



Sonia Muro

Nitra, Slovakia

08/02/2024

INNOVATIONS IN AGRI-FOOD

Sonia Muro
FLORETTE, Spain



This project has received funding from
the European Union's Horizon 2020
research and innovation programme
under grant agreement No 101000852

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How is Florette?



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CO FRESH

Sonia Muro

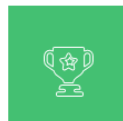
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1988

Florette Spain was born
We introduced the M range in the Spanish market



2023

Florette is **leader** in the
M range Spanish market



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FIELD



FACTORY



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2.000
EMPLOYEE



2.067 HAS.
CULTIVATED
HECTARES



+ 60 VEGETABLE
VARIETIES

MAIN FIGURES



750.000
SALADS PER DAY



+ 14.000 POINTS
OF SALE



215 MILLIONS OF
EUROS INVOICED
IN 2022

2 MAIN MARKETS



MANUFACTURING PROCESS



SUSTAINABILITY



Innovation 1:

**Sustainable packaging and
active packaging films
extending product's shelf life**



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2.333 Tons of Plastic in 2023

100% Recyclable

52,3% Recycled



Real Decreto 1055/2022 de envases y residuos



PPWR



Reduction of the plastic consumption



Reduction of the food waste



**Red
baby leaf**



**Green
baby leaf**

Option 1: Material made of 100% paper

- Different test with materials with different kind of coatings (to increase the gas barrier and the humidity resistance)



- Bad results. Vegetables lose too much humidity and get wilted. Increased gas barrier must be tested

Option 2: BIO-PBS, biobased and biodegradable material

- Good conservation results



- High cost
- Raw material coming from possible source of human or animal feeding
- No recyclable material



Option 3: Active packaging with absorption of CO₂ and humidity

- Test with materials with 3 different concentrations of absorption of CO₂ and humidity



- Difficulties in the handling of these materials in the packaging machine due to the presence of wrinkles
- Bad results in the vegetable conservation → more adjusted permeation needed
- High cost

Option 4: OPP 30 microns biodegradable (and also recyclable)

- Good results in terms of shelf life (although no increase) and in terms of machinability



Consumer Study (CREDA):

- 300 participants in 15 groups
- Bag “100% recyclable” vs Bag “100% recyclable and biodegradable”

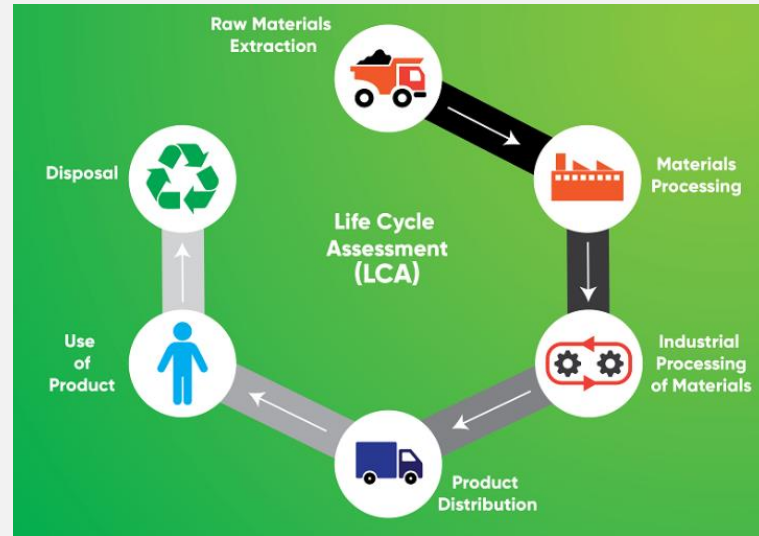


- 72% are willing to pay more
- 0,25 – 0,30 € more



Pending issues:

1.- Life Cycle Analysis



CONCLUSIONS / E-LEARNINGS

- 1.- Too high gas permeation → no increase of shelf life
- 2.- Different machine behavior → machine adjustments or/and investments needed
- 3.- Some of the materials are no recyclable
- 4.- High costs
- 5.- Consumer acceptance?
- 6.- Better Life Cycle Analysis?



Thank you

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