

Recipe Development of Avocado Paste Replacing Dairy Products in Ice Cream

Miss CHENG Hoi Tsing, BA (Hons) in Culinary Arts and Management,
Faculty of Management and Hospitality

Supervisor: Dr LEUNG Tsui Yan Vicky, Assistant Professor

Introduction

The recipe development of avocado paste applied in ice cream recipes is the focus of investigation based on the research done by Surjawan & Abdillah (2018). They had made flavorless ice cream, and **50% avocado paste to replace milk in the recipe is preferred** due to the bitter taste. The research further explored **whether the higher ratio of avocado paste (50% and 75%) could replace dairy products** (coconut milk and cream) when making flavored chocolate ice cream.

Objectives

- To **create** a plant-based “ice cream” **base on general applications** in developing different flavors.
- To **conduct** recipe **testing** on vanilla and chocolate “ice cream” using different ratios of avocado paste and coconut milk.
- To **conduct** sensory **analysis** on the specified products.

Methodology



- ❖ Two flavors: vanilla and chocolate
- ❖ Three ratios of ingredients: **whole milk (CON)**, **50% avocado and 50% coconut products (AVO-CO)**, and **75% avocado and 25% coconut products (AVO)**
- ❖ Vanilla ice cream recipe: milk (47.9%), condensed milk (18.4%), heavy cream (18.4%), sugar (9.2%), corn-starch (4.1%), and vanilla paste (1.8%)
- ❖ Chocolate ice cream recipe: milk (42.4%), condensed milk (16.6%), heavy cream (16.6%), sugar (8.3%), dairy-free couverture chocolate (7.1%), cocoa powder (5.3%), and corn-starch (3.7%)

Quantitative Analysis

- ❖ Sample size: 30 responses
- ❖ Descriptive analysis
- ❖ Regression
- ❖ Friedman test
- ❖ Hypothesis test



Findings

- **AVO-CO** was **preferred for both** vanilla and chocolate **flavors**.
- **AVO** was **preferred for some preferences** in the **vanilla** flavor.
- Color is not significantly associated with any of the ice cream formulations.
- The results suggest that the use of avocado paste in non-dairy ice cream formulations can significantly affect various attributes of the final product.

Conclusion

The study's findings suggest that avocado paste can be used as a natural ingredient to reduce the amount of sugar in ice cream, increase its nutritional value, and create a healthier product while maintaining its desirable flavor and texture.