

Sensory Analysis and Quality Assessment for Food & Beverage





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*Cofounder
DraughtLab*

ABOUT US

- Based in Rochester since 2016
- Sensory Analysis Tools
- Taste Panels & Focus Groups



14K+
TASTE
PANELISTS

20K+
BRANDS
EVALUATED

BEER
CIDER
KOMBUCHA
SPIRITS
WINE
CHOCOLATE
CANNABIS
SELTZERS
MEAD
COFFEE
PIES
SOUS VIDE MEAT
MRE
BABY FOOD
SOUPS
SAUSAGE
SALAMI

PEANUT BUTTER
BUTTER
CHEESE
VEGAN CHEESE
OYSTERS
PORK
CANNED MEAT
FROZEN MEALS
CANNED CHILI
CONDIMENTS
MALT
FLOUR
HOPS
YEAST
YOGURT
RICE
+ MANY MORE

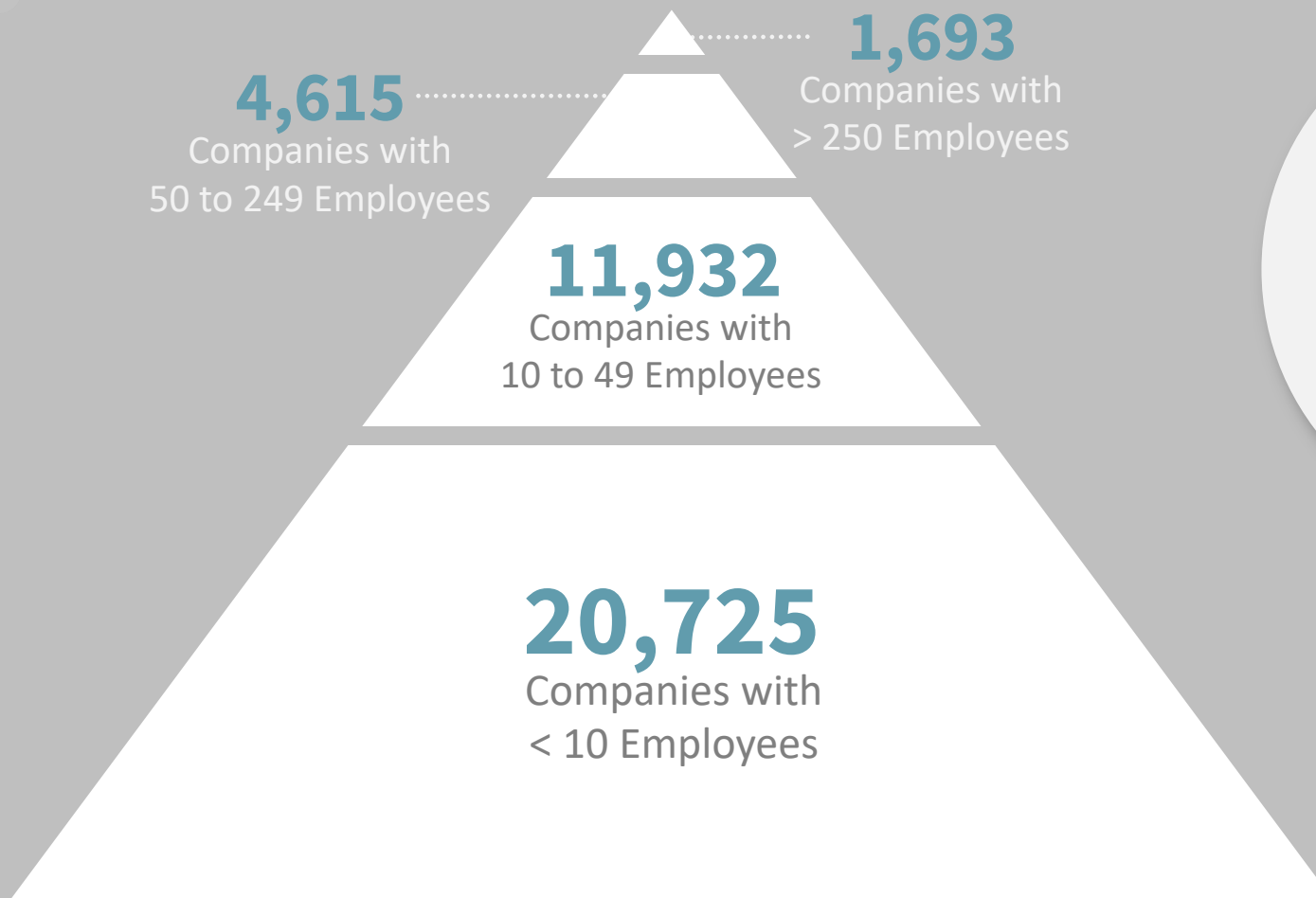


TODAY'S AGENDA

1. Industry background
2. What is sensory science?
3. Applications of sensory analysis
4. Running a sensory QC test
5. Examples

FOOD & BEVERAGE INDUSTRY

DISTRIBUTION OF COMPANIES BY SIZE



84%
COMPANIES WITH
< 50 EMPLOYEES

U.S. Census Bureau. 2019 Census Data. <https://data.census.gov/>

FOOD & BEVERAGE INDUSTRY

70%-80%

US New Product
Failure Rate

24%

Top 20
Companies

88%

Other
Companies

**Nielsen; Nielsen's Top 25 U.S. Breakthrough Innovations (2019); June 15, 2020*

***Inez Blackburn; Speed to Market -Capitalizing on Demand; U Connect 08*



QUALITY ISSUES...

- Erode consumer confidence
- Raise investor & leadership concerns
- Have legal implications



SENSORY SCIENCE



Field of study that focuses on understanding and **measuring** human responses to their senses.

Sight, Smell, Taste, Touch, Hearing

SENSORY SCIENCE

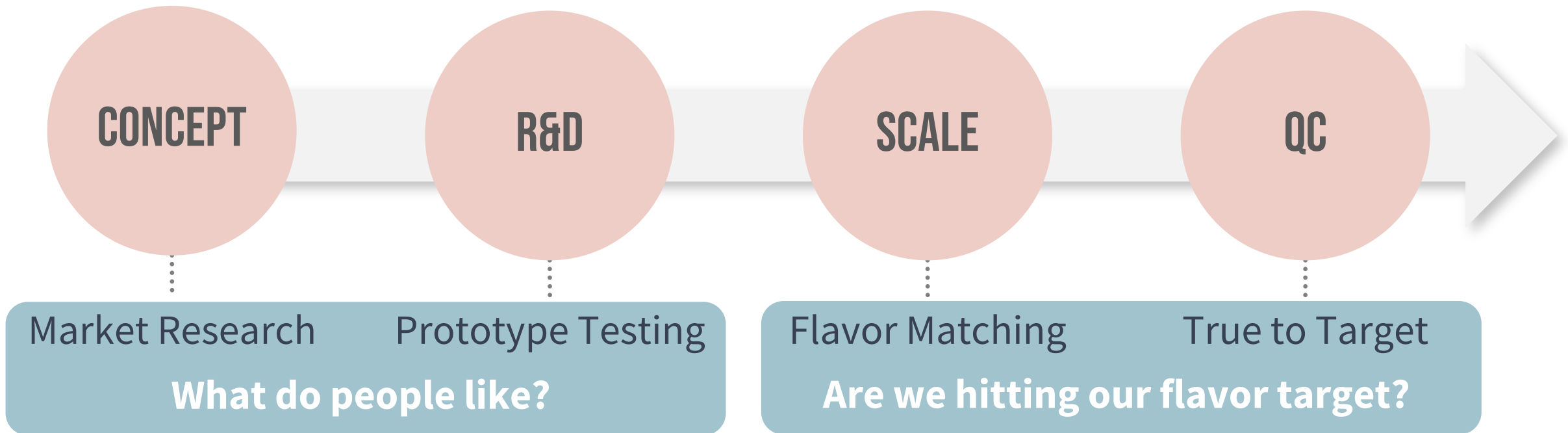


WHAT IS IT?

- What do you **DETECT**
- What do you **LIKE**



SENSORY & THE PRODUCT CYCLE



SENSORY ANALYSIS



VS.



ANALYTICAL CHEMISTRY

BUILDING A TARGET

WRITTEN DESCRIPTION

This flavor description is the current written baseline target from which all subsequent batches will be compared.

VISUAL: Dark yellow color with a moderate amount of white foam and light lacing.

AROMA: Vanilla and bubblegum, citrus, orange, apricot, followed by some peach, water cracker, and spicy notes.

TASTE: Lightly sweet, no bitterness, with a subtle sourness.

MOUTHFEEL: Light body and moderate carbonation.



The screenshot shows the DraughtLab mobile application interface. At the top, there is a red header with the DraughtLab logo and a settings gear icon. Below the header is a white card with a red border. The card features a circular image of a tomato bisque with a magnifying glass icon in the bottom right corner. Below the image, the text reads "Tomato Basil Bisque" and "Batch: N/A". A grey bar contains the text "OVERALL TRUE TO TARGET" and "Overall, is this sample reasonably true to target?". Below this, there are two radio buttons labeled "YES" and "NO". A text input field labeled "Comments" is positioned below the radio buttons. At the bottom of the card, there is a camera icon and the text "Add an image".

TRUE TO TARGET TESTING

- Flag Defects
- YES/NO in Acceptable Range
- Compare to Target



TTT RESULTS

89%
PERCENT DEFECT

Aroma Taste Mouthfeel

TRUE TO TARGET



**MISSED
DRYHOP
TROUBLESHOOTING**



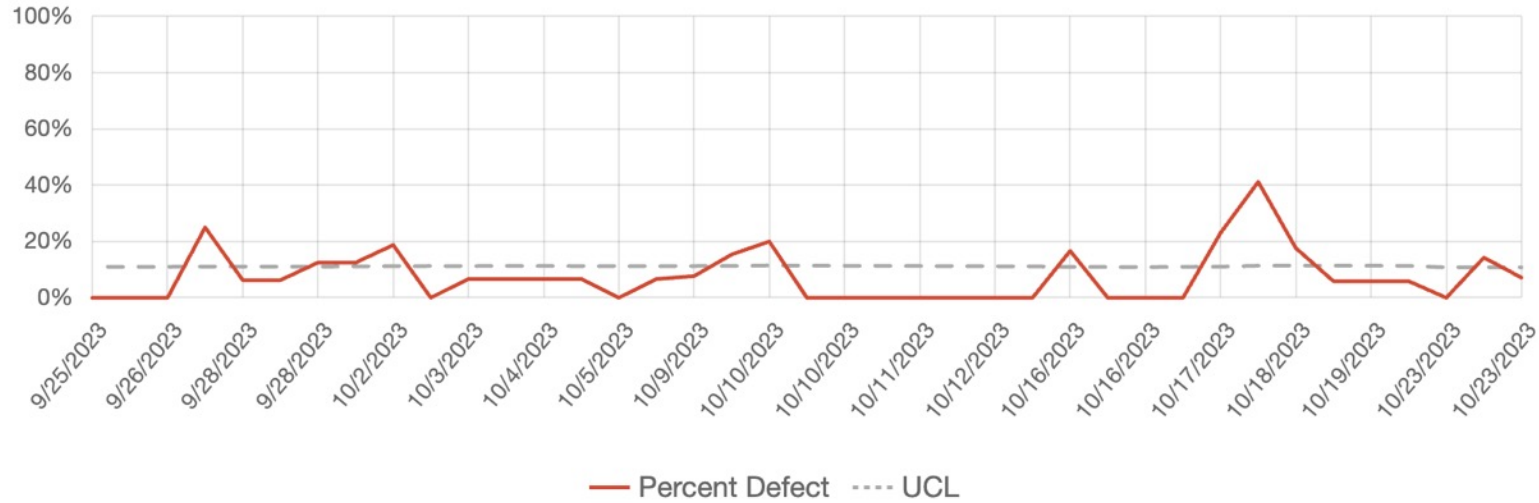
NOT TRUE TO TARGET

- NM** Stale.
- A** No citrus, no grassy or floral notes. Only sweet bread notes
- A** Grapefruit, soapy, bubblegum
- JR** Not getting much floral or cut grass character
- A** Fruit is very subdued

CHARTING THE RESULTS

HEALTHY
P-CHART

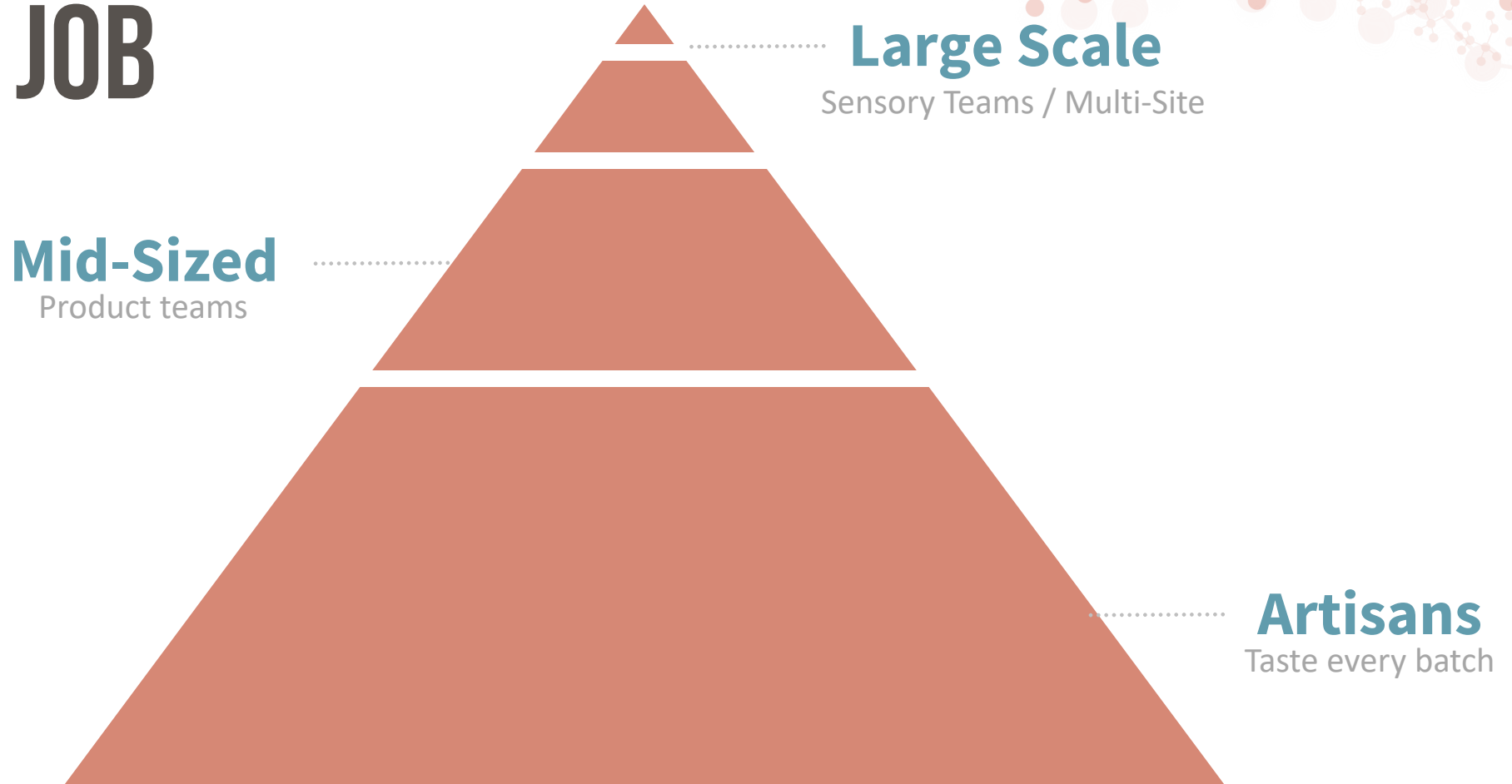
Percent Defect



- Overall**
- Visual
- Aroma
- Taste
- Mouthfeel

Date	Tasters	Panel Name	Batch	Tags	% Defect	Status
10/23/2023	24	TTT Panel 10/23/2023	C8217 10/19/2023	16oz can	7%	In Limits
10/23/2023	24	TTT Panel 10/23/2023	C8207 10/16/2023	can 12oz	14%	Out of Limits
10/23/2023	24	TTT Panel 10/23/2023	K8215 10/19/2023		0%	In Limits
10/19/2023	30	TTT Panel 10/19/2023	C8216 10/18/2023	16oz can	6%	In Limits

RIGHT TOOL FOR THE JOB



FOOD & BEVERAGE INDUSTRY

DISTRIBUTION OF COMPANIES BY SIZE

CASE STUDY: SENSORY QC



Weekly sensory checks on products from all manufacturing plants



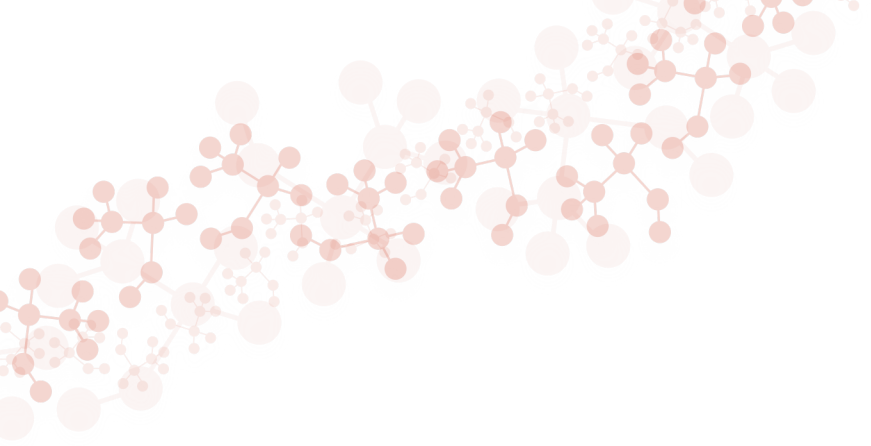
Tracked to a single machine in Texas, and fixed **That Day**

One of largest producer of **Canned Goods**



In First Week found packaging defect using our process





**SENSORY INFORMS,
IT DOESN'T DECIDE**

THANK YOU!



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Subscribe to our monthly newsletter



 DraughtLab

WHY THIS?

PODCAST

LISTEN ON:

