



# A Practical Approach to Delivering Sweet Flavor

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# LET'S GET STRAIGHT TO THE POINT

SUGAR ALCOHOL  
SCRUTINY

LIMITS IN USING  
FIBER

FUNCTIONAL  
PROPERTIES OF  
SUGAR

# Before the solution, we need to understand what we are replacing.

- Sugar is one type of carbohydrate, as are fiber and starch.
- Sucrose is one of several types of sugar naturally found in foods, including fruits, vegetables, grains and dairy products.
- Other natural sugars include:
  - Fructose
  - Galactose
  - Glucose
  - Lactose
  - Maltose



Before the solution, we need to understand what we are replacing.

Sweet Taste

Mouthfeel

Flavor

Decoration

Texture

Color

Solubility  
control

Freezing Point  
and  
Crystallization

Moisture  
Control

Preservation

Stabilizing and  
Suspension

Fermentation

# What are the solutions?



BULK



BODY



MOUTHFEEL



TASTE



BALANCE TO  
FLAVOR OF  
FORMULA

# Combination



# Spices and flavor combinations

- Cinnamon
- Salt
- Chocolate
- Herbs
- Cocoa





# Fibers/Gums/ Non-nutritive sweeteners

- Corn fibers
- Psyllium husk
- Hemp
- Inulin
- Tomato
- Other Fruit & Vegetable







# Proteins/Fat

- Mung bean
- Rice
- Pea
- Nuts
- Collagen
- Sunflower

# Flavor Enhancers

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- Tomato concentrate
- Stevia extracts
- Yeast extracts
- Mushroom extracts
- Fermented products
- Protein sources

## Glutamate Content of Common Foods per 100 g



Tomatoes  
0.5 g



Almonds  
6.8 g



Soy Sauce  
1.6 g



Spirulina  
8.4 g



Soy Protein Isolate  
17.5 g



Parmesan Cheese  
8.2 g



Beef Loin  
6 g



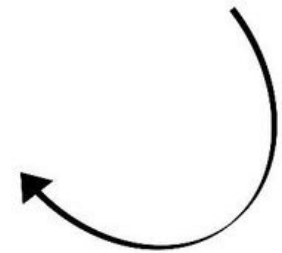
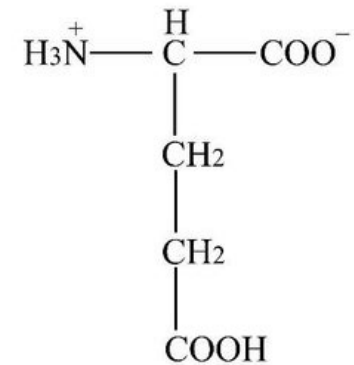
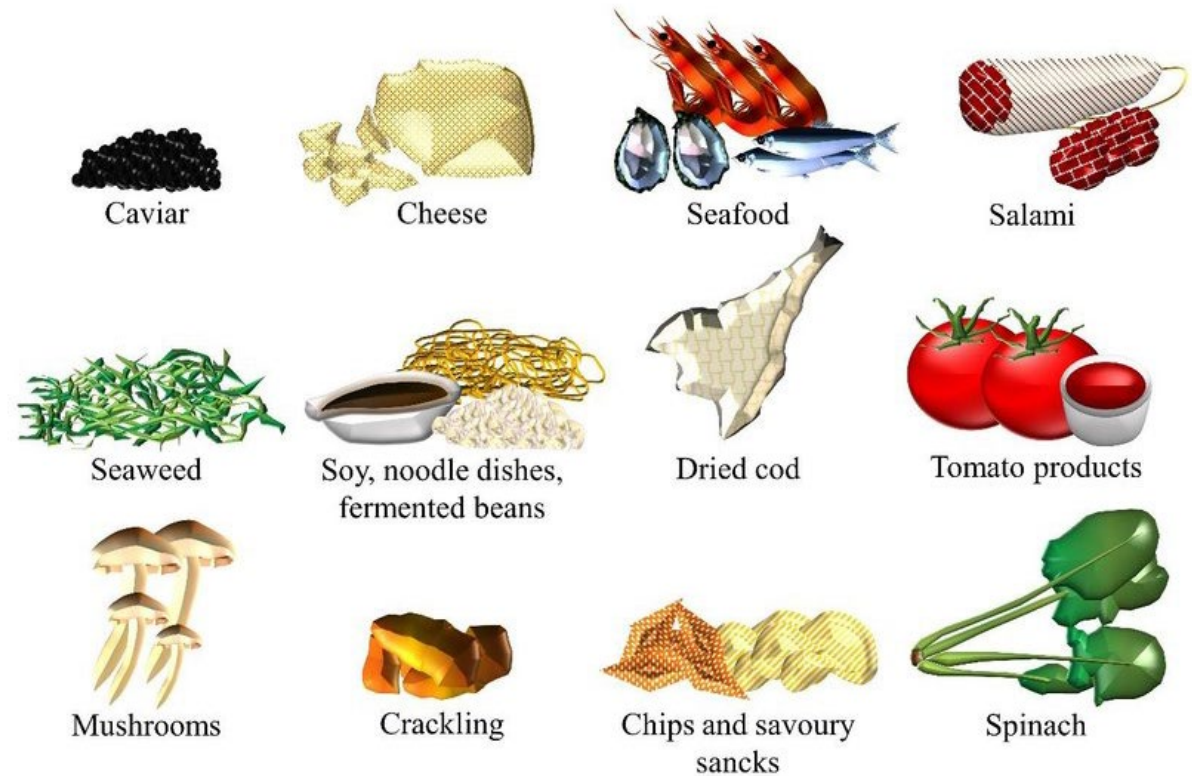
Whey Protein Isolate  
14 g



Bacon  
5.6 g

# Naturally occurring Glutamates

- Roasted Nut Pastes
- Cheese and Cheese oils
- Mushrooms like Shitake and Porcini
- Whole tomatoes





# Switching Gears to Baking

What are  
the  
functions  
of sugar in  
baked  
goods?

TEXTURE

BODY

COLOR DEVELOPMENT

TASTE

MOISTURE RETENTION



# Optional Solves

Instead of reducing sugar, replace added sugar with fruit sugars to retain moisture

- Intermediate moisture date paste
- Dried fruit or vegetable powders

Increase fat, protein, and/or leavening

- Pulling from formulas for breads, biscuits, etc.
- Bringing texture with leavening (chemical, yeast, or egg)

Try enzymes like maltase or glucoamylase

- In the presence of maltose or starch, these enzymes will essentially breakdown their respective substrates to glucose

# CONTACT US

PLEASE REACH OUT



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**CHARLIE BAGGS**  
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A close-up photograph of a chef's hands in a white uniform, garnishing a plate of food. The chef is adding a green herb to a dish that includes a piece of seared meat, blueberries, and other vegetables. The background is slightly blurred, showing another chef in a white uniform.

# THANK YOU!