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# Identification of levers against the waste of fragile food products: management and consumption of strawberries by French consumers

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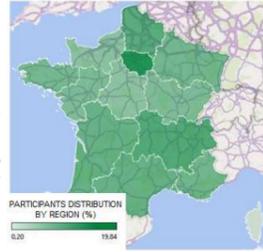
## INTRODUCTION

Fruit and vegetable losses between harvest and consumption can reach **36%** of the total volume of product (Ademe, 2016; FAO, 2013). Therefore, the study of consumers behaviors concerning these products of **short shelf life and high perishability** is of great interest in the fight against food waste. Among these fragile products : **STRAWBERRIES**



## OBJECTIVES

This study aims to identify **French consumers** position in this strawberries loses. **From purchase expectations to at-home management and perception.** A **representative sample** of the population (**N=509**) was questioned by **ONLINE QUESTIONNAIRE**



## METHOD (questionnaire structure)

### Purchasing expectations

Purchase locations, frequency, budget, selection criteria, seasonality, packaging, perceptual acceptability (photo scale\*)

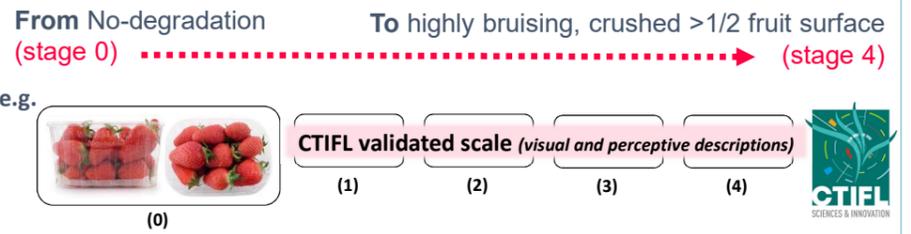
### Management at home

Storage area, time, reheating, container, washing, detection criteria of damaged strawberries, reaction to a damaged strawberry

### Consumption habits

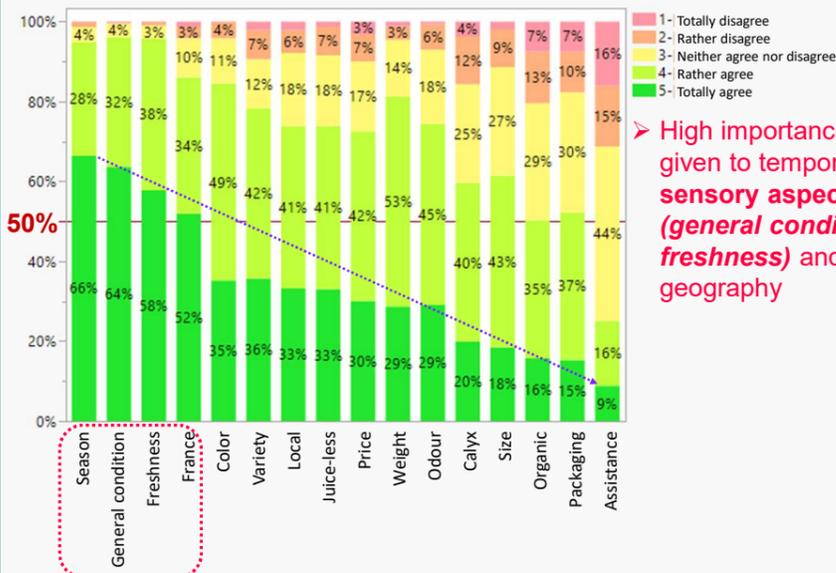
Perceptual acceptability (photo scale\*)

### \* Visual presentation of 5 stages of strawberries degradation



## RESULTS & DISCUSSION

Fig. 1. Selection criteria (purchase intent)



### Perceptual acceptability (purchase vs consumption)

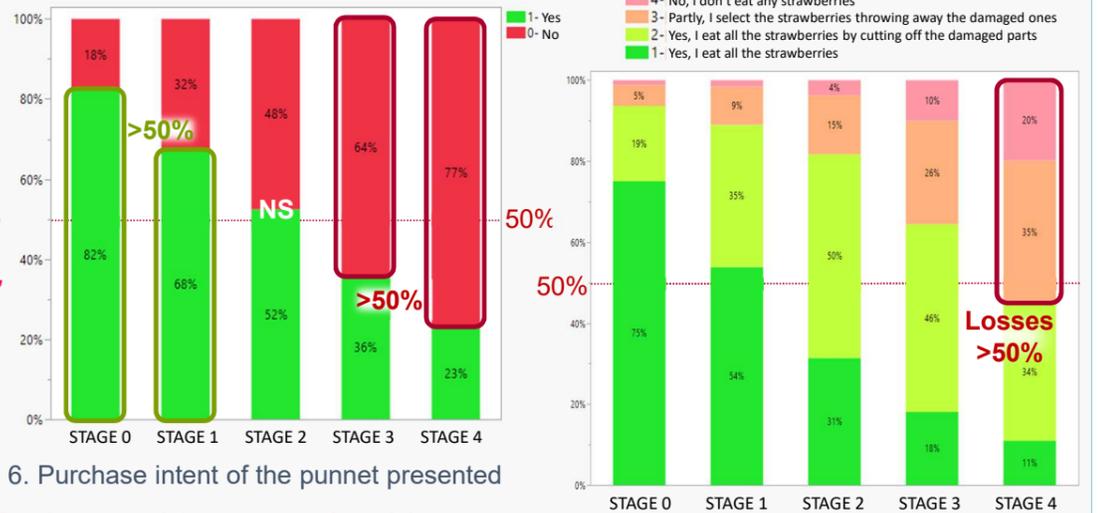


Fig. 6. Purchase intent of the punnet presented

Fig. 7. Consumption intent of the punnet presented

### Storage management (container, area, washing, time)

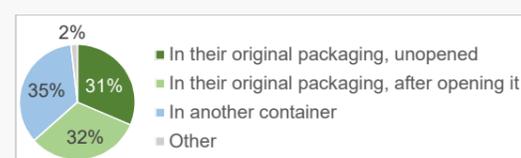


Fig. 2. Storage container used

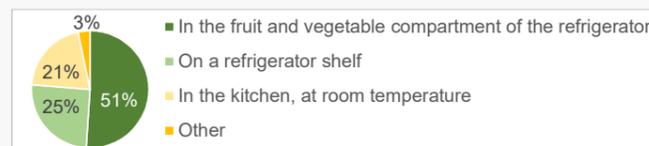


Fig. 3. Strawberry storage area

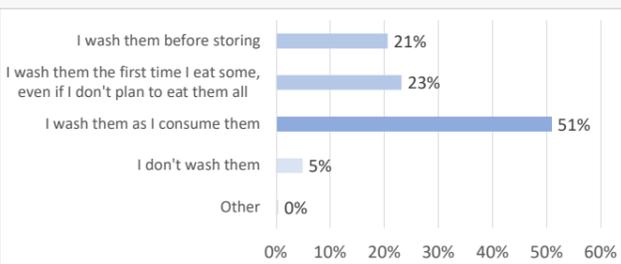


Fig. 4. Strawberry punnet washing

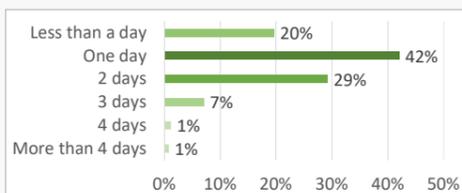
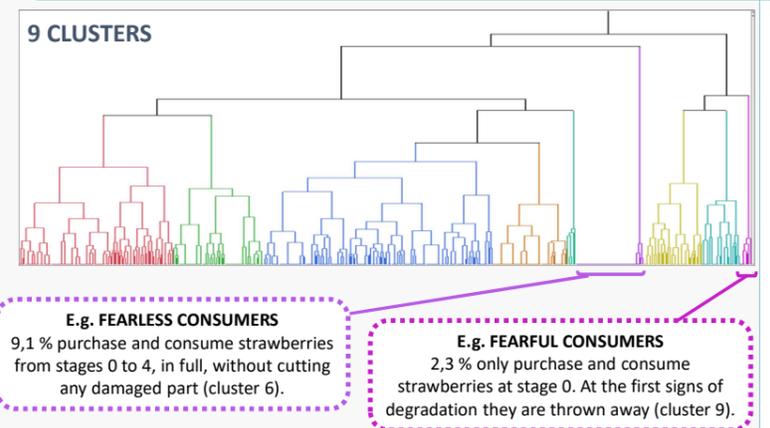


Fig. 5. Storage time before consumption

➤ **At home, the strawberries will be confronted in their packaging, at different levels of temperature and humidity, up to 2-3 days.**

### Fig. 8. Consumer clustering (behavioral profiles)



➤ **High variability of consumer profiles, from wasteful behaviors to health risk behaviors**

## CONCLUSION

**Freshness is an important decision criteria** for strawberries purchase. In stores, strawberries punnet are quickly neglected, although once purchased consumers will more easily accept their degradation (at the time of consumption). During home storage, the **development of smart packaging could help increase the freshness time of strawberries, taking into account the different uses.** Beyond storage difficulties, there is a **high acceptance variability for strawberry defects.** More communication is needed on the **consumability**, whether late consumption presents health risks, and on how to enhance strawberries with recipes adapted to their sensory evolution.

## ACKNOWLEDGEMENTS

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