BEYOND PESTICIDES
701 E Street, SE ▪ Washington DC 20003
202-543-5450 phone ▪ 202-543-4791 fax
info@beyondpesticides.org ▪ www.beyondpesticides.org

March 29, 2017

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

Re. HS: Sunset 2019 Materials on §205.606

These comments to the National Organic Standards Board (NOSB) on its Spring 2017 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.

Materials listed on §205.606 are nonorganic agricultural ingredients that are allowed to be used as ingredients as part of the 5% of organic processed foods that is not required to be organic. OFPA allows such substances to be used in organic food under limited conditions, including this from §6517(c)(1):

> The National List may provide for the use of substances in an organic farming or handling operation that are otherwise prohibited under this chapter only if—
> (A) the Secretary determines, in consultation with the Secretary of Health and Human Services and the Administrator of the Environmental Protection Agency, that the use of such substances—
> (i) would not be harmful to human health or the environment;
> (ii) is necessary to the production or handling of the agricultural product because of the unavailability of wholly natural substitute products; and
> (iii) is consistent with organic farming and handling.

Organic agriculture can now supply these materials.

Materials should not remain on §205.606 if they can be supplied organically. A lesson from the experience with hops is that the organic production may not sufficient until the demand is present. The Handling Subcommittee needs to ask the question of potential suppliers, "Could you supply the need <u>if the organic form is required</u>?"

The following comments contain information about pesticide use on particular nonorganic crops. This information is derived from the Beyond Pesticides web-based database *Eating with a Conscience*.[1]

Pectin (non-amidated forms only)
Reference: 205.606(s) Pectin (non-amidated forms only)

The technical review for non-amidated low methoxyl pectin (LMP) states repeatedly that LMP is the result of a chemical process that demethyates high methoxyl pectin. Therefore, a listing on §205.606 should be limited to high methoxyl pectin (HMP), which is extracted from citrus peel and apple pomace. In reviewing the impact of the manufacture of HMP, the HS must consider the impacts of raising the non-organic crops used to produce it.

Oranges

California Farmworker Poisonings, 1992–2010: 508 reported (CA acreage: 180,000). These poisoning incidents only represent the tip of the iceberg because it only reflects reported incidents in one state. It is widely recognized that pesticide incidents are underreported and often misdiagnosed.

Pesticide Tolerances —Health and Environmental Effects: The database shows that while oranges grown with toxic chemicals show low pesticide residues on the finished commodity, there are 73 pesticides with established tolerance for oranges, 30 are acutely toxic creating a hazardous environment for farmworkers, 66 are linked to chronic health problems (such as cancer), 19 contaminate streams or groundwater, and 60 are poisonous to wildlife.

Pollinator Impacts: In addition to habitat loss due to the expansion of agricultural and urban areas, the database shows that there are 25 pesticides used on oranges that are considered toxic to honey bees and other insect pollinators. For more information on how to protect pollinators from pesticides, see Beyond Pesticides' BEE Protective webpage.

- This crop is dependent on pollinators. ✓
- This crop is foraged by pollinators. ✓

Apples

California Farmworker Poisonings, 1992–2010: 104 reported (CA acreage: 17,500). These poisoning incidents only represent the tip of the iceberg because it only reflects reported incidents in one state. It is widely recognized that pesticide incidents are underreported and often misdiagnosed.

Pesticide Tolerances —Health and Environmental Effects: The database shows that while apples grown with toxic chemicals show low pesticide residues on the finished commodity, there are 109 pesticides with established tolerance for apples, 38 are acutely toxic creating a

[1] http://www.beyondpesticides.org/organicfood/conscience/index.php?pid=610.

hazardous environment for farmworkers, 91 are linked to chronic health problems (such as cancer), 18 contaminate streams or groundwater, and 91 are poisonous to wildlife.


Pollinator Impacts: In addition to habitat loss due to the expansion of agricultural and urban areas, the database shows that there are 33 pesticides used on apples that are considered toxic to honey bees and other insect pollinators. For more information on how to protect pollinators from pesticides, see Beyond Pesticides' BEE Protective webpage.

- This crop is dependent on pollinators. ✔
- This crop is foraged by pollinators. ✔

A listing on §205.606 should be limited to high methoxyl pectin (HMP), which is extracted from citrus peel and apple pomace. The evaluation of high methoxl pectin must take into consideration the use of pesticides in the non-organic production of apples and oranges and the availability of organic fruit for this purpose, as well as the potential availability of organic pectin if the demand existed.

Conclusion

A listing on §205.606 should be limited to high methoxyl pectin (HMP), which is extracted from citrus peel and apple pomace. In reviewing the impact of the manufacture of HMP, the HS must consider the impacts of raising the non-organic crops used to produce it. Since low methoxyl pectin (LMP) is synthetic because it is the result of a chemical process that demethyates high methoxyl pectin, it should be delisted and considered for listing on §205.605(b).

Konjac flour
Reference: 205.606(n) Konjac flour (CAS # 37220-17-0)

No TR or TAP has ever been performed on Konjac flour.

Konjac is derived from the root of *Amorphophallus konjac*, which is native to warm subtropical to tropical eastern Asia. It is a perennial, growing from a large corm up to 10 inches in diameter, which is the source of konnyaku (yam cake) that is cooked and consumed primarily in Japan. When the cake is pushed through a grid of sharp blades at the end of a wooden box shirataki noodles are produced.[2]

We have been unable to identify pesticides with tolerances in/on Konjac. However, a search of the literature finds mention of at least 12 pesticides used in Konjac production. Of these, five are acutely toxic creating a hazardous environment for farmworkers, 12 are linked to chronic health problems (such as cancer), eight contaminate streams or groundwater, 12 are poisonous to wildlife, and two are toxic to bees and other pollinators. This is an issue that the HS must investigate. *Amorphophallus konjac* has been genetically engineered to be

[2] http://en.wikipedia.org/wiki/Konjac.

resistant to rot,[3] and the NOSB must ensure that the GE konjac flour is not used in organic products.

Conclusion

Even if the HS and NOSB decide that the need for konjac flour overrides the environmental and health hazards created by its production in a non-organic system, the subcommittee should acknowledge those factors and state that the need outweighs them. Beyond Pesticides supports allowing konjac flour to sunset because of the hazards cited above and the availability of organic konjac as documented by the HS in 2015.

Casings, from processed intestines
Reference: 205.606(a) casings, from processed intestines.

No TR or TAP has ever been produced for casings from processed intestines.

Non-organic casings are made from the intestines of non-organic livestock. As a product of nonorganic livestock production, the HS must consider the impacts of the livestock production system that is the source of the casings. Conventional livestock production relies on chemically-intensive grain production and typically results in air and water pollution from concentrated animal feeding operations.

Non-organic livestock production is dependent on chemically-intensive production of corn and soybeans.

Corn

Non-organic corn production is an intensive user of pesticides and synthetic fertilizers. Most of the non-organic corn is also genetically modified.

Pesticide Tolerances —Health and Environmental Effects: The database shows that while field corn products grown with toxic chemicals show low pesticide residues on the finished commodity, there are 140 pesticides with established tolerance for field corn products,. Of these, at least 37 are acutely toxic creating a hazardous environment for **farmworkers**, 97 are linked to chronic health problems (such as cancer), 31 contaminate streams or groundwater, and 87 are poisonous to wildlife.

Pollinator Impacts: In addition to habitat loss due to the expansion of agricultural and urban areas, the database shows that there are 29 pesticides used on field corn products that are considered toxic to honey bees and other insect pollinators. For more information on how to protect pollinators from pesticides, see Beyond Pesticides' **BEE Protective webpage**.

- This crop is foraged by pollinators. ✔

[3] Ban H, Chai X, Lin Y, Zhou Y, Peng D, Zhou Y, Zou Y, Yu Z, Sun M, 2009. Transgenic Amorphophallus konjac expressing synthesized acyl-homoserine lactonase (aiiA) gene exhibit enhanced resistance to soft rot disease. Plant Cell Reports [2009, 28(12):1847-1855].

Soybeans
California Farmworker Poisonings, 1992–2010: 1 reported. This poisoning incident represents only the tip of the iceberg because it only reflects reported incidents in one state. It is widely recognized that pesticide incidents are underreported and often misdiagnosed.

Pesticide Tolerances —Health and Environmental Effects: The database shows that while soybeans grown with toxic chemicals show low pesticide residues on the finished commodity, there are 83 pesticides with established tolerance for soybeans, 37 are acutely toxic creating a hazardous environment for farmworkers, 76 are linked to chronic health problems (such as cancer), 28 contaminate streams or groundwater, and 75 are poisonous to wildlife.


Pollinator Impacts: In addition to habitat loss due to the expansion of agricultural and urban areas, the database shows that there are 31 pesticides used on soybeans that are considered toxic to honey bees and other insect pollinators. For more information on how to protect pollinators from pesticides, see Beyond Pesticides' BEE Protective webpage.

- This crop is dependent on pollinators. ✓
- This crop is foraged by pollinators. ✓

In 2015, the Handling Subcommittee said, "Slaughterhouses do not separate certified organic and non-organic offal. Certified organic intestines from certified animals are not available commercially." Since organic meat producers do produce intestines, the NOSB should investigate the possibility of allowing them to profit from the production of organic intestines.

Conclusion

The evaluation of casings from processed intestines must take into consideration the use of pesticides in the non-organic production of corn and soybeans and ensure that GMO grains are not used in producing organic products. The NOSB must consider the availability of organic intestines for this purpose, as well as the potential availability of casings if the demand was enhanced by removal of this listing. The NOSB should discuss ways to encourage the availability of organic casings and add an expiration date as a way of incentivizing the development of an organic alternative.

Thank you for your consideration of these comments.

Sincerely,

Terry Shistar, Ph.D.
Board of Directors