



La Cumplida Refinada: sustainable coffee *fermentation*



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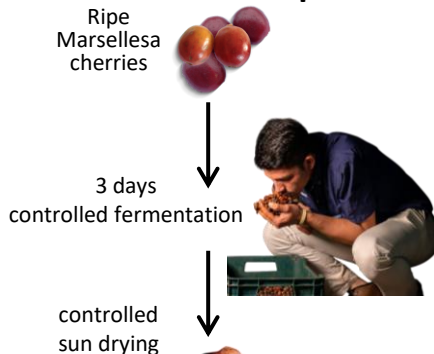
Why?

- Coffee fermentation allows to naturally **modulate coffee flavour**
- Profound knowledge of microbial ecology and biomarkers is crucial to **master the process**, harvest after harvest
- Coffee fermentation can further improve **sustainability**

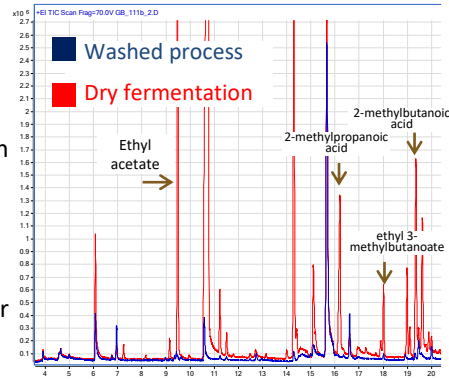
How?

- 2018/2019 harvest: 220 field trials @ La Cumplida farm, Nicaragua, to select the most appropriate post-harvest process and fermentation conditions
- **Metagenomic tools** to map microbial community
- **Chromatography** on green and roasted beans to follow biomarkers and link with sensory

Selected dry fermentation process



- ## Results
- Consistent green coffee quality (2 harvest seasons)
 - Different aroma profile between **dry fermentation** and **control process (washed)**
 - Different evolution of microbial ecology between processes
 - Distinct in-cup flavour profile for dry fermentation: Pineapple, passion fruit & pomegranate, candied cherry



Sustainability

- Drop in post-harvest water consumption
- Small farmholders, agroforestry
- Labour-intensive craftsmanship

