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September 24, 2020

Ms. Michelle Arsenault
National Organic Standards Board
USDA-AMS-NOP
1400 Independence Ave. SW.,
Room 2648-S, Mail Stop 0268
Washington, DC 20250-0268

Docket ID # AMS-NOP-20-0041

Re. CS: Sunsets

These comments to the National Organic Standards Board (NOSB) on its Spring 2020 agenda are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots, membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers and farmworkers, Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that reduce or eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

Soap-based algicide/demossers

205.601(a)(7) - As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.

The materials on these substances leave questions unanswered. The original TAP review appears to have considered only potassium-based soaps, but the more recent TR considers both potassium- and ammonium-based soaps. Yet, ammonium-based soaps seem to be limited to another use altogether by §205.601(d) "As animal repellents—Soaps, ammonium—for use as a large animal repellant only, no contact with soil or edible portion of crop."

Secondly, despite the requirement in OFPA that the National list "shall contain an itemization, by specific use or application, of each synthetic substance permitted,"[1] the use pattern is not defined. Although the materials included with the original TAP review and much of the discussion in the recent TR address a use in which the substance is sprayed on surfaces covered with algae or moss, the TR also discusses alternatives to use in ponds. This is important

[1] Organic Foods Production Act, §6517(b).

because, while the use on surfaces like walkways and benches in greenhouses pose little environmental hazard, the use in a waterbody is quite different. As the TR says, "The acute and chronic toxicity of soap salts is markedly different for land- and water-dwelling organisms."[2]

Thus, the CS should specify which soaps and which specific uses are covered by the listing in a proposed annotation.

Soaps, insecticidal

205.601(e)(8) - As insecticides (including acaricides or mite control).

Insecticidal soaps are potassium salts of fatty acids that act by penetrating insect cuticle and disrupting cell membranes. They have low toxicity to humans and are broken down quickly in the environment. However, they may affect non-target insects, including predators and parasitoids, if applied when those insects are present. (Dried residues are not toxic.) They may also affect some plants. They are highly toxic to aquatic insects.[3] Alternatives are oils, botanicals, and cultural and biological controls. The information about impacts on non-target insects has not been considered in the past. Beyond Pesticides considers insecticidal soaps, when used in a way that avoids spraying non-target insects and other arthropods, to be a "least-toxic" pesticide. The listing for insecticidal soaps should specify, "when non-target arthropods are not present."

Ammonium carbonate

205.601(e) As insecticides (including acaricides or mite control). (1) ammonium carbonate — for use as bait in insect traps only, no direct contact with crop or soil.

Ammonium carbonate is a smelly material used in traps to attract flies. As pointed out by the Crops Subcommittee, it is volatile, and irritating to eyes and nose. The use of traps to kill adult flies can complement other practices directed towards larvae—manure management and enhancement of predators and parasitoids.

Ammonium carbonate poses little hazard. There is little likelihood of contamination of soil with use of ammonium carbonate as fly bait. Its manufacture includes ammonia as a reactant. Ammonia is volatile and toxic. Ammonium carbonate is an irritant to eyes and nose. It is incompatible with strong acids, nitrates, nickel, copper, but interaction is unlikely with the current annotation. It is an irritant to eyes and nose. Other insects may be attracted to bait.

Natural alternatives include natural attractants, and other alternative materials are other ammonia-releasing chemicals. A good organic environment and enhancement of predators and parasitoids can make its use unnecessary.

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[2] Soap-based Algicide/Demossers TR line 350.

[3] National Pesticide Information Center, 2001. Potassium Salts of Fatty Acids (Technical Fact Sheet). Available at: http://npic.orst.edu/factsheets/psfagen.pdf.

Ammonium carbonate can complement manure management and enhancement of predators and parasites.

Vitamin D3

205.601(g) - as rodenticides.

Vitamin D_3 is the "safest" of the rodenticides. Its potential for secondary poisoning, for example, is lower than for anticoagulant rodenticides. However, it still has some potential for nontarget effects, especially when used as loose bait underground. EPA's recent restrictions limit aboveground use to bait stations. The technical review does not examine the advantage of bait stations relative to traps. A compatibility issue is the painful death resulting from vitamin D_3 poisoning. Alternatives include traps, barriers, sanitation, flooding tunnels, and conservation of predators.

Vitamin D_3 poses environmental hazards.

Vitamin D_3 must be used in a bait station above ground, but below ground it may be used as loose bait.[4] Nontarget animals may be poisoned directly or through secondary poisoning.[5] Its toxicity to target and nontarget animals has resulted in poisoning of children and pets, as well as nontarget wildlife.[6] Newer research confirms these results.[7]

There are alternatives to Vitamin D_3.

Alternative materials include castor bean oil and repellent plants.[8] Alternative practices include traps, barriers, sanitation, flooding burrows, and conservation of predators.[9]

Vitamin D_3 is incompatible with organic production.

Besides the hazards it poses to nontarget animals, vitamin D_3 is a cruel means of killing rodents. "Following oral ingestion, vitamin D3 accumulates in the liver. Following ingestion, the induction of calcium mobilization occurs, which can result in hypercalcemia and mineralization of major organ. An increase in the calcium level results in mobilization of calcium, which circulates dissolved in the blood plasma. An elevated level of the crystals of calcium salts can cause mineralization of major organs. Mineralization results in tissue damage and can cause heart problems and possibly kidney failure. Tissue damage caused hypercalcemia and mineralization of major organs leads to death in rodents."[10]

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[4] EPA, Restrictions on Rodenticide Products. http://www2.epa.gov/rodenticides/restrictions-rodenticide-products

[5] C.T. Eason, M. Wickstrom, R. Henderson, L. Milne and D. Arthur, 2000. Non-target and secondary poisoning risks associated with cholecalciferol. *New Zealand Plant Protection 53:299-304.* Risk of secondary poisoning exists, though it is lower than from other rodenticides. TR lines 300-305.

[6] TR lines 263-272; 301-303; 323-335; 341-352.

[7] Eason, C.T., Wickstrom, M., Henderson, R., Milne, L. and Arthur, D., 2000. Nontarget and secondary poisoning risks associated with cholecalciferol. *New Zealand Plant Protection*, *53*, pp.299-304.

[8] TR lines 375-383; 388-396.

[9] TR lines 398-428.

[10] TR lines 117-122.

Vitamin D_3 does not meet the OFPA criteria of absence from harm to health and the environment, essentiality, or compatibility, and should be delisted.

Aquatic plant extracts

205.601(j) As plant or soil amendments (1) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.

Aquatic plant extracts pose environmental hazards. The hazards to the environment depend on the particular product. Some products use sodium hydroxide and may lead to salt build up from use. Conversely, those products that are not neutralized may harm plants. Environmental contamination can result from improper disposal of alkalis used in extraction. Overuse may lead to eutrophication in streams receiving runoff. Overharvesting of seaweeds may occur.[11]

We are glad that to see that there has been near unanimous support for addressing the environmental impacts of the use of marine algae in organic production. The protection of marine ecosystems is urgently needed and required as a part of the determination on allowed materials under the organic statute. Since marine plants are crucial to ecosystems, it is important for all of us, as organic producers, consumers, certifiers, and regulators, to find a way to move this process forward as quickly as possible. We thank the Materials Subcommittee for its effort to-date. Meanwhile, synthetic aquatic plant extracts can be allowed to sunset.

Synthetic aquatic plant extracts are unnecessary. The aquatic plant extracts allowed by this listing are synthetic. According to the technical review, natural extracts are available. In addition, the following natural products may be used: manure, blood meal, bone meal, compost, feather meal, guano, compost tea, and other nonsynthetic animal or plant products.[12] Alternative practices include use of compost, cover crops, and manure, in addition to reduced tillage, avoiding compaction, and maintaining soil cover with plants and/or mulches.[13]

Synthetic aquatic plant extracts are incompatible with organic practices. Synthetic aquatic plant extracts do not fit into any of the categories of OFPA §6517(c)(1)(B)(i) of allowable synthetic inputs. Synthetic aquatic plant extracts are a synthetic product, with nonsynthetic versions available, as well as natural alternative materials and methods. They are synthetic growth promoters.[14]

Lignin sulfonate

205.601(j) As plant or soil amendments. (4) Lignin sulfonate - chelating agent, dust suppressant.

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[11] TR lines 254-262; 275-277.
[12] TR lines 335-339.
[13] TR lines 362-364.
[14] TR lines 287-290.

The use of lignin sulfonate as a chelating agent and dust suppressant does not meet the requirements of OFPA.

Lignin sulfonate manufacture and use results in environmental damage.

Lignin sulfonate is a by-product of paper pulping. Pulp and paper is the third-largest industrial polluter to air, water, and land in both Canada and the United States, and releases well over 100 million kg of toxic pollution each year.[15] Lignin sulfonates used as dust suppressants or in chelates applied as plant nutrients to the soil may contaminate waterways via runoff following a rain event, resulting in high biological oxygen demand in decomposing, which depletes oxygen for aquatic animals. The use of large amounts of lignin sulfonate can acidify the soil.[16]

Lignin sulfonate is not necessary.

Magnesium chloride is a natural substance that may be used for dust suppression, and nonsynthetic amino acids and citric acid may be used as chelation agents.[17] Dust may also be controlled by vegetative cover, windbreaks, mulch, sprinkling with water; stone or gravel on roads, or surface roughening at angles perpendicular to prevailing winds.[18] And, according to the Technical Review, "Naturally-occurring chelates in the soil include humates, fulvates, and organic root exudates. Fulvates and humates are found naturally in most soils as the result of the decomposition of organic matter. Management practices, including no-till farming or manure applications, can increase organic matter in the soil and thereby increase the rate of naturally-occurring chelates."[19]

Lignin sulfonate is incompatible with organic practices.

Lignin sulfonate is a synthetic material that is used in place of sound organic practices such as creation of hedgerows/windbreaks, mulching, vegetative cover, and building organic soil through the introduction of compost. The alternative practices also serve to support biodiversity on the farm.

Conclusion

Since the listing lignin sulfonate for dust suppression and chelation does not meet any of the OFPA criteria, including not harmful to health and environment, essential to production or handling, and compatible with organic practices, we recommend that it be removed from the National List.

Sodium silicate

205.601(l) As floating agents in postharvest handling. Sodium silicate - for tree fruit and fiber processing.

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[15] TR lines 239-258.
[16] TR lines 332-337.
[17] TR lines 498-547.
[18] TR lines 567-575.
[19] TR lines 585-590.

Sodium silicate, also known as waterglass, is a soluble form of glass. It is used to adjust the specific gravity in flotation tanks for pears. Historically, it was used as a preservative for eggs, filling pores and preventing eggs from degrading. It is not clear whether sodium silicate might have a similar effect on pears. Is it rinsed off, or does it remain in the pores of the pear skin? Sodium silicate has few health and environmental impacts, which are mainly due to the effects of the alkalinity of the solution in the case of a spill or misuse. There are alternative materials, some of which are nonsynthetic, as well as floatless systems, as discussed in the Organic Trade Association petition to remove lignin sulfonate from the National List for the flotation use.

The use for fiber processing did not receive much attention in the technical review. Its health impacts on workers and essentiality for that use are not clear. The summary by the Crops Subcommittee did not mention this use or ask questions about it.

Spills of sodium silicate can pose environmental hazards. Its use in fiber production may cause health effects to workers.

Spills or release into water sources can result in imbalance of silicate to nitrogen and phosphorus and increased pH.[20] Worker exposure during mixing, disposal, and handling of fiber may result in injury.[21]

Sodium silicate is not necessary.

As stated in the technical review and the petition to remove lignin sulfonate submitted by the Organic Trade Association, there are several alternative materials available, including some natural materials. Floatless systems are also in use.[22]

Sodium silicate is incompatible with organic production.

Sodium silicate does not fit into any category of OFPA §6517(c)(1)(B)(i). It is not clear whether it is a synthetic preservative. It is a synthetic material that is not needed in organic production.

Conclusion

Sodium silicate should be delisted for its use in floating pears because it does not meet the OFPA criteria of absence of harm to human health and the environment, essentiality, and compatibility with organic production. The Crops Subcommittee must collect and evaluate information concerning the use of sodium silicate in fiber processing. Without support for that use, it should also be delisted.

EPA List 4 - Inerts of Minimal Concern

205.601(m) As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances. (1) EPA List 4 – Inerts of Minimal Concern.

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[20] TR lines 320-325; 348-355; 357-360.

[21] TR lines 369-387.

[22] TR lines 397-413. OTA petition to remove lignin sulfonate.

We support the Crops Subcommittee annotating the listings for List 4 "inerts" (on both §§601 and 603) to eliminate the use of nonylphenol ethoxylates (more properly termed alkylphenol ethoxylates). The CS raised this issue in a discussion document in Spring 2016, but it has been subsequently dropped.

Nonylphenol ethoxylates (NPEs) are toxic environmental pollutants with safer alternatives.

Because the major use of NPEs is as a surfactant, most studies have concentrated on impacts on aquatic and semi-aquatic species. NPEs are highly acutely toxic to aquatic organisms, medium to high in chronic toxicity, medium to high in persistence, and exert estrogenic effects on a wide range of organisms. Breakdown products, especially nonylphenols (NPs), are much more toxic than NPEs;[23,24] and are also estrogenic.[25] EPA rates persistence medium to high; degradation products are persistent and toxic.[26] Nonylphenol ethoxylates (NPEs) can react with chlorine to form chlorinated nonylphenols that are mutagenic.[27] In aerobic systems, additional carboxylic acid compounds, that are also toxic, are produced.[28] NPEs inhibit the growth of young terrestrial and aquatic plants or trees at 10 ug/L, which is the contamination level frequently found in streams as a result of contamination from sewage sources. Concentrations of 20-500 mg/L inhibit or restrict growth of soil bacteria. [29] NPs and NPEs act as xenoestrogens in human cells.[30]

Because of concerns about the adverse health and environmental effects of NPEs, EPA's Design for the Environment (DfE) completed an alternatives assessment for synthetic surfactants, like NPEs, that are endocrine disrupting chemicals. DfE's goal is to assist in the voluntary phase-out of NPEs used in industrial detergents. The DfE assessment for NPEs reviewed several

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[23] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

[24] Andrea Lani, 2010. Basis Statement for Chapter 883, Designation of the Chemical Class Nonylphenol and Nonylphenol Ethoxylates as a Priority Chemical and Safer Chemicals Program Support Document for the Designation as a Priority Chemical of Nonylphenol and Nonylphenol Ethoxylates, Bureau of Remediation and Waste Management, Maine Department of Environmental Protection.

[25] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

[26] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

[27] A. Michael Warhurst, 1995. An Environmental Assessment of Alkylphenol Ethoxylates and Alkylphenols, Friends of the Earth, UK.

[28] P. Whitehouse, 2002. Environmental Impacts of Alkylphenol Ethoxylates and Carboxylates. Part 1: Proposals for the Development of Environmental Quality Standards. R&D Technical Report P2-115/TR3. Environment Agency, Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol BS32 4UD.

[29] Sylvia S. Talmage, 1994. Environmental And Human Safety Of Major Surfactants: Alcohol Ethoxylates and Alkylphenol Ethoxylates, A report to The Soap and Detergent Association, Lewis Publishers: Boca Raton, Ann Arbor, London, Tokyo. Pp. 288-289.

[30] Mark R. Servos, 1999. Review of the Aquatic Toxicity, Estrogenic Responses and Bioaccumulation of Alkylphenols and Alkylphenol Polyethoxylates, Water Qual. Res. I. Canada,Volume 34, No. 1, 123-177. A support document for Environment Canada's environmental assessment under the Canadian Environmental Protection Act.

alternatives to NPE surfactants that are comparable in cost, readily available, and rapidly biodegrade to non-polluting, lower hazard compounds in aquatic environments.[31]

The NOSB must not allow the process unanimously supported by the NOSB to be stalled.

We applaud the CS for taking the action—to review and propose removal of NPEs as so-called "inert" ingredients in pesticides. So-called "inert" ingredients in pesticide products may not be chemically or biologically inert. They are designed to enhance the pesticidal activity of pesticide products and can have toxic properties that do not meet the standards of the Organic Foods Production Act (OFPA). They serve as a good example of why the NOSB, as it previously determined, cannot accept the previously EPA-classified List 4 materials as acceptable for listing under OFPA without scrutinizing the individual materials, either individually or in groups with chemicals of common mechanisms of toxicity and chemical composition. In other words, these potentially toxic "inert" ingredients may be of "toxicological concern," which require NOSB review under OFPA, which requires a broad cradle-to-grave assessment of all ingredients in allowed synthetic inputs. The NOSB must move forward with its review of "inerts" to ensure that materials in use in organic production comply with the standards of OFPA. Starting with NPEs is an important first step.

Active ingredients in pesticide products have been carefully screened to ensure that they meet the requirements of OFPA. Because of the thorough investigation by the NOSB and the additional scrutiny given by the public in written and oral comments, the active ingredients that are allowed in organic agriculture present little hazard to people and ecosystems, from their manufacture through their use and disposal.

So-called "inert" ingredients, on the other hand, have not received the same level of scrutiny to ensure that they meet OFPA standards. Reliance on the registration of pesticide products with "inert" ingredients by the U.S. Environmental Protection Agency does not ensure that the standards of OFPA are met, given that the reviews and use allowances under the agency's authorizing legislation (the Federal Insecticide, Fungicide and Rodenticide Act) are based on different, and often incompatible, standards. In addition, "inert" ingredients make of the largest part of many pesticide product formulations. As a result, the most hazardous part of pesticide products used in organic production is often these ingredients.

The NOSB recognizes these facts and has sought to address them. A short history was presented in the Fall 2012 Crops Subcommittee proposal:

> In 2006, EPA reassessed all inert ingredients used in pesticide formulations allowed on food crops, including former Lists 3, 4A, and 4B inerts, to ensure that they met the tolerance reassessment requirements of the Food Quality Protection Act. Inerts allowed for use in EPA registered pesticides applied to food now must either have a residue tolerance level or an exemption from tolerance level codified at 40 CFR Part 180. As a

[31] EPA, 2011. DfE Alternatives Assessment for Nonylphenol Ethoxylates.

result of this reclassification, NOP regulations concerning allowed inert ingredients are out-of-date when compared with current EPA regulations, since EPA eliminated its list categories when it completed its tolerance reassessment. The NOSB recommended in April 2010 that NOP establish a task force in collaboration with EPA and the NOSB to examine this problem and provide a recommendation to the Board for re-evaluation of former List 3 and List 4 inerts. In October 2010, the NOSB recommended the renewal until October 21, 2017 of the current exemption on the National List permitting former List 4 inerts "pending review by the program of inerts individually and as a class of materials." In May 2012, the NOSB recommended an expiration date of October 21, 2017 for the current exemption that permits former List 3 inerts in passive pheromone dispensers, to coincide with the sunset date for List 4 inerts.

The NOSB-NOP-EPA working group was established in June 2010, known as the Inerts Working Group (IWG). Current members include: Jay Feldman (NOSB), Zea Sonnabend (NOSB), Chris Pfeifer (EPA Biopesticides and Pollution Prevention Division), Kerry Leifer (EPA Registration Division), Emily Brown Rosen (NOP), and Lisa Brines (NOP). The group has collected information regarding current classification of the former List 3 and 4 inerts and presented a discussion document at the November 2011 NOSB meeting.

At the fall 2012 NOSB meeting, following up on the NOSB recommendation of spring 2010, the Board unanimously passed a recommendation that was to put in motion the long-anticipated review of "inert" or "other" ingredients in pesticide products used in organic production:

The NOSB proposes this language to replace the current listing at section 205.601(m) and 205.603(e). The NOSB recommends that this change, including the listing of any approved (inert) ingredients, be completed prior to the October 21, 2017 sunset date for List 4 inerts:

<u>Current language at sections 205.601(m) and 205.603(e):</u> As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

<u>Replace the language at sections 205.601(m) and 205.603(e) with:</u>
As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

(i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);
(ii) Reserved (for list of approved other ("inert") ingredients)

And now, as "List 4 inerts" are up for sunset review, <u>the only progress that has been made is this proposal concerning nonylphenol ethoxylates, which has languished for the past four years.</u> The National Organic Program (NOP) has still not issued a notification to manufacturers and

users of products with a request for information on current inert ingredients in use. This 'data call-in notice' was intended to capture "inert" ingredients that may not be on the comprehensive list of 126 priority "inert" ingredients and 87 "minimal risk" substances eligible for registration under FIFRA section 25(b) used in formulations allowed in organic production, which was generated by the Inerts Working Group based on data from Material Review Organizations and provided to the public as categories at the Fall 2012 meeting of the NOSB. **The notice is overdue and should be issued without further delay.**

Since, as stated above, so-called "inert" ingredients likely pose more hazards than other materials used in organic production, their review deserves a higher priority than it is being given by NOP. These comments urge that the NOSB raise the priority level of "inerts" review to ensure compliance with the law.

All so-called "inerts"—especially those not on EPA's 25(b) list– are desperately in need of review for compliance with OFPA criteria. This is a relatively simple task since all 25(b) products require a full listing of all formulation ingredients. We support the proposed action on the first group. In spite of our support for this proposal, it would violate the intention of the Board to allow the indefinite extension of the listing for <u>any</u> of the so-called "inerts." Therefore, we request that all other substances falling under these listings be annotated with expiration dates.

We request that the NOSB and NOP implement the change in the listing as recommended unanimously by the National Organic Standards Board in its recommendations of April 2010 and October 2012:

Replace the language at sections 205.601(m) and 205.603(e) with:

> As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.
>
> (i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);
>
> (ii) Reserved (for list of approved other ("inert") ingredients, with expiration dates until reviewed individually.)

The above process may be modified according to the NOSB recommendation of October 2015.

The recommendation of October 2015 makes three changes. First, it incorporates those "inerts" formerly on List 3:

> (iii) "Inert" ingredients that are exempt from the requirement of a tolerance under 40 CFR 180.1122 – for use only in passive pheromone dispensers.

Second, it provides for petitioning new "inert" ingredients:

> (iv) [Reserved] (for any other inerts individually petitioned and reviewed).

Finally, it provides for a method of evaluating other currently used "inerts":

> (ii) Substances included on the EPA's Safer Chemical Ingredient List [SCIL].

Unfortunately, the last sentence in the above recommendation requires clarification, since materials can be included on the SCIL regardless of hazard. The SCIL is categorized by function, and individual materials are coded by acceptability according to the Safer Choice standards. Furthermore, any material exception from the general prohibition against the use of synthetics in organic production must be subject to sunset review.

The NOSB and NOP may, in collaboration with EPA, designate a sublist of the SCIL as "nonactive ingredients allowed in organic production" and solicit the assistance of the Safer Choice program in evaluating those materials to OFPA criteria. However, **all such materials—as well as those provided for under (i) (substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b))—must ultimately be subject to sunset review according to OFPA criteria by the NOSB.**

Conclusion

Delist List 4 "inerts."

Replace the language at sections 205.601(m) and 205.603(e) with:
As synthetic other ("inert") ingredients in pesticide formulations as classified by the Environmental Protection Agency (EPA) for use with nonsynthetic substances or synthetic substances listed in this section that are used as an active pesticide ingredient in accordance with any limitations on the use of such substances.
(i) Substances permitted for use in minimal risk products exempt from pesticide registration under FIFRA section 25(b);
(ii) "Inert" ingredients that are exempt from the requirement of a tolerance under 40 CFR 180.1122 – for use only in passive pheromone dispensers;
(iii) [List of all "inerts," except the "minimum risk" 25(b) substances, known to be used in organic production, as determined by the Inerts Working Group, each annotated with an expiration date between June 27, 2021 and June 27, 2026.
(ii) Reserved (for list of approved other ("inert") ingredients, with expiration dates until reviewed individually.)

The APEs/NPEs should be removed from the list, as discussed by the Crops Subcommittee. This approach will allow the board to systematically review the "inerts" in groups over a five-year period, an approach the board has previously adopted unanimously.

Arsenic

§205.602

The following nonsynthetic substances may not be used in organic crop production:
(b) Arsenic.

Arsenic is prohibited by the Organic Foods Production Act (OFPA) 7 U.S.C. §6508(c)(1) CROP MANAGEMENT.—"For a farm to be certified under this title, producers on such farm shall not

– (1) Use natural poisons such as arsenic or lead salts that have long-term effects and persist in the environment, as determined by the applicable governing State official or the Secretary."

The Senate Committee report says, "The Committee recognizes that certain natural materials present environmental and health hazards. An example would be the use of arsenic which, although natural, is known to be extremely toxic, and which is therefore explicitly prohibited from use in organic production under this title."

The use of arsenic in organic production is specifically prohibited by OFPA. It is persistent, toxic to humans and other animals, is taken up by plants, and has a wide range of toxic effects. It is unnecesssary in organic production.

Conclusion

Arsenic should remain on §602.

Strychnine

§205.602

The following nonsynthetic substances may not be used in organic crop production:
(i) Strychnine.

Strychnine is highly acutely toxic and has been found to be responsible for secondary poisonings. People affected by strychnine poisoning are not likely to survive. There are numerous alternative materials and practices.

Strychnine cause harm to humans and the environment.

Since strychnine baits are inserted underground, the ability to collect unused bait is small, increasing the likelihood of nontarget poisoning. Strychnine has resulted in secondary poisoning in pets that ate poisoned rodents.[32] Although all animals are susceptible, birds are more often affected. For example, species poisoned by strychnine in Michigan are rock dove, cardinal, Canada goose, dark-eyed junco, mallard duck, common grackle, blue jay and house sparrow.[33] People who are severely affected by strychnine poisoning are not likely to survive.[34]

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[32] National Pesticide Information Center, Rodenticides Topic Fact Sheet. http://npic.orst.edu/factsheets/rodenticides.pdf Accessed 6/23/2014.
[33] Michigan Dept. of Natural Resources, Strychnine Poisoning. https://www.michigan.gov/dnr/0,4570,7-153-10370_12150_12220-27278--,00.html Accessed 6/23/2014.
[34] Center for Disease Control and Prevention, 2013. Facts About Strychnine. http://www.bt.cdc.gov/agent/strychnine/basics/facts.asp Accessed 6/23/2014.

Strychnine is not necessary.

There are many less dangerous materials and methods. They include: trapping, supporting predator habitat, flooding, ecologically-based rodent management,[35] habitat modification,[36] and encouraging predators.[37]

Strychnine is incompatible with organic practices.

Strychnine is highly toxic to humans and other species, causes secondary poisoning, and has many nontarget effects. It does not "promote plant and animal health by enhancing soil physical, chemical, or biological properties."

Conclusion

Strychnine should remain on §602.

Thank you for your consideration of these comments.

Sincerely,

Terry Shistar, Ph.D.
Board of Directors

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[35] Propane TR TR lines 340-367.

[36] http://environmentalchemistry.com/yogi/environmental/200704prairiedogcontrollethal.html; http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7438.html; http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7433.htmlhttp://environmentalchemistry.com/yogi/environmental/200706prairiedogreconciliation.html.

[37] http://people.uleth.ca/~michener/predators.htm. http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7433.html; http://yardener.com/YardenersPlantProblemSolver/DealingWithPestAnimals/Gophers/SolutionsForGophers/DispatchTheGopher.