

# The Best of Both Worlds

Combining Dairy and Plant Proteins in Cultured Products



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Merlin Development

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# Dairy Yogurt

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- Inoculate dairy milk
  - *Streptococcus thermophilus*
  - *Lactobacillus delbrueckii* subsp. *bulgaricus*
- Cultures feed on lactose, produce lactic acid
- Casein aggregates at pH 4.6, creates gel structure

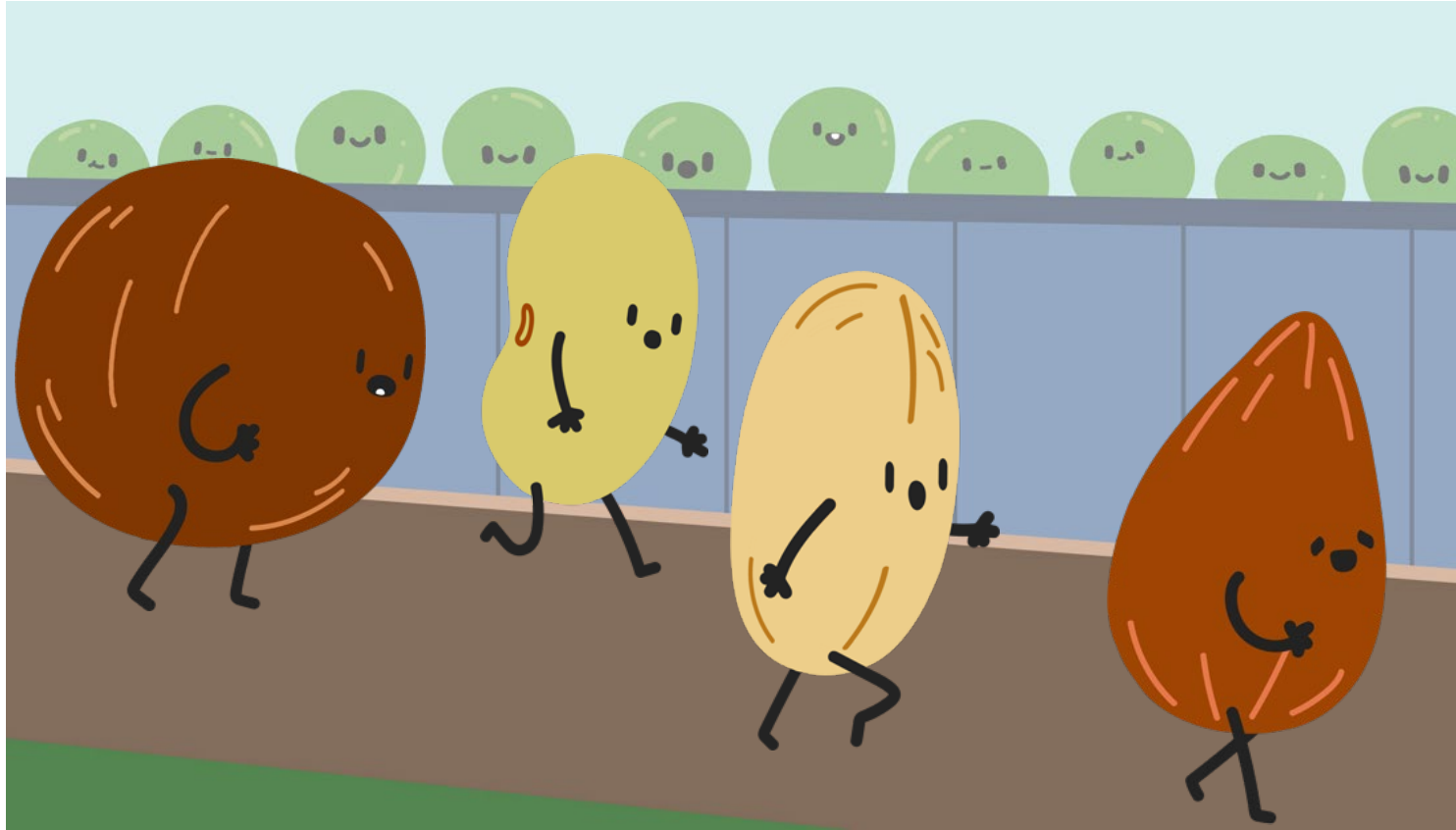
# Plant-Based Yogurt

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- Base composition
  - Protein
  - Fat
  - Carbohydrates
  - Texturizers
- Longer fermentation time

# Most Popular Plant-Based Milks

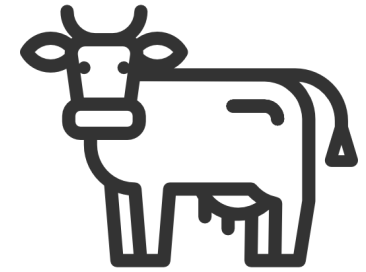


- 1 Almond
- 2 Oat
- 3 Soy
- 4 Coconut

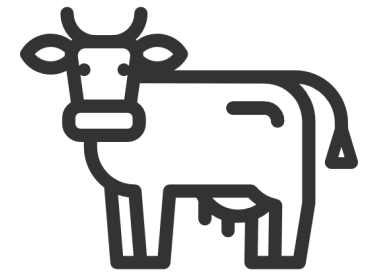
# Plant-Based vs. Dairy: Who Wins?



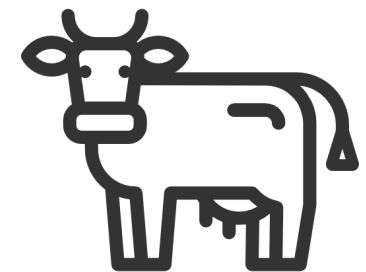
TASTE



SUSTAINABILITY  
(GHG EMISSIONS)



NUTRITION

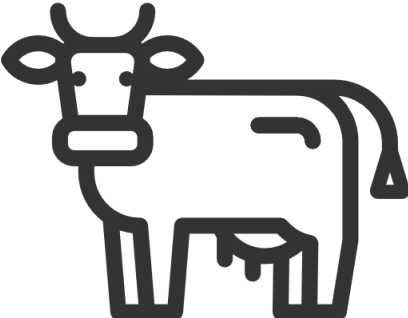


# Combining Dairy and Plant Proteins

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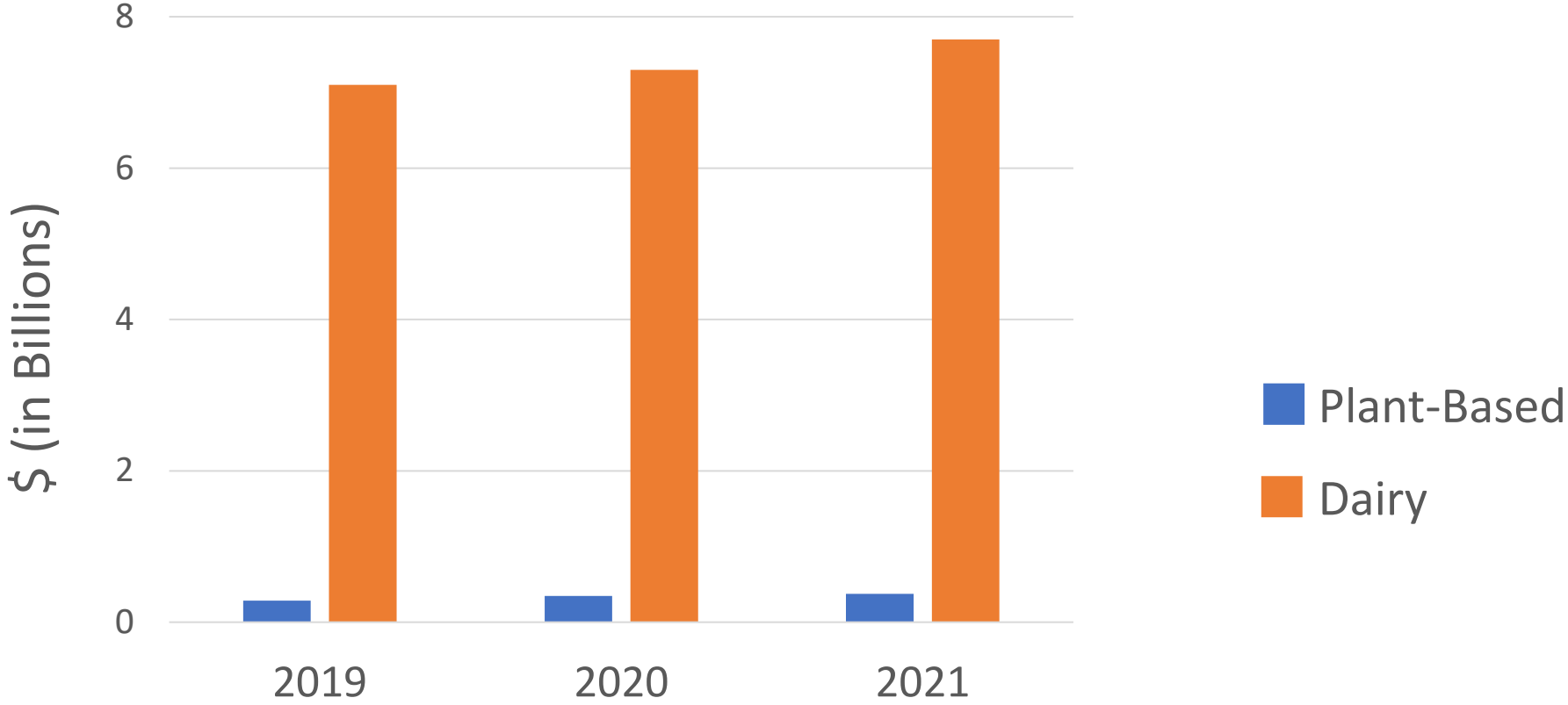


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# Plant-Based vs. Dairy Yogurt Sales



Sources: SPINS Natural Enhanced Channel, SPINS Conventional Multi Outlet Channel, The Good Food Institute, Inc., 2022; Dairy Foods Magazine State of the Industry 2019-2021

# Merlin Development Sensory Panel

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- Objective: Characterize sensory properties of dairy, plant-based, and blended yogurt samples
- 4 different retail plain yogurt products (3-4% protein)
  - Dairy
  - Almond
  - Soy
  - Oat + Chickpea
- Appearance, texture, and flavor attributes rated on 60-pt scale
- Overall liking rated on 9-pt scale



# Blended Samples

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100/0

75/25

50/50

25/75

0/100

**Dairy / Almond  
Blends**



**Dairy / Soy  
Blends**



**Dairy / Oat +  
Chickpea Blends**



Looking for more information?  
Contact Merlin Development.

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