










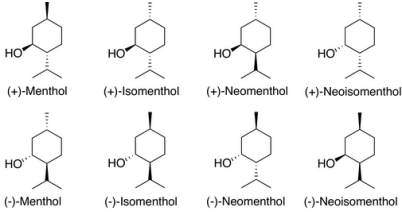


Consumer Perception of Natural and Synthetic Colors and Flavors: The Development of a Functional Mint-Based Beverage



Madison Wright | Master's Student | Food Science Product Development | Advisor Dr. Martha Verghese

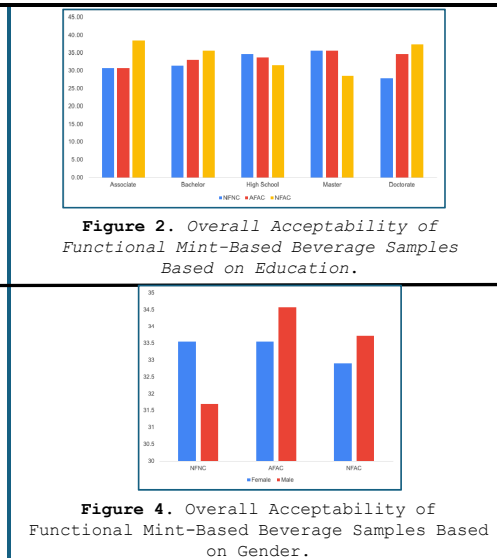
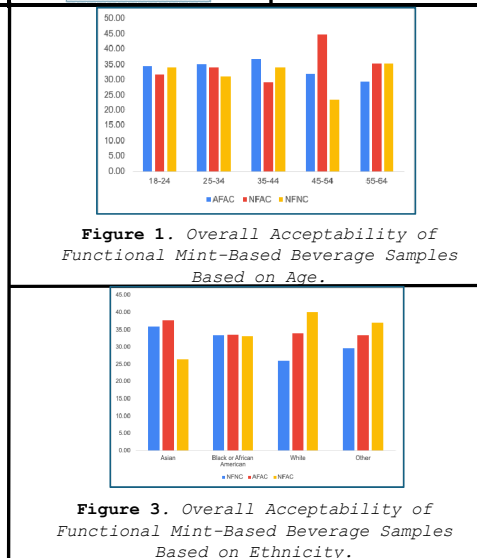
Alabama A&M University

Functional	Clean Label	Sustainable	Color Additives	Pineapple, Apple, Orange, Mango			
 <p>“Functional foods” market size is expected to grow from \$186.22bil in 2023 to \$212.85bil by 2028 (Functional Foods Market Insights, 2024)</p>	<p>Clean labels influence two-thirds of consumers' buying decisions. (Global trends in clean label products, 2024)</p> 	 <p>29% of consumers would like to see brands reduce waste by implementing “imperfect” ingredients (Sustainability Trends: Global Market Overview, 2024)</p>	<p>Natural colors, including sustainable microbe-sourced options, are set to grow by 9.2% (True colors IFT, 2024)</p> 	<p>Sample 756</p> <p>AF + AC <u>Artificial</u> <u>Flavor</u> + <u>Artificial</u> <u>Color</u></p> 	<p>Sample 319</p> <p>NF + AC <u>Natural</u> <u>Flavor</u> + <u>Artificial</u> <u>Color</u></p> 	<p>Sample 620</p> <p>NF +NC <u>Natural</u> <u>Flavor</u> + <u>Natural</u> <u>Color</u></p> 	 = Artificial Mint Extract  = Artificial Green Color  = Natural Mint Paste  = Natural Green Color



Synthesis of (-)-menthol: Industrial synthesis routes and recent development - dylong - 2022 - flavour and Fragrance Journal - Wiley Online Library. (n.d.-d).
<https://onlinelibrary.wiley.com/doi/full/10.1002/fefj.3699>



- ### Implications
- Mint is underused in beverages
 - Consumers prefer natural, but trends vary
 - Perception does not match reality
 - Clean-label demand creates opportunity
 - Balance science with consumer views