



# **”Back to the Future”**

**Fueling the Drive  
for Mushrooms in Foodservice**

**May 12, 2022**

**Pam Smith RDN**

**[www.pamsmith.com](http://www.pamsmith.com)**



THE WALL STREET JOURNAL.  
**WSJ**

2021

2022

The  
New York  
Times



“Mushrooms are starting to look like one of the best answers to the question: What is the future of food?”

Ingredient of the Year



# HEALTHY MENUS

DELICIOUS SOLUTIONS  FOR CHANGING APPETITES

R&D COLLABORATIVE





“If you want to go fast, go alone. If you  
want to go far, go together”  
—African Proverb





# Impact of Small Changes on Menus

38,000,000

meals a day are served by HMC member companies, small changes can have big impact on public health!






2010

An illustration of a glass salt shaker with a metal mesh top, tilted and pouring white salt granules. To the right of the shaker is a cluster of fresh vegetables, including green leafy herbs, a yellow carrot, and a red tomato.

The Culinary Institute of America (CIA) formed the Healthy Menu 2010 Collaborative (HM-C) in January 2010 to help the volume foodservice industry increase the availability of healthy menu options. Founding members selected sodium reduction as their first priority area for collaboration. There were potential federal mandates to reduce sodium in the food system, and members saw water to cook and marinate solutions to this challenge that would have a low nutrient and calorie, or no-calorie, impact. The group has had considerable success in reducing sodium through several strategies and tactics. Between 2011 and 2014, HM-C member companies reported reducing sodium levels across all foods and beverages on their menus by 18%.

2014



**Strategies to  
Reduce Sodium Intake  
in the United States**

[illegible]

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

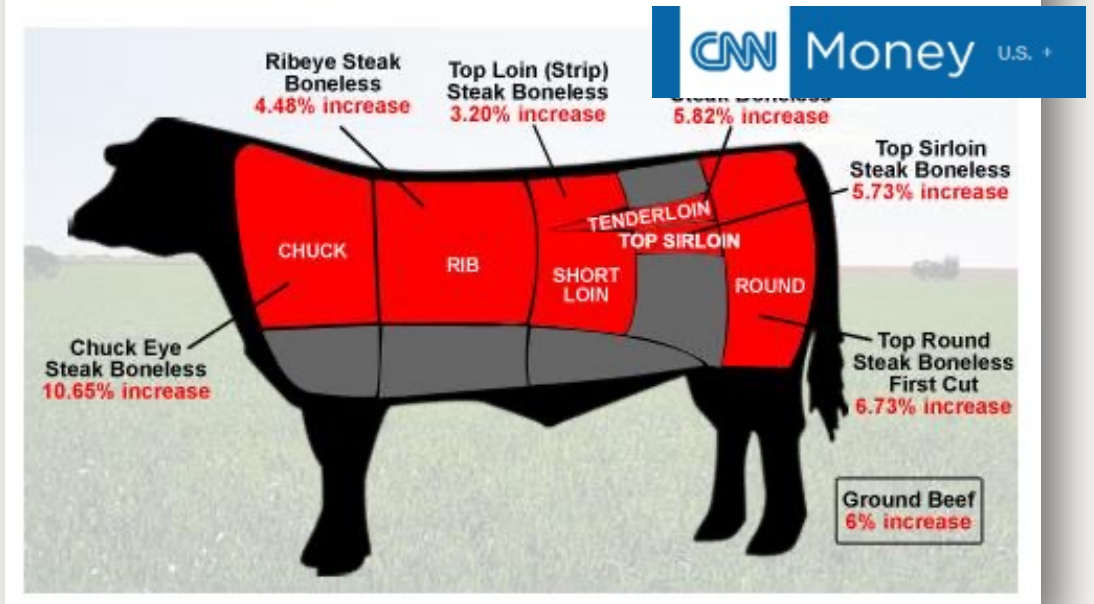
A photograph showing three pizzas on a light-colored table. In the foreground, a large pizza is topped with tomato sauce, melted cheese, sliced mushrooms, and fresh green basil leaves. Behind it, two more pizzas are partially visible. To the right of the pizzas, three tall, slender glasses contain different cocktails: one with an orange drink and a slice of orange, one with a light green drink and a lime wedge, and another with an orange drink and a slice of orange. The background is dark and out of focus.



# STRATEGIC PROCESS IN ACTION...

- June 2011: Industry struggling with increasing food/commodity costs.  
*What will the industry do if beef and poultry prices continue to increase?*
- December 2011: Small group develops “The Blend” concept to address nutrition + sustainability + food cost issues.

## Beef prices soar

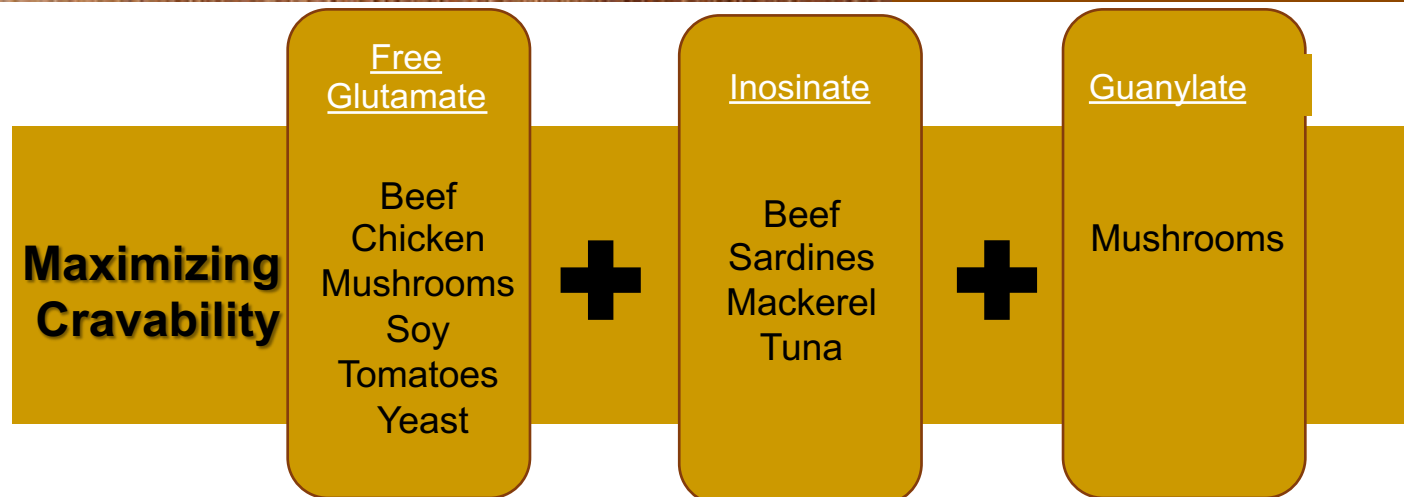






“A 50-50 mixture of two nucleotide compounds can produce eight times as much flavor as either one of the compounds alone!”

## THE BLEND IS THE ULTIMATE FLAVOR LIFTER





# Using Mushrooms to Improve the Nutrition Properties and Consumer Appeal of Popular Meat-based Dishes

## Principal Investigators

Jean-Xavier Guinard, PhD,  
University of California, Davis  
Amy Myrdal Miller, MS, RDN, FAND

## Research Funders

Mushroom Council and Australian  
Mushroom Growers Association





# A Signature Burger!

- The Blend is achieved by simply blending 25% ground white mushrooms into 75% ground meat
- The Blending Strategy brings a Flavor and Quality Lift, with potential cost savings and flexibility
- The Burger is craveable – and forgiveable – holds juiciness and flavor for longer than 100% protein





# Blending as a Strategy

1/3

of HMC members are blending  
plant-based ingredients with  
animal protein

produce consumption and  
enhance nutrient content







# Meatloaf (With a Difference!)

- Current Recipe ... simply replaced 25% beef and pork with raw ground white mushrooms
- Volume increase (due to mushrooms holding moisture) was significant
- Flavor and cravability was increased, as was perception of saltiness; could potentially bring sodium down in meatloaf mixture through reformulation
- Meatloaf was more forgivable – stayed meaty and juicy for longer

Ingredients	
2.5 lbs. ground beef (see recipe)	2.5 lbs.
10 lbs. ground pork (see recipe)	3.75 lbs.
2 pouches (10 lbs.) meatloaf mixture	1 pouch (5 lbs.)
2.5 lb. bag Panko Bread Crumbs	1.25 pounds (1/2 bag)





# The Blend Is More Than A Trend

## It's A Movement To Create Better Menus Popular With Top Chefs

### JAMES BEARD FOUNDATION

## BLEND MUSHROOMS + MEAT

# BLENDED BURGER PROJECT

TO MAKE BURGERS BETTER

29 FRESH & EASY RECIPES • 23 SHOPPING HACKS

## weightwatchers

2017

### Savor Your Summer

WEIGHT WATCHERS

2017

## MUSHROOMS

# IT'S WHAT THE PLANET WOULD ORDER.

### THE CULINARY INSTITUTE OF AMERICA

THE CULINARY INSTITUTE OF AMERICA

### UNITED STATES OLYMPIC COMMITTEE

UNITED STATES OLYMPIC COMMITTEE

## TIME

### TimeOff Food

#### Mushrooms get their moment

by MICHELLE YOUNG

Mushrooms are popping up in odd places all over the supermarket, from coffee and lamb chops to steak buns. That's because the humble fungus is nutritionally impressive, adding to any dish and you'll ingest loads of savory, savory flavor for very few calories. The white mushrooms cook in a mere 10 minutes. Mushrooms also deliver nutrients that many people lack, like potassium, which keeps blood pressure in check: a cup of white mushrooms has nearly 10% of your daily recommended target (4,700 mg), a goal only 1% of Americans meet.

Mushrooms are brimming with phytochemicals, antioxidants and a fiber called beta glucan, all of which have anti-inflammatory properties. That means they can protect you from a number of diseases, says Dr. Lawrence Chouin, director of the Johns Hopkins Weight Management Center. A 2017 study found fungi to be the best source of two disease-fighting antioxidants, ergosterol and glutathione. Low levels of the latter have been linked with higher risks of heart disease, diabetes and cancer.

**THE NUTRITIONAL MERITS** of some of the latest mushroom-enhanced products—like a chocolate drink spiked with mushroom extract—are less clear. But mushroom is increasingly being used to replace red meat. This spring, the fast-food chain Sonic Drive-In briefly introduced a party made with 75% beef and 25% cooked mushrooms, resulting in a burger with less saturated fat and calories. Another recent launch: mushroom jerky made with shiitake stems, which has less protein but more fiber than most versions.

When making your own mushroom creation, shop for dry packages at the supermarket that are free of condensation. Store the mushrooms in a refrigerator in a sealed paper bag, and prep them by wiping them down immediately before cooking.

Mushroom types vary by their taste. For example, one of the most antioxidant-rich fungi is the most potent mushroom in the list. Mushrooms use sunlight to make vitamin D, yet most are grown in the dark. A cup of white mushrooms contains little vitamin D, but one study found that putting them in natural sunlight for 30 minutes gave the vitamin D content between 10 IU and 600 IU per cup, or 25% to 100% of your recommended daily dose. If you chop them up first, you'll increase sun contact and maximize vitamin D production. You also can buy vitamin D-enhanced mushrooms at certain grocery stores.

If fungi turn you (or other picky eaters) off, but you still want to pack in extra vitamin D and antioxidants, grind dried and sun-dried mushrooms into a powder. Mushroom nutrients are heat-stable, so they're not degraded when cooked, notes Robert Beelman of the Center for Plant and Mushroom Foods for Health at Pennsylvania State University. Turn the powder into foods such as pasta sauce, casseroles and bread flour for a nutrient boost with a disguised taste.

### Mushrooms Are Having a Moment

Mushrooms are the new black. In the past years, the humble mushroom has been elevated to the status of the most nutritious food on the planet. It's a trend that's been brewing for some time. In 2014, the Mushroom Council, a trade group for the industry, reported that the U.S. mushroom crop was valued at \$1.1 billion. That's up from \$800 million in 2013. The council also reported that the U.S. mushroom crop was valued at \$1.1 billion in 2014. That's up from \$800 million in 2013. The council also reported that the U.S. mushroom crop was valued at \$1.1 billion in 2014. That's up from \$800 million in 2013.

### Blended Burgers are Juicy, Tasty and Healthy? Genius!

allrecipes!

The "blended burger" could replace the classic American hamburger

## #1 Foodie Buzz Word, 2017: Blended Burger

Blended Burger Project

## Consumer Reports

Though barbecue season may be winding down, you still have plenty of time to throw some burgers on the grill. And never fear—even if you're trying to eat healthfully, there's no need to forgo your tasty hamburger for a garden salad. With just a few smart tweaks, you can easily build yourself a healthy burger. So start the grill and follow these tips.

### Can Mushroom-Enhanced Burgers Get Kids to Eat More Produce?

## FOOD & WINE

Inspiration served daily

BRUNCH BURGER SIGNATURE CHEESEBURGER GUACAMOLE BURGER

### BRUNCH BURGER SIGNATURE CHEESEBURGER GUACAMOLE BURGER

Season's Fresh Market





Blending Meat & Mushrooms



# The First Breakthrough To Scale



## Can Mushroom-Enhanced Burgers Get Kids to Eat More Produce?

# FOOD & WINE

SCIENTIFIC  
AMERICAN

English • Cost • Sign in • Register

IN THE SUSTAINABLE LIFE RESOLUTION PERIOD FOLLOWS BELOW STAGE

PELLHESS

## "The Blend," a Meat-Mushroom Amalgam, Hits Restaurants and School Cafeterias

The hybrid is healthier than all-beef dishes—and a more sustainable option, too.

250M Calories  
38M Fat Grams  
15M Sat Fat  
Grams



## Sodexo Switches to Blended Burgers

Leading foodservice provider Sodexo is taking tremendous strides in the national movement to increase fruits and veggies in school lunches by transitioning from all-beef burgers to blended burgers in all 250 school districts it serves. The switch to blended burgers could mean 250 million calories, 38 million grams of fat, 15 million grams of saturated [...]







Hey! A tomato,  
another plant!

Wow! That burger  
is 25-30% mushroom!



Made from plants

Look! More plants!

The Original SONIC® Slinger,  
a Blended Mushroom Burger





# A Major Tipping Point

**THE BLENDED BURGER PROJECT**  
returns in 2018!

The Blended Burger Project™ is a movement that strives to make burgers healthier by blending ground meat with chopped mushrooms, resulting in incredibly delicious patties that are healthier for your guests and more sustainable for the planet. Over 400+ chefs pledged to blend their burgers in 2017 and we are excited to, once again, challenge chefs across the country to take part.

Join the movement and start reimagining your burger today.

**JAMES BECHTOLD**  
FOUNDER 1996

[www.jamesbechtold.org/blendedburgerproject](http://www.jamesbechtold.org/blendedburgerproject)

#blendtheburgerproject

★ ★ ★ NATION'S RESTAURANT NEWS MENU MASTER AWARD FOR THE BEST LIMITED TIME OFFER 2018 ★ ★ ★

*New* **SONIC**  
*Signature*  
**SLINGERS**

Premium patty  
BLENDED WITH  
**3** SIMPLE INGREDIENTS

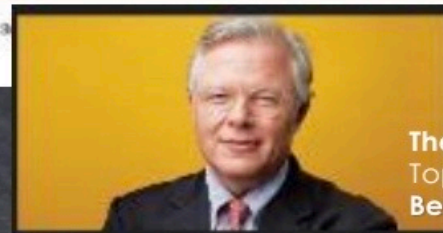
- SAVORY MUSHROOMS
- 100% PURE BEEF
- BOLD SEASONINGS

Starting at just **340 CALORIES**

**\$1.99** *Classic*

**\$2.49** *Bacon Melt*

\*SONIC'S 340 CALORIES. Tax is not included. Add-Ons cost extra. See menu for details. Limited & ©2018 America's Drive-In Brand Properties LLC



The Menu Innovator  
Top 50 Food Influencers  
Best LTO of the Year, MenuMasters

**Here's How Sonic's New 'Slingers' Are Revolutionizing Burgers**

Constantine Spyrou  
Jun 23, 2017

**Now You Can Get Sonic's Part-Mushroom Part-Meat Burger Everywhere**

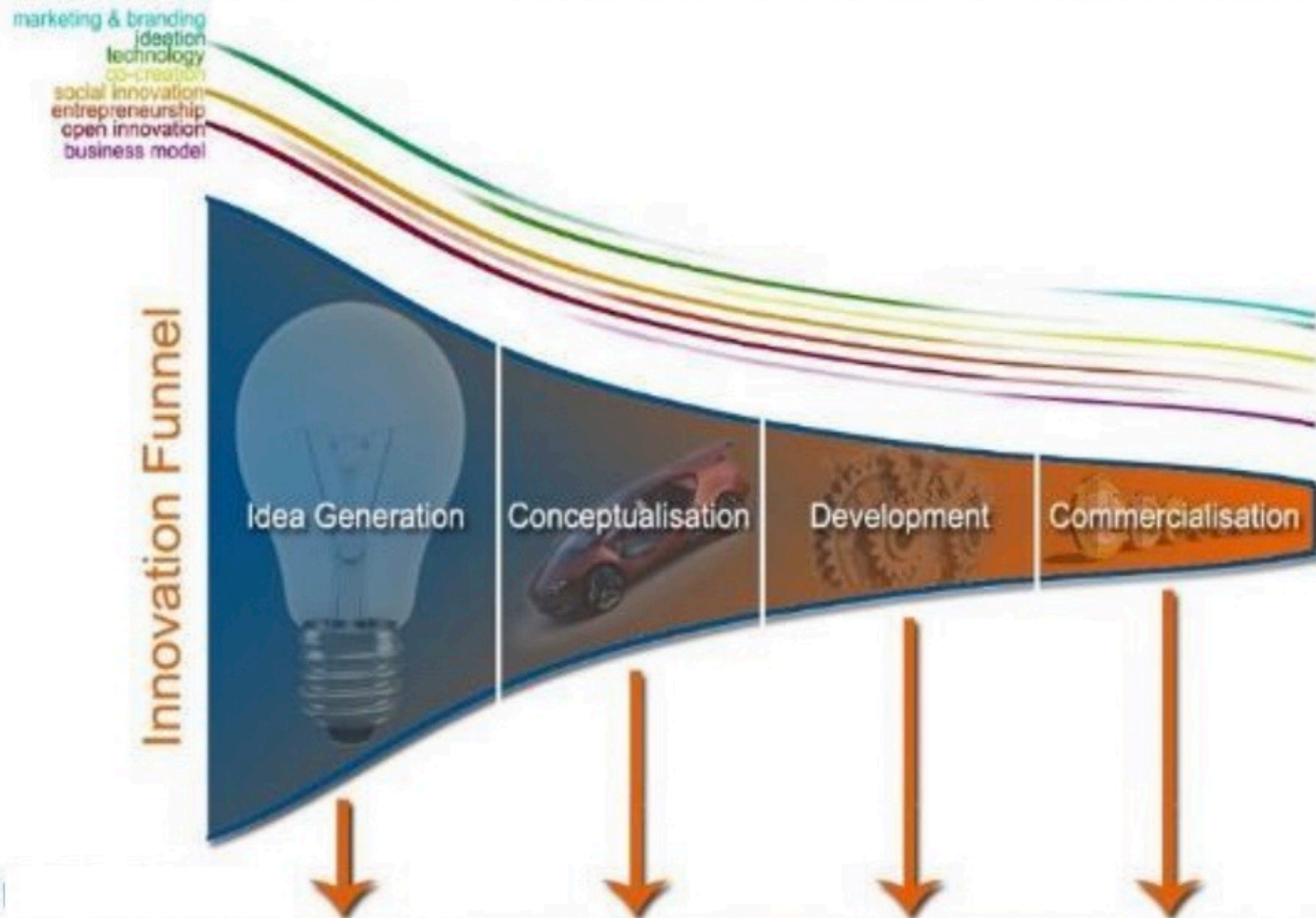
The burger is back to better than ever before! Great idea has become reality. Now a large 16 oz. drink. Blends the best of both worlds.

BY NIKOLE PETERSON

When Sonic Drive-In started testing a new burger that blended mushrooms and beef, it was a bold move. But now, the Sonic Signature Slinger is a reality.



# Evolution of a Concept



Unmet  
Need

Emerging  
Presence

Inspire  
Activate

Networked/  
Scale





# 65%

Of consumers eat blended items

The Power of Meat 2022 found that 65% of American consumers eat meat blended with vegetables and/or mushrooms occasionally or frequently.

This includes people creating their own blends as well as an ever-growing variety of blended solutions at retail, in the frozen food aisle, meat case and in produce — with ready-to-blend diced mushroom solutions.

Sensory evaluations show that

Source: The Power of Meat 2022





# First We Have To Figure It Out—Does The Consumer Care



## 2021 Food Culture Year in Review: Five Key Insights That Influenced Food Culture

Holistic Health & Wellness Landscape

Healthier Snacking

Reimagining the Role of Brands:  
More Discerning Choice

Demand for Plant-Based as a  
Reflection of Modern Wellness  
Culture

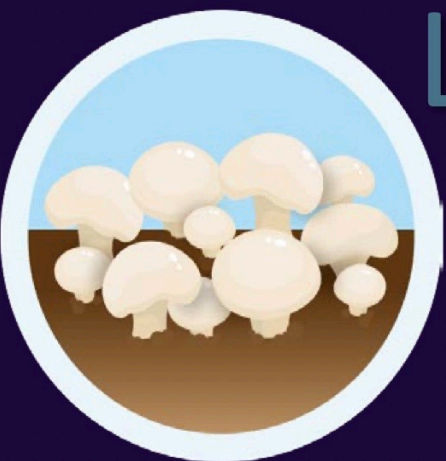
Sustainability Considerations  
About What To Buy and Where





# **MUSHROOMS AND SUSTAINABILITY**





Look At The Facts

Mushrooms  
Can Be Considered  
One of The Most  
Sustainably-Produced  
Foods In The U.S.





# BRING ON THE BLEND

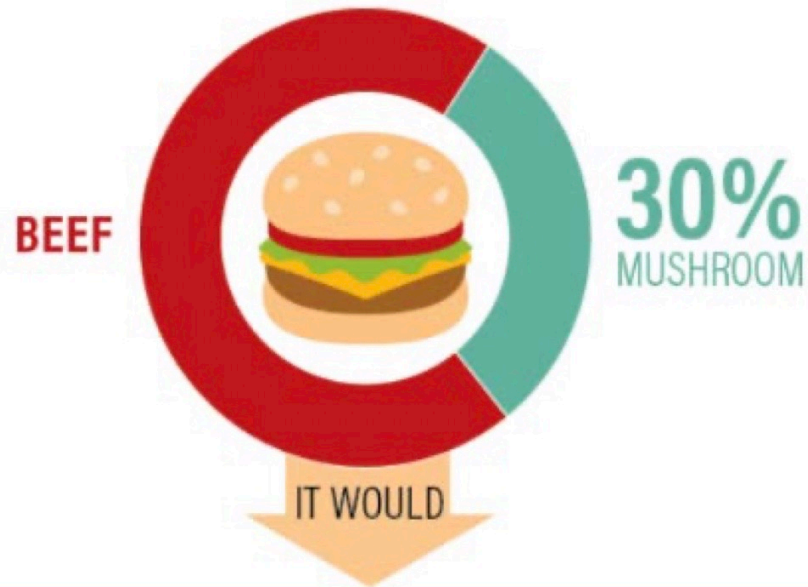
WITH MUSHROOMS

ONE OF YOUR FIVE A DAY



**10** BILLION  
BURGERS  
ANNUALLY

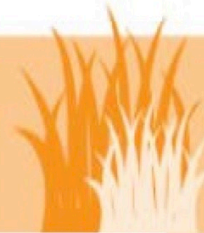
IF 30% OF THE BEEF IN EVERY BURGER  
WAS REPLACED WITH MUSHROOMS...



Save as many emissions as taking  
**2.3 MILLION CARS** off the road



Conserve as much water as **2.6 MILLION  
AMERICANS** use at home each year



Reduce agricultural land demand by an  
**AREA LARGER THAN MARYLAND**

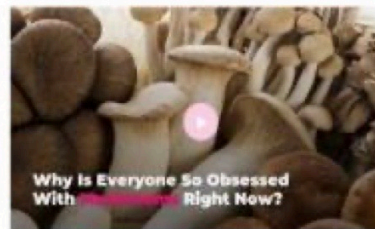
OPINION **REAL SIMPLE**

REAL SIMPLE | FOOD | RECIPE COLLECTIONS & FAVORITES | POPULAR INGREDIENTS

## Why Is Everyone So Obsessed With Mushrooms Right Now?

For starters, they're packed with nutrients, adaptogens, and have an extremely low environmental impact.

By Lauren Pether February 22, 2020



Why Is Everyone So Obsessed  
With Mushrooms Right Now?



WORLD RESOURCES INSTITUTE





Why mushroom mycelium could be your next house, handbag, or 'hamburger'

- WATER USAGE
- CARBON
- UPCYCLING
- NO SOIL DEPLETION/USE OF UNUSED SPACES
- LITTLE AGRICULTURAL WASTE
- LAND RESOURCE SAVINGS
- VERTICAL FARMING INNOVATORS
- NO SEASONALITY/CLIMATE ISSUES
- POSITIVE COMPOST CYCLE
- IMPERFECT PRODUCE
- MINIMIZED FOOD WASTE AT FARM LEVEL (PLNT/BLEND)



# Strategies To Take Advantage

Create &  
Promote  
Familiar Items  
That  
Consumers  
Accept and  
Can Help You  
Make A  
Difference



Maximize Your  
Benefits: By  
Considering  
Menu Items  
That Are At The  
Intersection of  
Flavor-Nutrition-  
Sustainability



# **HELPING FOODSERVICE TO UNDERSTAND SUPPLY CHALLENGES AND SOLUTIONS:**

- **Strong and Growing Demand – Back to the Future!**
- **Mushrooms are Uniquely Grown; Labor Intensive:**
  - **Farms replanted 4 times/year**
  - **Every mushroom handpicked 364 days/year**
  - **Growing Substrate requires 30 different materials**
- **Growing Materials, Packaging, Transportation Availability and Cost Challenges**
- **Expect and Embrace Shorter contracts**
- **Widen the Spec for type/sizing**
- **Lean into sliced & even “ugly” (more mature) when possible**



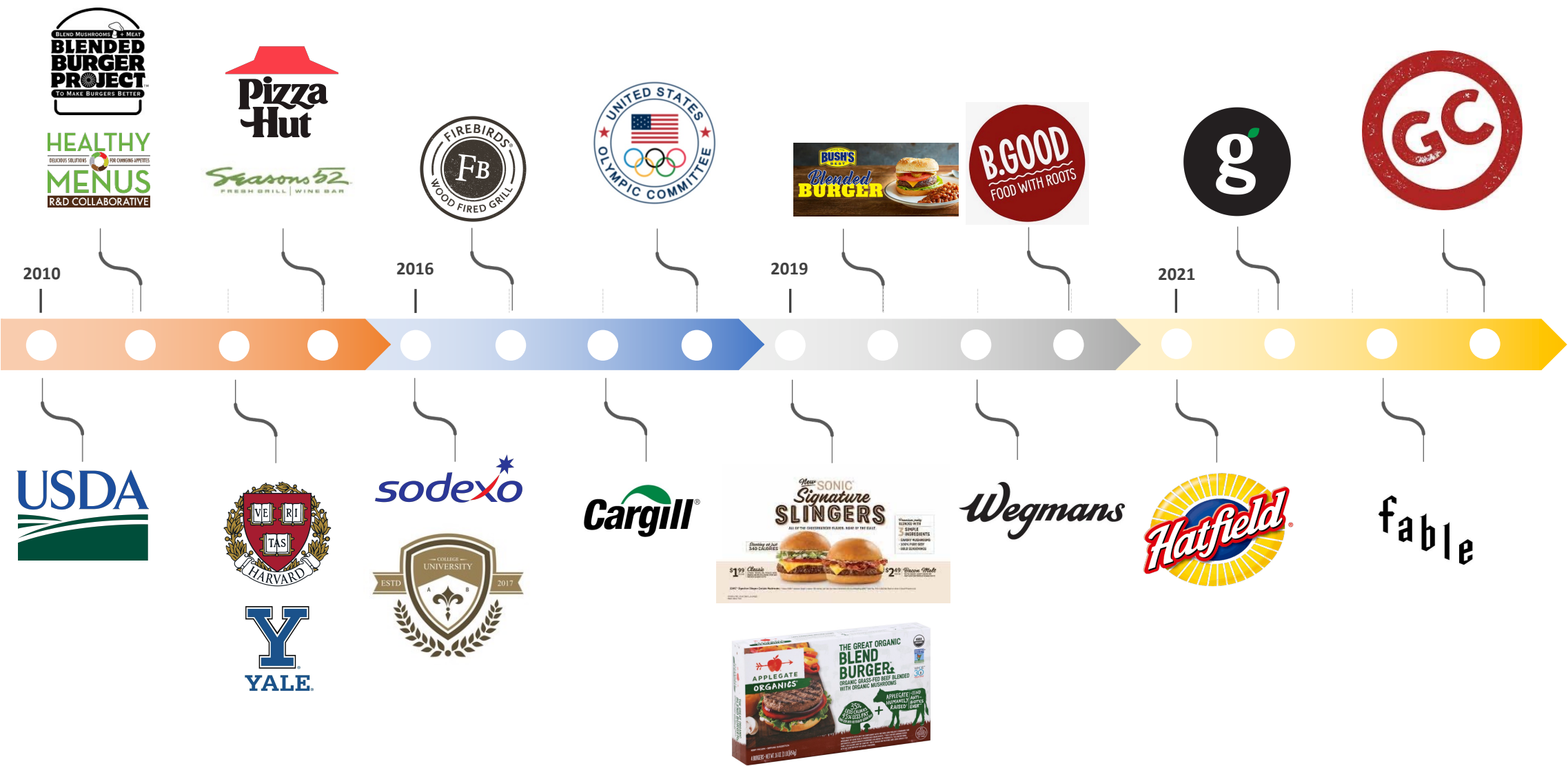


Why not  
Imperfect?





# The Mushroom Council Foodservice Timeline





AN EXCITING PATH  
FORWARD!

MUSHROOMS  
ARE  
THE ANSWER!





# Thank You!



Shaping  
America's  
Plate

Shaping  
America's Plate