

A stylized graphic on the left side of the slide. It features a green sun with several rays at the top, and a green globe below it. The sun and globe are rendered in a flat, geometric style with white outlines. The background of the entire slide is a light gray with a low-poly, geometric pattern of various shades of gray.

# What is the Role That Academics Play in Educating Consumers about Risk?

**Norb Kaminski, Ph.D.**

**May 2022**

# Center for Research on Ingredient Safety

# Mission

Conduct research and provide insight on the safety of ingredients in food and consumer products to support evidence-informed decisions by consumers, industry and policy makers

# What makes CRIS Different?

- **Partnership between Academia, Government, Industry and NGOs**
- **Research, Education, Communication**



# Brief background

- **What is science communication?**
- **What does it mean for researchers?**
- **Why does it matter?**



# CRIS in action

## What does CRIS communicate?

- Leading edge research



**MSU Press Release & Feature**

**Study Suggests French Ban on Food Additive May Be Premature**

Michigan State University and University of California, San Diego

**Researchers Respond**

**U.S. Scientists find no evidence of adverse health effects by food grade titanium dioxide**

New research on the ingredient titanium dioxide (E 171) from the Center for Research on Ingredient Safety shows no evidence of adverse health outcomes.



Read the full response: <https://go.msu.edu/cris-tio2>

**CBD - The next ingredient frontier**

Elisabeth Anderson, Jinqing Li - April 29, 2019

Cannabidiol (CBD) is the new rage with oils, tonics, and tinctures popping for sale, but what do we know about this trending ingredient? In this post, we take a new look at CBD.

**Fresh Perspective**

**Can Update**

**Ingredient Safety at MSU @CRISBits - Sep 22, 2020**

Interested in #cannabidiol (#CBD)? Learn from researchers, lawyers, and industry experts at a free, virtual science symposium! Check out the speakers [go.msu.edu/Ckp](https://go.msu.edu/Ckp) and register now [go.msu.edu/cris20](https://go.msu.edu/cris20)

**SAVE THE DATE**

**NOVEMBER 11-12**

**CBD SCIENCE SYMPOSIUM**

CENTER FOR RESEARCH ON INGREDIENT SAFETY

**NOVEMBER 11**  
Virtual Science Symposium  
12:00-3:30 p.m.

**NOVEMBER 12**  
Virtual Science Symposium  
12:00-3:30 p.m.

Our 2020 science symposium focuses exclusively on Cannabidiol (CBD). Learn from researchers, lawyers, and industry experts. Event is free with registration. Register now: [go.msu.edu/cris20](https://go.msu.edu/cris20)



# CRIS in action cont.

# What does CRIS communicate?

## • Community-focused communication



### Social Listening

#### Plastics, Microplastics, & Nanoplastics

Social listening allows us to see public thoughts, trends, and sentiments around specific ingredients. In these reports, we explore public sentiments, concerns, conversations, and more around plastics, microplastics, and nanoplastics.

Updated in October 2019: [Download the PDF report](#)  
 Prepared in September 2019: [Download the PDF report](#)

#### Glyphosate & Aspartame

Social listening allows us to see public thoughts, trends, and sentiments around specific ingredients. In this report, we look at glyphosate and aspartame.

Prepared in August 2019: [Download the PDF report](#)

**Ingredient Safety at MSU @CRISBits** - Apr 13, 2021  
 When it comes to #chemicals, it can be hard to untangle the facts from the fear (some of it is necessary fear). In this post, we explore #chemophobia. [go.msu.edu/7fp](http://go.msu.edu/7fp)

**Ingredient Safety at MSU @CRISBits** - Feb 23, 2021  
 Toxic baby foods? What you need to know about heavy metals in baby food. [go.msu.edu/XXp](http://go.msu.edu/XXp)  
 #toxicbabyfood #heavy metals #babyfood

**Ingredient Safety at MSU @CRISBits** - Feb 22  
 As requested by CRIS readership, we're launching a new series looking at #probiotics and #prebiotics. This post will provide some background to help us understand how probiotics and prebiotics can impact our health. [go.msu.edu/djp5](http://go.msu.edu/djp5) #microbiome

**COMMUNITY REQUEST**  
**Probiotics & Prebiotics**  
**Microbiome Background**

### Tox Chat – Ingredient Safety Podcast

By Joe Zagorski, Ph.D. & Elisabeth Anderson

Is our soda toxic? Is our lotion poisoning us? Worried about the chemicals in our food? We look at science around the everyday ingredients in our lives and chat about their toxicity. We also dig into other tox topics that impact all of us.

Want us to check out an ingredient for an upcoming episode? Submit your idea at [go.msu.edu/cris-idea](http://go.msu.edu/cris-idea)

[Listen on Spotify](#) [Message](#)

[Play trailer](#)



WHAT'S THE RISK?  
**Sunscreen**

WHAT'S THE RISK?  
**Repelling Ticks  
& Mosquitos**



**In the News:  
Artificial  
Sweeteners &  
Cancer Risk?**



**Risk  
Zero  
Risk?**







## What is a hazard?

Hazards, in terms of ingredient safety, are any ingredient or process that we know can cause harm.

## What is exposure?

Exposure is how we're introduced to hazards.

## What is risk?

Risk is calculated using the formula: ***(hazard) X (exposure) = risk.***

“A risk assessment’s goal isn’t to get the risk to zero, rather, it’s to ensure no harm comes from any hazards associated with exposure to an ingredient. Or, any potential for harm is greatly-outweighed by the beneficial effects.”

# The academic difference

**Why science communication? Why should researchers participate?**

- **Accurate information**
- **Context is key**
- **Remove the mystery**



# Outcomes

**What are the outcomes when you prioritize science communications and build in consistency?**

- **Community Interaction**



# Outcomes cont.

**What are the outcomes when you prioritize science communications and build in consistency?**

- **Trust (trusted source of information)**



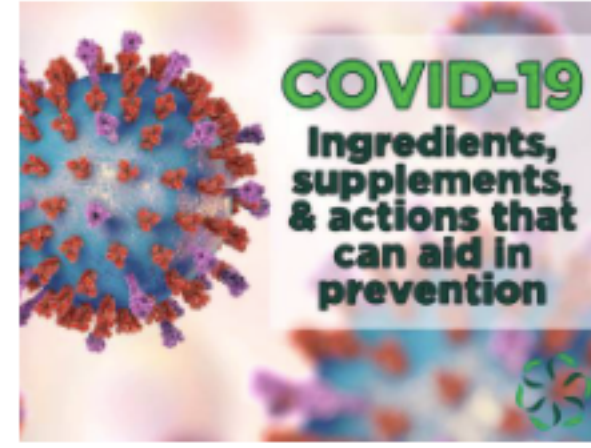
# Outcomes Cont.

## CRIS & COVID-19



### RISK PERCEPTIONS - CORONAVIRUS A CASE STUDY

PUBLISHED ON FEBRUARY 3, 2020  
In this post, we'll explore risk perceptions and how our opinions may not match the actual risk.



### COVID-19: INGREDIENTS, SUPPLEMENTS, & ACTIONS THAT CAN AID IN PREVENTION

PUBLISHED ON MARCH 9, 2020  
Worried about the coronavirus outbreak, COVID-19? In this post, we cover the soap, hand sanitizer, cleaning ingredients, supplements & actions you can take to help prevent the spread of COVID-19.



### COVID-19 - DISINFECTING WITH BLEACH

PUBLISHED ON MARCH 13, 2020  
In this post, we explain how you can use liquid household bleach to disinfect hard surfaces.



### COVID-19 - CLEANING VS. DISINFECTING

PUBLISHED ON MARCH 23, 2020  
It's easy to get overwhelmed with all of the information online, so we put together this post to help you safely clean and disinfect your home.



### COVID-19: FOOD & INGREDIENT SAFETY

PUBLISHED ON MARCH 30, 2020  
As we've seen in recent weeks, our supply chain, especially our food supply chain, is paramount to keeping society fed and safe. But how do we know that food is safe from COVID-19?



### COVID-19: MYTH OR FACT?

PUBLISHED ON APRIL 6, 2020  
There is a lot of confusing information around COVID-19 & the novel coronavirus circulating on the Internet & social media forums. In this edition, we separate the myths from the facts.



# Outcomes cont.

## COVID-19 – Disinfecting with Bleach

Elisabeth Anderson, Jinpeng Li - March 13, 2020

In this post, we explain how you can use liquid household bleach to disinfect hard surfaces.



As we work together to combat the novel coronavirus that causes the disease commonly known as COVID-19, it's essential to know how to create and use effective cleaning solutions. In this post, we explain how you can use liquid household bleach to disinfect hard surfaces.

### What is household bleach?

Liquid household bleach is a chemical used frequently in laundering white clothing and disinfecting hard surfaces.

The active ingredient in liquid household bleach is a sodium hypochlorite solution at 2-10%.



### How do I know if my bleach has expired?

On most bottles of bleach, there will be a 7 digit code printed on the bottle. This code contains the information you need to calculate the expiration date.

Let's take the code **E619337**. We need to break this code into 3 parts, starting from left to right.



The first two characters **E6**, tell us the facility the company manufactured the bleach.

The second two number **19**, tells us the year the company manufactured the bleach.

The last three numbers **337**, tell us the day of the year the company manufactured the bleach.

So, code **E619337** tells us this bottle of bleach was manufactured at facility **E6** in **2019** on the **337** day of the year, which is December 3.

This bottle of bleach expires one year from **December 3, 2019**, so it needs to be used or disposed of by **December 2, 2020**.

A product code **A420027** tells us the product was manufactured at facility **A4** in **2020** on the **27** day of the year, which is January 27.

This product expires one year from **January 27, 2020**, so it needs to be used or disposed of by **January 26, 2021**.

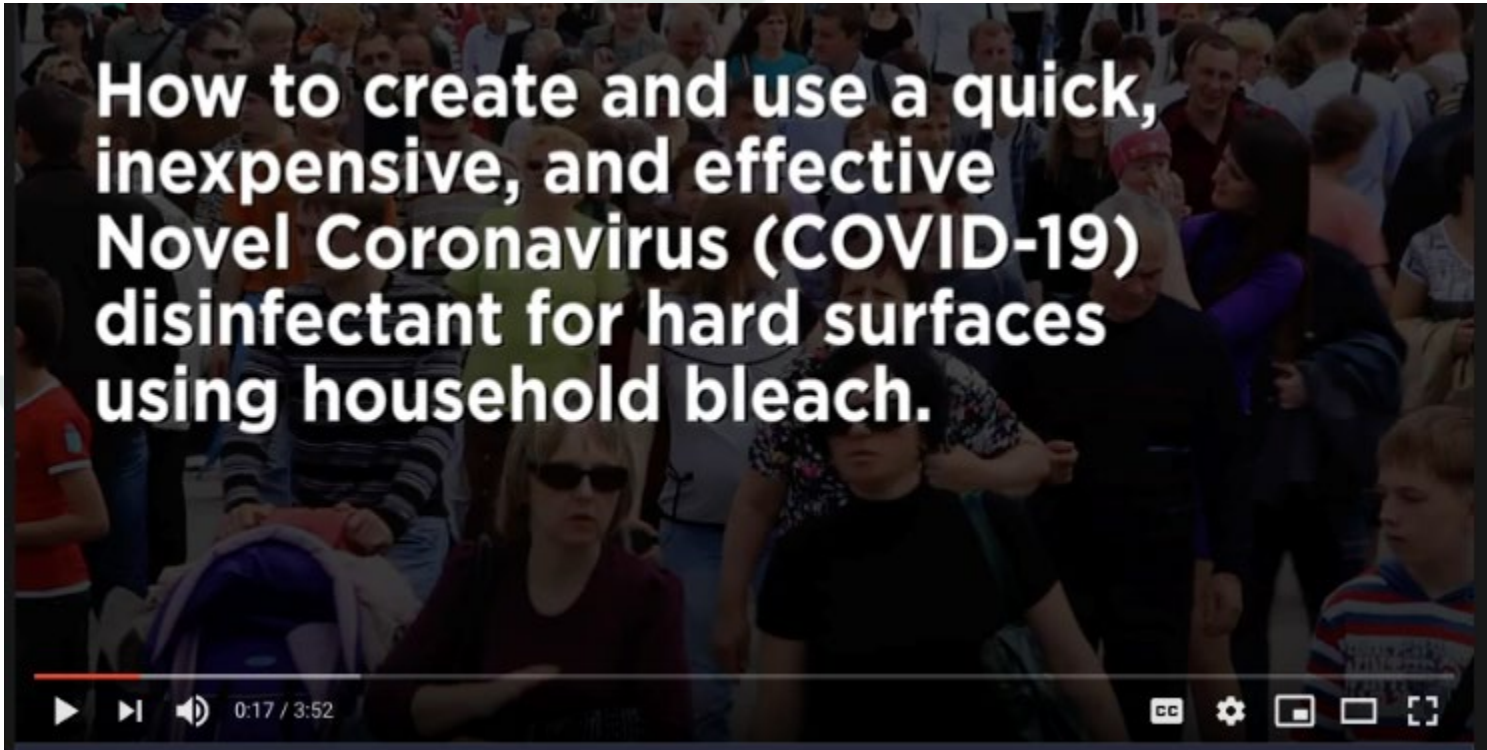
You can figure out the month and day by using [this chart](#). Make sure to adjust the calendar for the year.



Liquid Bleach Type	Amount of Bleach	Amount of Cool Tap Water
2% Sodium Hypochlorite Active Ingredient	3 teaspoons	1 cup

Liquid Bleach Type	Amount of Bleach	Amount of Cool Tap Water
2% Sodium Hypochlorite Active Ingredient	15 mL	240 mL

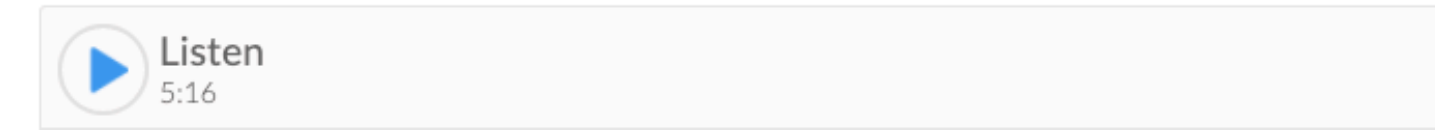


## Cleaning and Coronavirus

By MARY ELLEN PITNEY • MAR 26, 2020

Share Tweet Email

Mary Ellen Pitney interviews Elisabeth Anderson from the Center for Research on Ingredient Safety at Michigan State University about how to keep clean and help prevent the spread of COVID-19.





# Outcomes cont.

**What are the outcomes when you prioritize science communications and build in consistency?**

- **Measurable impact**

# Outcomes cont.

## Google Approved

Google search for "gras ingredients" showing approximately 35,000,000 results in 0.62 seconds. The featured snippet defines a GRAS ingredient as one that has undergone safety evaluations by experts and is proven not to cause harm. The snippet includes a date of Jun 10, 2019 and a small image of vegetables with the text "Generally Recognized As Safe". Below the snippet, two search results are visible: "What are GRAS ingredients? - Michigan State University" and "Generally Recognized as Safe (GRAS) | FDA".

Google search for "FDA GRAS Review" showing approximately 4,180,000 results in 0.82 seconds. The featured snippet explains that "GRAS" stands for Generally Recognized As Safe and describes the notification program. The snippet includes a date of Jun 10, 2019 and a small image of vegetables with the text "Generally Recognized As Safe". Below the snippet, a "People also ask" section is visible with the question "Is GRAS FDA approved?". The answer explains that GRAS rules refer to sections 201(s) and 409 of the Federal Food, Drug, and Cosmetic Act and states that any ingredient added to food must undergo evaluation for approval by the U.S. FDA unless it's a GRAS ingredient. Below the answer, a search result for "GRAS - What are GRAS ingredients? - Center for Research" is visible.



# Outcomes cont.

## Media Interviews

**Forbes**  
Sep 28, 2021, 08:00am EDT | 9,004 views

### Maye Musk—Elon’s Mom —Plugs \$100 Anti-Aging Supplement, But Says She Hasn’t ‘Noticed’ If It’s Working

Lisette Voytko Forbes Staff  
Business  
Entertainment Reporter

Maye Musk told Forbes she follows the research when promoting a product—but evidence that Mitopure works is preliminary. **TIMELINE NUTRITION**

**M**aye Musk has a lot of energy, as she tells it, and wants to live to age 98—at the very least.

ADVERTISEMENT

**INSIDER**

### Signs you can still eat food even if it's past its best-by date

Take advantage of:  
• Fresh alerts  
• Seamless online checkout  
• Help also view insights  
And so much more.

- Expiration dates predict food quality, not when it will actually spoil.
- Use your senses to determine if you can eat food after the expiration date.
- Apps like FoodKeeper can help you calculate when to throw out old food.

**INSIDER**

### Throw out your pre-pandemic makeup — it could give you an eye infection or a rash

- It's time to throw out any mascara you've had for six months or more.
- Liquid makeup can grow bacteria, so be careful about what you put near your eyes.
- Powders and lipsticks typically last between a year and two.

**INVERSE**

### FOOD SCIENTISTS DEBUNK A WASTEFUL MYTH ABOUT EXPIRATION DATES

"There's no industry standard for best by, sell by, or use by dates."

**HIDDEN ON THE EDGE** of lids or on the underbelly of containers, the "best by" or "sell by" dates of grocery store food can be a mysterious — and menacing — source of tension in a home kitchen.

Like a ticking time bomb, these labels promise us that destruction (or at least spoiled food) awaits us just around the corner. However, a peek under the hood of these labels reveals that they have much more to do with how food looks and tastes than whether or not it's actually

**POPULAR SCIENCE**

### Which expiration dates actually matter?

Food might still be okay longer than you think—but it isn't the case for everything.

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**NOVA** WATCH TOPICS SEARCH Q SCHEDULE

### The Cannabis Question

As state-legalized cannabis spreads, NOVA explores its little-known risks and benefits.

PREMIERED: 9/29/21 RUNTIME: 53:36 TOPIC: BODY + BRAIN



# **Our audience**

**Are we only talking to the public & media?**

- **Fellow researchers**
- **Technical Audiences**
- **Policymakers**



# The missing piece

**What do researchers offer that other's don't?**

- **Scientific Training & Expertise**
- **Willingness to Learn**
- **Patience & Persistence**



# Get involved

**How do we move into the science communication space?**

- **Put yourself out there**
- **CRIS as a model**







# Questions?

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**Cris.msu.e  
du**