



BEYOND PESTICIDES

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

April 1, 2019

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-18-0071-0001

Re. HS: Collagen gel

These comments to the National Organic Standards Board (NOSB) on its Spring 2019 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.

It is time to stop adding listings to §606.

When organic production was in its infancy, it made sense to allow a small proportion of non-organic ingredients in processed organic foods if they were not available in organic form. However, now that any agricultural commodity can be produced organically, listing on §606 only stifles organic production of new organic crops and promotes chemical-intensive production. Finally, in the time that it takes to add new regulations, petitioners could overcome obstacles to supplying the organic product.

Non-organic collagen gel casings are not necessary.

Collagen gel is made from the skins from cows, pigs, chickens and/ or turkeys. All of these are produced organically. In discussing the usual casings (made from intestines), there is an issue with chicken/turkey sausage, since casings are not made from their intestines. However, collagen is made from them, so the issue of having enough collagen from organic animals should not be an issue.

There appears to be a practical issue of isolating organic intestines to use for organic collagen gel. Instead of petitioning for the use of casings made from meat contaminated with pesticide and antibiotic residues, those who wish to use collagen gel casings for organic sausage should devote their efforts to eliminating those practical obstacles.

Collagen gel casings are synthetic.

The label included in the petition identifies these ingredients:

Water 95.5-97%

Collagen 3.0-4.5%

Cellulose <3.0%

Although the petition states that cellulose is an ancillary substance, it also says:

Cellulose powder, derived from plant sources, is an inert substance in collagen gel.

Cellulose's functionality is however critical once collagen gel has been coextruded an enrobed extruded sausage. Cellulose adds permeability to the sausage's skin, allowing for the release of the meat emulsion's oil and fats during the sausage's cooking process.

In finished collagen gel, cellulose is present in the range of 2 – 5%, depending on targeted product characteristics.

Cellulose is present in the finished product in approximately the same concentration as collagen and has a functional effect in the casings, so it is an ingredient, not an ancillary substance. Cellulose is listed as a synthetic on the National List on §605(b), so collagen gel casings must be considered synthetic.

Non-organic collagen gel casings contaminate organic products.

Non-organic cows, pigs, chickens, and turkeys consume corn and soy produced by chemical-intensive agriculture. These feed ingredients are largely genetically engineered, many pesticides are used on these feeds, and residues can be expected in the feed and meat.

Field Corn

Below are the pesticides with established tolerances (residue limits for pesticides used in the U.S. or by countries exporting to the U.S.) for field corn products. There are also tolerances for many in meat.

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 109 pesticides with established tolerance for field corn products, 39 are acutely toxic creating a hazardous environment for [farmworkers](#), 96 are linked to chronic health problems (such as cancer), 32 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 33 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](#).

(**A** = acute health effects, **C** = chronic health effects, **SW** = surface water contaminant, **GW** = ground water contaminant, **W** = wildlife poison, **B** = bee poison, **LT** = long-range transport)

[2,4-D](#) (C, SW, GW, W, B) [Diflufenzopyr](#) (C) [Pyraflufen-ethyl](#) (C, W, B)

[Acetochlor](#) (C, SW, W, B) [Dimethenamid](#) (A, C, W) [Ipconazole](#) (C) [Pyrethrins](#) (C, W, B)

[Alachlor](#) (SW, GW, W) [Esfenvalerate](#) (A, C, W, B) [Isoxadifen-ethyl](#) [Pyridate](#) (C, W)

[Ametryn](#) (C, W) [Diquat Dibromide](#) (A, C, W, B) [Lambda-cyhalothrin](#) (A, C, W, B) [Pyriproxyfen](#) (C, W)

[Aminopyralid](#) (A, SW, GW, W, B) [Linuron](#) (C, W) [Rimsulfuron](#) (C)

[Atrazine](#) (C, SW, GW, W) [Malathion](#) (A, C, SW-URBAN, GW, W, B) [Sethoxydim](#) (C, B)

[Azoxystrobin](#) (A, SW, GW, W) [Diuron](#) (C, SW, W, B) [Mancozeb](#) (C, W, B) [Simazine](#) (C, SW, GW, W)

[Bentazon](#) (C, SW, GW) [EPTC](#) (C, SW, W) [Mesotrione](#) (C) [Spinetoram](#) (C, B)

[Bifenthrin](#) (A, C, SW, W, B) [Etoxazole](#) (C) [Metalaxyl](#) (A, C, W) [Spinosad](#) (C, W, B)

[Boscalid](#) (C, W) [Ethoprop \(ethoprophos\)](#) (A, C, W, B) [Metconazole](#) (C, W) [Spiromesifen](#) (W)

[Bromoxynil](#) (A, C, GW, W) [Fenamidone](#) (C, W) [Methoxyfenozide](#) (W) [Sulfentrazone](#) (C, W)

[Butylate](#) (C, W) [Fipronil](#) (A, C, W, B) [Metolachlor](#) (C, SW, GW, W) [Sulfuryl fluoride](#) (A, C)

[Captan](#) (A, C, W) [Flubendiamide](#) (C) [Metribuzin](#) (A, C, SW, W) [Tebuconazole](#) (A, C)

[Carbaryl](#) (A, C, SW, GW, W, B) [Fludioxonil](#) (C, W, B) [Myclobutanil](#) (C, W) [Tebufenozide](#) (W)

[Carboxin](#) (C, W) [Flufenacet](#) (C, W) [Nicosulfuron](#) (C, W) [Tefluthrin](#) (A, C, W, B)

[Carfentrazone-ethyl](#) (W) [Flumioxazin](#) (C, W) [Nitrapyrin](#) (A, C, GW, W) [Tembotrione](#) (C)

[Chlorantraniliprole](#) (C, W) [Fluometuron](#) (C, W, B) [Oxyfluorfen](#) (C, W) [Terbufos](#) (A, C, W, B)

[Chlorpyrifos](#) (A, C, SW, GW, W, B, LT) [Fluoxastrobin](#) (C, W) [Paraquat/Paraquat dichloride](#) (A, C, GW, W) [Terrazole](#) (C, W)

[Clethodim](#) (A, C) [Fluridone](#) (C, W) [Pendimethalin](#) (C, GW, W) [Tetraconazole](#)

[Clopymidifos](#) (A, C, GW, W) [Fluroxypyr](#) (C, W) [Permethrin](#) (A, C, GW, W, B) [Thiabendazole](#) (C, W)

[Clothianidin](#) (A, C, SW-URBAN, W, B) [Fluthiacet-methyl](#) (C, W) [Phorate](#) (A, C, GW, W, B) [Thiamethoxam](#) (C, B)

[Cryolite](#) (C) [Glufosinate ammonium](#) (C, SW, W) [Phosphine](#) (A, C) [Topramezone](#) (C)

[Cyfluthrin](#) (A, C, W, B) [Halosulfuron-methyl](#) (C) [Piperonyl butoxide \(PBO\)](#) (C, W) [Triadimenol](#) (A, C)

[Cypermethrin](#) (A, C, W, B) [Propargite](#) (A, C, W) [Propiconazole](#) (A, C, W) [Trifloxystrobin](#) (C, W)

[Cyprosulfamide](#) [Propyzamide](#) (C, W) [Prosulfuron](#) [Trifluralin](#) (C, SW, GW, W, LT)

[Dacthal \(DCPA\)](#) (C, SW, GW, W, B, LT) [Hexythiazox](#) (C) [Pyraclostrobin](#) (C, W)

[Deltamethrin](#) (A, C, W, B) [Imazapyr](#) (SW, GW, W, B)
[Dicamba](#) (A, C, GW, W) [Imazethapyr](#)
[Imidacloprid](#) (A, C, SW, W, B)

Soy Beans

Below are the pesticides with established tolerances (residue limits for pesticides used in the U.S. or by countries exporting to the U.S.) for soy beans. While not all the pesticides on the list are applied to all soy beans, there is no way to tell which pesticides are applied to any given piece of conventional produce on your store shelf. You may consider talking to the farmers at your local farmers market about the pesticides they use, but eating organic is the only way to know for sure.

California Farmworker Poisonings, 1992–2010

One reported (CA acreage is small). 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 soy beans grown with toxic chemicals show low pesticide residues on the finished commodity, there are 83 pesticides with established tolerance for soy beans, 38 are acutely toxic creating a hazardous environment for [farmworkers](#), 75 are linked to chronic health problems (such as cancer), 29 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 32 pesticides used on soy beans 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](#). Soybeans are foraged by pollinators and are dependent on pollinators for production.

(A = acute health effects, C = chronic health effects, SW = surface water contaminant, GW = ground water contaminant, W = wildlife poison, B = bee poison, LT = long-range transport)

[2,4-D](#) (C, SW, GW, W, B) [Cyfluthrin](#) (A, C, W, B) [Glyphosate](#) (C, SW-URBAN, W) [PCNB \(Quintozene, Pentachloronitrobenzene\)](#) (GW, W, B)
[Acephate](#) (C, SW, W, B) [Cypermethrin](#) (A, C, W, B) [Halosulfuron-methyl](#) (C)W
[Imazethapyr](#) [Pendimethalin](#) (C, GW, W)
[Acetamiprid](#) (A, C, B) [Dacthal \(DCPA\)](#) (C, SW, GW, W, B, LT) [Imidacloprid](#) (A, C, SW, W, B) [Permethrin](#) (A, C, GW, W, B)
[Phorate](#) (A, C, GW, W, B)
[Acetochlor](#) (C, SW, W, B) [Deltamethrin](#) (A, C, W, B) [Indoxacarb](#) (A, C, W, B) [Phosphine](#) (A, C)
[Lactofen](#) (A, C, W) [Propiconazole](#) (A, C, W)

[Acifluorfen Sodium](#) (A, C, SW, GW, W) [Dicamba](#) (A, C, GW, W) [Lambda-cyhalothrin](#) (A, C, W, B) [Pyraclostrobin](#) (C, W) [Pyraflufen-ethyl](#) (C, W, B)
[Alachlor](#) (SW, GW, W) [Difenoconazole](#) (C, W) [Malathion](#) (A, C, SW-URBAN, GW, W, B) [Quinalofop-ethyl](#) (C, W)
[Aldicarb](#) (A, C, GW, W, B) [Diflubenzuron](#) (C, W) [Metalaxyl](#) (A, C, W) [Sethoxydim](#) (C, B)
[Azoxystrobin](#) (A, SW, GW, W) [Dimethenamid](#) (A, C, W) [Methomyl](#) (A, C, W, B) [Spinetoram](#) (C, B)
[Bentazon](#) (C, SW, GW) [Dimethoate](#) (A, C, GW, W, B) [Methoxyfenozide](#) (W) [Spiromesifen](#) (W)
[Bifenazate](#) (C, W, B) [Endothall](#) (A, C, W, B) [Methyl bromide](#) (A, C, W) [Spirotetramat](#) (C, W)
[Bifenthrin](#) (A, C, SW, W, B) [Esfenvalerate](#) (A, C, W, B) [Methyl parathion](#) (A, C, W) [Sulfentrazone](#) (C, W)
[Boscalid](#) (C, W) [Ethalfluralin](#) (A, C, W) [Metolachlor](#) (C, SW, GW, W) [Thiabendazole](#) (C, W)
[Carbaryl](#) (A, C, SW, GW, W, B) [Fluazifop-P-butyl](#) (C, W) [Metribuzin](#) (A, C, SW, W) [Thiodicarb](#) (A, C, W, B)
[Carboxin](#) (C, W) [Flubendiamide](#) (C) [Norflurazon](#) (C, GW, W) [Tralomethrin](#) (A, C, W, B)
[Carfentrazone-ethyl](#) (W) [Flufenacet](#) (C, W) [Oxamyl](#) (A, C, GW, W, B) [Trifloxystrobin](#) (C, W)
[Chloroneb](#) (C) [Flumioxazin](#) (C, W) [Oxyfluorfen](#) (C, W)
[Chlorothalonil](#) (A, C, GW, W, LT) [Fluometuron](#) (C, W) [Paraquat/Paraquat dichloride](#) (A, C, GW, W)
[Chlorpyrifos](#) (A, C, SW, GW, W, B, LT) [Fluthiacet-methyl](#) (C, W)
[Clethodim](#) (A, C) [Flutolanil](#) (W)
[Clomazone](#) (A, C, W) [Glufosinate ammonium](#) (C, SW, SW-URBAN, W, B) W)

Non-organic CAFO meat

Non-organic collagen gel comes from animals who have been born, weaned, raised, fed, slaughtered, and processed often using the very worst practices, possibly in countries without any regulatory oversight –from chemical-intensive Concentrated Animal Feeding Operations (CAFOs) anywhere in the world. CAFOs routinely administer antibiotics and other pharmaceuticals to add weight and keep animals alive in an unhealthy environment. CAFOs feed animals GMO alfalfa, GMO corn, GMO soy, GMO beets, and other GMO crops. CAFOs are not humane. CAFOs routinely discharge toxic urea and manure containing medical residues, bacterial pathogens, and antibiotic-resistant microbes into air, land, and water.

Conclusion

Beyond Pesticides opposes the listing of collagen gel casings on §606 because collagen gel casings are synthetic, the listing is unnecessary and discourages the development of organic

collagen gel casings, and the contamination from nonorganic feeding and other practices poses environmental and health hazards.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Shistar". The signature is written in a cursive style with a horizontal line at the end.

Terry Shistar, Ph.D.
Board of Directors