Real Products, Real Decisions: Scale-Up in Practice

Bryan Quoc Le, Ph.D.
Mendocino Food Consulting LLC
July 30, 2026

About

- Ph.D. in Food Science from UW-Madison
- +6 years experience consulting for venture-backed food startups
- Author of 150 Food Science Questions Answered, host of "The Flavor Matrix"
- Deep expertise in flavor chemistry, product formulation, food safety and spoilage

About

BLUE DIAMOND
GROWERS

DECOPAC

Mi

GROUPE
LACTALIS

gfi
Good Food
Institute

Black Sheep
FOODS

TurtleTree

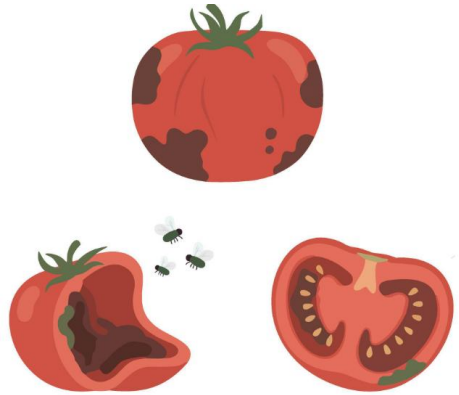
allozymes
accelerating the evolution

FUMARI
EST. 1997

Challenges

Unmet Market Needs

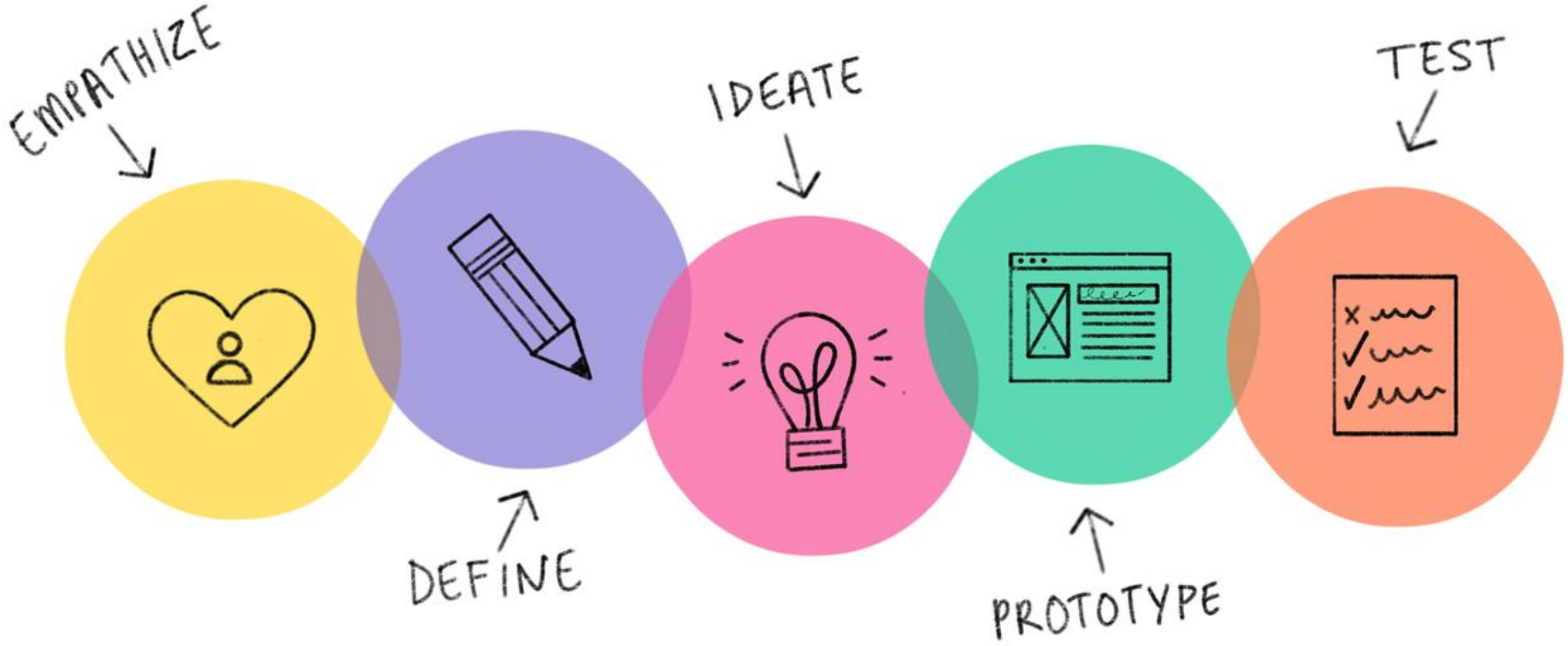
Spoilage and Flavor Loss



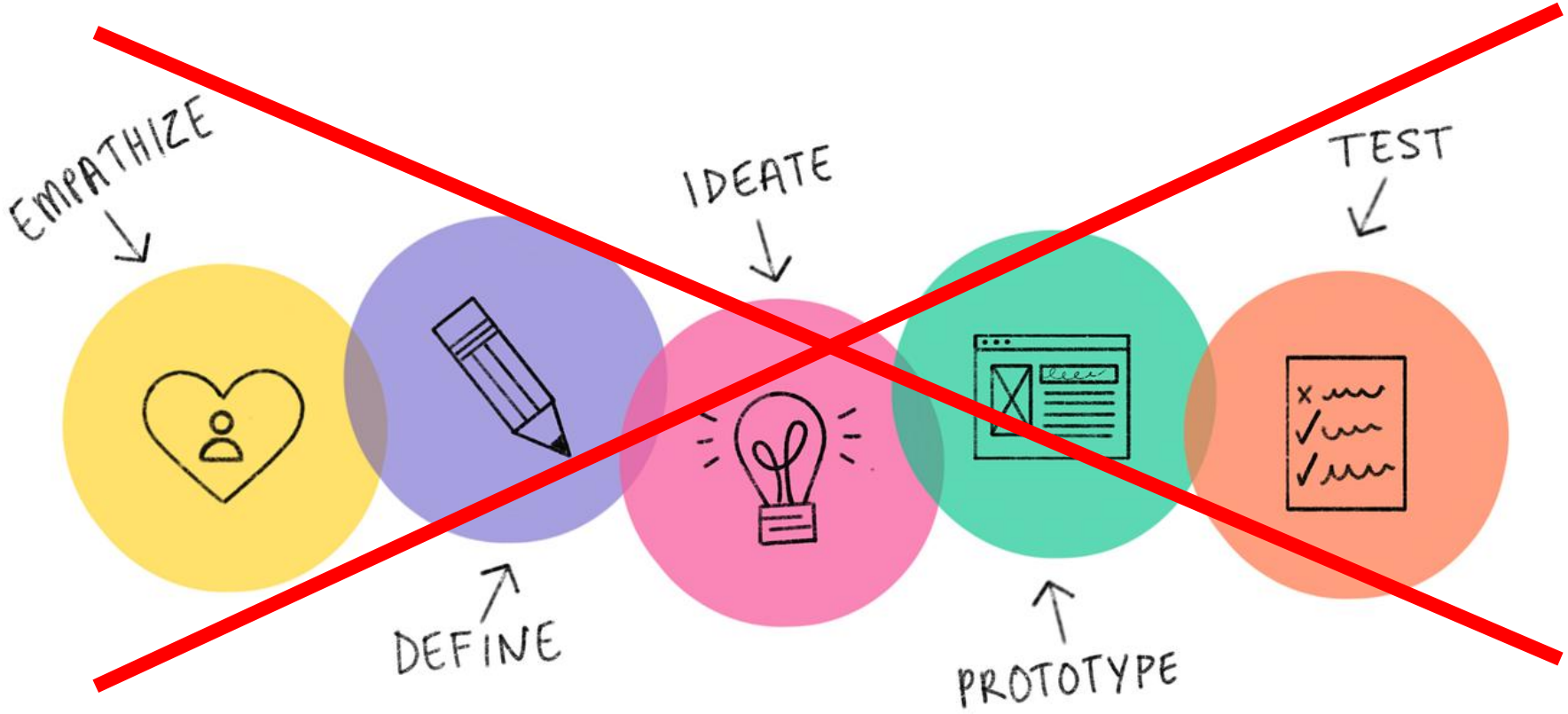
Scale-Up Challenges

Unknown Nutrition Data

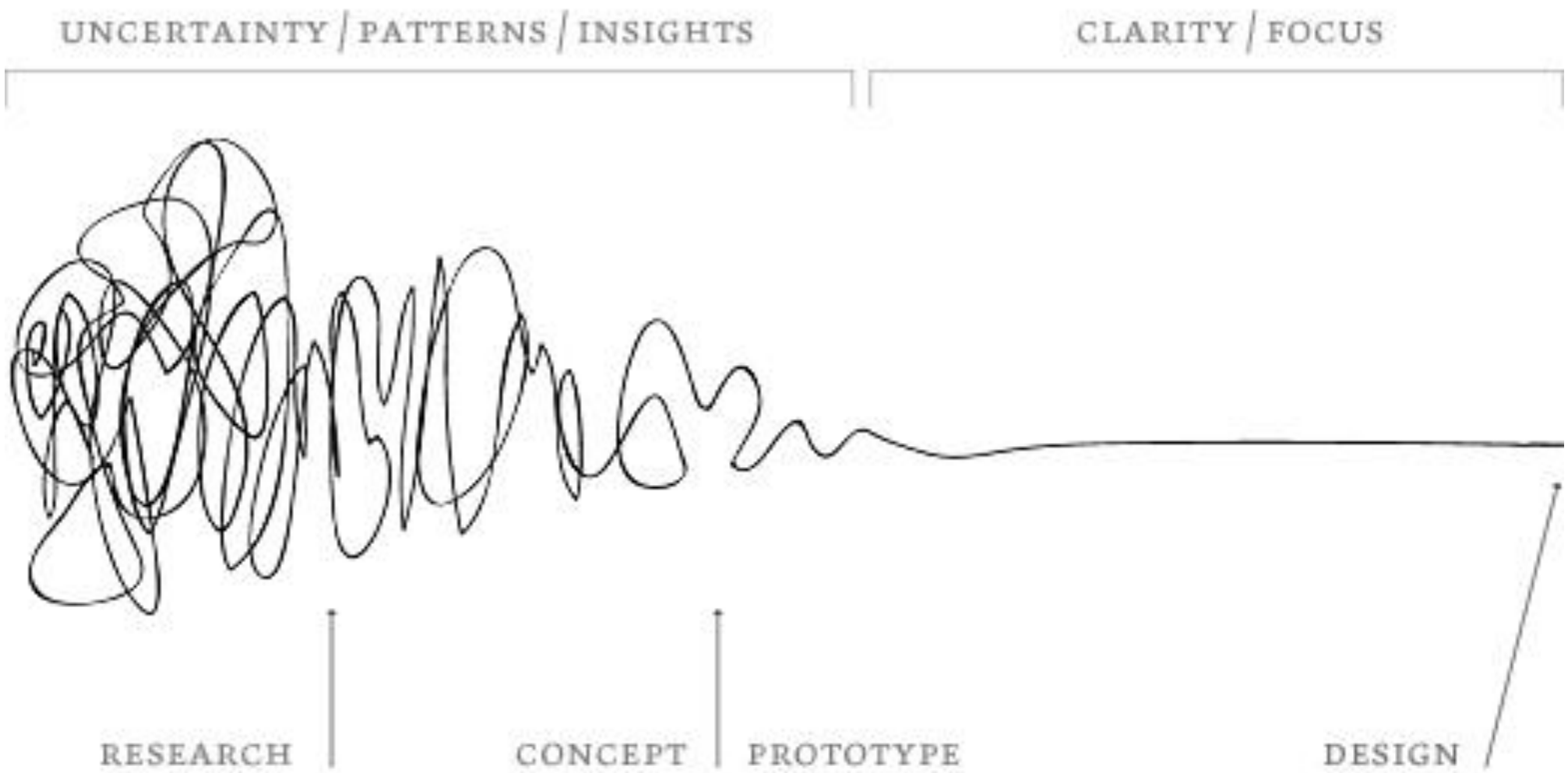
Design Process



Design Process



Design Process



Case Study #1 –Protein Powder

Case Study #1 –Protein Powder

Client Needs:

Case Study #1 –Protein Powder

Client Needs:

- Rapidly soluble

Case Study #1 –Protein Powder

Client Needs:

- Rapidly soluble
- Three new flavors

Case Study #1 –Protein Powder

Client Needs:

- Rapidly soluble
- Three new flavors
- Clean-label

Case Study #1 –Protein Powder

Client Needs:

- Rapidly soluble
- Three new flavors
- Clean-label
- Zero sugar

Product Design

Product Design

Instantized Whey Protein

Product Design

Instantized Whey Protein

Emulsifiers

Product Design

Instantized Whey Protein

Emulsifiers

High-Durability Flavors

Product Design

Instantized Whey Protein

Emulsifiers

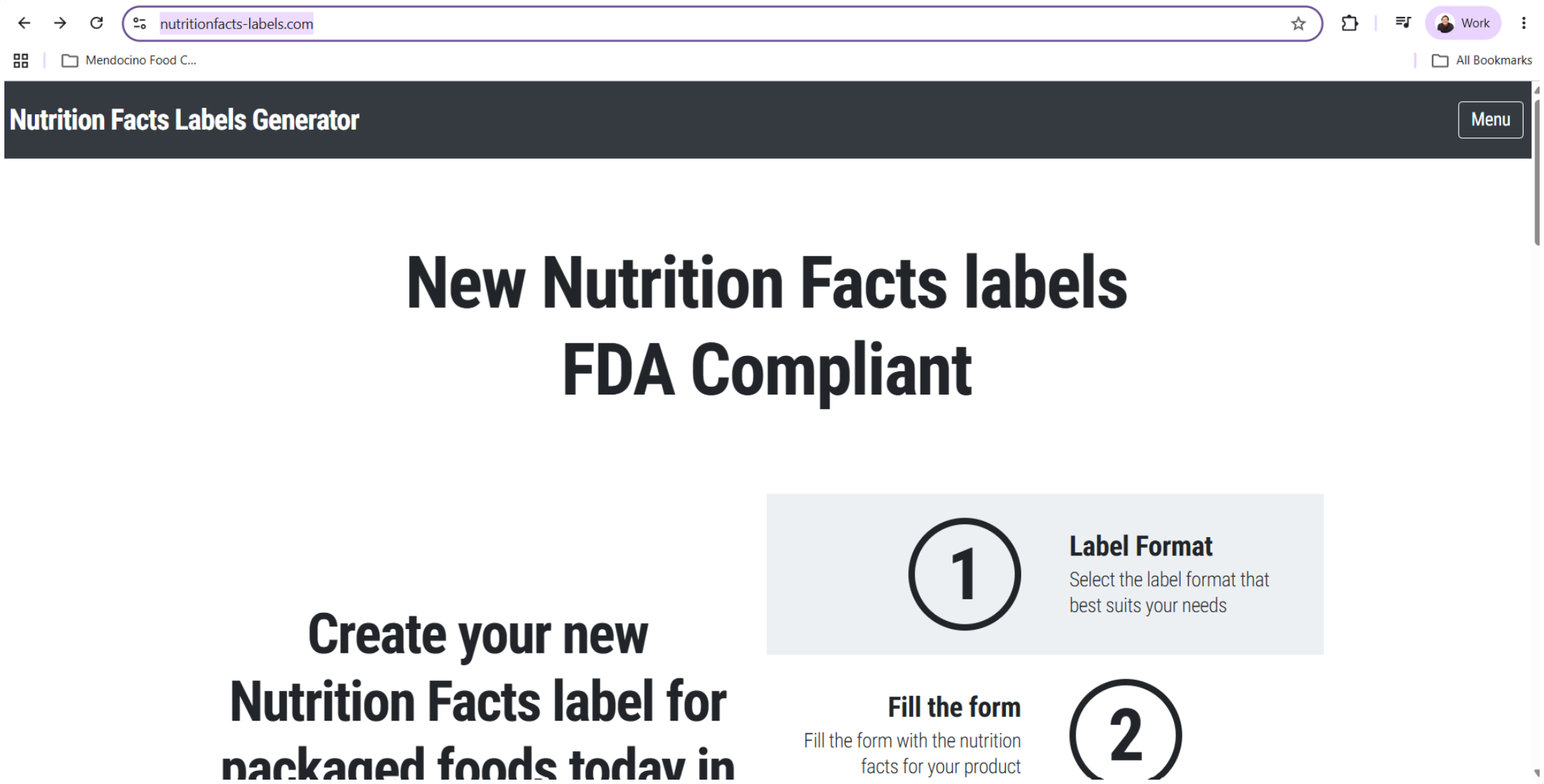
High-Durability Flavors

High Barrier Packaging

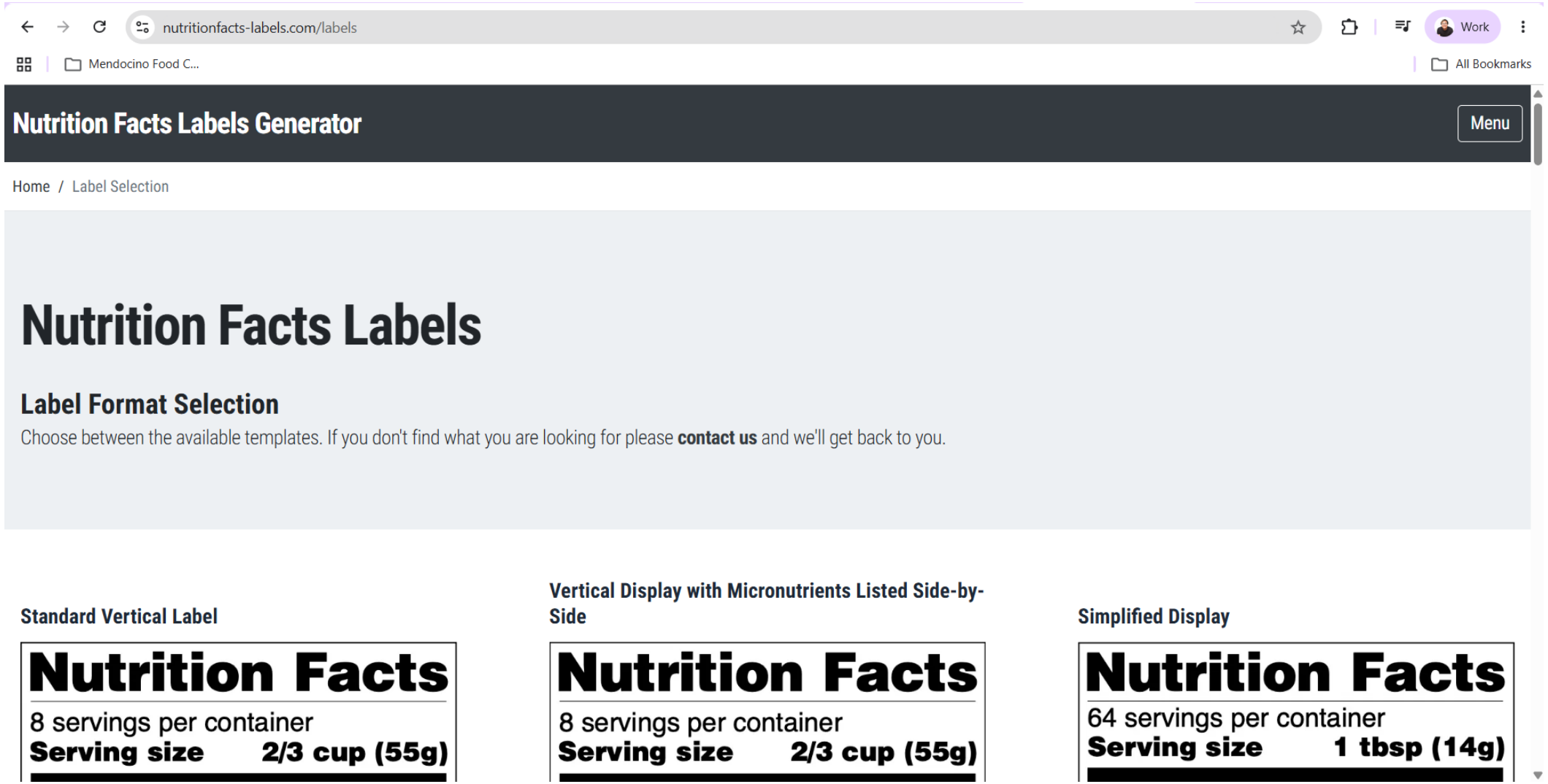
Nutritional Labeling

Nutritional Labeling

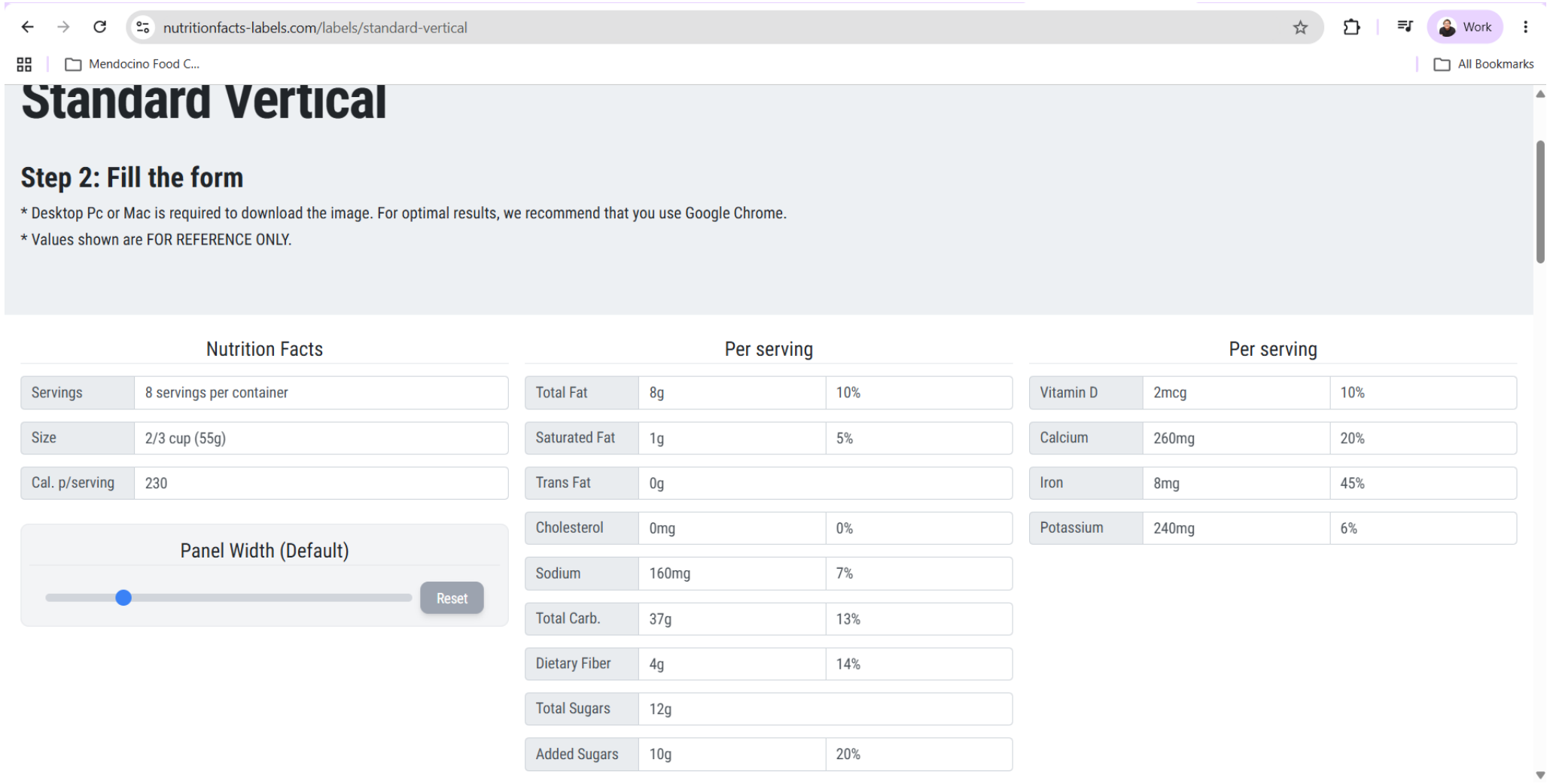
Nutritional Labeling



Nutritional Labeling



Nutritional Labeling



Case Study #2 – Pre-Packaged Pizza

Case Study #2 – Pre-Packaged Pizza

Client Needs:

Case Study #2 – Pre-Packaged Pizza

Client Needs:

- Extended Shelf-Life

Case Study #2 – Pre-Packaged Pizza

Client Needs:

- Extended Shelf-Life
- Atmospheric Packaging

Case Study #2 – Pre-Packaged Pizza

Client Needs:

- Extended Shelf-Life
- Atmospheric Packaging
- Regulation Compliant

Challenges

Challenges

Spoilage Microorganisms

Challenges

Spoilage Microorganisms

Cost of Gas/Mixture

Challenges

Spoilage Microorganisms

Cost of Gas/Mixture

Process Workflow

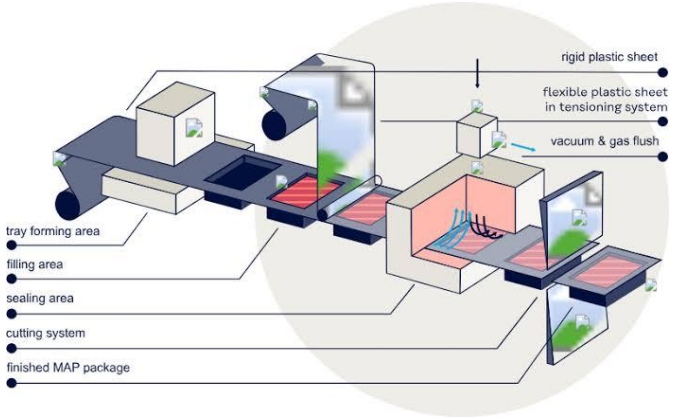
Challenges

Spoilage Microorganisms

Cost of Gas/Mixture

Process Workflow

Equipment



Case Study #3 – Creamy Vinaigrette

Case Study #3 – Creamy Vinaigrette

Client Needs:

Case Study #3 – Creamy Vinaigrette

Client Needs:

- Extended Shelf-Life

Case Study #3 – Creamy Vinaigrette

Client Needs:

- Extended Shelf-Life
- Clean-Label

Case Study #3 – Creamy Vinaigrette

Client Needs:

- Extended Shelf-Life
- Clean-Label
- Retain Texture

Case Study #3 – Creamy Vinaigrette

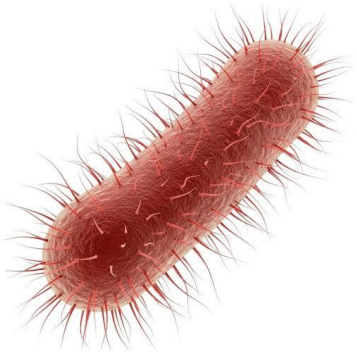
Client Needs:

- Extended Shelf-Life
- Clean-Label
- Retain Texture
- Replacement of MSG

Challenges

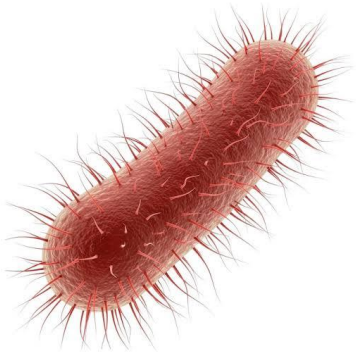
Challenges

Pathogens



Challenges

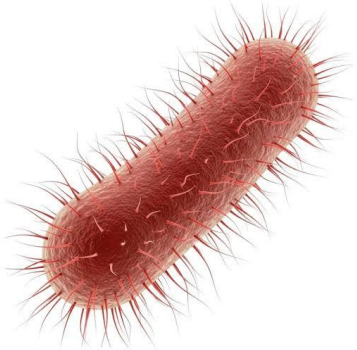
Pathogens



Flavor Profile

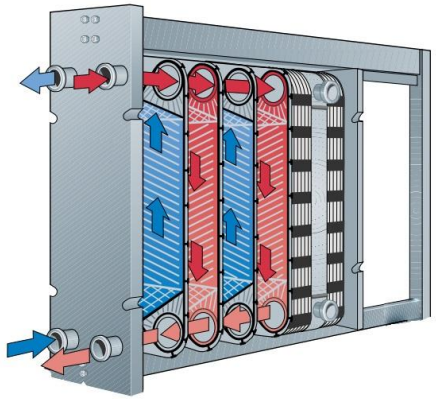
Challenges

Pathogens



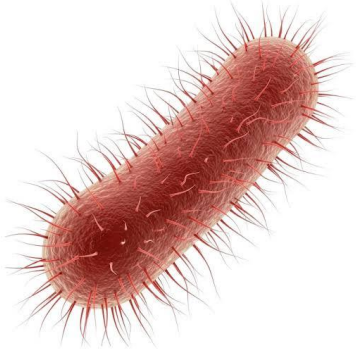
Flavor Profile

Thermal Processing



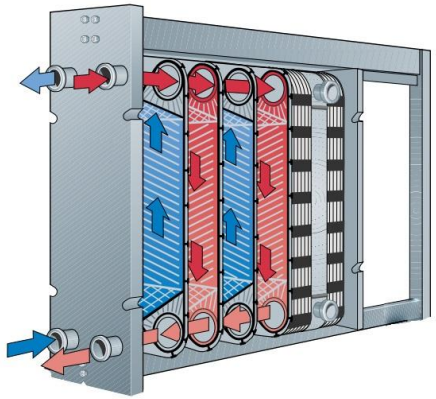
Challenges

Pathogens



Flavor Profile

Thermal Processing



Clean Label Replacements

DESIGNING THE FUTURE OF FOOD

Mendocino

FOOD CONSULTING

bryan@mendocinofoodconsulting.com

www.mendocinofoodconsulting.com

Connect with us!

Questions?

Mendocino
FOOD CONSULTING

bryan@mendocinofoodconsulting.com

www.mendocinofoodconsulting.com

Connect with us!