

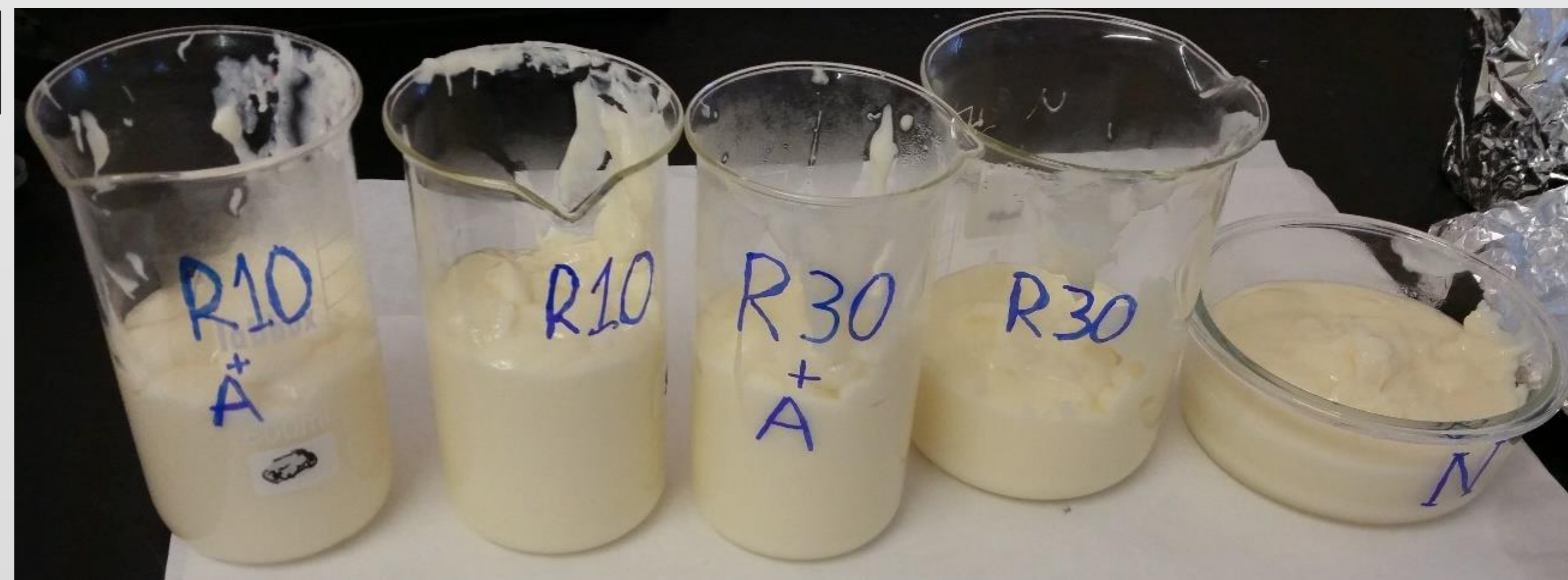
STUDY ON THE FEASIBILITY OF THE USE OF AROMATIC SUBSTANCES TO REDUCE THE SUGAR CONTENT OF PASTRY PRODUCTS

INTRODUCTION

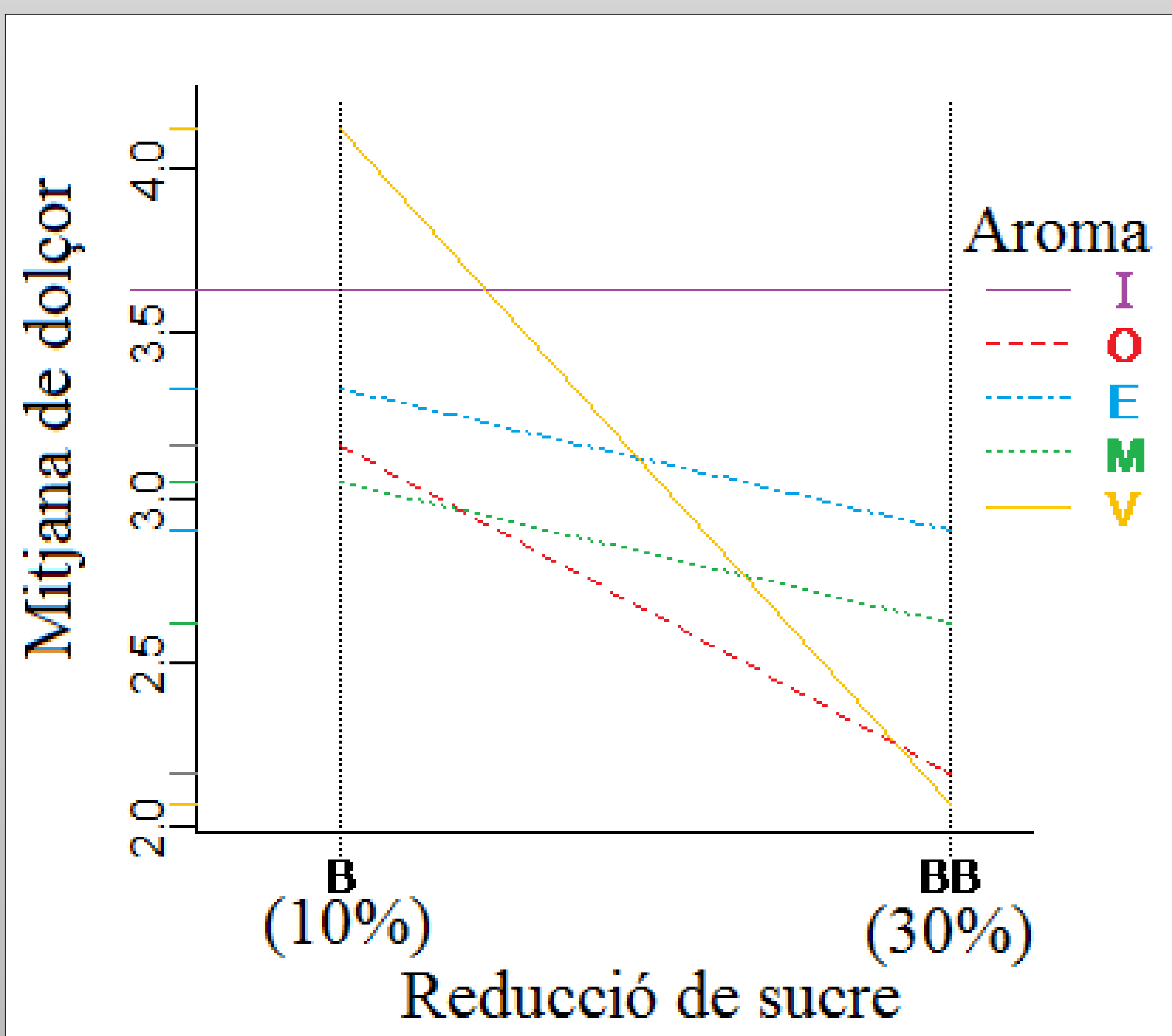
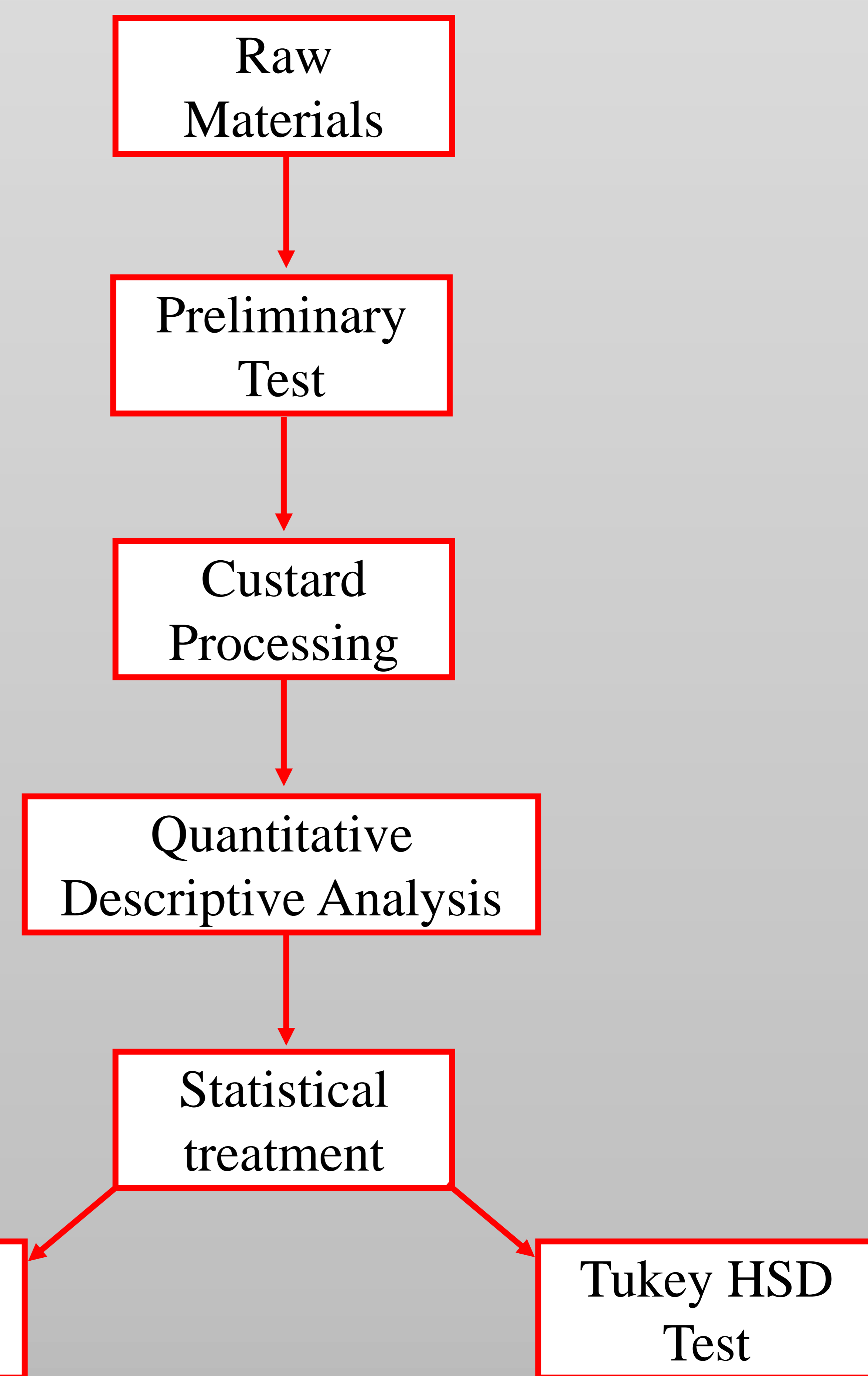
- Sugar causes many chronic diseases including obesity and diabetes.
- Consumers are increasingly looking to cut back on sugar.
- New formulation initiatives to reduce and replace sugar are underway.
- The aromatic substances as a healthier alternative.

OBJECTIVES

- Study how aromatic compounds affects the sweetness of custards, when a reduction of 10% or 30% sugar has been applied.



METHODOLOGY



CONCLUSIONS

- The aromatic compounds evaluated change the perception of consumers and provide sweetness to the product.
- Vanillin has a synergistic effect with sugar and it is the most effective in custards with 10% less sugar. The consumers have problems to notice this kind of reduction.
- Ethyl maltol is the sweetest flavour and the most effective in custards with 30% less sugar. However, aromatic compounds are not enough to cover this sugar reduction.
- Ethyl maltol is slightly sweeter than MCP. Their behaviour is very similar when the amount of sugar is decreased.
- The MCP has a lower effect in comparison to the other flavours. Its aromatic notes are not consistent with the substrate.