# **Public Comments on Carrageenan**

#### SUBMITTED ON REGULATIONS.GOV IN ADVANCE OF THE FALL 2016 NOSB MEETING



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## LAURIE ALLAN, NEW YORK



"PLEASE stop putting Carrageenan in our food and especially not labeling it! I have developed IBS from the years of consuming such products prior to becoming unaware of it."

### JANICE HARTMANN, ILLINOIS



"Carrageenan has caused me many years of pain, discomfort and embarrassment. For years I was diagnosed with PMDD, lactose intolerance and IBS. When I eliminated soy, the PMDD went away. When I eliminated carrageenan, the diagnosis of lactose intolerance and IBS was no longer valid."

### **DEANNA HARRISON, WASHINGTON**

"I suffer from sensitivity to carrageenan which worsens with each exposure. Not only do I experience abdominal cramping, but it has become a trigger for urinary and fecal incontinence. In an attempt to prevent embarrassing social situations, carrageenan exposure causes me to spend more of my life home-bound."

### PHYLLIS WEBER, CALIFORNIA



"Please restore my trust in the USDA Organic seal."

TRUDY PAULIN AGRES, VERMONT

"I would like to see it removed from organic foods, particularly for the health of small children who are often unable to articulate just exactly what is hurting them."

CAROL MONE, CALIFORNIA

CORNUCOPIA NSTITUTE "I suffer from sensitivity to carrageenan which worsens with each exposure. Not only do I experience abdominal cramping, but it has become a trigger for urinary and fecal incontinence. In an attempt to prevent embarrassing social situations, carrageenan exposure causes me to spend more of my life home-bound. My individual productivity is severely impacted by this product, not to mention my emotional status related to shame and embarrassment. No one should have to live like this."

Phyllis Weber Spring Valley, CA

"Carrageenan needs to be removed from the list of ingredients that can be added to foods that are allowed to have the Organic Label as meeting the National Organic Standards. Anything that causes inflammation in the digestive system does not reflect a healthy choice for food consumption.

The concern over food-grade carrageenan isn't new. Beginning in the 1960s, researchers started linking the ingredient to gastrointestinal disease in lab animals, including ulcerative colitis, intestinal lesions, and colon cancer.

Although derived from a natural source, it appears to be particularly destructive to the digestive system, triggering an immune response similar to that your body has when invaded by pathogens like Salmonella. The result: "It predictably causes inflammation, which can lead to ulcerations and bleeding," explains veteran researcher Joanne Tobacman, MD, associate professor of clinical medicine at the University of Illinois School of Medicine at Chicago. She says the food ingredient irritates by activating an immune response that dials up inflammation. Her previous work showed a concerning connection between carrageenan and gastrointestinal cancer in lab animals, and she's involved with ongoing research funded through the National Institutes of Health that is investigating carrageenan's effect on ulcerative colitis and other diseases like diabetes."

Janet F. Patruno Santa Barbara, CA

"I accidentally discovered that carrageenan made me very ill. I introduced organic almond milk to my diet as an effort to reduce my dairy intake. A few days later I began experiencing horrible stomach churning and cramping that went on for hours, day in day out. Then, suddenly, I began having horrible problems where I was waking up sputtering gasping for air in the middle of the night. Having never had problems with apnea before, this was very distressing. I was checked out by a pulmonologist but no cause could be determined.

Luckily, it just so happens I had been keeping a food log, and it occurred to me that I should review the days when these symptoms started and really take a good look at what I was eating. That's when I finally discovered that my stomach problems and the apnea symptoms began shortly after I began consuming almond milk. I took a good look at the packaging of the almond milk and discovered that it contained carrageenan, which I had heard of but hadn't thought much about.

All I knew was that it was derived from a type of seaweed, and as a 'natural' ingredient, I had always assumed it was probably safe to consume. On the off chance that this was causing my problems stopped drinking almond milk altogether. And it was like a miracle - the stomach problems went away, and so did the apnea (which resulted from the acid reflux caused by whatever was hurting my stomach so badly).

Meanwhile, I began doing research and discovered that carrageenan causes a whole range of health problems in people, including some of the problems I was experiencing, and that it really doesn't belong in food at all.

This is clearly a substance that has absolutely zero nutritional value and at the same time has been demonstrated to be deleterious to the health of those who consume it. Ultimately carrageenan should be banned as a food substance altogether, but for now, at the very, very least, it should be prohibited from foods labeled organic. Thank you for your time and consideration."

Jesse Vear Portland, ME

"Please National Organics Standards Board, do not renew exemptions for the use of synthetics in organic food production and please don't grant any new exemptions.

Carrageenan is dangerous to our health and should NOT be in organic foods. This additive makes me, my family and, without a doubt, millions of Americans very sick.

Example: a few weeks ago I ate a Choco Taco, an ice cream bar. The following day after eating the ice cream bar i had diarrhea all morning. There is no doubt in my mind that carrageenan is a dangerous substance that should not be in our food, especially our organic food.

Thank you in advance,"

Galina Richards New York, NY

"Please stop allowing CARRAGEENAN in organic foods. I was sick for 30 years. I eliminated soy from my diet - that helped a little (mostly with hormonal imbalance), but when I discovered that carrageenan was in a lot of foods I ate, I went on the hunt for foods that not only didn't contain soy (a feat in itself), but foods that did not contain carrageenan. This makes for a long grocery shopping trip! I have to read every label every time because manufacturers may change their ingredients to save money. Carrageenan has caused me many years of pain, discomfort and embarrassment. For years I was diagnosed with PMDD, lactose intolerance and IBS. When I eliminated soy, the PMDD went away. When I eliminated carrageenan, the diagnosis of lactose intolerance and IBS was no longer valid. I no longer have to be near a bathroom for regular "emergencies".

In talking to people about this, I am amazed at how many people think they are lactose intolerant, but have no problem eating most cheeses and regular, unflavored, unsweetened milk; but sometimes ice cream makes them nauseous and gives them diarrhea. This tells me that they are not lactose intolerant - as any doctor will likely tell you, too. MANY ice creams have carrageenan in them, even the lunch meat on their sandwiches may have it. Most cheeses and plain milk do not.

Carrageenan is known to cause intestinal inflammation and other digestive issues. Knowing this, why would we allow this in our foods? Please disallow this ingredient in organic food - all food, for that matter!"

Deanna Harrison Spokane, WA

"I purchased almond milk from Whole Foods and used it for two years as my sole source of milk. I am lactose intolerant, and I take daily probiotics to help with digestion generally. After several months I began to notice that the probiotics had stopped working. My stomach was upset every day. I consulted a nutritionist who changed me to a different brand of probiotics, thinking that I had become desensitized to the ones I was taking. I spent a fortune trying new and different probiotics. These changes were of little to no help.

I became resigned to daily stomach pain, and interrupted sleep at night. I developed uterine cancer, and subsequently was tested for inflammation, which was high. Then I read something linking carrageenan to inflammation and cancer.

I checked my almond milk, and discovered that it contained carrageenan as an ingredient. I discontinued using it immediately. Within just days my stomach pain went away entirely, and my sleep returned to normal. I have been fine ever since."

Anonymous Sarasota, FL

"I had been drinking Diamond Almond milk for two years, and had developed Irritable Bowel Syndrome. My doctor's ordered a Colonoscopy and Ultra sound. My problem was IBS-D. Symptoms were continual Diarrhea, but my doctors could not solve the problem.

I began doing research on the Internet, concerning the ingredients in the Diamond Almond Milk. When I looked up Carrageenan I found an extensive blog on the subject, with many comments by consumers who had been suffering with the same type of symptoms that I had developed.

I have been off of the Carrageenan products for a year, and have not had the Diarrhea symptoms. The change was so remarkable that there was no question that it was the Carrageenan in the Diamond Almond Milk that created the problem for me.

In my search for another brand of Almond Milk, I came across a new brand, CALIFA, Almond Milk. It was stunning to see that across its label was, "No Carrageenan". So, that is a definitive answer to my suspicions. Carrageenan is a serious problem that should have been banned back in the 1980's, when the FDA first considered it. Why has it taken so long????

More and more the public are learning that the manufacturers, a good many, are more interested in profit, than people.

Thank you for letting me be a part your study."

Lynn Thomas Summerfield, FL

"I am a 54-year old female who has suffered from fibromyalgia and rheumatoid arthritis for many years. Approximately 8 years ago, I was prescribed methotrexate injections to be selfadministered weekly for the RA. Last June 2015, I visited a local health and wellness store and began working with a Registered Dietician/Nutrition Specialist. She was awesome! While working up my food plan, she asked me what kind of milk I drank and I told her that my preference was almond milk. She asked me what brand and when I answered, she told me I should consider changing brands because the brand I was using contained a substance called carrageenan. That was my first awareness of carrageenan.

My dietician explained that carrageenan was a completely unnecessary food additive that caused or increased inflammation in the body. I took her advice and immediately switched brands of almond milk. I also began thoroughly reading labels at the grocery and at my local Whole Foods Store, where I shop frequently. I was amazed at the wide range of products, from dairy to dry foods, that contain carrageenan. I switched brands on many of my favorite "whole" food items and began religiously avoiding carrageenan. And I did not eat any foods for which the ingredients list was not available.

After about a week of this complete elimination process, I began to notice less stiffness and pain in my right hand. This made me think that perhaps there was something to my dietician's claim about carrageenan, but the real proof for me came several weeks later during one of my regular appointments with my Rheumatologist. My doctor routinely checks my blood pressure during each visit. I have always dreaded the simple task of a blood pressure check because the inflated cuff on my arm was so excruciatingly painful due to the inflammation in my body from both my RA and FM. But during this particular visit, I remember well how amazed and completely aware I was of the fact that the inflated cuff did not hurt at all! This was all the proof I needed!!

The only thing I had really changed in my diet over the 3-4 weeks preceding this particular visit with my doctor was the elimination of carrageenan. Could my dietician be right? She obviously knew something.

Over the next few months, my Rheumatologist gradually reduced my methotrexate dosage until she finally took me completely off of the medicine! No more giving myself a shot in my leg every week! How powerful is that?!!! To this day I continue to avoid carrageenan and always will. I don't know what purpose the food industry feels that this additive serves, but I think it is unneccessary. It is clearly harmful and should be banned by the FDA.

As for organic foods, many people such as myself have turned to organic foods in an effort to eat cleaner and healthier. I prefer not to have my efforts hampered unneccessarily by harmful, completely unnecessary food additives. The proof is in the pudding for me, and I will continue to avoid carrageenan for as long as I live. And I encourage family and friends to do the same, as I have shared my experience with so many!"

Mary Naquin Marrero, LA

"I was using dairy products to artificially maintain my weight for 23 years. Genetically I am tall and slim. In 2009 the dairy industry began to add chemicals to stop cream from separating when exposed to hot liquid. My stomach began to hurt with the additional chemicals.

By 2016 Carrageenan was added to the combination of chemicals often found in quality dairy products. I began to have bloody diarrhea each morning following my morning coffee.

Eventually, the blood increased each morning to the point of calling my doctor. I explained the dairy products we holding up my current weight. I am 5'9" weighing 155lbs. Without the dairy my weight would fall. She instructed me to stop ingesting to see what happens. I stopped ingesting and relief was immediate. Absolutely no diarrhea. Not a single symptoms as long as the chemicals were not ingested.

With the loss of dairy products over the past 6 months, starting January 13th 2016, my weight fell to 130 lbs. I was far too tired and feeling very weak all the time. My daughter, living in another city, was upset when she came home because I was so small & fragile feeling in her arms when she hugged me.

I called the same doctor and she said find chemical free dairy and increase meals to 6 times a day to get my weight back up. She said as long as I am eating plenty of fruits, vegetables, beans/rice, & meats around three times a week that should off-set the cholesterol over load. At present my weight is up to 139lbs. I am feeling stronger. At first I had to eat, rest, sleep, and eat. Eventually I began to feel strong enough to putter around the house.

This morning I am drinking organic valley half & half without negative symptoms. I drink it like whole milk & I use it in my coffee.

"Carageenan I absolutely loathe what you have done to me & my favorite foods. Between 2006 & 2010 I started to develop horrible bloating, burping, & constipation after 20 minutes, a few hours, or by 5 hours after I consumed products with Carageenan. But I did not realize Carageenan was the problem until 2010. After many Dr. appointments & medical tests, I realized it is Carageenan that is my enemy.

The depression, medical problems, & fear that lasted for so many years finally came to an end once I started reading labels & not consuming Carageenan. If I consume Carageenan my stomach swells to look very pregnant, I burp nonstop, & cannot have a bowel movement for as long as two weeks. Even trying colonics, enemas, colon pills, I can't go. What makes it worse is consuming any type of food after I have had consumed Carageenan. My digestion will not work. Besides feeling just awful, clothes will not fit, work or any minor activity is to much to do.

I don't enjoy many products anymore nor do I enjoy going out to eat. I will not risk ordering items that might be made with this horrendous filler. Salad dressings, whip cream, cream, half & half, yogurt, sour cream, cheeses, lunch meats, whole turkeys, frozen products, etc. can have awful effects on me if made with Carageenan. Interesting, that this filler can cause such detrimental damage to people & it is in so called Organic products. I would sue the hell out of Carageenan for the Dr. bills I have had to pay because of this awful ingredient."

Shirl Faithluvhope Oceanside, CA

"I have Crohn's Disease and until I went to an Integrative Medicine MD, I was unaware that carageenan is the substance that researchers give to laboratory animals to induce Irritable Bowel Disease. Once I found this out, I stopped ingesting it and noticed that the frequency with which my Crohn's symptoms kicked up decreased.

Honestly, do we need all of this junk in our foods? Is it the duty of food producers to develop better and healthier solutions for people or the duty of people to adapt to the existing food system? Common. Even my uneducated grandmother knew that what you put into your body is fuel for energy and determines one's health.

For way too long, economic interests have been the deciding voice rather than health concerns."

Laurie Allan Pittsford, NY "I don't think it was a mere coincidence that an organic creamer using carrageenan gave me an ulcer and my son had complications and had to have emergency surgery for bowel obstruction and intucciception with sepsis. I'm sure it wasn't the only food were consuming with it in it as many milks and ice creams use it also.

I thought it was the coffee that was making me sick but researched ingredients used in these so called organic products and found some alarming facts that convinced me to stop using anything with it in it. Over the years I feel like my ulcer is healing and my son has not gotten any worse since stopping the use of this ingredient.

How can any company with any conscience continue to use this knowing it isn't healthy for consumption? Please do the right thing and ban this in any food! It's like a glue that damages our digestive tract and it can cause severe complications even in the short term. Thank you for your work regarding this crucial matter!

Deborah Adams Santa Rosa Beach, CA

"Even though carrageenan has been used for a long time, I am not convinced it is healthy. I would like the opportunity to know when I am eating it, and taking it out of organic products would help me in that choice.

I found that I was getting very bad stomach aches and flatulence after drinking a Starbuck's latte made with coconut milk. I thought it was the coffee, but then I read something about carrageenan being in the coconut milk Starbuck's used, and decided to try to test to see if that was the problem.

For many weeks, I drank black coffee, then tried a Starbuck's latte. I had no trouble with the black coffee, but the latte with the coconut milk gave me a stomach ache. I drank coconut/almond milk at home with no problem, so checked the label of my milk at home. It had no carrageenan in it. I tried drinking the lattes several times over the next few weeks, and always had a stomach ache within about 15-20 minutes.

I went back to black coffee. A few weeks later, I decided to try the lattes one more time. Within 15 minutes, I had a severe stomach ache along with gas, and concluded I just couldn't drink lattes made with coconut milk. I believed it was the carrageenan, and subsequently began reading labels. I now try very hard not to ingest any carrageenan."

Anonymous Beaverton, OR

"I'm having increasing difficulty locating foods that don't contain carageegan. It has proven to be a gastro-intestinal irritant for me. It's even more difficult when that ingredient isn't always specified on the label. Instead, it's under the "natural" catchall for flavorings/additives. Please require labeling if the ingredient must be there. It causes significant problems when ingested. I'd like to see it not added to organic foods.

Anonymous Chicago, IL

"Due to a pre-diabetes diagnosis in 2013, I eliminated sugar entirely from my diet and began incorporating "low glycemic index" foods. Unfortunately, many of the foods I switched to contained carrageenan, such as almond milk, veggie burgers, and other foods. After a few months, I began getting terrible abdominal bloating and gas. This went on for about a year when I discovered the controversy surrounding the food additive carrageenan. I researched it and wondered if it was the culprit, so I eliminated every single food that contained carrageenan from my diet. Lo and behold, within a day my symptoms disappeared for good!

Also, a scientific report published in the Journal of Diabetes Research (Volume 2015 (2015), Article ID 513429, 13 pages, http://dx.doi.org/10.1155/2015/513429) implicates carrageenan in raising fasting blood sugar, so the condition that I was trying to heal, was being undermined by a food additive!

It makes me angry that an unnecessary food additive, which is making people sick, is being allowed to perpetuate our food supply. It needs to stop now! Fortunately, Almond Breeze and Silk Almond milk has since eliminated carrageenan from their milk due to customer pressure. Thank you for your time and consideration of this important topic.

Cristl Arndt Cary, NC

"I have severe gastrointestinal problems when I ingest carrageenan on an empty stomach. Despite going to countless doctors and chiropractors and eating a "healthy" diet (I thought I was choosing healthy options because they listed "natural" ingredients), I thought I was unlucky and would essentially have to suffer with IBS for the rest of my life.

I even had a dentist once call me a liar because he said I couldn't be flossing because my gums were bleeding. Guess what was in my toothpaste?

Once I found out about how treacherous carrageenan is and eliminated it from my diet, I've had a nearly 180-degree turnaround in my health. As much as I can, I spread the word to everyone I know to avoid carrageenan at all costs."

Andrea Bacle Spring, TX "I have had a long history of digestion trouble. I was finally diagnosed with Irritated Bowel Syndrome in 2007. However, that was only the beginning of my knowledge on how food can destroy my digestive system. I relieved some symptoms by following the suggestions for IBS. However, my symptoms were continuing to get worse as time went on. I was diagnosed with Celiac disease in 2011. With this information I began to feel better by not consuming wheat. My digestive disorder was relieved about fifty percent (50%) of the time. No matter how close I watch my wheat intake, I would still have digestive issues that were unexplained.

I started journaling everything I ate to see what I was missing. My diet was not very big as wheat is in everything. As I started noticing my flare ups, I started documenting the ingredients in the food I ate for the day. Continually I would come up with carrageen in the food I ate. I started looking for it in the food I ate as well as wheat. I felt ninety (90%) better by watching both ingredients. I only had trouble avoiding it in restaurants and prepared foods as it is in everything.

Please know that this product is a silent killer to those of us who have digestive issues. It affects me worse than wheat and takes about five (5) to eight (8) days to clear my system."

Thank you,

Jody Bangerter Sheridan, WY

"I have suffered from IBS with constipation for several years and have had real issues with bloating and other symptoms. I tried all sorts of diet alterations from milk without lactose, almond milk, lower, fiber, higher fiber and on and on.

About a year ago I read an article that mentioned the effects carrageenan can have on the gastrointestinal tract so I started reading labels and eliminated it from my diet. I was shocked to see how quickly my symptoms disappeared.

After I had been off it for a few months I needed creamer for my coffee and all that was available had carrageenan in it so I used it thinking that small amount wouldn't matter. I was very wrong about that. That afternoon I was bloated and feeling miserable. Now I will not buy any products with it in it. It is very hard to find products without it so I have to even make my own evaporated milk when I need it.

I am willing to do that but it is helpful to have the option of buying items, and especially when I am concerned enough to buy organic I want to know organic equates to healthier and for me that means no carrageenan."

Susan Edmonds Rural Retreat, VA "Dear National Organic Standards Board,

I have been suffering from the painful effects of Carrageenan my entire life. It took about 35 years to figure out what was giving me extremely painful stomach pains and gas. I have a 7 year old who is also sensitive to Carrageenan. Please ban this ingredient from Organic foods. It is a chemically altered substance and should not be in our organic food. Thank you."

Jennifer Fowler McKinleyville, CA

"It seemed to me that every time I consumed a product that contained Carrageenan for a length of time (say one or two weeks) I would start to developed symptoms not unlike irritable bowel syndrome. Am I 100 percent sure that Carrageenan was the culprit, no...but after I cut this ingredient out of my diet, I have not had this problem. Not very scientific, but good enough for me. If you want to "thicken" something to make it "creamy" ...use finely ground Flax seeds."

Louis Gatto San Francisco, CA

"I avoid carregeenan in my food/beverages at all costs.

On a recent visit to my parents' house, they had whipping cream with carrageenan, so I thought I would not make a fuss about the carrageenan and just have that in my coffee. Day 1 of cream with carrageenan and I felt bloated. Day 2, I was bloated and my stomach was not feeling great, and I had started to have diarrhea. Day 3, full-on diarrhea, extremely bloated stomach and a bit of malaise due to the gastrointestinal issues. I have avoided carrageenen even more assiduously since then."

Eliza Graham Denver, CO

"Please stop all carrageenan from being in our food supply. I am severely affected by this ingredient in my food and have to read all labels before I purchase something. I even read labels of foods I commonly buy in case of formula changes, and what is worse is that some foods don't have to label it if it is just used as a finishing product, so the only way I know what those foods are is by process of elimination after I get sick!

If I have just a small amount of carrageenan I get diaphoretic, extreme stomach pain, break out in a sweat and then suffer in the bathroom for about six hours. This same scenario happens exactly the same way every time I am exposed to carrageenan.

Because of consuming this product I have missed work, family functions, and even cried from the pain that it inflicts on me. It has no business being in food, or even toothpaste, and

needs to be stopped so those like me can safely consume products without worrying if we are going to get sick."

Michelle H Sault Sainte Marie, MI

"I have had very bad reactions to foods with carrageenan, including but not limited to headache, heart palpitations and diarrhea. I can't believe that something that toxic is allowed in organic foods. It makes me wonder whether it's worth going to the extra trouble of buying organic."

Ann Hapka Lincoln University

"PLEASE stop putting Carrageenan in our food and especially not labeling it!

I become violently ill with vomiting and the worse headaches I've ever had - even worse than my migraines, and lasts 48 hours! I've gone to the hospital because of it too, so now I avoid it at all costs, which occasionally I've missed it. Carrageenan contains 300 times the recommended daily allowance of Iodine, so how can that be good for anyone? Especially those allergic to Iodine!

I have developed IBS from the years of consuming such products prior to becoming unaware of it. I became aware of Carrageenan by doing my own research after becoming ill from the products I was ingesting, and wanted to find out what was in my foods making me sick. IBS is irreversible damage to my colon and likened to having rheumatoid arthritis of the colon; causing difficult and painful digestive issues (diarrhea and/or constipation)..

There are certain drugs and foods to help ease the condition, yet why should we need to take something for this, when the easier solution and a solution for our children would be to eliminate it from our diets all together!? There are better ingredients and much safer ingredients to use."

Janice Hartmann Creve Coeur, IL

"To The National Organic Standards Board:

My name is Deidre Hockin, and I would like to submit to this Board my personal experiences with the food additive Carrageenan. Approximately eight years ago, while still employed full time, I was experiencing bouts of acid reflux almost every night. At the time, I was unaware of the cause. It was my love for chocolate milk, which brought me to the realization that the food additive Carrageenan was the cause.

I daily drank a jug of chocolate milk purchased from the company cafeteria vending machine. I started looking at the ingredients after spending an entire afternoon in the company restroom. There were only three ingredients in that jug of chocolate milk: milk, the flavoring vanillin, and Carrageenan.

What I found online was an article describing how Carrageenan can cause stomach upsets. Was that the cause of my acid reflux? Not only was I daily consuming chocolate milk, but also liquid Coffeemate, which also contains Carrageenan. I decided to see if the elimination of Carrageenan from my diet would have any effect. It did! My nightly acid reflux disappeared.

So now I must read the ingredient label on everything I purchase. If it contains Carrageenan, it stays on the shelf. Eating out is a challenge. If it looks like something that could contain Carrageenan, I do not eat it. The times when I do accidentally eat something with Carrageenan, I know immediately. It sits like a queasy lump in my stomach until it leaves my body, one way or the other. I have become a crusader, telling every physician, health provider, acquaintance, dairy section store manager, and acid reflux sufferer I know about my experience with Carrageenan:

-My former Endocrinologist. After my repeated complaints, he admitted to me that he, too, eliminated Carrageenan from his diet.

-My massage therapist, who told a client, whose husband experienced stomach upset after eating ice cream, about the importance of checking for the ingredient Carrageenan. Her husband was gratefully able to eat his favorite ice cream, with no problems, before he passed.

-A friend, who suffers from ulcerative colitis and who found Carrageenan in her cat's food, eliminated it from both their diets. She has fewer flare-ups and her cat doesn't immediately throw up his food.

-A former temp coworker, who was spending \$30 a month on over-the-counter acid reflux medicine while adding liquid Coffeemate to her daily coffee. Unfortunately for her, she said she'd rather drink the Coffeemate. I wished her well.

-The Dairy Section Manager at the local supermarket. I told him he might as well hang a Prilosec peg strip in the dairy section.

And, now, I'm begging this Board to please remove Carrageenan from not only organic foods, but also from all non-organic foods as well. The American people do not deserve to suffer with this unnecessary ingredient any longer. Thank you."

Deidre Hockin Pen Argyl, PA "Carrageenan is a substance that cause me to feel as though I am made of glass, I feel brittle from head to toe. I can't eat yogurt, ice cream, coffee creamer or anything else that contains it. I get that it is derived form sea weed... But anything that can be used to test drugs effectiveness why would it be allowed in food?"

William Insley Sicklerville

"I am a concerned consumer that only buys and consumes organic foods and products because I care what I ingest and put in and on my body and my family's. I am highly allergic to carrageenan as it causes extreme stomach distress and can't buy products that contain it (such as Organic Valley).

Additionally, I purchase organic because it shouldn't contain synthetic products and should be raised as naturally as possible without chlorine dioxide, genetically raised products, or grown hydroponically.

To allow this synthetic type of growing is the antithesis of what it means to buy organic. Please do not allow big agricultural businesses to lower the standards of the label of organically grown."

Ann Kelly Mount Laurel, NJ

"Dear National Organic Standards Board (NOSB),

Please consider banning the additive Carageenan from organic foods. I've personally experienced the inflammation issues that this product causes, costing me years and dollars with diagnostics and evaluation, only to find out that this additive was (and still is) at the core of my health issues, which include irregular heart rhythm, exhaustion, mental fog, constipation, and weight gain.

After avoiding it for a couple years, I've found I'm able to function fully again. Its affect on my intestines took a very long time to heal. Our family has also found that my 14 year old daughter also must avoid Carageenan in order to maintain her health. We know first hand the damage this chemical can do to a human body, and we ask that it be banned from organic foods! Just imagine the impact to those suffering intestinal disorders everywhere"

Joel Krooswyk Mokena,

"Carrageenan was used in scientific studies to CAUSE cancer to lab mice. Think about this. I discovered this when researching my own carrageenan intolerance. It was in a natural toothpaste and made my lips red and swollen. I had tried every remedy to hydrate/cure the

condition but it did not go away until stopping the toothpaste. I can also add that this is used in high amounts in some brands of wet cat foods causing IBD. This in turn caused two of my cats to die of cancer, one from intestinal lymphoma the other from stomach and colon mast tumors. Unfortunately by the time I realized what was happening and switched to carrageenan-free cat foods, it was too late."

Loretta Lehman Duncannon, PA

"I had digestive problems for nearly one and a half years, before I discovered, by coincidence that carrageenan could be the problem. Once I took all of the foods and products containing it out of use, my symptoms cleared up. My symptoms were gas, bloating, heartburn after eating. Intestinal tract and stomach rumbling and inflammatory pain a cross my midriff section. I also had lower back pain. I was tired and fatigued most of the time.

Almost every Friday or Saturday night, I would spend most of my time in the bathroom. I had very loose stools, with mucus and painful elimination. I had to stay close to the bathroom once this began. Not knowing what it was, I called it my weekly cleansing.

I thought I was lactose intolerant, so tried to eliminate and substitute for that.

By coincidence a friend who I was talking with about my symptoms happened to show me an article she had read in our local newspaper. It pointed out the side effects of carrageen. So in April of 2013 I read all labels of products I was using and eliminated it from my diet.

I found it in my toothpaste, acid reducer, the non dairy products I was using. It was in baked goods purchased from the grocery store. It is in most ice cream, also soft serve at ice cream stand, low fat dairy products and I still see it in some toothpastes. Once I stopped using it, within 3 days I felt better.

I cancelled a upper G.I. test that had been scheduled. I had already had several medical tests.

I did tell my doctor about it, in case other patients may be suffering from the same symptoms.

I feel it is not safe for consumers, especially when there are other products that will do the same thing. So I still avoid any potential source of this ingredient and advise others to do the same.

I have heard that It is used in medical testing to produce inflammatory response. I think that sums it up for me.

I strongly recommend that you help to remove it from all consumer products. Thank you for the opportunity to tell my experience with this dangerous ingredient."

Paula Light Conway, MA "Dear Board members,

Please vote to remove carrageenan from organic foods. While a "natural" product, it makes many people - like me - quite ill. This substance should not be in food consumed by people, and certainly should not be used in organic foods. Thank you for considering this important vote."

Nancy Light Reno, NV

"We oppose the relisting of carrageenan on 205.605(a) and believes that the substance should be removed from the National List.

Carrageenan should be reclassified as a synthetic.

The NOSB must take a precautionary approach when assessing the studies of health effects of carrageenan. Even giving equal weight to industry-supported and independent research, the NOSB must accept the existence of science pointing to serious health consequences associated with the consumption of carrageenan and act to protect organic consumers. The evidence summarized by the 2015 Technical Review came up with a verdict of mixed results on virtually every issue regarding food grade (high molecular weight) carrageenan.

However, there is widespread agreement that poligeenan, which contaminates food grade carrageenan at unknown and uncontrollable levels, does cause adverse effects, including cancer. In addition, the production causes adverse environmental impacts. And it is not necessary -organic processors have been moving away from the use of carrageen because of consumer pressure since it was last considered for sunset."

Michael Meade Santa Fe, NM

"Eating organically grown food has improved my personal health greatly, and I appreciate efforts like those of the advocacy group Beyond Pesticides in fighting for strong organic standards. I echo their recommendations in full with two specific areas of personal concern.

Carrageenan is a substance which causes many people digestive difficulties. I would like to see it removed from organic foods, particularly for the health of small children who are often unable to articulate just exactly what is hurting them. It does not seem to me that organic foods need any additives at all!"

Carol Mone Trinidad, CA "My first exposure to the effect of carageenan to my digestive health started roughly two years ago when I decided to switch from traditional milk to soy milk product which contains this ingredients. I didn't notice anything at first but after a while, I started to get mysterious gas, bloating, and difficulty in passing stool. I went to a gastroenterologist and he ruled out any serious health issues I might have yet couldn't offer an explanation as to why I am having these symptoms. Only later on through personal research (of scrutinizing my whole diet) that I realized it might be the carageenan that was added to the soy milk product I was drinking. By the way, I was drinking the unflavored, unsweetened soy milk product, which contains only soy milk, carageenan, and water. Not long after I stopped drinking that soy milk my symptoms started to get better but it took so long for my digestive health to return back to normal. I am not a scientist but I know what I drank and how my body reacts to it. Now I always read the ingredients label and avoid anything with carageenan."

David Muliawan Woodland Hills, CA

"I have experienced colon problems for many years, including several bouts of diverticulitis. I must follow a very unusual and rigid plan for eating which is difficult in our society which has so many blended foods and so many artificial ingredients as well as preservatives. My one eating "vice" that I have not been able to give up is a coffee/milk, sweet drink that I purchase from grocery stores. I found that it was causing stomach pain as well as other symptoms of colon problems. When I researched the ingredients online, I found that Carrageenan causes digestive problems. I immediately stopped purchasing this product and found a similar one that does not have Carrageenan or anything similar. I am a label reader and I have found other products that I am interested in purchasing but will not due to the ingredient Carrageenan listed on the label."

Linda Olander St. Louis, MO

#### Dear NOSB,

Please stop the use of carrageenan in organic products. Carrageenan has caused me many different issues gastrointestinal wise such as bloating, gasiness, and upset stomach. I do all I can to avoid this product in organic foods. Please remove it from the list of ingredients that can be used and a product still be able to be called organic.

Nadia Parker Dallas, TX

"I have been asked to comment on my issues with carrageenan. I suffered with the side effects of carrageenan for a couple of years before I read an article about them. I dealt with constant diarrhea and stomach pain. It limited my ability to live my normally active lifestyle. When I eliminated carrageenan from my diet, which isn't easy, my IBS was eased and the diarrhea was eliminated fairly quickly. I eat a mostly organic diet. I am a cancer survivor and am careful about what I put in and on my body. I find it appalling that such a toxic substance is allowed in any food, let alone organics."

Beverlee Patterson Ballston Spa, NY

"As an organic consumer, I am appalled at the fact that we can no longer trust the NOSB anymore because they seem to be more and more corrupt from the large corporations that are mass marketing what we see in our groceries stores. It shouldn't be such a fight to purchase pure food to eat. should it ? It is a real concern for a consumer who wants to stay healthy thru the use of organic food, if the sole interest of these large corporations want to line their pockets. I do not think that it should be allowed at any cost. The NOSB should stand for what their intent was from the beginning. No use of chemicals and GMO and synthetic like substances, allowed in organic food. I do not mind to pay more for organic food but do not want my food to be contaminated with all the extra garbage in it. It is not the job and mandate of the NOSB to increase profits for the Corporations who are poisoning the world.

I want to mention that Carrageenan should not be allowed in our food because it causes a myriad of health problems. There has been many many studies done by Clinical Universities demonstrating how Carrageenan causes Inflammatory bowel disease to malignancies and stomach problems. Among others, studies done by Dr Tobacman who publish 18 peer review papers on the effects and danger of Carrageenan. In 2012 she did address the NOSB urging the reconsideration of Carrageenan in organic foods Chronic inflammation is the root cause of many serious diseases including heart disease, alzheimer, parkinson, and cancer. In her research Dr. Tobacman reported that when mice are exposed to Carrageenan for 18 days they develop profound glucose intolerance and impaired insulin action, which can lead to diabetes.

I personally had problems with constant diarrhea and bowel inflammation problems before I was aware of this Carrageenan in the food I was consuming, this went on for quite a long time, until I did research on it and came to find out about this ingredient. When I removed it completely from my food, the problem that I had experience for so long, went away completely.

Please do not renew exemption for the use of synthetic in organic food production. The members of the NOSB at large have not represented me and millions of consumers like me who seek out truly organic foods only to find out that he marketplace is full of deception.

Anything that can be done to strengthen organic regulations, rather than weaken them, should be the focus of the NOSB at this time and in every meeting. Please restore my trust in the USDA Organic seal.

Trudy Paulin Agres Bennington, VT "I was drinking alot of organic almond milk that had carrageenan in it. I noticed that shortly after I was very gassy and uncomfortable. I was perplexed because of this. I did some research and found that carrageenan is toxic and has NO BUSINESS IN OUR FOOD!!

I do not ingest anything with carrageenan in it anymore and feel fantastic. I also make my own almond milk now.

Go to hell carrageenan!"

Giovanni Perna Toronto, Cananda

"I understand that there will be a submission regarding the substance Carrageenan at this meeting. I'd like to detail my experience with this additive.

In October 2012 I began to experience lower abdominal pain - bloating, diarrhea and incredibly painful bowel spasms. I was eating very healthily, lots of fruit, vegetables and decreasing my dairy intake by including soy and nut milks in by diet.

The pain increased over a day to the point where I was hospitalized. I had ultrasounds, blood tests and a CAT scan. They were ready to rip out my appendix, but really couldn't justify it as it wasn't showing signs of inflammation.

The pain continued on and off, in varying levels of severity, often causing me to miss work. I had to give up my Masters degree at ANU as I wasn't well enough to attend lectures regularly. Another attack landed me in hospital in August 2013. This time I was referred to a gastroenterologist who performed an endoscopy and colonoscopy. The results were that I was 'boringly normal' and no reason for the pain was found.

No health professionals were able to work out the cause and the attacks went on until early this year (2016). I felt that the pain might have been linked to almonds, however I found that I was able to eat the nuts, it just occurred after I'd drunk almond milk. Every time I had an attack I'd search the internet for my symptoms in relation to almond milk, and by chance this year came upon an article naming Carrageenan as a potential source. I had every symptom described, and when I tracked back my attacks to what I'd eaten I could pinpoint that it was the cause: soy milk, almond milk, icecream, yoghurt, even toothpaste, all containing Carrageenan or additive 407 as it's often labeled.

Not content to just take it at face value I undertook my own test. One soy milk latte was all it took to confirm it. The pain returned. A second one the next day intensified the symptoms. I didn't go back for a third try. I did the same thing a couple of weeks later with almond milk containing the additive. Same response. Then I made my own almond milk and tried again, just to be sure it wasn't the nuts. No reaction at all. A couple of weeks later I had an icecream - a Magnum. That night I was in agony. Checking the label it contains 407.

Now I check everything carefully, and I've found this is so many items. I'm lucky in that I cook, and we eat very healthily - fresh vegetables and fruit every day, good quality meat. However some yoghurt, all dairy whip creams, most icecream and all shelf stable soy or nut milks are out now, as are some brands of toothpaste and some soups. While I can control what comes into our house, I can't control what is used in the ingredients in my food outside of our house. This is a challenge when eating out and does have an impact.

This substance is harmful. The smallest amount of Carrageenan will mean that I miss work, school and / or social activities and causes me pain that I rank right up there with gall stones. I honestly live in constant apprehension that I haven't been vigilant enough and I'm going to ingest some. I don't think Carrageenan should be in ANY foods (or anything else like toothpaste), but least of all Organic ones. At least that way I could be sure of one clearly labeled food source that I knew was safe.

Ann Perry Bonner, Australia

My family and I suffer substantially from the effects of carageenan, severe stomach cramps and symptoms that resemble IBS. My children endured months worth of doctors appointments, colonoscopy and endoscopy session, months of taking the poison miralax, all to no assistance at all. I removed carageenan from their diets, guess what happened? Symptoms went away. We have kept carrageenan out of our diets for 4 years, and no severe stomach cramps or IBS like symptoms.

This lab based substitute is not a substitute for the real thing. Let's use real food, real ingredients.

Marney Pietrobon Houston, TX

"Several years ago I started having severe gastrointestinal problems. I had diarrhea, abdominal cramping, rectal bleeding and intense abdominal pain. The diarrhea would come so suddenly sometimes that I had only seconds to get to a bathroom. It was also explosive at times. I did not like the idea of going to the doctor and being probed so tried to find the cause myself. I watched my diet, avoiding greasy food, spicy food, eating more fiber...which actually made the symptoms worse. Nothing I did provided relief. Thinking back to about 15 years ago when my son was having some problems, I did some research and found his symptoms could be caused by food additives, I changed his diet and he was perfectly fine after a short time. So I did some research again and found that carrageenan causes all of the problems I was having. The only thing I did not change in my diet was the coffee creamer I was using. It contained carrageenan. I stopped using it right away and I no longer have those problems. What a relief. On occasion, I will have something before checking the ingredients and if those symptoms come back, I then check to see if it had carrageenan and sure enough, it did. I little bit of that stuff goes a long way. I wonder how many people suffer from the same problems and make trips to doctors to figure out what is wrong with them,

when it might be as simple as checking the ingredients. I do hope the comments of people who are suffering will help get harmful and unnecessary ingredients banned from the food we eat and drink. It is disturbing to know that some of the additives are considered toxins and are banned for other uses but are allowed in our food. Other countries around the world realize this and do not allow the use of poisonous additives in their food. I hope we will follow suit so people will stop getting sick from eating 'healthy' food."

Rebecca Prichard Oak Harbor, WA

"I have a story to tell. Around the year 2005 I started having spells of nausea and light headedness. Gradually I started with vomiting episodes. Eventually I started having weekly sickness. I would wake up in the middle of the night and crawl to the bathroom, because I was too sick to walk. I would empty out with diarrhea and vomiting. I came to keep a pillow and a blanket in the bathroom. Afterwards, I would walk back into bed, fall asleep, and wake up the next morning as if nothing happened. Sometime around 2010 I saw a gastroenterologist who ordered a number of tests for me: colonoscopy, endoscopy, barium swallow, small bowel follow through, the pill camera, and numerous blood tests. Nothing appeared that would help to explain these episodes. Out of desperation I decided to do some research on the foods I was eating. I was going to eliminate something (one at a time) from my diet. Right about that time, I read about the chemical, carrageenan. I discovered that this chemical was in my daily Carnation coffee creamer (no sugar added), fudge (no sugar added) bars, frozen custard, most of my ice cream, cottage cheese, and vogurt. I need to add that I am not lactose or gluten intolerant. All of these food were consumed by me almost on a daily basis. Note: Carnation now makes some carrageenan-free creamers. Sometime around 2013 I chose a day to get rid of all of these products from my diet.

FROM THE DAY I ELIMINATED ALL FOODS WITH CARRAGEENAN, I STOPPED MY EPISODES. I HAVE NOT BEEN LIGHT HEADED OR HAVE NOT VOMITED (EVEN ONCE). These is no doubt in my mind that my intestines could not handle the build-up of this chemical in my body. I would manage for most of the week, but at some point I believe it created some type of blockage and caused me to be sick. I never thought it would be possible to not fear going to sleep at night. It has been over three years and I am so happy. I would consider coming to your conference in St. Louis, but I cannot afford the travel expenses. I would gladly answer any questions or provide documentation, if necessary.

Respectfully submitted,

June Rapowitz Rochester, NY

"A couple years ago I went on a special elimination diet for health reasons, to identify which foods might be causing me adverse effects. During the diet, I had to give up 7 specific foods and journal everything I ate for 21 days. Almost immediately after starting the diet, I began to have terrible stomach cramps and nausea. I thought maybe my body was going through

"detox" because I was eating so much healthier, and hoped it would go away. Unfortunately the problem continued to get worse. After about 2 weeks, I could barely function. I went to work one morning and was doubled over in so much pain I couldn't stand up. My boss suggested I go to an emergency hospital, that perhaps it was appendicitis. I endured several hours of testing, but the doctors could not determine what was wrong with me. They thought it might be a gall bladder issue. This didn't make sense to me since I was eating extremely healthily. I went back to my journal and reviewed everything I had eaten in the past 2 weeks. There was nothing new in my diet that I hadn't consumed before except for one thing, almond milk. One of the food groups I was required to eliminate was dairy, so I had switched to almond milk as a substitute for cow's milk. I couldn't understand how almond milk could be the cause, so I researched any possible reasons but came up with nothing. I knew I didn't have a nut allergy as I ate almonds all the time without a problem. Nevertheless, I immediately stopped drinking almond milk, and my symptoms completely went away. I had no idea why and asked my doctor if there was any possibility that almond milk would cause such terrible pain. She knew of no correlation. Almost a year passed and after talking to numerous people about this experience, I still had no answers. Then one day, I was having a conversation about this with a coworker and casually mentioned how I suspected the almond milk, but could not find any evidence to back my suspicions. Low and behold, her mother worked at a factory that produced almond milk, and she said "you wouldn't believe the junk they put in that stuff". I was shocked. How was it possible anything unhealthy could be put into organic food? I quickly researched the extra ingredients in almond milk, and then researched any ill effects they might cause. That's when I hit upon carrageenan. I nearly fell on the floor! Finally, I had my answer. There was no doubt in my mind anymore, because the symptoms I experienced were exactly as described by so many others who suffered from consuming carrageenan. Please do not continue to allow people to unwittingly ingest this terrible ingredient!"

Doreen Regan Eden, NY

"I would recommend that Carrageenan be removed from all foods and never be allowed to be added to organic foods. These additives have a horrible effect on some people and I happen to be one of them. I can no longer purchase many of my favorite weight control dinners such as lean cuisine because of the use of Caraggeenan. The bad things are the products that you are not aware of with the ingredient list being so small you can easily miss. Eating Carrageenan for me is like taking a hand full of laxatives everything goes right through me and have terrible gas pains. When you add these things to products it takes people like me a long time to figure out what is causing the problem because the ingredient lists are a mile long on most of these products. This product is as bad as sorbitol."

Thanks Sharyn Rennick, RN CNOR CRNFA Port Republic, MD "Please do not allow carrageenan in "organic products"."

Jean Saja Raymond, MS

"I would like to share my experience with consuming food products containing Carrageenan. I experienced numerous health complaints that slowly, but continuously got worse over about 5 years.

These included digestive issues consisting of severe gas, bloating and cramping, urgent diarrhea, nausea, extreme flatulence, constant belching and acid reflux. There were other symptoms too: all of my joints ached - especially the hips, knees and lower back; my muscles ached; I had severe night sweats where I awoke completely drenched; I had daily headaches and experienced pain behind my eyeballs; my balance was poor; and I had an overwhelming sense that something was terribly wrong - a sense of doom.

Coming from a very physically active background in competitive sports, my life was very altered by the age of 42. I couldn't sleep well because my back and hips ached too much, I couldn't exercise because of the joint pain and severe abdominal gas and pain, I had difficulty working because it was hard to concentrate and my eyes hurt to focus, it was difficult to be intimate with my husband because I was sore, bloated and essentially depressed.

I had numerous blood tests, tests for MS, ultrasounds, but everything kept coming back normal. No doctor had a solution for me. They also suspected the wrong possible causes, which (if pursued) would have led to ongoing incorrect treatment, and dependence on pharmaceuticals rather than a true solution.

However, I suspected that the cause had to be environmental since my symptoms had subsided during a two-week visit to my mother, and then recurred when I returned home. During the visit I drank no coffee - only tea. However, the symptoms returned at home even while avoiding coffee. Then one day I noticed a sentence in a magazine article that read, "Carrageenan may cause inflammation" and I thought "that's it! - it's the cream I use!" That day I quit consuming my organic soy milk containing carrageenan and I carefully read ingredient lists to avoid carrageenan in all other foods. Within two weeks I felt like a different person - my joint and muscle pain was almost entirely gone, the gas, bloating and other digestive symptoms decreased substantially, my mood lightened and I had more energy.

I was relieved to have found the cause of my health concerns, but was left with an extreme distrust of the food industry - even my "go-to" organic producers. I now avoid almost all manufactured food from a package. I hope that the organic food producers (and all food producers) will remove carrageenan from the food system to spare other innocent consumers the negative and life altering side effects of this unnecessary food additive."

Lynn Sanderson Duncan, Canada "Dear National Organic Standards Board:

Please ban the use of carageenan in organic foods. In an effort to get more soy into my diet, I started using Silk soymilk about three years ago. I developed GI tract symptoms, specifically urgent need to defecate, feeling of incomplete evacuation, and abdominal spasms. About six months ago, I read about carageenan and consulted my doctor. He said to stop consuming it. I stopped using Silk and saw an improvement in symptoms in just a day or so. I called the manufacturer of Silk, and they assured me they were reformulating their product without carageenan. I have seen the new packaging for Silk in the last couple weeks, and now they use gellan instead of carageenan.

I eat little processed food and was easily able to avoid consuming carageenan - though it meant avoiding certain cottage cheeses and most ice creams and frozen desserts. When I ate frozen yogurt, symptoms returned. I went online and researched the ingredients, and carageenan was included. The same thing happened with Baskin-Robbins ice cream, so I called the store and asked if it contained carageenan, and they confirmed it did.

From my experience, I think carageenan should not be allowed in organic food or conventional food either."

Thank you. Jean Shepard Davis, CA

"As a consumer I want stringent organic regulations, so that I can trust the USDA Organic Label. I do not want synthetic ingredients in organic products and I expect ALL synthetic products considered for use in organic products to strictly adhere to [7 USC 6517(c)(1)(B)] and [7 USC 6517(c)(1)(A)].

Also I urge to you remove Carrageenan as an allowable substance in organic products. There are too many potential health concerns with this substance, that as a consumer, I do not wish to risk having this substance in organic products. Carageenan is often contaminated with poligeenan, which is a known health threat.

Sally Small Indianapolis, IN

"I am extremely sensitive to all forms of glutamic acids, one of which is carrageenan. I can eat tomatoes, mushrooms, etc. in limited amounts safely, but the more concentrated, processed forms are to be avoided at all costs.

After limited, inadvertent exposure, I am ill for 3-6 weeks before it can work its way out of my system. I rarely if ever eat any processed foods, and only those whose label has been closely

examined. It is very limiting and has made travel and dining anywhere but in my own home more and more difficult as these chemicals have become more and more pervasive in our food supply.

It would be wonderful to be able to go to the grocery store and buy a gallon of milk, almond milk, or a carton of ice cream without worrying if it was going to make me ill for weeks to come.

Any help with removing carrageenan from the food supply would be greatly appreciated. In my youth, I used to just have to avoid Campell's soups. Now, I have to avoid almost any foods that come out of a food manufacturing plant. It has made life difficult over the years. I cannot even partake in a church pot luck or a neighborhood dinner for fear of what might be in the food."

Donna Smolik Fort Worth, IN

"Please remove carrageenan from the list of exempt (allowed) food additives under the organic standards for the following reasons.

Carrageenan is derived from seaweed, which is not produced in accordance with the organic standards, and it can be processed with substances that are prohibited in organic food production. Carrageenan is therefore prohibited in organic foods; however, the organic law allows for exemptions, and carrageenan appears on the list of exempt (allowed) materials. The organic law puts in place many safeguards. It allows for the five-year use of prohibited substances only if the use of the substance meets all criteria outlined in the law: it has to be essential, not harmful to human health or the environment, and compatible with organic production. In the case of carrageenan, scientific studies raise serious concerns with the safety of carrageenan and its impact on human health. I believe carrageenan should therefore not be allowed in organic foods.

The NOSB should use the Precautionary Principle when making its decision on whether carrageenan meets the criteria in the law. It is nearly impossible to "prove" that a material is harmful to human health, in part because human experimentation is unethical, so we rely on data from animal studies and cell studies. If scientific evidence using animal studies and cell studies strongly points to harmful effects, as is the case with carrageenan, the NOSB should err on the side of caution and protect the safety and health of consumers.

With carrageenan, a substantial body of scientific evidence exists. Research shows that the type of carrageenan used in foods can cause inflammation. Inflammation is well-known to be the basis for many human diseases, including inflammatory bowel disease, rheumatoid arthritis, and arteriosclerosis. Inflammation is also linked to cancer. Laboratory research has shown consuming carrageenan can cause ulcerative colitis-like disease and intestinal lesions and ulcerations in some animals. Additional studies in animals have shown carrageenan may act as a promoter of colon tumors.

Research, including industry-sponsored research, shows that consuming foods with carrageenan can expose consumers to degraded carrageenan (carrageenan with a lower molecular weight). This raises concerns, since degraded carrageenan is classified as a possible human carcinogen (group 2B) by the World Health Organization's International Agency for Research on Cancer (IARC).

Recent research suggests that carrageenan may also contribute to insulin resistance and to the development of Type 2 diabetes.

There is a history of colon cancer in my immediate family and I choose organic foods for that reason. Please act to maintain the integrity of the organic standard by removing carrageenan from the list of exempt (allowed) food additives.

Thank you for your consideration."

E Peterson Hall Wilmette, IL

"I support Consumer Reports and others who are calling for the removal of carrageenan from organic food. As carrageenan is derived from seaweed, this is especially important now when the Pacific Ocean is contaminated with radioactivity from the Fukushima disaster. People want and need organic foods to remain healthy; not only radioactivity, but pollution and contamination go hand in hand with carrageenan."

Ellie Strand, RN, APRN Eau Claire, WI

"I strongly encourage the removal of carrageenan from regulated organically labeled foods."

David Strunk Pheonixville, PA

"As you make the decision on whether carrageenan should be allowed in organic foods, I wanted to comment. I have to avoid it completely - I get terrible migraines anytime I ingest it. I have to be careful to watch for it, and I've been surprised at all the foods it's added to. It would be so nice to buy organic and know I'm safe from it! I have the same reaction from MSG, so it concerns me, wondering if carrageenan could contain some naturally occurring MSG. I hope that you will decide that it can't be in organic foods.

Thank you for accepting comments on this!"

Melissa Sturm Cashion, OK "Carrageenan makes me ache the whole next day after I eat something containing this chemical. It took me quite a while to figure it out, but I did, so now I avoid anything with carrageenan in it. I see it described as "natural", but that doesn't mean it should be eaten. Hemlock is a natural ingredient too, but that doesn't mean we can eat it.

I notice that carrageenan is being used less and even banned from some foods. This is good for me. I don't want to ache all day after eating something which does not need carrageenan to taste good.

PLEASE! Allow me to feel good and not fear ingredients in my foods for fear of pain."

Sandra Sutherland Bozeman, MT

"To: National Organic Standards Board

I had been drinking Diamond Almond milk for two years, and had developed Irritable Bowel Syndrome. My doctor's ordered a Colonoscopy and Ultra sound. My problem was IBS-D. Symptoms were continual Diarrhea, but my doctor's could not solve the problem.

I began doing research on the Internet, concerning the ingredients in the Diamond Almond Milk.. When I looked up Carrageenan I found an extensive blog on the subject, with many comments by consumers who had been suffering with the same type of symptoms that I had developed.

I have been off of the Carrageenan products for a year, and have not had the Diarrhea symptoms. The change was so remarkable that there was no question that it was the Carrageenan in the Diamond Almond Milk that created the problem for me.

In my search for another brand of Almond Milk, I came across a new brand, CALIFA, Almond Milk. It was stunning to see that across its label was, "No Carrageenan". So, that is a definitive answer to my suspicions. Carrageenan is a serious problem that should have been banned back in the 1980's, when the FDA first considered it. Why has it taken so long???? More and more the public are learning that the manufacturers, a good many, are more

interested in profit, than people

Thank you for letting me be a part your study. Lynn Thomas Summerfield, FL

"Dear National Organic Standards Board (NOSB):

Please have the additive carrageenan banned from organics. I have a severe reaction to this

ingredient after ingesting even small amounts. The symptoms are like a combination of gastroenteritis - diarrhea, cramps, nausea, vomiting, low-grade fever, and dehydration - and an autoimmune response - inflammation and aching of joints. The acute symptoms last for about 8 hours (during which it is impossible to keep food and water down) and it usually takes a full 24 hours before I can resume normal activity. After making the connection, I documented and submitted my experiences to the FDA in 2014 (see attachment). Carrageenan is not safe for me and I avoid it at all cost. This is difficult as many restaurants and bakeries do not provide complete listings of their foods' ingredients. There may be countless individuals who cannot tolerate carrageenan but have not realized that their gi inflammation is caused by a single additive and is not just a generalized reaction to consuming various meat products, dairy, non-dairy substitutes, candy and desserts. In addition to my personal experience, please consider the evidence-based studies correlating carrageenan exposure with ulcerations and neoplasism in animals. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1242073/ "

Thank you. Megan Tonkovich South Salt Lake, UT

"I am writing in regards to my experience with Carrageenan. I was working on loosing weight but would lose day after day and then gain 2 to 4 pounds in 1 to 3 days. I started tracking everything I ate. I thought I was on a whole foods diet. After 6 weeks of tracking all my food, daily weight and fasting blood sugar I went back to the days I gained 2 or more pounds. What I found was that I had eaten cottage cheese the previous day. I always considered cottage cheese a whole food because my grandma made it with milk and vinegar only. I got the container and looked at ingredient list. Carrageenan was on the ingredient list. I looked up each ingredient and any possible side affects. I found a lot of information on Carrageenan. The information said it could cause inflammation, gastro-intestinal problems and insulin issues. It obviously caused inflammation. That is where the 2 to 4 pounds came from. I then looked at my fasting blood sugar. For 3 days after eating the Carrageenan it was elevated 15 points above normal. I am not a diabetic or even prediabetic. Normal range is 80 to 90. After Carrageenan it was 105 to 110.

I would love to see Carrageenan and other processed emulsifiers / thickeners removed from all food. But at the very least please remove Carrageenan from our organic food. I would love to be able to eat cottage cheese again, but the only cottage cheese I can presently eat is homemade, no additives.

I believe these additives are part of the cause of obesity. For the 6 weeks I tracked my food before I found out what Carrageenan was doing to me I lost 1 pound on a 1200 to 1400 calorie diet. I weighed 265 at the time so weight loss should have been more. When I allow food additives as well as vegetable oils back in my diet I start gaining weight at a horrendous rate.

Please remove this obvious nasty additive from our organic food. There are times when I am

busy and would like to purchase food already prepared, but can't because of additives. So until this junk is removed from our food I will continue to eat an whole food diet."

Elizabeth Townsend Bridgeville, PA

"Dear National Organic Standards Board,

I strongly urge you to disallow the use of carageenan in foods.

Several years ago I began getting frequent headaches, very painful, like a tight, pounding band around my head. This was generally accompanied by a sort of spacy, drowsey, disconnected feeling. Even when I tried to handle the headaches, the spacy, disconnected feeling would persist, making it hard to concentrate and work.

Wondering what had changed, I began thinking about my diet and that I'd been eating ice cream on a regular basis, so I looked at the ingredients and found something I'd not noticed before, carageenan. I then switched to a brand of ice cream that had no carageenan -- no more headaches! I knew at that point that I had to stay clear of carageenan. From what I've read since, I am far from the only person that experiences adverse effects.

Over the years I've been surprised and angry to witness the increasingly widespread use of carageenan, in everything from almond milk to cottage cheese and cream, and almost all of the supposedly healthy brands of toothpaste. It is very important to me to have access to healthy foods. Foods that are marketed as being healthy, and especially organic foods, certainly do not need to have strange additives mixed in. Carageenan, in my opinion, shouldn't be allowed in ANY foods, and definitely not in organic foods. When I buy a carrot, the contents should be just that, a carrot. The same goes for almond milk and other products."

Thank you,

Tom Valdez Newhall, CA

"I am writing regarding the issue of carrageenan in organic products.

My personal experience is that, for me, carrageenan is a harmful ingredient. My body reacts with "extreme gastrointestinal distress" when consuming even small amounts of products that contain carrageenan. Initially, as a teenager, I had wondered if I was extremely lactose intolerant because of the pain, bloating, gas, cramps, and diarrhea I would have for hours after consuming a single bowl of ice cream. I had never had issues consuming plain whole milk, however. So, I tried switched to an ice cream brand that contained only milk, cream, sugar, eggs, and flavor, all symptoms went away. Over the years, I have consumed different dairy products that contain different stabilizers. Guar gum causes a very slight reaction, but

it normally passes within an hour, while only carrageenan causes symptoms of such an extreme hour than can last over 6-8 hours before they subside.

It has also gotten increasingly difficult to find dairy products that do not contain carrageenan. Whole Foods and Whole Foods Brand 365 are one of the few reliable markets where I can find carrageenan-free dairy products, and especially carrageenan-free heavy cream. I really hope that this meeting decides that the damage caused by carrageenan, even if to only a small percentage of the population, is serious enough an issue to have it removed from the organic products that we should be able to trust." Stephanie Wade Brookly, NY

"I was having stomach pain and was gaining weight (or bloating) very badly. I gained about 20 some pounds, all in my abdomen, and experienced a lot of discomfort. I went on line to find out what I might be eating that was causing this. I was drinking a lot of vanilla soy milk and eating ice cream. I noticed when I brought up carrageenan, there were many people with the same problems I had. I stopped drinking the soy milk and quit eating the ice cream and my stomach quit hurting and the weight went away quickly. Since I stopped eating anything with carrageenan, I have not had any problem of this sort since. I do have to say that once in a while I will eat something that causes me to bloat, but it goes away within a few hours. I do hope that if they remove carrageenan from foods, that they can come up with a replacement that does not cause the same or worse issues in order to give foods substance. I would rather have less dense foods that do not contain harmful additives to increase the density."

Penny Wages Denver, CO

"Hello Members of the National Organic Standards Board-

I am writing to convey my concerns regarding the food additive carrageenan. One day I found I had terrible stomach cramps and other gastrointestinal issues. Not thinking anything of it, I went about my business, but it happened again the next day. I was very uncomfortable and wanted to isolate the cause, so I took to my fridge and cupboard and searched the web for every ingredient in what I had eaten to see if I could pinpoint the cause. Luckily I hadn't had much that day, just cereal and organic soy milk. It did not take me long to find the list of articles and studies about the side effects of a carrageenan intolerance. Since that time I have avoided consuming carrageenan, no matter how far down on the ingredient list it is, because I always have adverse side effects. Times where I have failed to check the ingredients, I usually find out within 12 hours if I inadvertently had any carrageenan, as the intestinal distress comes back.

More and more people are trying to eat healthy, and choosing organic foods to do so. I know that carrageenan is often used in place of gelatin, but I do believe if more health conscious people knew about how dangerous it was to long term health they would choose to avoid it. I

am speaking to the findings that carrageenan can be a causal factor in cancer, Alzheimer's disease, and Parkinson's disease, due to the inflammation it can cause with prolonged consumption. I did not always have an intolerance to carrageenan, it happened, I believe gradually, as at the time I had the incident with the organic soy milk, I had been drinking that particular beverage for a few years. My doctor tells me that one of the side effects I have when I consume carrageenan is a result of intestinal inflammation. I know I am only one case, but considering the evidence I think it is worth the government paying attention too. There is no reason that an additive that can cause so many issues for so many should be continued to be allowed in foods, organic foods specifically. I hope you consider banning this additive from the list of allowed additives for organic foods.

Have the courage to take this step, so other food markets can follow suit!

Thank you for your time." -Elizabeth Wilkerson Odenton, MD

"Please do not permit organic food manufacturers to use carrageenan as an ingredient, better yet, please eliminate it from all foods. It is problematic for my family to ingest and we carefully read labels to avoid it. Thank you."

Barbara Wilkus Cary

"We oppose the relisting of carrageenan on 205.605(a) and believes that the substance should be removed from the National List. Carrageenan should be reclassified as a synthetic. The NOSB must take a precautionary approach when assessing the studies of health effects of carrageenan. Even giving equal weight to industry-supported and independent research, the NOSB must accept the existence of science pointing to serious health consequences associated with the consumption of carrageenan and act to protect organic consumers. The evidence summarized by the 2015 Technical Review came up with a verdict of mixed results on virtually every issue regarding food grade (high molecular weight) carrageenan. However, there is widespread agreement that poligeenan, which contaminates food grade carrageenan at unknown and uncontrollable levels, does cause adverse effects, including cancer. In addition, the production causes adverse environmental impacts. And it is not necessary -organic processors have been moving away from the use of carrageen because of consumer pressure since it was last considered for sunset."

Dennis Wolff Cave Springs

"Please National Organics Standards Board, please do not renew exemptions for the use of synthetics in organic food production and please don't grant any new exemptions.

Carrageenan is dangerous to our health and should NOT be in organic foods. I would like to tell you about my experience with this additive. In January of 2007 I became vegan because of my love of animals. I began drinking soy milk, Silk vanilla to be exact. I enjoyed it thoroughly for two years until the spring of 2009 when i began having diarrhea almost daily. This continued on for several months until i remembered that my medical guru, Dr. Andrew Weil, said in his website that we should not consume carrageenan because it might cause gastrointestinal issues. I had ignored this information because the Silk soymilk tasted so good.

At this point i went to the grocery store and found a soymilk without carrageenan and began drinking it instead of Silk. Low and behold, my diarrhea ended. I have no gastrointestinal issues now whatsoever unless i consume a product with carrageenan which occasionally i do because i have not read the ingredients list. Example: a few weeks ago i ate a Choco Taco, an ice cream bar. The following day after eating the ice cream bar i had diarrhea all morning. There is no doubt in my mind that carrageenan is a dangerous substance that should not be in our food, especially our organic food. Thank you for listening."

Suzanne Zinsel New York, NY

"Aloha NOSB Members:

For your information our family operates a certified organic farm in Hawaii and until January, 2016 I served for five years as an actual farm operator member of NOSB, which included discussing and dealing with subjects specifically including the one this comment is about (Carrageenan).

Thank you for your time in consideration of my perspective regarding the organic Handling use of Carrageenan (CAS # 9000-07-1) as listed in 7 CFR 205.605(a) Nonagricultural (Nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))."

From all of the materials presented and all of the reading and listening and discussions regarding this material over the past more than five years now, it is very clear that for several reasons, that there is no logic to permitting it to remain on the National Organic List.

That the vote within the sub-committee after complete and serious review is where it stands with very commendable thorough consideration of the "facts" available, re-assures me that despite some pressure from industry interests that the integrity of organics and the reality of the needs at hand can be met through all NOSB vote to remove this un-necessary and should have been removed material from the List at this time.

Please recognize that the whole purpose of permitting materials like this into organic products is simply until organic alternatives are available and only while the human and non-human health impacts are certainly safe and that no environmental impacts with negative consequences are on the table, so to speak.

In so many ways the reviews and considerations again (like five years ago) demonstrate that questions still remain and further that alternatives are in use by those who so choose. There is simply no rationale to retain this material on the List and it is my humble request that at this time you all vote to remove as recommended by the sub-committee."

Sincerely Yours, Colehour Bondera Honaunau, HI

"I first began to wonder if I had a food allergy to seaweed when I was in the 4th grade. This girl in my class had traveled to Japan and returned with a box of crackers made with seaweed. I became immediately and violently ill after trying one. After a stubborn attempt to try sushi as a teenager and a mistaken seaweed salad order at an Asian fusion restaurant in my 20s, I was pretty convinced that seaweed was my own personal kryptonite. Seaweed is not one of the standard items on an allergy test, so it was a few years later when my theory was first confirmed by an allergist. This was after realizing it was the spirulina seaweed in my new vitamins that was causing the irritating hives (urticaria) appearing on the palms of my hands. All in all, I guess it was a pretty easy food allergy to have compared to, say, people who have to avoid something as ubiquitous as the peanut. Basically stay away from sushi and no worries, right? Well, it WAS easy... until somewhere near the end of 2012.

I didn't know what exactly had changed, but it seemed like my allergic responses were becoming more and more intense with each passing day. The hives persisted on my palms, but it was even more horrible on the soles of my feet. The itch from a hive is a special kind of agony; it is felt in the blood and the body aches for the relief of a scratch that can never be achieved beneath the skin. Hives began appearing on my neck and chest too. My hands and feet would frequently swell due to mild anaphylaxis thereby causing the simplest of tasks such as holding the steering wheel, turning a doorknob, or walking in shoes to become grueling pain points of my daily existence. Some days, fleeting thoughts of freeing myself from the painful itch by amputating my limbs would pass through my head leaving me to wonder if I was truly losing my sanity.

These unexplained symptoms, compounded with regular nausea and excessive sweating, left me miserable and full of despair by the beginning of 2014. It was thanks to some dental work, actually, that I finally caught a break. With a temporary crown in place for a couple of weeks, my bloodstream was more easily accessible to food allergens. I noticed that my daily hives and other symptoms were starting earlier in the morning, before I had even eaten anything! It was on that life-changing day, I noticed a mysterious ingredient listed on my toothpaste tube...

Well, it should not be any mystery to this panel reading my story that my agony was due, in part, to the decisions made during your 2012 vote on carrageenan. When the NOSB opened the door for carrageenan to be considered an organic ingredient, the NOSB also paved the way for food companies (and apparently toothpaste companies) to liberally add carrageenan to their products, without even so much as a "CONTAINS SEAWEED" warning. You see, most

people are not aware that carrageenan is seaweed. Once upon a time, it would never have been considered reasonable to expect the average consumer to look out for seaweed in ice cream, lunch meats, or salad dressings! Setting aside my disbelief that a substance like carrageenan can actually be legitimately certified according to organic standards, is the NOSB genuinely confident that their previous decision was made for the welfare of the American public consumer?

I wonder if any of the NOSB members have tried removing carrageenan from their diets, even for just a week? It's not easy because the ingredient has become so prevalent due to its widespread acceptance over the past few years. But I will bet you money that you'll discover that you feel better without it too. Try it! It turns out, after my discovery a couple of years ago, removing carrageenan from my household had another glorious, unanticipated result. My husband, who lived for years accepting that his daily bouts with irritable bowels was just a part of life, became suddenly free of his unpleasant and persistent digestive symptoms. Poof! Gone!

It's no question that we treat carrageenan as a toxic ingredient in our home and we actively try to avoid it by being conscious, educated consumers. Perhaps the NOSB could make it just a little bit easier to be healthy ones too if they just discourage the use of such harmful and dangerous ingredients."

Janis Flanagan Waldorf, MD

"It is extremely important that organic standards are maintained, especially now that foods are contaminated with GMOs. Also, I am concerned that to approve carragenan as an ingredient in organic foods is risky as there is research finding that it can cause cancers. It is not a necessary ingredient in yogurts and nut milks, etc." Evelyn White Hawthorne, NY

"I first heard the word carrageenan when my wife told me it was the allergen behind her constant misery. I had never heard of it before. When she told me what it was made from, it started to make sense why she was breaking out in itchy severe hives for no apparent reason. Words are hard to find to explain the panic one feels when in the emergency room while their loved one suffers from unexplained anaphylaxis shock.

When we stopped purchasing products with carrageenan and kept it out of the house, my wife felt no symptoms. What was strange was that when I stopped eating the stuff, my own health improved. I used to think that once a week diarrhea was normal. When I removed carrageenan from my diet, I had no diarrhea. I was surprised about the positive health benefits I received when removing carrageenan from my diet.

Unfortunately, when we went to visit family for the holidays, they often served or prepared foods with components containing carrageenan. This made it difficult to enjoy family meals for the fear that anaphylaxis might happen again. The same is true for going out to restaurants. We only spend our money now at the very few restaurants that do not use carrageenan in their foods.

Carrageenan is an allergen that has had serious health effects in a person I love very much. Please reconsider regulations for this product in light of recent international research in infants and children, peer review research in primates, and letters like this one."

Sincerely, John Flanagan Waldorf, MD

"Dear NOSB:

I am a registered dietitian who supports and promotes organic food and farming to protect our environment and public health. I frequently speak and write for consumer audiences explaining the benefits of organic food and agriculture. I am writing because I want to protect public health, the safety of organic food, and the integrity of the organic seal.

Consumers often choose organic foods because they trust them to be among the safest on the market, free from potentially harmful residues and ingredients. If an ingredient with known or even questionable safety is included in an organic product, the consumer loses faith in the integrity of the organic seal.

The inclusion of carrageenan in organic products, especially organic infant formulas. Since public health and safety concerns have been raised about this ingredient, and the ingredient is not essential, shouldn't we err on the side of safety and promote the use of alternatives? Let's protect our most vulnerable citizens, our children, as well as the integrity of the organic label, by not allowing carrageenan in organic infant formulas in particular, as is consistent with EU regulations."

Thank you for your consideration, Melinda Hemmelgarn, M.S., R.D. Columbia, MO

"...there is considerable bona fide evidence that carrageenan has a negative effect on the digestive tract. While this evidence itself should be enough to remove carrageenan from the National List based on precaution alone, it is particularly troubling that the negative effects of carrageenan present themselves in the gut, because the role of the gut biome – removing toxins, absorbing and generating nutrients, and generally modulating the human immune response – is now front and center to disease research. We cannot expect to fix health conditions caused by toxins unless we remove the toxins. We cannot expect to fix health conditions caused by chemical residues and synthetic ingredients unless we remove those residues and synthetics. Carrageenan appears to be (or degrade into) a synthetic toxin that

may cause harm to human health. Consistent with the mandate of OFPA, it should therefore not be allowed in certified organic products...

...Many natural food retailers have already begun to eliminate some certified organic products and suppliers because, despite their certified organic status, their quality attributes are inadequate: they don't support the desired OFPA outcome. The USDA and NOSB seem to have allowed the OFPA's original desired results to be modified far outside what organic consumers believe is promised by the organic seal. Natural food retailers continue to create new standards above and beyond USDA organic for meat, eggs and dairy, because the NOSB has at times failed to continually improve the OFPA's allowed/excluded organic substances and processes. While they will continue to defend and promote the organic seal, consumers are more and more suspicious that it does not deliver fully on its promise.

Therefore, I ask that the NOSB remove carrageenan from the National List. Let's make organic standards stronger, not change what organic means."

AP Lewis Boulder, CO

"In February of 2013 I began to eat Applegate Farms Organic Roasted Turkey Breast frequently. Within a month of eating it about twice a week, I began to experience severe digestive problems which I had never had before. Things got so bad, I was afraid to leave my house as I needed to be near a bathroom five times a day.

This went on for months until I came across cornucopia.org's information about carrageenan. It was listed as an ingredient in Applegate Farms Turkey. It sounded like it could be the cause of my problem.

I stopped eating the turkey. Within a few weeks, I began to feel slightly better, but it was about four or five months before my digestion returned to normal and I was no longer plagued by pain, urgency and way too many trips to the bathroom.

This ingredient has been shown to cause intestinal inflammation and has been linked to cancer and diabetes. It has no place in organic, or any, food and should be banned immediately so that others don't suffer as I did.

Some in the food industry claim carrageenan has replaced less healthy stabilizers derived from animal fats. But many organic producers, such as Organic Valley, have heard about the devastating effects carrageenan has had on consumers and replaced it with non-animal substitutes, like gellan gum, which do not cause intestinal inflammation and can be enjoyed by vegetarians and people who follow kosher and halal requirements.

One spokesman for the food industry even went so far as to claim that carrageenan is "essential." One can only wonder how anyone managed to make and sell frozen desserts, roast turkey, and heavy cream before its use became widespread.

Finally, and most disingenuously, the food industry urges you to "focus on the facts rather than unfounded science promoted by special interests." Respected medical researchers at such institutions as the University of Chicago School of Medicine and the University of Illinois, have found carrageenan to be harmful. The only special interests they are promoting are mine and millions of other American consumers. Indeed, I have a very special interest in maintaining my health and, although I have become an educated consumer and know how to do that by avoiding carrageenan, many others do not.

Therefore, I urge the National Organic Standards Board to remove carrageenan from the list of allowed inorganic substances in organic food under 7 CFR 205.605(a).

Thank you for your consideration."

Ellen Kessler New York, NY

"The following is my experience with carrageenan. I learned about carrageenan during the summer of 2015. I had read an article online and after further research decided to remove carrageenan from my diet. During the following weeks my life was changed. The first thing I noticed was that I was no longer having loose stools or diarrhea at a random time period between episodes, albeit regular basis. The second thing I noticed was that my hemorrhoids stopped swelling up and causing rectal bleeding. I am a 58 year old male and have suffered from hemorrhoids since my early thirties. The third thing I noticed was that after several weeks my rash started going away. This rash was covering my chest, stomach, back and upper arms. The rash basically consisted of small light red dots to small pimples with the largest sometimes erupting. The largest of these dots and pimples were about 1/8" in diameter. The rash was fully gone after approximately 4 more weeks.

After I was asked to share my experience in September I decided to verify my problems with carrageenan. On Saturday, Oct. 8th, I started eating one scoop of ice cream twice a day that had carrageenan as its last ingredient. Monday morning I noticed my hemorrhoids were swelled up and causing rectal bleeding. By Tuesday I was having loose stools and diarrhea. Thursday morning I had the worst rectal bleeding episode I have ever had. Usually the bleeding is during a bowel movement but Thursday morning I started bleeding while I was standing after having gone to the bathroom a little earlier. I was not able to stop the bleeding for at least 10 minutes. That had never happened before. It, quite frankly, scared the hell out of me. I stopped eating carrageenan immediately. Two days later the rectal bleeding during bowel movements had stopped, the loose stools stopped and diarrhea had also stopped. Although, I did notice that my rash was back. It got worse for about a week and is now going away, but not gone."

Randall Ingalls Marana, AZ "To the National Organic Standards Board:

## **RE: CARRAGEENAN**

In 2016, I personally experienced intestinal distress on a daily basis after consuming carrageenan contained in an organic almond milk. It began when I started consuming the organic almond milk with carrageenan every morning with breakfast (about 8 oz.).

After about a week of consuming carrageenan in organic almond milk on a daily basis, I developed a constant ill feeling throughout my entire digestive track that often included aching and cramping. I always felt worse after breakfast and the symptoms continued throughout the day. Then the symptoms returned full force after breakfast again the following morning. I always had the symptoms, but the severity increased right after breakfast. It was a constant sickness feeling all the time.

After a couple of months of trying to figure out what was causing this digestive distress, I happened to read that carrageenan is used to create gastrointestinal distress in lab animals so researchers can study the resulting inflammation.

I immediately stopped drinking the product containing carrageenan, and the intestinal distress stopped and has never returned. I was shocked that this chemical is allowed in organics. I wrote to the company to request that they remove carrageenan from all their products (Pacific) and they have never sent a reply.

Normally I focus on a whole foods organic diet. Please take this chemical out of all organic products. Thank you."

Stephanie Roche Seattle, WA

"Carrageenan is a deadly allergen. Without the ability to know if carrageenan is in a food product, people that are allergic to carrageenan will not be able to purchase or eat any food product. My sister is deathly allergic to carrageenan along with other "so-called natural" ingredients. Due to my sister's allergy, I stay away from all products with carrageenan in it. Please do not take away our ability to protect our health and life by taking away the labeling of carrageenan in products."

Bryan Steinetz Chesterfield, VA

## "RE: Carrageenan in Organic Foods

My health, well-being and confidence was ravaged for more than 40 years by the effects of carrageenan in my food, including what I believed was healthy, organic food. The gastrointestinal effects of this unnecessary additive were immediate and confounding. For

example, I have no problem with milk and milk products, but my daily cup of coffee that contained evaporated milk upset my digestion for the rest of the day. For years I thought it was the coffee! Carrageenan in almond and coconut milks, which I consumed for better health, made them similarly disruptive. Digestive disturbance is a good enough reason to leave additives out of food, but research shows that many people develop serious illnesses such as ulcerative colitis from carrageenan. I consider myself lucky to have finally figured out what was causing me so much distress and simply avoid it, rather than deal with an illness it caused or exacerbated. That said, the personal cost has been very high. For years I had to choose whether to eat or be around people due to the effects of carrageenan on my digestive tract. I urge you to no longer allow carrageenan in organic foods. And I hope that decision will be the beginning of the end of carrageenan in ANY food."

Anonymous Houston, TX

"I am concerned about the use of Carrageenan in our foods. i think it should be removed from all our foods based on scientific research..I also will only be voting for representatives who support removing dangerous food additives and colors from our food supplies. Thank You"

Benjamin Gee Westerville, OH

"Carrageenan. Dirty word. I have alpha galactose 1,3 allergy. I have had increased A1C as well as inflammation. Too many chemical names already hiding mammalian additives and carrageenan is linked to alpha galactose 1,3. Diabetic diets are full of carrageenan to enhance texture but they keep us on the diabetic trail as well as adding more American citizens to the diabetic trail. Even many organic foods contain carrageenan. After suffering for years with the AG meat allergy induced by tick bites I became borderline diabetic and had increased inflammation. After several research studies in the past few years there is sufficient evidence linking the growing population of AG allergy, diabetes, and inflammatory disease. Please consider removing carrageenan from the American diet. Our health care system will overflow with even more diabetics, disabled and food allergy victims. After being diagnosed with alpha galactose 1,3 allergy I and fellow AG'ers have had to research and join research and take research to our doctors and hospitals to educate the medical community. Something as simple as removing carrageenan can save many from a future of allergy, diabetes and inflammatory disease."

Wanda Walker Trinity, NC

"I am a 53 year old woman who has been eating organic food for twenty years. I've worked in an academic cancer center for 34 years and during that time, I became convinced that our spiraling cancer rates are strongly related to our contaminated soil, plants and animals. I strongly believe that organic food is not only important for my health, but the health of the planet as well. Strong organic food growing practices mean healthier soil, healthier animals and a robust pollinator population. All of these are vital not just to health, but to the survival of life. Soil polluted with pesticides and herbicides not only damage our bodies but our earth and water as well. One need only look at what happens during flood waters to see the environmental chaos wreaked by these products. There are methods of controlling disease and insect damage that are not so deleterious to health and the environment. Strong organic standards are where healing our bodies our planet begins. This isn't just about one person or even a segment of the population worried about health - this about survival.

I am not a scientist so I will leave the citing of data to those who are best able to those best able to communicate it effectively. Having said that, I have read all the reports and reviewed the scientific data and am convinced that the information presented by groups advocating to keep organic strong, are correct.

Carrageenan: The NOSB should remove carrageenan from the National List. The evidence summarized by the 2015 Technical Review came up with a verdict of mixed results on virtually every issue regarding food grade (high molecular weight) carrageenan. However, there is widespread agreement that poligeenan, which contaminates food grade carrageenan at unknown and uncontrollable levels, does cause adverse effects, including cancer. The production causes adverse environmental impacts. And it is not necessary - organic processors have been moving away from the use of carrageen because of consumer pressure since it was last considered for sunset. I won't even buy cat or dog food with carrageenan."

Margaret Gallagher Bel Air, MD

"I have to be on organic foods due to medical reasons. Unfortunately, some ingredients found in organic foods still make me sick. One of these is carageenan, which causes me severe gastric upset. Carageenan is an additive that has been deemed unsafe in the scientific literature. It should NOT be allowed in ANY food, much less organic food. The FDA has allowed carageenan in food based on industry-funded studies, ignoring the many studies funded by the National Institutes of Health and other non-industry sources which show health problems that arise from carageenan consumption. Please revoke the use of carageenan in organic foods so people like me don't end up sick because of this dangerous additive."

Sue Schoetker Marana, AZ

"Please help make regulations to remove carrageenan from all organic foods. As a consumer, we need to know that there are no dangerous chemicals in the foods we eat. We need to trust the "organic" label."

Anonymous St. Louis, MO

"Please remove Carrageenan from the allowable ingredients in organic food. It has proven not to be a safe ingredient and should be banned." Linda Dunphy Arlington, VA

"I am writing to urge the Board to further regulate the use of carrageenan. Even though it is considered all-natural and made from red seaweed, it has almost destroyed my life. I have to look at the ingredients list of almost everything I buy to make sure it does not have carrageenan in it. It makes me deathly ill if I eat it in any significant or large amount. A food that causes even one person such a reaction can in no way be considered safe or wholesome. From the information I can find, I am not the only one with adverse reactions to carrageenan. I do not know if anyone else has as severe a reaction as I have, but knowing that it has been connected to cancer and banned by the FDA for a while due to links to cancer, I do not see how such a food could be deemed healthy and wholesome. The majority of people might not have a reaction to carrageenan, but that does not bale it safe or wholesome to the people who do have a reaction.

I found out about my reaction to carrageenan when I was first married. My new husband wanted to buy Ultra Skim Milk from Walmart because he figured it would help him to lose weight. Rather than buy two types of milk, one for him and one for me, I bought one form of milk, the Ultra Skim Milk. I used it to eat cereal sweetened with Splenda. Then I got sick. The whole summer I was very sick to my stomach and unable to function. I lost 25 pounds in 2 to 4 weeks. I stopped eating most foods except the cereal, using Ultra Skim milk from Walmart, and sweetened with Splenda, and tuna fish. I would also sometimes eat jello cups. At one point, I recall thinking it was as if I was being poisoned.

To see if it could be something that I was eating, I checked the food ingredients on the food labels. That is when I saw something called carrageenan. I did not recognize this food ingredient, so I looked it up online on my cell phone. I found that it gave, according to the website, lots or many of people digestive problems and had been connected with cancer and banned by the FDA in the 1970's due to a link with cancer. I removed carrageenan and Splenda from my diet and my health started to improve.

My life is extremely negatively affected by carrageenan. I have to look at food ingredients lists on everything I buy, even if have previously bought it before. Sometimes manufacturers will change the ingredients without changing the look of the label. I cannot eat most ice cream, I cannot use any whipping cream, heavy of light, as it ALL contains carrageenan, regardless of the manufacturer or brand, and I cannot eat most jello cups or presliced turkey, as those contain carrageenan. Most brands of tooth paste contain carrageenan or cellulose gum. I could get Sensodyne, but now that contains Splenda. I cannot get most brands of Pepto, name brand of generic, as they contain either cellulose gum, Splenda or carrageenan. Some brands of daytime medicine, like DayQuil, may contain one of those

ingredients. I live in fear of the day I may need a colonoscopy, as the barium x-Ray fluid used by the doctor's offices and hospitals all contain carrageenan.

When I went to my brother's funeral in 2004, I had a Wendy's frostey the night before my flight home. I got very ill with what I thought was an extreme case of food poisoning. I have since learned Wendy's frosties have Carrageenan. I believe they may not have had carrageenan earlier than that as I used to eat Wendy's frosties alright prior to that with no reaction. However, when I had Rice Dream Rice Milk at my brother's house, I ran to the bathroom the next day with cramps. I have that reaction when I have 2 jello cups containing carrageenan. My brother used Rice Dream Rice Milk for health reasons. Four years later, my brother passed away from cancer due to a brain tumor, from whatever causes.

I respectfully urge the Board to consider carrageenan very carefully when considering it for inclusion on lists of safe foods for organic foods. I have recently discovered that some foods that are labeled organic do not have carrageenan when their inorganic counterparts do. I was kind of hoping this could help me further and more easily avoid carrageenan, but now it looks like the Organic Food Board is considering it for inclusion. I have such a reaction to Carrageenan and other food additives that my life is very adversely affected. Carrageenan is linked to health problems in many people and has been linked to cancer and banned by the FDA in the past due to concerns about cancer. It would be extremely unwise to fully accept carrageenan for use in organic foods without fully considering the full health effects on all individuals, even if only a few individuals are affected, and proper labeling of foods containing carrageenan. Just today, I found where Little Debby snack cakes are hiding carrageenan under its alternate name, agar or agar agar. Thank you for your consideration my and others' concerns."

Melissa Hall Warren, OH

"I urge NOSB to refuse re-listing of carrageenan in view of its implications for human health and the environment. It would be a sad irony if the health conscious public incurred serious illnesses by eating organic food. Carrageenan is synthetic, often contaminated, and unnecessary. Please do not re-list."

Frances Dunham Gulf Breeze, ?

"The NOSB should use the Precautionary Principle when making its decision on whether carrageenan meets the criteria in the law. If scientific evidence using animal studies and cell studies strongly points to harmful effects, as is the case with carrageenan, the NOSB should err on the side of caution and protect the safety and health of consumers.

With carrageenan, a substantial body of scientific evidence exists that indicates carrageenan:

\*can cause inflammation
\*may act as a promoter of colon tumors.
\*exposure to degraded carrageenan is possible human carcinogen (group 2B) by the World Health Organization's International Agency for Research on Cancer (IARC)
\*may also contribute to insulin resistance and to the development of Type 2 diabetes."

Gale Thackrey Columbia, IL

"Please keep the additive carrageenan from organic foods. This additive causes digestive upset for me, and I understand that research shows a scientific basis for my reaction. Research shows that the type of carrageenan used in foods can cause inflammation. Inflammation is well-known to be the basis for many human diseases, including inflammatory bowel disease, rheumatoid arthritis, and arteriosclerosis. Inflammation is also linked to cancer. Laboratory research has shown consuming carrageenan can cause ulcerative colitis-like disease and intestinal lesions and ulcerations in some animals. Additional studies in animals have shown carrageenan may act as a promoter of colon tumors."

Janice Baker Cincinnati, OH

"I urge the members of the NOSB to remove carrageenan from organic foods. It has serious short-term and long-term health consequences."

Catherine Backus Staunton

"The addition of carrageenan to food has limited my ability to buy and eat food. I become severely ill after eating carrageenan. My body reacts with bloating, painful gas, diarrhea and sweating. It is very painful and I make every effort to avoid carrageenan. However, I have learned that not all products list it as an ingredient because it is considered to be a natural ingredient. This makes it even more difficult for me to purchase food. There is no need to add this ingredient to food and I'm sure that I'm not the only person to have these negative reactions. It also cuts back on a person's ability to eat out. I'm sure it could be removed from our foods, both organic and non-organic products and people would also be healthier. I'm sure there are people out there that have similar bodily issues and they don't even realize that it's a result of their food. PLEASE remove this ingredient from our food. We shouldn't be getting sick from what eat. We didn't need it before and we don't need it now. There are too many additives and preservatives in our foods and it's making us sick."

Kathy Temple Canterbury, ?

"I have had diverticulitis all my life and up until the last few years have had it under control with just Metamucil taken once a day.

Recently, last couple of years it has been getting harder and harder to control. Then one day on the internet I found a website telling about this stuff that was turning up in more and more of our food. And that this doctor was trying to get it out of the food industry because of the horrible intestinal problems it had been found to cause. So, I started reading labels and couldn't believe how much of what I ate had it in it. So I started not buying those products and low and behold, my diverticulitis starting getting under control again. I am now back to one dose of Metamucil a day and no carrageenan.

Please get this awful stuff out of our food. It was just luck I found that website, so many people are probably suffering because they do not know about the awfulness of the carrageenan in their food and their pet's food."

Susana Huntoon Independence, MO

"I suffer from seizure-like symptoms from all chemical additives in food. Carrageenan is one of those additives. My understanding is that the FDA allows up to 58% of Mono-Sodium Glutemate to be added to many chemical additives such as Carrageenan, Yeast Extract, Natural Flavor/s, Maltodextrin, etc, etc. without being listed as an ingredient on the label. Carrageenan is an EXCITOTOXIN CHEMICAL."

Betty Barnett Huntley, IL

"Remove carrageenan from organic foods, PLEASE!

Scientific studies raise serious concerns with the safety of the food ingredient carrageenan and its impact on human health.

Consumers should be able to trust that foods with the organic label don't contain any potentially harmful ingredients.

IF IT HAS Carrageenan in it, I WON'T BUY IT!!!!!!!!!!

James Flett Raleigh, NC

"In my early forties, I developed a mysterious, chronic and intractable diarrhea that lasted over two years. Several doctor and specialist appointments later, several medications later, several humiliating social episodes later, I was no closer to relief. The medical bills were prodigious and it effected my personal and work life in a highly debilitating manner. I had to live my life always as near a restroom as posssible. After two years without resolution, I happened upon an article about carageenan and its links to digestive disorders.

I ate a vey healthy diet but, on a hunch, I started checking labels on the food that I was consuming. One of the nutrition shakes that I used daily had carageenan listed just after the food ingredients. I checked other products that I had been consuming which also contained carageenan as a stabilizer or for texture. I thought it would be worth a try to cut out carageenan as completely as possible.

I improved almost immediately and WITHIN two weeks my symptoms resolved completely! To further test my theory, I added the nutrition shake back in to my diet about three months later after my recovery, after a few days my previous symptoms began to resume. For me, that was conclusive enough to completely discontinue using foods containing carageenan. 12 years after the fact, I have had no resumption of symptoms as long as I avoid carageenan.

I can only imagine what the effects of carageenan are on infant and toddler digestive tracts. There is no adequately supportable reason to continue the use of carageenan in foods, particularly with so much evidence pointing to its adverse effects on the the gastrointestinal system. Please permanently remove carageenan from the list of allowable food additives."

Jackie Critser Wilsonville, OR

"I have many patients who seek my care related to gastrointestinal problems. I always inform them to avoid foods containing carrageenan. The removal of carrageenan is helpful as part of their program to reducing the complexity of their cases. It should not be allowed in foods labeled as Organic."

Dr. Barry Lieberman Beverly Hills, CA

"Please remove carrageenan from our foods. It is a known carcinogen that can easily be replaced by similar, non-carcinogenic foods such as xanthan gum, locust bean gum, corn starch, and arrowroot. As a registered nurse and sufferer of ulcerative colitis, I can attest both professionally and personally as to the dangers of carrageenan in our food supply. It causes gastrointestinal bleeding in a number of people, myself included.

When I was first diagnosed with UC, my GI physician recommended I increase my intake of yogurt and other probiotic foods, so I began consuming my local supermarket's brand of yogurt daily. Within a few days, my UC flared like never before; my bleeding and pain increased exponentially. After much trial and error as well as research, I narrowed the culprit down to carrageenan.

Six years later, I have been in remission since removing carrageenan from my diet. Should I accidentally consume some (such as in coffee creamer from nationally recognized coffee shops), my colitis will begin to flare and I will have GI bleeding within a day or so. I have to read the package of literally every item I consume now. This means asking to see the container of almond milk at the coffee shop or asking the waiter to bring me the food packaging at the restaurant. I cannot risk consuming this dangerous product; I fear continued bleeding will eventually lead to increased risks of colon cancer later in life. No one should have to "fear" their food or avoid eating/drinking purchased items unless every ingredient can be scrutinized.

I counsel my patients with GI problems to begin checking their ingredients to see if there is a correlation with their symptoms and their intake of carrageenan. Several have had marked increases in their symptoms with increased consumption of products containing it.

Please ban this product from our food; it is dangerous and unnecessary. Thank you for your time."

Jennifer Cooper BSN, RN, S-ARNP Orlando, FL

"Scientific studies raise serious concerns with the safety of the food ingredient carrageenan and its impact on human health. Consumers should be able to trust that foods with the organic label don't contain any potentially harmful ingredients. That's why I urge carrageenan's removal from the list of allowed ingredients in organic foods."

D Schoech Arlington, TX

## "Re: carrageenan

I most strongly urge you to prohibit carrageenan in organic foods, effective immediately. That carrageenan was ever allowed in organic food and other products is puzzling, as it does not meet the criteria for exemption. It is not organic, not essential, and not harmless.

Evidence from animal studies indicate carrageenan can cause everything from colon tumors, rheumatoid arthritis, and milder forms of conditions no one wants, like irritable bowel syndrome and inflammation. Even "milder" maladies may cause worse conditions that we just can't prove connections to, yet.

Each time I learn about non-organic and harmful exceptions allowed in organic foods by the National Organic Standards Board, I lose faith in the NOSB. I begin to wonder whose payroll are you on? Why do you behave like bought-off, corrupt, sleazy hypocrites?

Carrageenan is the latest example of craziness allowed under "organic" certification. Mega antibiotics injected into eggs and within the first few hours of life of newly hatched poultry is another example of total wrongness.

Please clean up your "organic" criteria immediately. Carrageenan in organic products is totally unacceptable.

Sincerely,"

Jaqi A. Thompson Richmond, CA

"I am writing to ask you to PLEASE remove carrageenan from our food. I have developed ulcerative colitis, and I believe carrageenan is directly responsible."

Terri Zucchi Methuen, MA

"In my personal experience, Carrageenan proved to be HIGHLY disruptive/detrimental to my GI tract. A few years ago, I began experiencing increasing discomfort to my GI tract. I really struggled to figure out what was behind it. By sheer luck, I happened upon a little story on carrageenan - and wondered if that might be the culprit.. To my surprise Carrageenan was a listed ingredient in some of my favorite organic foods. I immediately removed those foods from my diet and within a few weeks, my GI system began to restore to normal function - free of discomfort.

Some months later, the symptoms reappeared. Puzzled as to why, I began backtracking. Nope, no carrageenan in my food. Then WHY was I experiencing the same GI stresses? By chance I happened to look at my toothpaste - CARRAGEENAN! Discarded that and replaced with another toothpaste - BINGO, problem solved and GI health back to normal.

Then another repeat of the same GI issues. I have been VERY thorough and diligent. What could it be !!?? One of the ingredients of a vitamin gel capsule was 'seaweed' I investigated a bit more and found out it was Carrageenan. Amazing that such a TINY amount, contained in the wall of a gel capsule, can be that potent. So ... I threw it out and in short order, GI health back to normal.

Needless to say, to me, this issue is a no-brainer. Stop allowing the use of carrageenan in any product that can come in contact with the GI system."

**Rick Thronburg** 

"Please remove "Carrageenan" from our foods. We are supposed to be intelligent people, so we should be able to come up with a healthier products to use to create the same effects. Perhaps if we clean up our food processing methods, we can help to improve peoples health and lower our medical costs. Now wouldn't that be nice."

Cheryl Ornburn Surrey, Canada

"I was having stomach cramps for some time and my doctor couldn't figure out the problem. It took me a while, but I finally figured out that it stemmed from the rice milk I was consuming that had carrageenan in it. I switched to a brand that didn't have it, and the problem went away. I am concerned that many people have the same issue without being aware of it."

Debbie Baskerville Ithaca, NY

"Carrageenan should be taken out of all food! It causes me to have PVC's (premature ventricular contractions). This is life threatening and a huge concern. Along with this, I experience symptoms of nasal stuffiness and sleep apnea. Please allow some food to be safe to eat. Now with the concern of GMO, there is less and less of an option of food sources and maintaining a healthy body. When the body is in a constant state of inflammation, disease begins to set in, this especially occurs with inflammation of the gut which is the most prevalent reaction with carrageenan. You are permitting this nation to be a sick nation by allowing this to remain in our food supply. It is your responsibility to protect the people and you are failing miserably at that by allowing a tainted food supply. Please help us remain a strong and healthy nation by giving us real, untainted food."

Kathleen Buccellato Parrish, FL

"As an arthritis sufferer, I urge you to remove carrageenan from your list of approved organic ingredients. It is known to cause inflammation and possibly cancer. People in general are not familiar with carrageenan and its side effects. "It seems like no big deal – it comes from seaweed, so maybe it's OK". But not all "natural" ingredients are good for us. I have a relative with rheumatoid arthritis who buys organic products because she wants food with the safest ingredients and the fewest additives, but she was unaware of the issues with carrageenan until I told her. Please remove carrageenan from your list of additives that are allowed in organic food."

Mary Tomaszewski Anchorage, AK "Since eliminating carrageen from my diet my stomach problem have been much improved. It took a good amount of "dectective" work to find the problem."

Elaine Deluhery Jefferson, IA

"Dr. Joann Tobacman (Iowa State University) has been studying carrageenan and its effects on the intestines for decades. I have communicated with her by email. She has said this ingredient should not be in our food supply, whether degraded or undegraded forms. Studies show the same adverse effect. As an individual who cannot assimilate gluten (gene-tested after many years of suffering), I find I have abdominal discomfort and often headache every time I accidentally eat something "gluten-free" but with carrageenan, the same with xanthan gum. Guar gum does not have these effects."

Claudia Crawn Los Angeles, CA

"I urge that carrageenan be removed from the list of additives that are allowed in organic foods.

Animal studies have shown that carrageenan can cause inflammation, ulcerative-colitis-like disease, intestinal lesions and ulcerations in some animals, and may act as a promoter of colon cancer. Therefore, the NOSB should use the Precautionary Principle when making its decision on whether carrageenan meets the criteria in the law. It is nearly impossible to "prove" that a material is harmful to human health, in part because human experimentation is unethical, so we rely on data from animal studies and cell studies. If scientific evidence using animal studies and cell studies strongly points to harmful effects, as is the case with carrageenan, the NOSB should err on the side of caution and protect the safety and health of consumers."

Alexander McKenzie Sarasota, FL

"Please remove carrageenan from organic foods. I suffered GI distress for many years, and went through many invasive tests only to be told I had IBS. I did a very careful food diary and elimination diet and finally determined that when I eliminated all foods containing carrageenan that I am perfectly fine.

I was disappointed to realized just how many natural and organic foods are loaded with carrageenan and would appreciate being able to purchase organic foods without fear. I would also imagine that there are many other unsuspecting people who suffer GI distress who have no idea what is causing it, because doctors and nutritionists do not seem well informed about this problem which has such a simple solution.

Please help protect everyone from these symptoms that they may be unfairly blaming on lactose intolerance or other sensitivities, and unneccesarily treating with ineffective drugs."

Christin Witkowski Glastonbury, CT

"I am concerned about the presence of carrageenan in organic foods. My understanding is that non-organic ingredients such as carrageenan are currently prohibited in organic foods unless they meet all criteria outlined in federal law. One of the criteria that non-organic ingredients have to meet is that they pose no harm to human health. While it is unethical to conduct many tests on humans, results from animal studies demonstrate that carrageenan can cause inflammation, ulcerations and intestinal lesions and may promote colon cancer.

Various scientific studies raise these and other concerns with the safety of carrageenan and its impact on human health. I believe carrageenan should not be allowed in organic foods and that the National Organic Standards Board to vote to prohibit carrageenan."

Karen Genest Vancouver, WA

"Given the facts on carrageenan's links to harmful effects to our health, I have been avidly avoiding products that include it for the past two years. I have found it a bit difficult to find some products, (i.e. toothpaste, ice cream) that do not have carrageenan in them, but with diligence have narrowed the brands I purchase to those that omit it. In several cases that meant changing brands from what I had previously trusted and purchased.

It would be much better if carrageenan was taken out of all food and personal grooming products labeled "organic" so the purchaser can trust it won't appear in items that are ingested. I would be very happy to see carrageenan removed as an additive from all products I purchase for our household."

Yvonne Winsor Sunriver, OR

"Regarding the food additive, Carrageenan, I want to let you know that our 18 year old daughter, who went away to college, was consuming products containing Carrageenan, i.e. Starbucks, frozen yogurt, ice cream.

In less than a eight weeks, she became so ill that she went to the emergency room near her college twice. The doctors tested her and stabilized her, diagnosing her with digestive disorder each time.

She still felt very ill and managed to drive home and immediately asked me to take her to the emergency room, At the hospital. she was found to be close to kidney failure and a heart attack, they tested her and admitted her to the hospital, she remained in the hospital for five days. During that time she underwent every available test and was even put in isolation for two days. Once she was stabilized, she was released, diagnosed with digestive disease. She went back to college but continued to be sick off and on until the summer break. It was during the summer that we discovered an article about Carrageenan that put everything in perspective because other people had also experienced the severe health effects from this substance that our daughter was experiencing.

Once our daughter eliminated all foods containing Carrageenan as an ingredient, all of her adverse digestive health problems ceased.

It is imperative that people are made aware of the danger of this ingredient and that it be eliminated from our foods."

Jeanne Waldrop Stuart, FL

"I am writing to you to let you know that carrageenan should not be used an any food, including and especially in organic food.

My wife, who is now deceased had huge problems with carrageenan. It took years to pinpoint which foods it was in and dining out was always a problem.

A small amount would cause her joint pain, swelling and flu-like symptoms for hours.

Please do not allow this toxic chemical to be used in any foods. I know first hand that it not only causes immediate problems, but also has long term effects.

Please---please!"

James Van de Grift Hillpoint, WI

"I am highly allergic to seaweed really all things from the water. Cargeenan allergy took years of intestinal inflammatory responses to determine the culprit. Years of being told I was lactose intolerant. Years of continued illness while consuming soy and almond products.

Dairy and dairy alternative products are manufactured with a product that increases the risk of health related issues for many looking for improvement. This is a disservice to those millions.

I have found the general practitioners and nutrionalists are not aware of the continued efforts of this inflammatory ingredient when developing a healthy meal plan. I learned

through continued research into the derivatives of such ingredients as cargeenan. My health forces me to investigate. After countless hours I have learned what nasty products are derived from seaweed and now avoid most processed foods. I hardly ever purchase organic foods as most contain seaweed in one form or sea salt, another allergic reactive ingredient for many."

Jane Roggero Portsmouth

"I am writing to strongly urge you to remove carrageenan from food products. I suffer from an extreme allergic reaction to this product that I call "a migraine of the intestines." Within 24 hours of unknowingly consuming this product, not only do I have severe stomach cramps and diarrhea, but I also become weak, nauseated, have hot and cold sweats, and become sensitive to light. After an episode, I am so weak I have to "sleep it off" for at least a couple hours--and I am NOT a middle of the day napper.

This product is debilitating to me, and it requires me to comb ingredient lists not only of foods in the grocery store, but at restaurants, too. And forget asking a server if carrageenan is in their--sour cream, cream, ice cream, sliced turkey, chicken--it's difficult for them to track down the product listing of foods they serve and they've never heard of it before. It is hard work to try to eliminate this food from my diet, and one mistake can take me out of commission for an entire day. This has happened more than once at work, but also on vacation.

There are other substitutes if a product must be used to ensure a creamy consistency. Please remove this from the GRAS list and let food manufacturers know how toxic it is to those of us who are allergic to it."

Peggy Creswell Soddy Daisy, TN

"It took me a long time to track down the source of my worsening digestive issues, but I finally realized that it was carrageenan. I tested this repeatedly, and when I remove it from my diet, my gut improves. When I have reintroduced it, I start to have gut issues again; upset stomach and IBS type symptoms. I was horrified to see how widely it was used - I had thought my problem was dairy, and had switched to soy milk and had no improvement, until I found a brand with no carrageenan. I was very disappointed to find it even in organic brands, which feels like a real cheat to me. I think that it should not be used in any foodstuff, but at least keep it out of organic products."

Mary Beth Dawson Maplewood

## "To Whom It May Concern,

I have been a consumer of organic products for over 35 years. I have eaten organic foods and raised my children on organic foods because of the valid research dangers that chemicals in our processed foods and garden fruits and vegetables have strongly indicated. I am aghast that carrageenan is permitted to be used in organic products made and grown. I strongly urge you to make the decision to remove this from all organic products produced and grown for the right reason that organic products should not include a chemical that can put at risk the health of those eating organic products.

We pay a lot more for organic products and believe that is always the right time to do the right thing when it comes to issues that can impact our health and the health of our loved ones when preparing and buying organic foods and meals."

Sincerely,

Dianne Doyle Louisville, KY

"Keep "Organic" pure and safe. As we learn about dangers of items, please adjust. Carrageenan isone of those items that have been shown to cause damage and unworthy of being allowed in organic foods. Worldwide rigorous research has shown the dangers it presents and it has been pulled off the allowed lists for a number of countries. Please don't wait decades as has been done for articificial food dyes, which made my child ill and deeply affected him for days with each and every exposure. Although our home was dye-free, he would occasionally be exposed at school and lost days of his schooling and life each time. Please don't repeat the same mistake. Thank you"

L Bresnan Ballwin, MO

"This is a comment regarding the additive carrageenan, and a personal plea to have it banned from foods generally considered to be "healthy" or "natural," or at the very least banned from those foods legally labeled as "organic."

There is absolutely no culinary necessity for this ingredient, as evidenced by the plenty of products available without carrageenan. It is unclear to me what purpose it might serve.

I do know that, having experimented with inclusion and exclusion of products with carrageenan in my diet, it reliably causes me abdominal discomfort (the symptoms match those of Irritable Bowel Syndrome). Although it is easy enough for me to avoid those products at home, it can be much more difficult to avoid them outside the home, especially since well-meaning folks will provide soy milks and other such things with carrageenan as a "healthy option."

Because it is so hard to avoid and so widespread, I hope you will be able to ban this ingredient from use, at the very least from organic foods. I personally can offer no hard evidence that carrageenan is a public health threat, but I can say with certainty from personal experience that it is at the very least a distressing public health nuisance."

Yekaterina Lunoe Davis, CA

"Carrageenan: I was never one to be obsessed with food ingredients. I looked for certain things, watched sugar content, sodium, etc., not all the chemicals and additives and fillers. overall a pretty healthy diet, some organic a lot of conventional but I started to have a lot of gastrointestinal issues and went on an Elimination Diet for a month. gradually introduced things back in: wasn't gluten wasn't Dairy. Still having issues I started reading a lot about carrageenan so I started looking for products that didn't have it and essentially eliminated it from my diet and my GI issues resolved significantly. now when I do buy something that has carrageenan in it say like a rotisserie chicken or almond milk that contains it, the GI issues are unbelievable and they go on for a couple of days.

so it definitely has a negative effect and I think there's enough scientific evidence to support the harm it may cause, significant as a possible carcinogen. It just needs to be eliminated from all foods, but especially organic foods. I buy more organic now than ever before, because it's supposed to be healthier. But then you have an ingredient like this that you allow and it's also allowed to be snuck in under other, generalized names that people may not even realize that's in there. That's Wrong. It's Deceptive and it's Wrong and it shouldn't be allowed to continue and you have the ability to change it."

Robin Borgognone Fort Lauderdale, FL

"Carrageenan should not be considered a safe ingredient to be added to food. For years I have had certain food intolerances that would cause GI distress. I finally traced the source of these different food intolerances to the ingredient Carrageenan, and since I have eliminated this from my diet, all my symptoms have disappeared. I have to read every label and have to avoid certain menu items at restaurants that are often prepared using ingredients contaminated with this ingredient. Occasionally, I will still get exposed to it, even though I am careful, and my gut let's me know right away!"

Donna Jones Kingsport

"I was diagnosed with a severe allergy to Carrageenan who I ignored mainly because at the time little was known about it and it was not an ingredient in almost every food items that you purchase this was more that 15 yrs ago). I attributed this to Gluten and cut Gluten out of my diet. This did not solve my problem It might had made it better, but did not solve the

problem my irritable bowel syndrome keep getting worse. Finally I remembered the food allergy test I had taken that clearly identified Carrageenan as something I should avoid. first of all, I researched what it is then I began reading old labels. I was surprised to find it as an additive in everything from Ice Cream to almost all canned foods, and even Coffee Creamer. It is especially used in frozen products.

I have eliminated all products that have Carrageenan list as an ingredient and it has changed my life. I no longer have the uncontrollable urge to run to the bathroom immediately after I have eaten a food substance with Carrageenan in it

Recently, I spoke with the boyfriend of a female having severe issues with her stomach who said that her problems were getting worse even though she had eliminated Gluten from her diet. I suggested that he tell her to try to eliminate Carrageenan from her diet and her symptoms might improve and eventually completely disappear. I was surprised when he told me his girlfriend had tried my suggestion and her symptoms had drastically improved.

Another thing that I have learned is that doctors (in general) do not even consider that Carrageenan added to foods might be a bigger health problem than Gluten. One doctor that I saw suggest that I had "Unspecified Colitis" and handed me a subscription for some pills and said "Here take these." Another Doctor suggested that I take anti-diarraheal pills. He did not understand the problem.

When I had my last colostomy I asked my doctor to check for Gluten sensitivity. He told me he did not find any trace of Gluten sensitivity. I had told him I had been avoiding Gluten and he said that was probable why he didn't find it. He did say I might have an intolerance for Gluten.

I told him that I had taken it upon myself to avoid all products with Carrageenan in it and that seems to have resolved may problems. He really didn't have a response other than well continue doing that."

Alba Basden Mesa, AZ

"Please ban carrageenan. Here's my story. About two years ago (if I recall correctly), I began experiencing persistent and alarming digestive problems. For six weeks, I lived mostly on lentils and rice and switched out various foods from my diet to identify the culprit. Unfortunately, when I switched from Lactaid non-fat milk, I chose non-fat soy milk and then almond milk as the substitutes. When I finally eliminated all milk and milk substitutes from my diet, I realized that the problem was something that these products had in common. So I googled "problems digesting soy milk," and found out very quickly that the problem was carrageenan. When I switched to an organic lactose-free milk without carrageenan, my digestive problems disappeared very quickly.

I wish I could convey to you how difficult and upsetting those six weeks were. I see that most of the products that were causing me problems no longer contain carrageenan, but I still

have to be very careful with other dairy products, like low-fat ice cream or frozen yogurt.

I am even more concerned that the inflammation caused by the carrageenan is related to cancer. This is something I will need to discuss with my physician.

Please, please, ban this substance."

Sharon Anonymous Boynton Beach, FL

"I became aware of carrageenan about two years ago after my wife and I visited our veterinarian because our cat had been notably losing weight. As a result of this visit our cat tested positive for diabetes, around 350 blood sugar count. Our vet told us that without future insulin shots our cat would be dead in less than a year. We were very surprised and shocked by this diagnosis because our cat, at the time eight years old, had always been healthy, except for allergies related to chicken found in many cat foods. My wife and I had been feeding her a grain free, high protein, high quality pet food diet for many years. Fortunately, none of this food contained carrageenan. So why did our cat have diabetes?

When our vet put our cat on a special limited ingredient prescription pet food (ROYAL CANIN VETERINARY DIET Feline Selected Protein Adult PR canned cat food), with the intent of eliminating her allergies related to chicken, something in that prescription pet food apparently caused her health to decline. I looked at all the ingredients on the label of that food and did research on the ingredients with which I was not familiar. When I researched carrageenan I became convinced that this was the ingredient that most likely was affecting the health of our cat. We immediately stopped feeding our cat the Royal Canin food prescribed by our vet, and found a high quality cat food not containing chicken or carrageenan.

About three weeks later we returned to the vet and had her retested for diabetes. The test results showed that her diabetes had completely disappeared and her blood sugar was now only 89. She returned to her normal weight soon after. We believe it was due to the elimination of carrageenan in her food.

Now over two years later our cat remains in excellent health. With this anecdotal evidence that carrageenan is indeed a very bad ingredient in foods, we not only make certain that carrageenan is not in our pet's food, but we ourselves will not buy any food for our own consumption that contains the ingredient carrageenan. Apparently there are others who agree with us, as we have seen quite a few food products recently that clearly state on their label that their food does not contain carrageenan.

We strongly urge the National Organic Standards Board to ban carrogeenan as an ingredient in all organic foods."

Robert Elliott Charlotteslle, VA "My wife is suffering from an autoimmune disease called systemic lupus erythematosus. She has had it since 1986 and went into remission in 2000. She suffers multiple food allergies and sensitivities associated with the condition. She must be extremely careful in the foods she eats. Selecting and eating organic foods from our food coop in Olympia Washington has been pivotal in her achieving remission. Without labeled organic foods she would not be alive today.

Over time she has found she is symptomatic even eating some foods with an organic label. Through trial and error she has found she is severely reactive to carregeenan and must avoid it at all costs.

We are requesting that you restrict foods that contain carregeenan from foods that carry the organic label. She is not alone in having problems with carregeenan. If your board is not sympathetic to our issues, the least it can do is require mandatory labeling.

Stephen Curry Olympia, WA

"I have had GI troubles all my adult life and always strongly felt they were food related and not due to a disease. Realizing that I was sensitive to even small amounts of sorbitol and other alcohol sugars helped me avoid some problems but becoming aware of the gut irritating effects of carrageenan has had a real impact on my quality of life. Grocery shopping takes a little longer because of reading labels but eating out remains the biggest challenge. It is always a crap shoot. Pun intended! I would be thrilled to see carrageenan removed from all foods."

**Deborah Raines** 

"Please remove the ingredient carrageenan from the organic foods list. I regularly consume plant based foods and drinks in order to eat a healthier diet. I used to be able to buy soymilk without this ingredient, but now find it very hard to find it without carrageenan. Studies have shown that this ingredient may be harmful to humans so according to the rules of what can be called organic, it should not be included in allowed ingredients. I am willing to pay a small amount more to buy my soymilk without it if the reason the manufacturers are using it to save a few cents. Please do not consider this ingredient to be GRAS since it has not been shown to be. Thank you."

R. Brucker Urbandale, IA "Please stop allowing the use of carrageenan in organic foods.

For the first 28 years of my life I suffered from "random" gastro-intestinal problems for which I was unable to determine the trigger. Last year with an elimination diet (and a lot of luck since I didn't know anything about carrageenan) I was able to identify carrageenan as the source of my digestive issues . Since eliminating carrageenan from my diet (which has not been easy due to the lack of required labeling) I have had none of my previous symptoms. Identifying and avoiding carrageenan has literally been life-changing for me.

After identifying carrageenan as the source of my illness my first thought was that I would have to be more diligent about buying natural and organic products. Instead, almost immediately I realized that I'd actually have to avoid buying natural and organic products because of carrageenan. Not only is carrageenan in a high percentage of organic products, but it doesn't even need to be labeled! I have come to dread the words "natural flavor" on ingredients lists because I can not risk that carrageenan is hidden under this label. Now I am excited to see "artificial flavor" because at least I know the product won't send me running to the bathroom. It is extremely disappointing that I cannot turn to organic foods to avoid this highly-processed and unhealthy ingredient.

Please discontinue the allowance of carrageenan in organic products, but at the very least please require that carrageenan be labeled by name (not hidden as a natural flavor) in all products for which it is used, regardless of reason or quantity. This would allow consumers to make informed decisions abou the products they purchase and to support brands who make the correct choice of avoiding the use of carrageenan in their products."

Thank you. Karen Ellis South Salt Lake, UT