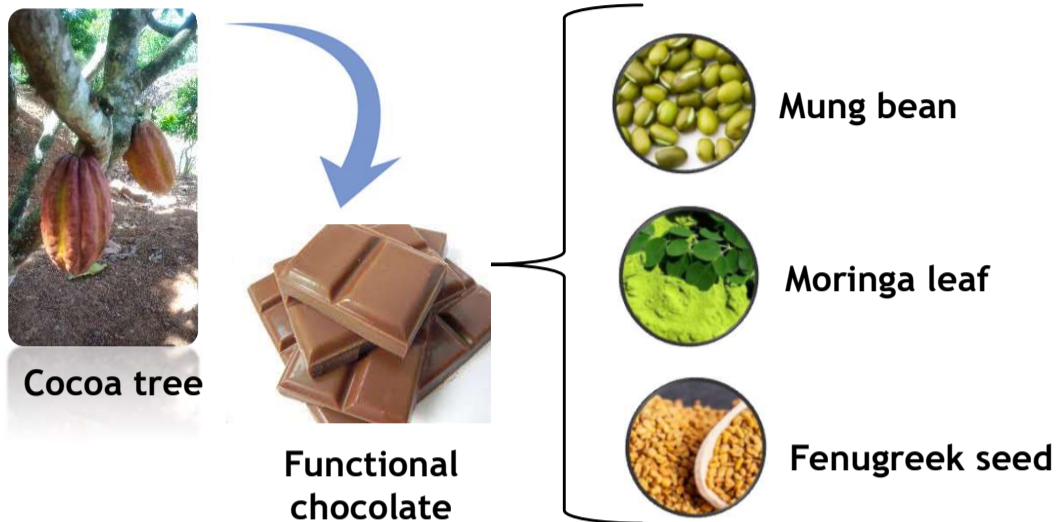




# Consumer acceptance of chocolate formulated with functional ingredient

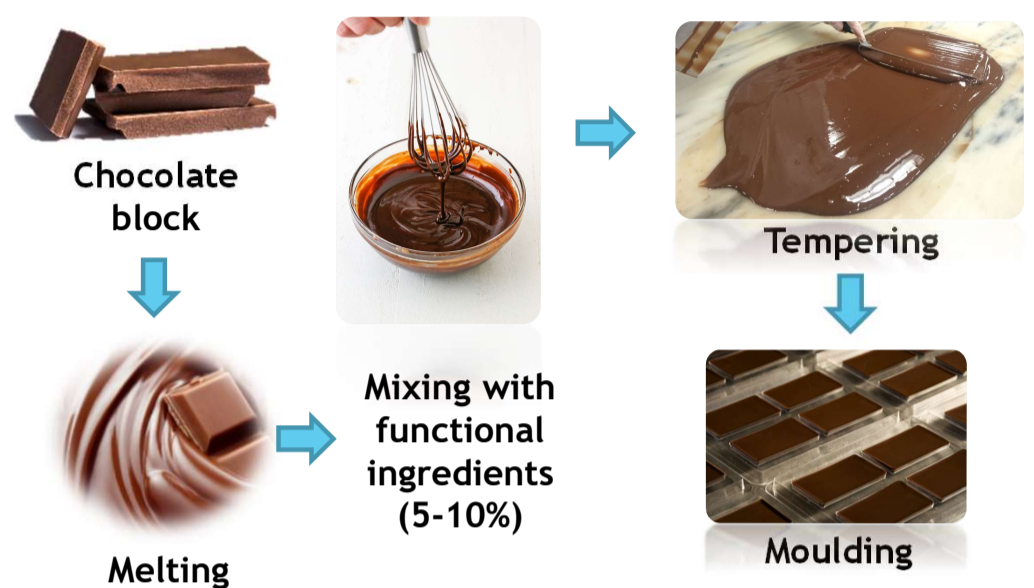
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## Introduction



- Sustainable cocoa agro-industrial and agricultural system through giving added-value to cocoa-derived products.
- Producing high-quality chocolate containing high-levels of phenolic compounds (mung bean, moringa leaf & fenugreek seed)
- Supplementation of functional ingredients in chocolate may affect sensory properties and also consumer acceptance
- Aim: to investigate the consumer acceptance of chocolate formulated with powdered mung bean, fenugreek seed and moringa leaf.

## Experimental



## Sensory analysis



- Involving 60 untrained panelists
- Hedonic test method with a 7-point scale (1 = extremely dislike; 7 = extremely like)
- Parameter: appearance, aroma, taste, texture and overall.

## Result and Discussion

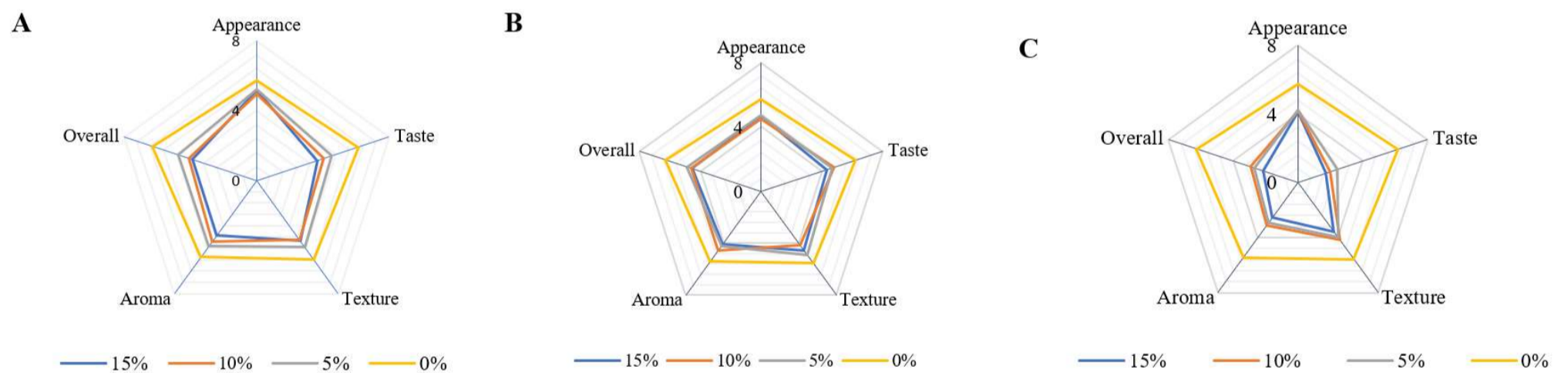


Fig. 1. Consumer acceptance of chocolate formulated with various concentration of mung bean (A), moringa (B) and fenugreek seed (C)

- Taste and aroma are the most important attributes in chocolate with mung bean, moringa leaf and fenugreek seed.
- Mung bean, fenugreek seed and moringa leaf decreased panelists' acceptance of chocolate.
- The use of these materials must consider their impact on the sensory properties of the chocolate.
- Moringa leaf is more potential to be added to chocolate formula in the making of commercial functional chocolate

## Take home messages

- Chocolate formulated with mung bean, fenugreek seed and moringa leaf had a **lower panelists' acceptance** than chocolate control.
- The decrease of panelists' acceptance was affected by the **concentration and the type of ingredient**.
- This study emphasizes the **importance of ingredient selection** in the making of functional chocolate.

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