	N/A		NA	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling.	Update?	Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	TBD
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	ZS	DD	On hold	TBD	TBD
Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017

Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2,	Fall 2017
Container and greenhouse production		Proposal ?		TBD	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		May 16	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"

Copper sulfate 205.601(i)	SE	N		May 16	"
Coppers, fixed 205.601(i)	SE	N		May 16	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jun 20	"
Vitamin B1 205.601(j)	EO	N		Jun 6	"
Vitamin C 205.601(j)	EO	N		Jun 6	"
Vitamin E 205.601(j)	EO	N		Jun 6	"
Lead salts 205.602(d)	FT	N		May 16	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of April 4, 2017
- Fatty alcohols - TR sufficiency (JB)
- Schedule discussion dates for petitions and sunset materials
- Hydroponics and container documents - Preliminary discussions for fall
- Adjourn

Discussion

- **Crops Subcommittee notes** of April 4, 2017 were approved with no changes
- **Fatty alcohols (JB).** The TR was found sufficient. The group discussed the petition and the TR, including the source materials used to produce the substance. Members also discussed whether its use should be limited to tobacco in their proposal. The NOP provided some guidance about options for reviewing this material at the Fall NOSB meeting, as the petitioner has requested use beyond what is currently approved by EPA; it is currently approved for use only on tobacco. The lead noted that this material is synthetic. The CS will continue discussions on the May 16 call.
- **Discussion dates for petitions and sunset materials.** The group assigned dates for the sunset reviews and briefly discussed several other substances and projects on the work agenda. See table above and schedule below for dates.

- EPA List 4 Inerts annotation change. Four CS members volunteered to be co-leads on this topic: HB/EO/DM/AB.
- Contamination Issues in Farm Inputs. A member noted the sense of urgency stakeholders have to get some guidance and feedback on this topic. The group discussed the history of the lawsuit on compost guidance, and the status of this project, for the benefit of the new members. Members discussed risk-based testing of compost based on compost feedstocks.
- Biodegradable biobased mulch. Members discussed the development of a discussion document for the fall meeting. The lead would like to discuss this topic with other members of the NOSB to get a better sense about the direction for this project.
- Prohibition of NPEs in inerts annotation change. The CS Chair will follow up with former lead and the NOP to determine a path forward.
- Marine materials (marine algae and extracts) on the National List. The lead continues to discuss this topic with stakeholders and seek additional information, and will report back to the CS in a couple of weeks.
- Newspaper. This review is currently on hold, and the CS discussed how to proceed. At this time the CS is unsure if there is a path forward and may remove it from the work agenda.
- **Hydroponics and container documents - Preliminary discussions for fall.** The group discussed various aspects of these two topics as they prepare for the fall meeting. A member suggested having additional discussions with other Board members, as they did at the NOSB meeting in Denver. The CS Chair asked about inviting speakers onto the CS calls for additional information, and will collect names of some potential speakers. The group also explored opportunities for site visits and tours, both as individuals and as a Board. Some members have already explored the possibility of touring operations on their own in their immediate area.
- **Other Business.** None
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

April 4, 2017

May 2, 2017

May 16, 2017

Fatty alcohols (JB) - Discuss proposal

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

June 6, 2017

Herbicides, soap-based (SB) - Discuss proposal/vote

Sticky traps/barriers (EO) - Discuss proposal/vote

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

June 20, 2017

Boric acid (HB/JM) - Discuss proposal/vote

Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote

Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote

July 18, 2017

August 1, 2017

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	~May 5, 2017
NOSB Request for TRs for 2020 sunset materials	July 17, 2017
NOP - Complete Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday May 16, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Harriet Behar (HB); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Asa Bradman (AB); Dave Mortensen (DM); Sue Baird (SB); Ashley Swaffar (AS) - observer

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17	TBD	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in contracting	TBD	Fall 2017
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17	May 16, Jun 6	Fall 2017
Inert Ingredients					
Substance	Con-tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	TBD
Other Topics					
Project	Con-tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		Report. On HOLD pending compost ruling. May move to Materials Subcommittee for continued work.	Update?	Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	Fall 2017
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	DD	On hold	TBD	Fall 2017
Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017

Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30	Fall 2017
Container and greenhouse production		Proposal		TBD	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"

Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jun 20	"
Vitamin B1 205.601(j)	EO	N		Jun 6	"
Vitamin C 205.601(j)	EO	N		Jun 6	"
Vitamin E 205.601(j)	EO	N		Jun 6	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of May 2, 2017
- Inerts Working Group Update (DM/EO)
- Ammonium Nonanoate petition resubmission (FT)
- Research priorities (EO)
- Fatty alcohols (JB) - Discuss proposal
- Hydroponics update (AS)
- Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote
- Lead salts (FT) Discuss proposal/vote
- Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote
- Other items
- Adjourn

Discussion

- **Crops Subcommittee notes** of May 2, 2017 approved with no changes.
- **Inerts Working Group Update (DM/EO).** Several Crops members had a conversation with a former NOSB member and member of the Inerts Working Group, who passed along information from the previous work on NPEs and Inerts, and to discuss next steps. She noted that the NOSB recommended an annotation change in the fall of 2015 that has not yet gone through rulemaking. The current

members will continue working on this, with the acknowledgement that the inerts working group has not met, and the status of the SCIL program at EPA is not known at this time.

- **Ammonium Nonanoate petition resubmission (FT).** Ammonium Nonanoate was originally petitioned in 2010, and the CS rejected it for being incompatible with a system of organic agriculture. It was re-petitioned in November 2016 and the CS again rejected it, for lack of new information addressing the issues identified by the 2010 Board. It was then re-petitioned in May 2017. SB volunteered to co-lead this review. The CS discussed the substance, including comments received at the recent NOSB meeting on soap-based herbicides (under sunset review), and the implications for no-till and reduced till organic systems. The CS will determine petition sufficiency and the need for a TR during the next call.
- **Research priorities (EO).** The lead reminded folks that the Research Priorities are due to the Materials Subcommittee by August. She asked that members review last year's priorities and determine if the list needs modifications.
- **Fatty alcohols (JB).** The group discussed the draft proposal and reviewed the petitioned use. Members had suggestions for additions and the lead will incorporate them and recirculate the draft for further discussion.
- **Hydroponics update (AS).** The lead discussed the formation of a small working group made up of a subset of NOSB members who may be able to visit various hydroponic and container operations. The NOP supports this idea, and is discussing how it can facilitate. Many members expressed an interest in visiting operations in their respective areas, and then sharing that information with the rest of the Subcommittee. A member suggested the Crops subcommittee hold an additional call to talk about this topic. MA will schedule an extra call on May 30 at 2:00 pm.
- **Chlorine Materials (calcium hypochlorite, chlorine dioxide, sodium hypochlorite) (FT).** Deferred to next call due to lack of time.
- **Lead salts (FT).** Deferred to next call due to lack of time.
- **Copper sulfate, Coppers, fixed (SE).** Deferred to next call due to lack of time.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

May 2, 2017

May 16, 2017

Fatty alcohols (JB) - Discuss proposal

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

June 6, 2017

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

Ammonium Nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR

Herbicides, soap-based (SB) - Discuss proposal/vote

Sticky traps/barriers (EO) - Discuss proposal/vote

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

June 20, 2017

Boric acid (HB/JM) - Discuss proposal/vote

Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote

Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote

July 18, 2017

August 1, 2017

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	~May 5, 2017
NOSB Request for TRs for 2020 sunset materials	July 17, 2017
NOP - Complete Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday May 30, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Harriet Behar (HB); Steve Ela (SE); Joelle Mosso (JM); Asa Bradman (AB); Dave Mortensen (DM); Sue Baird (SB); Ashley Swaffar (AS) - observer; Dan Seitz (DS) - observer; Steve Ela (SE); A-dae Briones (AB) - observer; Lisa de Lima (LD) - observer; Tom Chapman (TC) - observer

Absent: Jesse Buie (JB)

Staff: Miles McEvoy (MM); Bridget McElroy; Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17	TBD	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017

Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017
Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in contracting	TBD	Fall 2017
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17	May 16, Jun 6	Fall 2017
Inert Ingredients					
Substance	Contact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	TBD
Other Topics					
Project	Contact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB		May move to Materials Subcommittee for continued work.	Update?	Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO		Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	Fall 2017

Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	ZS-DM/EO	DD		TBD	Fall 2017
Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30	Fall 2017
Container and greenhouse production		Proposal		TBD	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	NA	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA
2019 Sunsets Summary: Spr 2017 Review: Fall 2017					
Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jun 20	"
Vitamin B1 205.601(j)	EO	N		Jun 6	"
Vitamin C 205.601(j)	EO	N		Jun 6	"
Vitamin E 205.601(j)	EO	N		Jun 6	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

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Agenda

- Hydroponics (All)
- Adjourn

Discussion

- **Hydroponics**
 - o **Update.** The NOP Deputy Administrator provided an overview of the recent work on hydroponics/aquaponics/containers beginning with the 2010 NOSB recommendation and including an overview of the Hydroponic/Aquaponic Task Force established in 2015. The Task Force report was delivered to the Crops Subcommittee in August 2016, and the Subcommittee prepared a discussion document for the Fall 2016 Board meeting. Members asked several questions, including one about the process for implementing NOSB recommendations. The Deputy Administrator noted that, as with any NOSB recommendation, the NOP would evaluate a recommendation and determine next steps.
 - o **Discussion.** The Crops Subcommittee discussed the path forward for the hydroponics project. Members supported the idea of sharing information with the rest of the Board members as work progresses. The Subcommittee's goal is to gather information from all segments of the community and to seek compromise among Board members with regard to this topic. A member noted that container growing is an area where much of the community has invested, and perhaps the focus should be on standardization with the organic regulation.
 - o The Crops Subcommittee will add an extra call each month to continue this discussion, beginning with June 22.
 - o Members also discussed the possibility of inviting experts to speak on future Crops calls.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

May 16, 2017

Fatty alcohols (JB) - Discuss proposal

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

May 30, 2017 additional call

Hydroponics

June 6, 2017

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

Ammonium Nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR

Herbicides, soap-based (SB) - Discuss proposal/vote

Sticky traps/barriers (EO) - Discuss proposal/vote

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

June 20, 2017

Boric acid (HB/JM) - Discuss proposal/vote

Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote

Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote

July 18, 2017

August 1, 2017

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

August 15, 2017
 September 5, 2017
 September 19, 2017
 October 3, 2017
 October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
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NOP - Complete Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
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Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

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**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday June 6, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Asa Bradman (AB); Sue Baird (SB); Ashley Swaffar (AS) - observer; Scott Rice (SR)

Absent: Dave Mortensen (DM); Harriet Behar (HB)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Fall 2017
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17	May 16, Jun 6,	Fall 2017
Inert Ingredients					
Substance	Con-tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	Spr 2017
Other Topics					
Project	Con-tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB	Update	Report. On HOLD pending compost ruling. May move to Materials Subcommittee for continued work.		Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Discussion doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	Fall 2017
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	DD		TBD	Fall 2017
Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017

Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22	Fall 2017
Container and greenhouse production		Proposal		Jun 22	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"

Coppers, fixed 205.601(i)	SE	N		Jun 6	"
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Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jun 20	"
Vitamin B1 205.601(j)	EO	N		Jun 20	"
Vitamin C 205.601(j)	EO	N		Jun 20	"
Vitamin E 205.601(j)	EO	N		Jun 20	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* Yellow highlight indicates Subcommittee action needed *Highlight indicates review completion

Agenda

- Approve Crops Subcommittee notes of May 16, 2017
- Approve Crops Subcommittee notes of May 30, 2017
- Anaerobic Digestate TR Sufficiency
- Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote
- Lead salts (FT) Discuss proposal/vote
- Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote
- Herbicides, soap-based (SB) - Discuss proposal/vote
- Sticky traps/barriers (EO) - Discuss proposal/vote
- Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote
- Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR
- Adjourn

Discussion

- **Crops Subcommittee notes of May 16, 2017** approved with no changes.
- **Crops Subcommittee notes of May 30, 2017** approved with no changes.
- **Containers.** The group had a brief conversation about reaching out to container growers to provide the Board with some additional information.

- **Anaerobic Digestate (EO).** The group discussed the additional information provided by the TR contractor that the Crops Subcomm requested. The TR was found sufficient and the Crops Subcommittee will proceed with its review.
- **Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT).** The lead summarized the uses of chlorine materials and the public comment from the previous posting, including potential health hazards. Previously, commenters suggested that all sanitizers be reviewed as a group by the NOSB. The Handling Subcommittee is interested in doing this, but will not undertake it during the sunset review. Members discussed how different types of sanitizers may be necessary to accommodate differences in equipment/facility design and to allow for rotation of sanitizers to ensure effectiveness.

Motion to remove chlorine materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) from §205.601(a)

Motion by: FT

Seconded by: EO

Additional discussion: A member noted that these materials are essential for food safety

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

- **Lead salts (FT).** The lead summarized the uses of the substance, noting that lead salts are on the prohibited list. The Subcommittee supports continued prohibition.

Motion to remove lead salts from §205.602

Motion by: FT

Seconded by: EO

Additional discussion: none

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

- **Copper sulfate, Coppers, fixed (SE).** The lead summarized the materials and the feedback from public comment regarding residue testing at harvest. The Crops members agreed that it would be difficult at best for certifiers to inspect at harvest to verify whether residue remained.

Motion to remove coppers, fixed, from §205.601.

Motion by: SE

Seconded by: EO

Additional discussion: none

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

Motion to remove copper sulfate, from §205.601.

Motion by: SE

Seconded by: FT

Additional discussion: none

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

- **Herbicides, soap-based (SB).** The lead summarized the public comments. The majority of commenters were in favor of retaining soap-based herbicides on the National List, and indicated that they are essential.

Motion to remove herbicides, soap-based, from §205.601

Motion by: SB

Seconded by: JB

Additional discussion: Members discussed the annotation that allows the use of soap-based herbicides for weed control around the farmstead but not for use in production areas (except for ornamental crops). The lead noted that commenters stated it was essential and effective, and provides farmers with a necessary tool for weed control.

Yes: 0 No: 5 Abstain: 2 Absent: 2 Recuse: 0

- **Sticky traps/barriers (EO).** The lead reviewer added a summary of Spring public comment to the review. There was broad support from members and stakeholders to retain sticky traps on the National List, although some commenters were concerned that non-target animals may be caught in traps. A member added that it would not be realistic or practical to add an annotation about non-target animals.

Motion to remove Sticky traps/barriers from §205.601(e)

Motion by: EO

Seconded by: SB

Additional discussion: none

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

- **Vitamin B1, Vitamin C, Vitamin E (EO).** The lead summarized the materials. A certifier and former NOSB member indicated that B1 is not widely used, which precipitated a question about the feasibility of removing one of the vitamins, without removing the entire group. NOP confirmed that the materials can be separated for purposes of voting. The lead suggested postponing the vote so others could reread the TR.
- **Ammonium nonanoate petition resubmission (FT/SB).** A petition for Ammonium nonanoate was found insufficient last fall, and the petitioner resubmitted the petition in May 2017. The group briefly discussed the background, EPA assessment documents, efficacy, and alternatives. The CS will discuss this further on a future call.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

May 30, 2017 additional call

Hydroponics

June 6, 2017

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote
 Lead salts (FT) Discuss proposal/vote
 Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote
 Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR
 Herbicides, soap-based (SB) - Discuss proposal/vote
 Sticky traps/barriers (EO) - Discuss proposal/vote
 Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote
 June 20, 2017
 Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote
 Boric acid (HB/JM) - Discuss proposal/vote
 Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote
 Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote
 Assign leads to 2020 sunset materials
 Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR
 June 22, 2017 - Additional call
 Hydroponics/Container growing
 July 18, 2017
 Research Priorities
 July 25, 2017 - Additional call
 August 1, 2017
 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote
 Humic acids (AB) - Discuss proposal/vote
 August 15, 2017
 September 5, 2017
 September 19, 2017
 October 3, 2017
 October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	~Apr 27, 2017 , May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 17, 2017
NOP - Complete Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017

Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets						
TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018						
Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed, Voted	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)			1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)			2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)			2017 TR		"
Plastic mulch and covers	205.601(b)			1995 TAP		"
Aqueous potassium silicate	205.601(e), 205.601(i)			2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)			1995 TAP		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)			2014 TR		
Sucrose octanoate esters	205.601(e)(10)			2005 TR		
Hydrated lime	205.601(i)(4)			1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		
Liquid fish products	205.601(j)			1995 TAP ; 2006 TR		
Sulfurous Acid	205.601(j)			2010 TAP ; 2014 TR		
Ethylene	205.601(k)			2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		
Microcrystalline cheesewax	205.601(o)			none		

Potassium chloride	205.602(e)			1995 TAP		
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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)
Crops Subcommittee (CS) Meeting Notes
Tuesday June 20, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Jesse Buie (JB); Steve Ela (SE); Joelle Mosso (JM); Sue Baird (SB); Dave Mortensen (DM); Harriet Behar (HB); Tom Chapman (TC)

Absent: Asa Bradman (AB)

Staff: Michelle Arsenault (MA); Lisa Brines (LB)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Fall 2017
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition due to lack of new information.	May 16, Jun 6, Jun 20	Fall 2017
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 08 07 17.		
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/ DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB	Update	Report. On HOLD pending compost ruling. Moved to Materials Subcommittee 06 13 17 for continued work.		Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Discussio n doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	Fall 2017
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	DD		TBD	Fall 2017

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Jul 18	Fall 2017
Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22	Fall 2017
Container and greenhouse production		Proposal		Jun 22	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"

Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve Crops Subcommittee notes of June 6, 2017
- Assign leads to 2020 sunset materials
- Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote
- Boric acid (HB/JM) - Discuss proposal/vote
- Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote
- Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote
- Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR
- Adjourn

Discussion

- **Crops Subcommittee notes of June 6, 2017** approved with no changes.

- **2020 sunset materials.** Members volunteered to take the lead on the 2020 sunset substances. See table below for assignments.
- **Vitamin B1, Vitamin C, Vitamin E (EO).** The group discussed the question about removing one of the vitamins (Vitamin B1) without the others. The question arose because based on the TR and feedback from several stakeholders, Vitamin B1 is not effective and is the least likely of the three to be used. The group discussed its possible use in blended fertilizers, and the implications for manufacturers if it were removed. There was very little public comment in any of the sunset reviews. The lead will seek more information from one of the Material Review Organizations, and the CS will defer vote.
- **Boric acid (HB/JM).** The co-leads indicated that public commenters were mostly in support of renewing, and the HS members are supportive of retaining boric acid on the list. One commenter suggested an annotation change, which would have to be proposed separately from the sunset review.

Motion to remove boric acid from §205.601(e)

Motion by: HB

Seconded by: FT

Additional discussion: none

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

- **Micronutrients: Soluble boron products, etc. (HB).** The lead summarized the public comment from the last posting. There is an annotation change currently in progress.

Motion to remove micronutrients: Soluble boron products from §205.601(j)

Motion by: HB

Seconded by: JB

Additional discussion: none

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

- **Tobacco dust (nicotine sulfate) (HB).** The lead summarized public comment regarding the use of tobacco dust as a soil amendment. The members discussed the distinction between tobacco dust (this listing) and other tobacco crop byproducts, which could be allowed as compost feedstock or tilled back into the soil. The CS may consider an annotation change and may request that it be added to the work agenda.

Motion to remove tobacco dust (nicotine sulfate) from §205.602(i)

Motion by: HB

Seconded by: JM

Additional discussion: none

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

- **Ammonium nonanoate petition resubmission (FT/SB).** The group discussed the resubmission of the petition for ammonium nonanoate, noting that in 2008 it failed two of the three OFPA criteria. Based on its current review, the HS decided to reject the petition based on lack of new information that would counter the previous determination that ammonium nonanoate is incompatible with a

system of sustainable agriculture. A member reminded the group that input substitution is not the guiding philosophy of organic agriculture. A holistic systems approach and sustainability are.

- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

June 6, 2017

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) (FT) - Discuss proposal/vote

Lead salts (FT) Discuss proposal/vote

Copper sulfate, Coppers, fixed (SE) Discuss proposal/vote

Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR

Herbicides, soap-based (SB) - Discuss proposal/vote

Sticky traps/barriers (EO) - Discuss proposal/vote

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

June 20, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Boric acid (HB/JM) - Discuss proposal/vote

Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote

Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote

Assign leads to 2020 sunset materials

Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR

June 22, 2017 - Additional call

Hydroponics/Container growing

July 18, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)

Anaerobic Digestate - discuss proposal

Research Priorities (discuss proposal/vote)

Fatty alcohols - discuss proposal

Marine materials (EO)

Sulfur (as a molluscicide) - assign lead to new petition

July 25, 2017 - Additional call

Hydroponics/Container growing

August 1, 2017

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	~Apr 27, 2017; May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 18, 2017
NOSB public teleconference	July 25, 2017 (tentative)
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets						
TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018						
Substance		Contact	TR request?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB		1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO		2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB		2017 TR		"
Plastic mulch and covers	205.601(b)	HB		1995 TAP		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM		2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB		1995 TAP		"

Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE		2014 TR		
Sucrose octanoate esters	205.601(e)(10)	SB		2005 TR		
Hydrated lime	205.601(i)(4)	DM		1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		
Liquid fish products	205.601(j)	AB		1995 TAP ; 2006 TR		
Sulfurous Acid	205.601(j)	SE		2010 TAP ; 2014 TR		
Ethylene	205.601(k)	EO		2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		
Microcrystalline cheesewax	205.601(o)	SB		none		
Potassium chloride	205.602(e)	JM		1995 TAP		

**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday June 22, 2017 12:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Joelle Mosso (JM); Dave Mortensen (DM); Harriet Behar (HB); Asa Bradman (AB); Jesse Buie (JB); Ashley Swaffar (SW) - observer; Scott Rice (SR) - observer; A-Dae Briones - observer; Dan Seitz (DS) - observer

Absent: Sue Baird (SB); Steve Ela (SE)

Staff: Michelle Arsenault (MA); Lisa Brines (LB); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Fall 2017
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Fall 2017

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Fall 2017
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Fall 2017
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition due to lack of new information.	May 16, Jun 6, Jun 20	Fall 2017
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 08 07 17.		
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/ DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB	Update	Report. On HOLD pending compost ruling. Moved to Materials Subcommittee 06 13 17 for continued work.		Fall 2017
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Discussio n doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	TBD	Fall 2017
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	DD		TBD	Fall 2017

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Jul 18	Fall 2017
Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	TBD	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22	Fall 2017
Container and greenhouse production		Proposal		Jun 22	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	TBD	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"

Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Logistics for conference call
- Aeroponics/Hydroponics/Aquaponics, Container growing - discussion
- Adjourn

Discussion

- The group reviewed the logistics for the teleconference. The call will likely be held July 19th and will be two hours long.
- Aeroponics/Hydroponics/Aquaponics, and container growing. The group discussed the two topics currently under review, acknowledging the complex nature of each. The goal is to move towards a compromise that the Crops Subcommittee can develop into proposals for the NOSB to consider at the Fall meeting. Each member contributed to the conversation and expressed their viewpoints on

various aspects of the science, sustainability, inputs, soil and the philosophy of organic agriculture. Members also discussed options such as an alternative label for hydroponic systems, and the European standards, which do not allow hydroponics to be labelled organic. Each member was asked to provide suggestions for compromises, and the group will continue the conversation on the next Crops call.

- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

June 20, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Boric acid (HB/JM) - Discuss proposal/vote

Micronutrients: Soluble boron products, etc. (HB) - Discuss proposal/vote

Tobacco dust (nicotine sulfate) (HB) - Discuss proposal/vote

Assign leads to 2020 sunset materials

Ammonium nonanoate petition resubmission (FT/SB). Petition sufficiency/determine need for TR

June 22, 2017 - Additional call

Hydroponics/Container growing

July 18, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)

Anaerobic Digestate - discuss proposal

Research Priorities (discuss proposal/vote)

Fatty alcohols - discuss proposal

Marine materials (EO)

Sulfur (as a molluscicide) - assign lead to new petition

July 19, 2017

Public teleconference (Note: this was rescheduled to Aug 14)

July 25, 2017 - Additional call

Hydroponics/Container growing

August 1, 2017

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	~Apr 27, 2017 , May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 18, 2017
NOSB public teleconference	July 25, 2017 (tentative)
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets						
TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018						
Substance		Contact	TR request?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB		1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO		2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB		2017 TR		"
Plastic mulch and covers	205.601(b)	HB		1995 TAP		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM		2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB		1995 TAP		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE		2014 TR		

Sucrose octanoate esters	205.601(e)(10)	SB		2005 TR		
Hydrated lime	205.601(i)(4)	DM		1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		
Liquid fish products	205.601(j)	AB		1995 TAP ; 2006 TR		
Sulfurous Acid	205.601(j)	SE		2010 TAP ; 2014 TR		
Ethylene	205.601(k)	EO		2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		
Microcrystalline cheesewax	205.601(o)	SB		none		
Potassium chloride	205.602(e)	JM		1995 TAP		

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday July 18, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Tom Chapman (TC) - observer

Absent: Dave Mortensen (DM); Jesse Buie (JB); Sue Baird (SB)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 08 07 17.		
Inert Ingredients					
Substance	Contact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Contact	Doc type	Notes*	Disc/Vote	Meeting
Contamination Issues in Farm Inputs	FT/HB	Update	Report. On HOLD pending compost ruling. Moved to Materials Subcommittee 06 13 17 for continued work.		NA
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Discussion doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1	Fall 2017
Biodegradable Biobased Mulch	HB/AB	DD	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	DD		TBD	Spr 2018

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 1	Fall 2017
Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	Aug 1	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22, Jul 25	Fall 2017
Container and greenhouse production		Proposal		Jun 22, Jul 25	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 1	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"

Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve notes from June 20, 2017
- Approve notes from June 22, 2017
- TR needs for 2020 sunset materials
- Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote
- Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)
- Research Priorities (discuss proposal/vote)
- Anaerobic Digestate (EO) - discuss proposal
- Marine materials (EO)
- Adjourn

Discussion

- **Notes from June 20, 2017** approved with no changes
- **Notes from June 22, 2017** approved with the addition of a postscript note revising the date of the web conference to August 14.
- **TR needs for 2020 sunset materials.** The group determined the need for TRs for the 2020 sunset substances. See table below.
- **Vitamin B1, Vitamin C, Vitamin E (EO).** The CS is considering removing B1, and has reached out to Material Review Organizations about its use. The feedback indicated that there were no organic products with B1. Previous public comments from two certifiers indicated that micronutrients are being used, but the comment was general and not specific to B1. The CS will pose questions in the proposal about the use of B1, and plans to vote on Vitamin B1 separately from vitamins C and E.

Motion to remove B1 at §205.601(j)(8) based on lack of essentiality

Motion by: EO

Seconded by: SE

Additional discussion: none

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

Motion to remove vitamins C and E from §205.601(j)(8)

Motion by: EO

Seconded by: HB

Additional discussion: none

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

- **Micronutrients:** Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB). The lead noted that these substances have not been controversial and there were no comments during the previous posting asking for removal. A member asked a question regarding chlorides and why they are not allowed. Another member indicated that the annotation prohibiting chlorides was likely added to prevent salt accumulation.

Motion to remove Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt from §205.601(j)(6)(ii)

Motion by: HB

Seconded by: SE

Additional discussion: none

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

- **Research Priorities.** The group discussed the Crops research priorities and some possible additions to the existing list. A member suggested one on the management and control of spotted wing drosophila in fruits, and a second research need for a systems approach to integration of livestock in perennial organic fruits, including tree fruits. Another member felt that the NOSB may want to defer work on the topic of manure in production systems, as there is ongoing research by FDA and others related to the implementation of the Food Safety Modernization Act (FSMA). SE will write some language for addition to the research priorities list, and the Subcommittee will revisit the document briefly during the next call to finalize.
- **Anaerobic Digestate (EO).** Deferred to next call
- **Marine materials (EO).** Deferred to next call
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

June 22, 2017 - Additional call

Hydroponics/Container growing

July 18, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)

Anaerobic Digestate (EO) - discuss proposal

Research Priorities (discuss proposal/vote)

Fatty alcohols (JB) - discuss proposal

Marine materials (EO)

Sulfur (as a molluscicide) - assign lead to new petition

July 25, 2017 - Additional call

Hydroponics/Container growing

August 1, 2017

Anaerobic Digestate (EO) - Discuss proposal/vote?

Marine materials (EO) - Discuss proposal/vote?

Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Humic acids (AB) - Discuss proposal/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)

Newspaper - annotation change. Discuss update for Fall 2017 meeting

August 14, 2017

Public web conference

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017

Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Contact	TR request?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		"
Plastic mulch and covers	205.601(b)	HB	Y low	1995 TAP ; TR for biodegradable mulch		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		"
Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		"

Microcrystalline cheesewax	205.601(o)	SB	Y	none		"
Potassium chloride	205.602(e)	JM	Y low	1995 TAP		"

**National Organic Standards Board (NOSB)
Crops Subcommittee (CS) Meeting Notes
Tuesday July 25, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB); Sue Baird (SB); Lisa de Lima (LD) - observer; Scott Rice (SR) - observer; Ashley Swaffar (AS) - observer

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP); Lisa Brines (LB)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 1	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 08 07 17.		Spr 2018
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/ DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1	Fall 2017
Biodegradable Biobased Mulch	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17	TBD	Fall 2017
Prohibition of NPEs in Inerts annotation change	DM/EO	Disc Doc		TBD	Spr 2018

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 1	Fall 2017
Newspaper - annotation change	HB	Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17. On hold.	Aug 1	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22, Jul 25	Fall 2017
Container and greenhouse production		Proposal		Jun 22, Jul 25	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 1	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	ALL	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 1	"

Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Aeroponics/Hydroponics/Aquaponics, Container growing - discussion
- Adjourn

Discussion

- Aeroponics/Hydroponics/Aquaponics, Container growing. The group discussed ideas regarding a compromise position offered by several Subcommittee members. The ideas build on the 2010 NOSB recommendation and aim to clarify how to determine the line between hydroponic production and container grown crops. Members discussed various components such as substrates, inputs, definition of inputs, and sustainability. The group also discussed the broader philosophy of organic systems and agriculture, **and are finding it difficult to come to some middle ground, as they seek a compromise.** Many members have reached out to stakeholders to gather different

viewpoints. The Subcommittee members will continue to exchange ideas before the next call, for inclusion in the Crops proposal for the fall meeting.

- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

July 18, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)

Anaerobic Digestate (EO) - discuss proposal

Research Priorities (discuss proposal/vote)

Fatty alcohols (JB) - discuss proposal

Marine materials (EO)

Sulfur (as a molluscicide) - assign lead to new petition

July 25, 2017 - Additional call

Hydroponics/Container growing

August 1, 2017

Anaerobic Digestate (EO) - Discuss proposal/vote?

Marine materials (EO) - Discuss proposal/vote?

Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Sunset 2019 Humic acids (AB) - Discuss proposal/vote

Fatty alcohols - discuss proposal/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)

Newspaper - annotation change. Discuss update for Fall 2017 meeting

August 14, 2017. Public web conference (NOSB)

August 15, 2017

September 5, 2017

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017

NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		"
Plastic mulch and covers	205.601(b)	HB	Y low priori ty	1995 TAP ; TR for biodegradable mulch.		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		"

Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		“
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		“
Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		“
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.		“
Potassium chloride	205.602(e)	JM	Y - low priori	1995 TAP .		“

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday August 1, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB); Sue Baird (SB); Tom Chapman (TC) - observer

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 15	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1, Aug 15	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development TR - Handling, Citric acid and salts (2015)	TBD	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17.		Spr 2018
Inert Ingredients					
Substance	Con- tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/ DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1, Aug 15	Fall 2017
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1	Spr 2018
Prohibition of NPEs in inerts annotation change	DM/EO	Disc Doc		TBD	Spr 2018

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Newspaper - annotation change	HB	Verbal Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Aug 15	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing.	May 2, May 30, Jun 22, Jul 25	Fall 2017
Container and greenhouse production		Proposal		Jun 22, Jul 25	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	All	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 15	Spr 2018

Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve notes from July 18, 2017
- Approve notes from July 25, 2017
- Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote
- Sunset 2019 Humic acids (AB) - Discuss proposal/vote
- Anaerobic digestate (EO) - Discuss proposal/vote?
- Marine materials (EO) - Discuss proposal/vote?
- Fatty alcohols - discuss proposal/vote
- Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)
- Newspaper - annotation change (HB). Discuss update for Fall 2017 meeting - tentative
- Adjourn

Discussion

- **Notes from July 18, 2017** were approved with a minor correction to the section under vitamins.
- **Notes from July 25, 2017** were approved with the addition of language to the discussion on hydroponics regarding the difficulty of finding a compromise position.
- **Sunset 2019 Biodegradable biobased mulch film (HB/AB)**. The group discussed the sunset review briefly in the context of the “other” project on biobased mulch. The group will discuss and vote on the sunset review on the next call.
- **Biodegradable biobased mulch film annotation change (HB/AB)**. One of the co-leads summarized the background for this project. A previous Board put forth a recommendation on an annotation that did not indicate how much biological based material must be included in a product to be considered for use in organic agriculture. The NOP subsequently provided guidance that it must contain 100%. However, with the exception of paper mulch, there are no products that meet this standard. The group discussed the path forward and will defer discussion until more research is available.
- **Sunset 2019 Humic acids (AB)**. The lead summarized the material and the public comment received during the first posting. The group discussed history, use and manufacture of humic acids, and after some modifications to the draft review, proceeded to a vote.

Motion to remove humic acids from §205.601(j)

Motion by: AS

Seconded by: DM

Additional discussion: none

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

- **Anaerobic Digestate (EO)**. The Crops Subcommittee is working on two projects on anaerobic digestate: one petition, and one additional project to look at a broader scope with regard to food waste and other manure issues. The lead summarized the history of these projects and the use and manufacture, including human health impacts. The group discussed the draft proposal and there was some uncertainty about the wording of the motions for the petition, specifically, whether it needs a classification motion and where it would appear in the regulations. The petitioner requested a change to §205.600. The CS will defer the vote to the next call.
- **Marine materials (EO)**. Deferred to next call for lack of time.
- **Fatty alcohols (JB)**. Deferred to next call for lack of time.
- **Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)**. Deferred to next call for lack of time.
- **Newspaper - annotation change (HB)**. Discuss status/update at fall meeting Deferred to next call for lack of time.
- **Other items**. The Crops Subcommittee added an extra call on August 29
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

July 18, 2017

Vitamin B1, Vitamin C, Vitamin E (EO) - Discuss proposal/vote

Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt (HB)

Anaerobic Digestate (EO) - discuss proposal

Research Priorities (discuss proposal/vote)

Fatty alcohols (JB) - discuss proposal
 Marine materials (EO)
 Sulfur (as a molluscicide) - assign lead to new petition
 July 25, 2017 - Additional call
 Hydroponics/Container growing
 August 1, 2017
 Anaerobic Digestate (EO) - Discuss proposal/vote?
 Marine materials (EO) - Discuss proposal/vote?
 Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote
 Sunset 2019 Humic acids (AB) - Discuss proposal/vote
 Fatty alcohols - discuss proposal/vote
 Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)
 Newspaper - annotation change. Discuss update for Fall 2017 meeting
 August 14, 2017. Public web conference (NOSB)
 August 15, 2017
 Anaerobic Digestate (EO) - Discuss proposal/vote
 Marine materials (EO) - Discuss proposal/vote?
 Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote
 Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB) - Discuss proposal/vote
 Newspaper - annotation change (HB). Discuss update for Fall 2017 meeting
 August 29, 2017
 September 5, 2017
 Sulfur (as a molluscicide) (AB) - petition sufficiency/need for TR
 September 19, 2017
 October 3, 2017
 October 17, 2017
 November 7, 2017
 November 21, 2017
 December 5, 2017
 December 19, 2017
 January 2, 2018
 January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Contact	TR request?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		"
Plastic mulch and covers	205.601(b)	HB	Y low priority	1995 TAP ; TR for biodegradable mulch .		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		"
Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		"
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.		"
Potassium chloride	205.602(e)	JM	Y - low priori	1995 TAP .		"

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday August 15, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB); Tom Chapman (TC) - observer

Absent: Sue Baird (SB)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 15	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1, Aug 15	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17	Sep 5	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17.	Aug 29	Spr 2018
Inert Ingredients					
Substance	Contact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Contact	Doc type	Notes*	Disc/Vote	Meeting
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1, Aug 15	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1	Spr 2018
Prohibition of NPEs in inerts annotation change	DM/EO	Disc Doc		TBD	Spr 2018

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15	Spr 2018
Newspaper - annotation change	HB	Verbal Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Aug 15	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing. Container doc Incorporated into the document on Aeroponics/Hydroponics/Aquaponics 08 14	May 2, May 30, Jun 22, Jul 25 Aug 29	Fall 2017
Container and greenhouse production	JB, HB, FT and EO	Disc doc		Jun 22, Jul 25 Aug 29	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Research Priorities	All	NA	RPs due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	All	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"

Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 15	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve notes from August 1, 2017
- Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote
- Fatty alcohols (JB) Discuss proposal/vote
- Anaerobic Digestate petition (EO) Discuss proposal/vote
- Marine materials (EO) - Discuss proposal/vote?
- Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB) - Discuss proposal/vote

- Newspaper - annotation change (HB). Discuss update for Fall 2017 meeting
- Adjourn

Discussion

- **Notes from August 1, 2017** were approved with no changes
- **Fatty alcohols** (octanol/decanol mix) (JB). The group discussed modifications to the previous version of the draft review, and added additional background.

Motion to classify fatty alcohols (octanol/decanol mix) as petitioned as synthetic

Motion by: JB

Seconded by: EO

Additional discussion: none

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

Motion to add fatty alcohols (octanol/decanol mix) as petitioned at §205.601 (k)(2)

Motion by: JB

Seconded by: EO

Additional discussion: a member noted that using fatty alcohols could reduce direct human exposure (and health risks) but that, after consideration of all criteria, he would not support the addition of fatty alcohols as petitioned to the National List

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

- **Sunset 2019 Biodegradable biobased mulch film (HB/AB)**. The lead summarized the review and the group discussed various aspects of manufacture. The group also discussed the proposed annotation change, which they will continue working on for the Spring 2018 NOSB meeting.

Motion to remove Biodegradable biobased mulch film from §205.601()

Motion by: HB

Seconded by: EO

Additional discussion: none

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

- **Anaerobic Digestate petition (EO)**. The lead summarized the proposal, and noted that the CS may also working on a discussion document to address the request from NOP (sent in May 2016) (on work agenda as Anaerobic Digestate - Food Waste 205.601(j) and other manure issues).

Motion to classify anaerobic digestate produced from nonsynthetic feedstocks as nonsynthetic:

Motion by: SE

Seconded by: HB

Additional discussion: none

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

Motion to allow anaerobic digestate without a pre-harvest interval, by amending §205.203 - Soil fertility and crop nutrient management practice standard. (See proposal for full text of amendment).

Motion by: EO

Seconded by: SE

Additional discussion: none

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

- **Marine materials (EO)**. The marine materials proposal was returned to Subcommittee for additional work at the Spring 2017 meeting. The CS plans to work in conjunction with the Handling

Subcommittee's proposal on the same topic. The lead is currently exploring additional information and is engaging many stakeholders, as well as the lead for the Handling Subcommittee. HB also volunteered to assist.

- **Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB).** The proposal was referred back to the Subcommittee at the Spring 2017 meeting because commenters indicated they did not have enough time to review it. The CS will post the same document for comment.

Motion to accept the proposal to Strengthen and clarify the requirements for use of organic seed (NOP 5029).

Motion by: HB

Seconded by: EO

Additional discussion: none

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

- **Newspaper - annotation change (HB).** The lead will provide a verbal update at Fall 2017 meeting.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

August 1, 2017

Anaerobic Digestate (EO) - Discuss proposal/vote?

Marine materials (EO) - Discuss proposal/vote?

Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Sunset 2019 Humic acids (AB) - Discuss proposal/vote

Fatty alcohols - discuss proposal/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB)

Newspaper - annotation change. Discuss update for Fall 2017 meeting

August 14, 2017. Public web conference (NOSB)

August 15, 2017

Anaerobic Digestate (EO) - Discuss proposal/vote

Marine materials (EO) - Discuss proposal/vote?

Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB) - Discuss proposal/vote

Newspaper - annotation change (HB). Discuss update at Fall 2017 meeting

August 29, 2017

Aeroponics/Hydroponics/Aquaponics + Container and greenhouse production

Sulfur (as a molluscicide) (AB) - petition sufficiency/need for TR

September 5, 2017

Sodium Citrate - TR sufficiency

September 19, 2017

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets						
TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018						
Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		"
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP: TR for biodegradable mulch . Low priority		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		"

Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		“
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		“
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		“
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		“
Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		“
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.		“
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority		“

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday August 29, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB)

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 15	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1, Aug 15	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015). TR sent to CS 08 07 17. Response due 10 06 17	Sep 5	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide)	AB		Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17.	Sep 19	Spr 2018
Inert Ingredients					
Substance	Contact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A		NA	Spr 2018
Other Topics					
Project	Contact	Doc type	Notes*	Disc/Vote	Meeting
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1, Aug 15	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1	Spr 2018
Prohibition of NPEs in inerts annotation change	DM/EO	Disc Doc		TBD	Spr 2018

Marine materials (marine algae and extracts) on the National List	EO	Proposal	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15	Spr 2018
Newspaper - annotation change	HB	Verbal Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Aug 15	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing. Container doc Incorporated into the document on Aeroponics/Hydroponics/Aquaponics 08 14	May 2, May 30, Jun 22, Jul 25 Aug 29	Fall 2017
Field and Greenhouse Container Production	JB, HB, FT and EO	Disc doc		Jun 22, Jul 25 Aug 29	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	All	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"

Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 15	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Approve notes from August 15, 2017
- Field and Greenhouse Container Production - Discuss/vote
- Aeroponics/Hydroponics/Aquaponics - Discuss/vote
- Adjourn

Discussion

- **Approval of the notes from August 15, 2017** was deferred to the next call.
- **Field and Greenhouse Container Production discussion document.** Members have been actively exchanging ideas on a discussion document to address topics related to container production. Following a summary by the lead author, members proceeded to vote on the document. The Crops Subcommittee is presenting this document alongside the hydroponics proposal as a means to glean more feedback from stakeholders regarding container growing.

Motion to accept the discussion document on Field and Greenhouse Container Production

Motion by: FT

Seconded by: SE

Additional discussion: The CS is seeking public comment regarding this document, with the intention of bringing forth a proposal at the spring meeting.

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

- **Aeroponics/Hydroponics/Aquaponics.** Members discussed the current iteration of the proposal and modifications to the language since the previous meeting, included suggestions that were not incorporated. Members discussed various aspects of the proposal such as sustainability, impacts, and water conservation. The CS moved to a vote on the 4 separate motions in the proposal.

Aeroponic production systems

- o Motion to prohibit aeroponic production systems from organic certification.

Motion by: EO

Seconded by: HB

Additional discussion: A member chose to abstain from voting on one of the motions citing lack of awareness or knowledge of some of these systems, and urged the NOP to provide the NOSB members more opportunities to visit operations to inform their decision.

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

Aquaponic production systems

- o Motion to prohibit aquaponic production systems from organic certification.

Motion by: HB

Seconded by: JB

Additional discussion: Members discussed adding language to clarify that they may work on this topic again, as production systems and organic regulations evolve.

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

Container production:

- o Motion to qualify that for container production to be certified organic, a limit of 20% of the plants' nitrogen requirement can be supplied by liquid feeding, and a limit of 50% of the plants' nitrogen requirement can be added to the container after the crop has been planted. For perennials, the soluble nitrogen feeding limit is calculated on an annual basis. Transplants, ornamentals, herbs, sprouts, fodder, and aquatic plants are exempted from these requirements.

Motion by: FT

Seconded by: SE

Additional discussion: A member supported the standard being proposed, indicating that it is practical and implementable. Another member feels that this should be part of the discussion document on container growing and not part of this proposal.

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

Hydroponics

- o Motion that any container production system that does not meet the standard of a limit of 20% of the plants' nitrogen requirement being supplied by liquid feeding, and a limit of 50% of the plants' nitrogen requirement being added to the container after the crop has been planted, is defined as hydroponic and should not be allowed to be certified organic. For perennials, the soluble nitrogen feeding limit is calculated on an annual basis. Transplants, ornamentals, herbs, sprouts, fodder, and aquatic plants are exempted from these requirements.

Motion by: JB

Seconded by: DM

Additional discussion: A member had some concerns that the Crops Subcomm needs more information regarding this topic.

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

- **Other items.** The CS cancelled the September 5 call
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

August 15, 2017

Anaerobic Digestate (EO) - Discuss proposal/vote

Marine materials (EO) - Discuss proposal/vote?

Sunset 2019 Biodegradable biobased mulch film (HB/AB) - Discuss proposal/vote

Strengthen and clarify the requirements for use of organic seed (NOP 5029) (HB) - Discuss proposal/vote

Newspaper - annotation change (HB). Discuss update at Fall 2017 meeting

August 29, 2017

Aeroponics/Hydroponics/Aquaponics + Container and greenhouse production

September 5, 2017 - cancelled

September 19, 2017

Sulfur (as a molluscicide) (AB) - petition sufficiency/need for TR

Sodium Citrate - TR sufficiency

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

December 5, 2017

December 19, 2017

January 2, 2018

January 16, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017
NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017

NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		"
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP ; TR for biodegradable mulch . Low priority		"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.		"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		"

Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		“
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.		“
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority		“

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday September 19, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB)

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 15	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1, Aug 15	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017.	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17. Found TR insufficient 09 19 17. Will send contractor additional question(s).	Sep 19	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development. Expected October 2017	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide) 205.601	AB	N	Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17. Petition found sufficient 09 19 17. No TR request.	Sep 19	Spr 2018
Inert Ingredients					
Substance	Con-tact	TR rqstd?	Notes*	Vote	Meeting
EPA List 4 Inerts annotation change	HB/EO/DM/AB	N/A	Disc doc.	NA	Spr 2018
Other Topics					
Project	Con-tact	Doc type	Notes*	Disc/Vote	Meeting
Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB/JM	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1, Aug 15	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1	Spr 2018

Prohibition of NPEs in inerts - annotation change	DM/EO	Disc Doc		TBD	Spr 2018
Marine materials (marine algae and extracts) on the National List	EO	Disc doc	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15	Spr 2018
Newspaper - annotation change	HB	Verbal Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Aug 15	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing. Container doc Incorporated into the document on Aeroponics/Hydroponics/Aquaponics 08 14 17	May 2, May 30, Jun 22, Jul 25 Aug 29	Fall 2017
Field and Greenhouse Container Production	JB, HB, FT and EO	Disc doc		Jun 22, Jul 25 Aug 29	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Research Priorities	All	NA	RP's due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	All	NA		NA	NA
2019 Sunsets Summary: Spr 2017 Review: Fall 2017					
Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting

Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"
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Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- Sulfur (as a molluscicide) (AB) - petition sufficiency/need for TR
- Sodium Citrate - TR sufficiency
- Hydroponics/container proposal - Discuss minority view
- Adjourn

Discussion

- **Sulfur (as a molluscicide) (AB).** The lead reviewed the petition and previous TRs and felt that the information was complete, given the proposed use. The petitioned use calls for pelleted sulfur for snail control, and the members discussed the fact that this would likely pose minimal human health risks. The lead will draft a proposal for discussion on a future call. The group discussed a possible future project to consider health risks associated with different methods of application of sulfur for crop production (i.e., sulfur dust vs. sulfur in liquid form). Members will do some research and continue the discussion on a later call.
- **Sodium Citrate (HB).** The TR was found insufficient, and the CS plans to send it back to the contractor for additional work.
- **Other items: The group reviewed the work agenda and made some updates.**
 - Anaerobic Digestate - food waste and other manure issues. NOP requested in 2016 that the NOSB look at this topic more broadly than anaerobic digestate alone (see entry above for petition). The CS will continue to consider the broader topic, including the FSMA regulations. The NOP offered to coordinate a briefing for the CS with FDA staff once the FDA publishes anticipated draft guidance on application intervals.
 - Prohibition of NPEs in inerts - annotation change. The LS was working on this project but determined that it was far more complicated than they originally thought, so they did not pursue it. The CS Chair will discuss this further and determine if it should be removed from the Crops work agenda as well.
 - Marine materials. Stakeholders from various sectors of the organic community have continued interest in this topic. The lead continues to have discussions with these stakeholders and may have a document ready for the Spring 2018 meeting.
- **Hydroponics/container proposal minority view.** The group discussed the minority view that was included in the hydroponics proposal. They also discussed the voting procedure for the proposal, and would like to clarify the process with the parliamentarian ahead of time.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

September 19, 2017

Sulfur (as a molluscicide) (AB) - petition sufficiency/need for TR

Sodium Citrate - TR sufficiency

October 3, 2017

October 17, 2017

November 7, 2017

November 21, 2017

Natamycin (HB) - TR sufficiency (pending receipt of TR)

December 5, 2017

Polyoxin D Zinc salt (JB) - TR sufficiency (pending receipt of TR)

Allyl Isothiocyanate (AITC) - TR sufficiency (pending receipt of TR)
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Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Joelle Mosso (JM); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Dave Mortensen (DM); Jesse Buie (JB); Scott Rice (SR) observer

Absent: none

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Fatty Alcohols (octanol/decanol mix) 205.601 (k)(2)	JB	Y	Petition sent to CS 01 27 16. Petition suff/TR Request due 03 28 16. Petition found sufficient 03 17 16. TR request sent to NOP 03 17 16. TR in development - expected Fall 2016. TR sent to CS 02 13 17. Response due 04 14 17. CS requested additional info from petitioner 03 24 17. TR found sufficient 05 02 17	May 2 May 16 Aug 15	Fall 2017
Anaerobic Digestate 205.203	EO	Y	New petition sent to MS 04 22 16. Under review for eligibility at request of NOP. TR request sent to NOP 07 05 16. TR in development. Expected Feb 2017. TR sent to CS 03 10 17. Response due 05 09 17. CS sent additional questions to TR contractor 04 13 17. TR addendum sent to CS 05 16 17. TR found sufficient 06 06 17.	Jun 6, Aug 1, Aug 15	Fall 2017
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017.	TBD	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	TBD	Spr 2018

Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17. Found TR insufficient 09 19 17. Will send contractor additional question(s).	Sep 19	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development. Expected October 2017	TBD	Spr 2018
Ammonium Nonanoate	FT/SB	2011 TR	Original petition sent to CS 11 09 16. CS rejected petition 12 20 16. Resubmitted petition sent to CS 05 11 17. Petition suff/TR request due 07 10 17. CS rejected petition 06 20 due to lack of new information.	May 16, Jun 6, Jun 20	NA
Sulfur (as a molluscicide) 205.601	AB	N	Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17. Petition found sufficient 09 19 17. No TR request.	Sep 19	Spr 2018
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
(Manure treatments) Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB/JM	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above)	Aug 1, Aug 15	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1	Spr 2018
Prohibition of NPEs in inerts - annotation change/ EPA List 4 Inerts annotation change	HB/EO/ DM/AB	Disc Doc/Prop	IWG recommended NOSB work on NPEs/TR requested July 2014. DD - April 2016. EPA List 4 inerts disc doc (originated from 2017 sunset review conducted in 2015). Pending EPA decision	TBD	Fall 2018

Marine materials (marine algae and extracts) on the National List	EO	Disc doc	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15,	Spr 2018
Newspaper - annotation change	HB	Verbal Update	NOP approved request 01 12 16. TR request sent to NOP 06 21 16. TR in development. TR expected Dec 2016. TR sent to CS 01 11 17. TR suff due 03 15 17. TR found sufficient 03 07 17.	Aug 15	Fall 2017
Aeroponics/Hydroponics/Aquaponics	JB, HB, FT and EO	Proposal	Report due from Task Force ~June. Deadline extended to mid-July. 2 parts: proposal on bioponics and a disc doc on container-based growing. Container doc incorporated into the doc on Aero/Hydro/Aqua 08 14 17	May 2, May 30, Jun 22, Jul 25 Aug 29	Fall 2017
Field and Greenhouse Container Production	JB, HB, FT and EO	Disc doc		Jun 22, Jul 25 Aug 29	Fall 2017
Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting	Aug 15	Fall 2017
Research Priorities	All	NA	RPs due to MS Aug 2017	Jul 18	Fall 2017
NOP operating plan suggestions	All	NA		NA	NA

2019 Sunsets

Summary: Spr 2017 Review: Fall 2017

Substance	Contact	TR request?	Notes	Scheduled, Discussed, Voted	Meeting
Chlorine Materials (Calcium hypochlorite, Chlorine dioxide, Sodium hypochlorite) 205.601(a)	FT	N		Jun 6	Review Fall 17
Herbicides, soap-based 205.601(b)	SB	N		Jun 6	"

Biodegradable biobased mulch film 205.601(b)	HB/AB	Y		Aug 15	"
Boric acid 205.601(e)	HB/JM	N		Jun 20	"
Sticky traps/barriers 205.601(e)	EO	N		Jun 6	"
Copper sulfate 205.601(i)	SE	N		Jun 6	"
Coppers, fixed 205.601(i)	SE	N		Jun 6	"
Humic acids 205.601(j)	AB	N	2012 TR for oxidized lignite/humic acid derivatives	Aug 1	"
Micronutrients: Soluble boron products 205.601(j)	HB	N		Jun 20	"
Micronutrients: Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt 205.601(j)	HB	N		Jul 18	"
Vitamin B1 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin C 205.601(j)	EO	N		Jun 20, Jul 18	"
Vitamin E 205.601(j)	EO	N		Jun 20, Jul 18	"
Lead salts 205.602(d)	FT	N		Jun 6	"
Tobacco dust (nicotine sulfate) 205.602(i)	HB	N		Jun 20	"

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

Agenda

- September 19, 2017 notes update
- Review public comments
- Adjourn

Discussion

- September 19, 2017 were approved via email October 2, 2017 with no changes

- Review assignments
 - o The group reviewed the materials and who will present what at the fall meeting.
 - o A member asked that the CS Chair send an email to the entire Board to let them know the format for the conversation on hydroponics at the Fall meeting. The group also discussed the format of the vote for the proposal, which has 4 motions, as well as the related discussion document on container and green-house production.
- Review Public comments. HB will summarize and present the public comments for hydroponics at the Fall 201 meeting.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

October 3, 2017 - cancelled

October 17, 2017

November 7, 2017

November 21, 2017

Natamycin (HB) - TR sufficiency (pending receipt of TR)

Sulfur (as a molluscicide)

December 5, 2017

Polyoxin D Zinc salt (JB) - TR sufficiency (pending receipt of TR)

Allyl Isothiocyanate (AITC) - TR sufficiency (pending receipt of TR)

December 19, 2017

January 2, 2018

January 16, 2018

February 6, 2018

February 20, 2018

March 6, 2018

March 20, 2018

April 3, 2018

April 17, 2018

May 1, 2018

May 15, 2018

June 5, 2018

June 19, 2018

July 3, 2018

July 17, 2018

August 7, 2018

August 21, 2018

September 4, 2018

September 18, 2018

October 2, 2018

October 16, 2018

November 6, 2018

November 20, 2018

December 4, 2018

December 18, 2018

Fall 2017 Milestones	Target dates (tentative)
NOP - Publish FRN, Open public comment	May 30, 2017

NOSB Request for TRs for 2020 sunset materials	July 19, 2017
NOP - Draft Fall 2017 NOSB meeting tentative agenda	Aug 11, 2017
NOSB public web conference	Aug 14, 2017
NOSB - Fall 2017 proposals due to NOP	Aug 29, 2017
NOP - Post proposals	On or before Sep 12, 2017
Public comment closes	Oct 11, 2017
Discuss/finalize work agendas on ES call	Oct 13, 2017
NOP - Send compiled public comments to NOSB	Oct 16, 2017
Two Public comment webinars	Oct 24, and if needed 26, 2017
Fall 2017 NOSB meeting - Jacksonville, FL	Oct 31- Nov 2, 2017

Spring 2018 Milestones	Target dates (tentative)
New NOSB member orientation	TBD
NOSB - Spring 2018 proposals due to NOP	Feb 21, 2018
NOP - Complete Spring 2018 NOSB meeting tentative agenda	Mar 6, 2018
NOP - Post proposals, Open public comment	Mar 6, 2018
Discuss work agendas on ES call	Mar 9, 2018
Public comment closes	Apr 4, 2018
NOP - Send compiled public comments to NOSB	Apr 9, 2018
Work agendas finalized on ES call (last call before fall meeting)	Apr 13, 2018
Public comment webinar(s)	Apr 17 & 19, 2018
Spring 2018 NOSB meeting – Tucson, AZ	Apr 25-27, 2018

2020 Sunsets						
TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018						
Substance		Contact	TR request?	Notes	Scheduled, Discussed	Meeting

Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol		Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR		“
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR		“
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP ; TR for biodegradable mulch . Low priority		“
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR		“
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.		“
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR		“
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR		“
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide		“
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR		“
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR		“
Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR		“
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.		“
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority		“

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday November 21, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Sue Baird (SB); Harriet Behar (HB); Asa Bradman (AB); Steve Ela (SE); Jesse Buie (JB)

Absent: Joelle Mosso (JM); Dave Mortensen (DM)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP); Lisa Brines (LB)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017.	Dec 19	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected December 2017. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Dec 19	Spr 2018
Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17. Found TR insufficient 09 19 17. Will send contractor additional question(s).	Sep 19,	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development. Expected October 2017. TR sent to CS 11 3 17. Response due 01 12 18	Dec 5	Spr 2018

Sulfur (as a molluscicide) 205.601	AB	N	Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17. Petition found sufficient 09 19 17. No TR request.	Sep 19 Jan 2	Spr 2018
Ammonium Citrate 205.601	EO		Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Ammonium Glycinate 205.601	EO/AB/	Y	Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Calcium Acetate	SB		Petition sent to CS 1 20 17. Petition suff/TR request due 01 17 17.	Jan 16	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
(Manure treatments) Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB/J M	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above). Waiting for result of FDA's risk assessment.	Aug 1, Aug 15, 2017	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1, 2017	Spr 2018
Prohibition of NPES in inerts - annotation change/ EPA List 4 Inerts annotation change	HB/EO/ DM/AB	Disc Doc/Prop	IWG recommended NOSB work on NPES/TR requested July 2014. DD - April 2016. EPA List 4 inerts disc doc (originated from 2017 sunset review conducted in 2015). Pending EPA decision	TBD	Fall 2018
Marine materials (marine algae and extracts) on the National List	EO	Disc doc	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15, Dec 5	Spr 2018
Field and Greenhouse Container Production	JB, HB, FT and EO	TBD		Dec 5	Spr 2018

Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting. Referred back to CS at Fall 2017 meeting.		Spr 2018
Research Priorities	All	NA	RP's due to MS Aug 2018		Fall 2018

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol	Jan 2	Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR	Dec 5	"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR	Dec 5	"
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP : TR for biodegradable mulch. Low priority	Dec 5	"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR	Dec 19	"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.	Jan 2	"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR	Dec 5	"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR	Dec 19	"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide	Dec 19	"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR	Jan 2	"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR	Dec 5	"

Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR	Dec 5	"
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.	Dec 19	"
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority	Jan 2	"

Agenda

- Approve notes from October 17, 2017
- Call for additional agenda items.
- Liquid fish fertilizers (LB, DP).
- Review of work agenda. Assign leads and discussion dates.
- Petitions for ammonium glycinate and ammonium citrate (EO).
- Calcium acetate petition: assign lead.
- Discussion of future options for hydroponics/container proposals.
- Adjourn

Discussion

- **Notes from October 17, 2017** were approved with no changes.
Call for additional agenda items. A member asked that we add sulfur (as a molluscicide) to the agenda since it was deferred from a previous call. It was rescheduled for December 19
- **Liquid fish fertilizers (LB, DP).** Liquid fish fertilizers are part of the next sunset review and will be discussed at the next two Board meetings. The NOP described the use, manufacture, and annotation, and provided guidance to the Subcommittee about possible questions for public comment to glean more information about pH measurement throughout the manufacturing processes.
- **Petitions for ammonium glycinate and ammonium citrate (EO).** The lead noted that these materials were petitioned in 2016. No TR was requested at that time, and the Crops Subcommittee voted to not add them to the National List. The petitioner resubmitted new petitions. The CS will request a TR with specific questions, on which the NOP offered to provide feedback. Several members offered help with the review of the TR and the proposals.
- **Review of work agenda/Assign leads and discussion dates.** See table above.
- **Calcium acetate petition:** SB volunteered to lead the review.
- **Discussion of future options for hydroponics/container proposals.** Deferred to next call.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

November 7, 2017 - cancelled

November 21, 2017

December 5, 2017

Marine Materials (EO). Discussion of next steps

Natamycin (HB) - TR sufficiency

Discussion of future options for hydroponics/container proposals.

2020 sunset: Sodium carbonate peroxyhydrate - (EO) - Discuss review

2020 sunset: Newspaper or other recycled paper (HB) - Discuss review

2020 sunset: Plastic mulch and covers (HB) - Discuss review
 2020 sunset: Lime sulfur (SE) - Discuss review
 2020 sunset: Sulfurous Acid (SE) - Discuss review
 2020 sunset: Ethylene (EO) - Discuss review

December 19, 2017

Polyoxin D Zinc salt (JB) - TR sufficiency (pending receipt of TR)
 Allyl Isothiocyanate (AITC) - TR sufficiency (pending receipt of TR)
 2020 sunset: Aqueous potassium silicate (DM) - Discuss review
 2020 sunset: Sucrose octanoate esters (SB) - Discuss review
 2020 sunset: Hydrated lime (DM) - Discuss review
 2020 sunset: Microcrystalline cheesewax (SB) - Discuss review

January 2, 2018

Sulfur (as a molluscicide) - Review/vote on proposal
 2020 sunset: Alcohols: Ethanol Isopropanol (JB) - Discuss review
 2020 sunset: Elemental sulfur (AB) - Discuss review
 2020 sunset: Liquid fish products (AB) - Discuss review
 2020 sunset: Potassium chloride (JM) - Discuss review

January 16, 2018

Calcium Acetate (SB) - petition sufficiency/TR request

February 6, 2018

February 20, 2018

March 6, 2018

March 20, 2018

April 3, 2018

April 17, 2018

May 1, 2018

May 15, 2018

June 5, 2018

June 19, 2018

July 3, 2018

July 17, 2018

August 7, 2018

August 21, 2018

September 4, 2018

September 18, 2018

October 2, 2018

October 16, 2018

November 6, 2018

November 20, 2018

December 4, 2018

December 18, 2018

Spring 2018 Milestones	Target dates (tentative)
New NOSB member orientation	TBD
NOSB - Spring 2018 proposals due to NOP	Feb 21, 2018
NOP - Complete Spring 2018 NOSB meeting tentative agenda	Mar 6, 2018
NOP - Post proposals, Open public comment	Mar 6, 2018

Discuss work agendas on ES call	Mar 9, 2018
Public comment closes	Apr 4, 2018
NOP - Send compiled public comments to NOSB	Apr 9, 2018
Work agendas finalized on ES call (last call before fall meeting)	Apr 13, 2018
Public comment webinar(s)	Apr 17 & 19, 2018
Spring 2018 NOSB meeting – Tucson, AZ	Apr 25-27, 2018

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday December 5, 2017 2:00 pm ET**

Present: Francis Thicke, Chair (FT); Emily Oakley, Vice Chair (EO); Asa Bradman (AB); Steve Ela (SE); Jesse Buie (JB); Dave Mortensen (DM); Harriet Behar (HB); Sue Baird (SB)

Absent: Joelle Mosso (JM)

Staff: Michelle Arsenault (MA); Devon Pattillo (DP)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR in development. Expected Feb/Mar 2018.	Feb 6, 2018	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. . Expected Feb/Mar 2018. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Feb 6, 2018	Spr 2018
Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17. Found TR insufficient 09 19 17. HS sent additional questions to TR contractor 12 11 17	Sep 19, 2017	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development. Expected October 2017. TR sent to CS 11 3 17. Response due 01 12 18. TR found sufficient 12 5 17.	Dec 5	Spr 2018

Sulfur (as a molluscicide) 205.601	AB	N	Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17. Petition found sufficient 09 19 17. No TR request.	Sep 19 Jan 2	Spr 2018
Ammonium Citrate 205.601	EO/DM		Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Ammonium Glycinate 205.601	EO/DM	Y	Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Calcium Acetate	SB		Petition sent to CS 1 20 17. Petition suff/TR request due 01 17 17.	Jan 16	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
(Manure treatments) Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB/J M	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above). Waiting for result of FDA's risk assessment.	Aug 1, Aug 15, 2017	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1, 2017	Spr 2018
Prohibition of NPEs in inerts - annotation change/ EPA List 4 Inerts annotation change	HB/EO/ DM/AB	Disc Doc/Prop	IWG recommended NOSB work on NPEs/TR requested July 2014. DD - April 2016. EPA List 4 inerts disc doc (originated from 2017 sunset review conducted in 2015). Pending EPA decision	TBD	Fall 2018
Marine materials (marine algae and extracts) on the National List	EO	Disc doc	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15, Dec 5	Spr 2018
Field and Greenhouse Container Production	JB, HB, FT and EO	TBD		Dec 19	Spr 2018

Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting. Referred back to CS at Fall 2017 meeting.		Spr 2018
Research Priorities	All	NA	RP's due to MS Aug 2018		Fall 2018

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol	Jan 2	Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR	Dec 5	"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR	Dec 5	"
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP : TR for biodegradable mulch. Low priority	Dec 19	"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR	Dec 19	"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.	Jan 2	"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR	Dec 19	"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR	Dec 19	"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide	Dec 19	"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR	Jan 2	"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR	Dec 19	"

Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR	Dec 19	"
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.	Dec 19	"
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority	Jan 2	"

Agenda

- Approve notes from November 21, 2017
- Marine Materials (EO). Discussion of next steps
- Natamycin (HB) - TR sufficiency
- Discussion of future options for hydroponics/container proposals.
- 2020 sunset: Sodium carbonate peroxyhydrate - (EO) - Discuss review
- 2020 sunset: Newspaper or other recycled paper (HB) - Discuss review
- 2020 sunset: Plastic mulch and covers (HB) - Discuss review
- 2020 sunset: Lime sulfur (SE) - Discuss review
- 2020 sunset: Sulfurous Acid (SE) - Discuss review
- 2020 sunset: Ethylene (EO) - Discuss review
- Adjourn

Discussion

- **Notes from November 21, 2017** approved with no changes.
- **Marine Materials (EO).** Several Board members met with stakeholders at the Fall NOSB meeting to discuss issues specific to marine materials, and ways to move forward with the project. The lead proposes to bring this to the Spring NOSB meeting as a discussion document to solicit feedback from stakeholders. The group is also interested in, and supportive of, posting a preliminary discussion document to allow stakeholders to weigh in during the development of the document prior to the spring meeting. The intention is to post the document in Regulations.gov.
- **Natamycin (HB).** The lead summarized her review of the petition and TR. In a previous review of natamycin the NOSB did not vote to classify it as either synthetic or non-synthetic, and the petition to add it to the National List was denied. Members discussed the implications of considering it non-synthetic, including its potential use in crop production, livestock feed, and processed products. A member mentioned potential uses in processed food (cheese, for example), for which it would have to be listed at 205.605. Members questioned whether natamycin would be indicated on labels (retail and/or wholesale) when applied to crops post-harvest, and agreed to research some lingering questions outside the TR. The TR was found sufficient and the lead will develop a document for review by the CS.
- **Discussion of future options for hydroponics/container proposals.** Deferred to next call while the lead prepares ideas for the group to review.
- **2020 sunset: Sodium carbonate peroxyhydrate (EO).** The lead summarized the review. This substance was added to the National List with the hope that it would be an alternative for copper for use in rice. She noted that the previous vote was split, both in Subcommittee and at the NOSB meeting, but that it was less about the substance and more to do with the change in the sunset review process. The CS will put forth a couple of questions for public comment regarding use of sodium carbonate peroxyhydrate.
- **2020 sunset: Newspaper or other recycled paper (HB).** The lead indicated that the TR did not provide any additional information that would lead them to change the current annotation. The group provided feedback about the review, and will include some questions for public comment.

- **2020 sunset: Plastic mulch and covers (HB).** Deferred to next call.
- **2020 sunset: Lime sulfur (SE).** Deferred to next call.
- **2020 sunset: Sulfurous Acid (SE).** Deferred to next call.
- **2020 sunset: Ethylene (EO).** Deferred to next call.
- **The meeting was adjourned**

[Previous CS Notes](#)

Future Call Schedule (1st and 3rd Tuesdays 2:00 ET)

November 21, 2017

December 5, 2017

Marine Materials (EO). Discussion of next steps

Natamycin (HB) - TR sufficiency

Discussion of future options for hydroponics/container proposals.

2020 sunset: Sodium carbonate peroxyhydrate - (EO) - Discuss review

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December 19, 2017

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2020 sunset: Sulfurous Acid (SE) - Discuss review

2020 sunset: Ethylene (EO) - Discuss review

2020 sunset: Aqueous potassium silicate (DM) - Discuss review

2020 sunset: Hydrated lime (DM) - Discuss review

2020 sunset: Sucrose octanoate esters (SB) - Discuss review

2020 sunset: Microcrystalline cheesewax (SB) - Discuss review

Discussion of future options for hydroponics/container proposals.

January 2, 2018

Sulfur (as a molluscicide) - Review/vote on proposal

2020 sunset: Alcohols: Ethanol Isopropanol (JB) - Discuss review

2020 sunset: Elemental sulfur (AB) - Discuss review

2020 sunset: Liquid fish products (AB) - Discuss review

2020 sunset: Potassium chloride (JM) - Discuss review

January 16, 2018

Calcium Acetate (SB) - petition sufficiency/TR request

February 6, 2018

Polyoxin D Zinc salt (JB) - TR sufficiency (pending receipt of TR)

Allyl Isothiocyanate (AITC) - TR sufficiency (pending receipt of TR)

February 20, 2018

March 6, 2018

March 20, 2018

April 3, 2018

April 17, 2018

May 1, 2018

May 15, 2018

June 5, 2018

June 19, 2018

July 3, 2018

July 17, 2018

August 7, 2018
 August 21, 2018
 September 4, 2018
 September 18, 2018
 October 2, 2018
 October 16, 2018
 November 6, 2018
 November 20, 2018
 December 4, 2018
 December 18, 2018

Spring 2018 Milestones	Target dates (tentative)
New NOSB member orientation	TBD
NOSB - Spring 2018 proposals due to NOP	Feb 21, 2018
NOP - Complete Spring 2018 NOSB meeting tentative agenda	Mar 6, 2018
NOP - Post proposals, Open public comment	Mar 6, 2018
Discuss work agendas on ES call	Mar 9, 2018
Public comment closes	Apr 4, 2018
NOP - Send compiled public comments to NOSB	Apr 9, 2018
Work agendas finalized on ES call (last call before fall meeting)	Apr 13, 2018
Public comment webinar(s)	Apr 17 & 19, 2018
Spring 2018 NOSB meeting – Tucson, AZ	Apr 25-27, 2018

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)
Crops Subcommittee (CS) Meeting Notes
Tuesday December 19, 2017 2:00 pm ET**

Present: Steve Ela, Chair (SE); Emily Oakley, Vice Chair (EO); Asa Bradman (AB); Jesse Buie (JB); Dave Mortensen (DM); Harriet Behar (HB); Sue Baird (SB); Joelle Mosso (JM); Ashley Swaffar, observer

Absent: Michelle Arsenault (MA); Francis Thicke (FT)

Staff: Devon Pattillo (DP); Lisa Brines (note taker)

Work Agenda

Petitioned Substances					
Substance	Contact	TR request?	Notes	Discussed, Voted	Meeting
Polyoxin D Zinc salt 205.601	JB	Y	Petition sent to CS 06 16 16. Petition suff/TR request due 08 16 16. Petition found sufficient 08 16 16. Discuss need for Lmt'd scope TR. CS requested Lmt'd scope TR 10 04 16. TR sent to Subcommittee on 12 19 17.	Feb 6, 2018	Spr 2018
Allyl Isothiocyanate (AITC) Petition (2016) 205.601	JB	Y Lmt'd scope	Petition sent to CS 07 06 16. Petition suff/TR request due 09 06 16. Petition found suff 10 04 16. CS requested Lmt'd scope TR 10 04 16. TR in development. . Expected Feb/Mar 2018. AITC Petition (2013) (PDF) NOSB Subcommittee Proposal (2014) (PDF) Technical Evaluation Report (2014) (PDF)	Feb 6, 2018	Spr 2018
Sodium Citrate 205.601	HB	Y	Petition sent to CS 07 27 16. Petition suff/TR request due 09 27 16. Petition was found sufficient 10 04 16. CS requested a TR 10 04 16. TR in development. TR - Handling, Citric acid and salts (2015) . TR sent to CS 08 07 17. Response due 10 06 17. Found TR insufficient 09 19 17. HS sent additional questions to TR contractor 12 11 17	Sep 19, 2017	Spr 2018
Natamycin	HB	Y	Petition sent to CS 09 09 16. Petition suff/TR request due 11 08 16. Petition found sufficient 11 01 16, and CS requested TR 11 01 16. TR in development. Expected October 2017. TR sent to CS 11 3 17. Response due 01 12 18. TR found sufficient 12 5 17.	Dec 5	Spr 2018

Sulfur (as a molluscicide) 205.601	AB	N	Petition sent to CS 06 08 17. Petition suff/TR request due 09 05 17. Petition found sufficient 09 19 17. No TR request.	Sep 19 Jan 2	Spr 2018
Ammonium Citrate 205.601	EO/DM		Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Ammonium Glycinate 205.601	EO/DM	Y	Petition sent to CS 10 25 17. Petition suff/TR request due 12 26 17. TR requested 11 21 17.	Nov 21	TBD
Calcium Acetate	SB		Petition sent to CS 1 20 17. Petition suff/TR request due 01 17 17.	Jan 16	TBD
Other Topics					
Project	Con- tact	Doc type	Notes*	Disc/Vote	Meeting
(Manure treatments) Anaerobic Digestate - Food Waste 205.601(j) and other manure issues	EO/HB/J M	Disc Doc	Petition sent to CS 04 08 15. Questions or request for TR due 06 09 15. Petition found sufficient 06 02 15. TR rqst sent to NOP 10 06 15. Petition withdrawn 10 14 15. CS moved project to "other topics" NOP sent memo to board 05 09 16 requesting review. TR request sent to NOP 07 05 16 (see anaerobic digestate above). Waiting for result of FDA's risk assessment.	Aug 1, Aug 15, 2017	Spr 2018
Biodegradable Biobased Mulch annotation change	HB/AB	Disc Doc	Limited scope TR request sent to NOP 08 02 16. TR sent to CS on 12 28 16. TR Suff due 02 27 17. CS found TR suff 01 03 17. Pending further research	Aug 1, 2017	Spr 2018
Prohibition of NPEs in inerts - annotation change/ EPA List 4 Inerts annotation change	HB/EO/ DM/AB	Disc Doc/Prop	IWG recommended NOSB work on NPEs/TR requested July 2014. DD - April 2016. EPA List 4 inerts disc doc (originated from 2017 sunset review conducted in 2015). Pending EPA decision	TBD	Fall 2018
Marine materials (marine algae and extracts) on the National List	EO	Disc doc	NOP approved request 01 12 16. TR request sent to NOP 02 05 16. TR sent to HS 08 10 16. Returned to CS at Spr 2017 NOSB meeting. Referred back to CS at Spr 2017 meeting	Aug 15, Dec 5	Spr 2018
Field and Greenhouse Container Production	JB, HB, FT and EO	TBD		Jan 2	Spr 2018

Strengthen and clarify the requirements for use of organic seed (NOP 5029)	HB	Proposal	Originated in MS. Referred back to CS at Spr 2017 meeting. Referred back to CS at Fall 2017 meeting.		Spr 2018
Research Priorities	All	NA	RP's due to MS Aug 2018		Fall 2018

* **Yellow highlight** indicates Subcommittee action needed ***Highlight** indicates review completion

2020 Sunsets

TR Requests: July 2017, Summary: Spr 2018, Review: Fall 2018

Substance		Con tact	TR requ est?	Notes	Scheduled, Discussed	Meeting
Alcohols: Ethanol Isopropanol	205.601(a)(1)(i), 205.601(a)(1)(ii)	JB	N	1995 TAP ; 2014 TR - Ethanol ; 2014 TR - Isopropanol	Jan 2	Summary: Spr 2018 Review: Fall 2018
Sodium carbonate peroxyhydrate	205.601(a)	EO	N	2006 TAP ; 2014 TR	Dec 5	"
Newspaper or other recycled paper	205.601(b) and (c)	HB	N	2017 TR	Dec 5	"
Plastic mulch and covers	205.601(b)	HB	N	1995 TAP: TR for biodegradable mulch . Low priority	Dec 19	"
Aqueous potassium silicate	205.601(e), 205.601(i)	DM	N	2014 TR	Jan 2	"
Elemental sulfur	205.601(e)(5), 205.601(i)(10), 205.601(j)(2)	AB	Y	1995 TAP ; 2017 TR for Livestock . TR requested 07 28 17. In contracting.	Dec 19	"
Lime sulfur	205.601(e)(6), 205.601(i)(6)	SE	N	2014 TR	Dec 19	"
Sucrose octanoate esters	205.601(e)(10)	SB	N	2005 TR	Dec 19	"
Hydrated lime	205.601(i)(4)	DM	N	1995 TAP ; 2001 TAP ; 2002 TR for Calcium Hydroxide	Jan 2	"
Liquid fish products	205.601(j)	AB	N	1995 TAP ; 2006 TR	Jan 2	"
Sulfurous Acid	205.601(j)	SE	N	2010 TAP ; 2014 TR	Dec 19	"

Ethylene	205.601(k)	EO	N	2000 Supplemental TAP ; 2007 TAP ; 2011 Supplemental TR	Dec 19	“
Microcrystalline cheesewax	205.601(o)	SB	Y	None. TR requested 07 28 17. In contracting.	Dec 19	“
Potassium chloride	205.602(e)	JM	N	1995 TAP . Low priority	Jan 2	“

Agenda

- Approve notes from December 5, 2017
- 2020 sunset: Plastic mulch and covers (HB) - Discuss review
- 2020 sunset: Lime sulfur (SE) - Discuss review
- 2020 sunset: Sulfurous Acid (SE) - Discuss review
- 2020 sunset: Ethylene (EO) - Discuss review
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- 2020 sunset: Sucrose octanoate esters (SB) - Discuss review
- 2020 sunset: Microcrystalline cheesewax (SB) - Discuss review
- Discussion of future options for hydroponics/container proposals.
- Adjourn

Discussion

- **Notes from December 5, 2017** were approved with a correction to the leads for the ammonium glycinate/citrate petitions.
- **2020 sunset: Plastic mulch and covers (HB).** The group discussed current uses of plastic mulches. There was a discussion of potential inconsistencies in certifiers' interpretation in the requirement for removal when applied to perennial crops. NOP mentioned a recent incomplete petition that had come in on this topic. Members discussed concerns about incomplete removal of plastic pieces and recycling issues. The use of woven fabrics for perennials and biodegradable biobased mulch film were also discussed. Discussion included accurate uses of the terms “decomposition” vs. “degradation” (e.g., microbial degradation). Will be ready for a vote at the next CS call.
- **2020 sunset: Lime sulfur (SE).** The lead provided an overview of the material's history and uses in organic production. At this time, the Subcommittee is not aware of any viable alternatives to this substance; a question will be added to the proposal to solicit public comment on alternatives.
- **2020 sunset: Sulfurous Acid (SE).** The lead provided an overview of the material and its use to acidify irrigation water for alkaline soils.
- **2020 sunset: Ethylene (EO).** The lead provided an overview of the use of the material and the history of the last review, when it was proposed for removal. There were questions at that time with regard to scale of operations and availability of alternatives.
- **2020 sunset: Aqueous potassium silicate (DM).** Deferred to next call.
- **2020 sunset: Hydrated lime (DM).** Deferred to next call.
- **2020 sunset: Sucrose octanoate esters (SB).** The lead provided an overview of the history, manufacturing process, and uses for the material. There was discussion of a previous public comment related to potential toxicity to non-target organisms; more comments may be requested on this topic. Additional questions will be added for comments on whether this product is still currently used, whether other products are more effective, and whether it's used in rotation with other materials to avoid resistance. A member indicated difficulties in the application of the material as it may be difficult to work with. Pesticide data available from the state of California (which does not distinguish between organic and non-organic uses), indicated low use rates.

- **2020 sunset: Microcrystalline cheesewax (SB).** The lead provided an overview of the history, manufacturing process, and use of the material. A technical report is in development. Additional information may be needed on the availability of alternatives. Previous comments indicated that natural beeswax is not allowed by FDA. There is interest in finding out more about the degradability of the material and clean-up. There was discussion about whether an updated annotation is needed to ensure sanitary clean-up of wax when mushrooms are produced in a natural environment.
- **Discussion of future options for hydroponics/container proposals.** Postponed until next call.
- **The meeting was adjourned**

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Natamycin (HB) - TR sufficiency

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2020 sunset: Microcrystalline cheesewax (SB) - Discuss review

January 2, 2018

2020 sunset: Plastic mulch and covers (HB) – Review/vote on proposal

2020 sunset: Aqueous potassium silicate (DM) - Discuss review (postponed from Dec 19th call)

2020 sunset: Hydrated lime (DM) - Discuss review (postponed from Dec 19th call)

Sulfur (as a molluscicide) - Review/vote on proposal

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February 6, 2018

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