Microbiota on cheese surface

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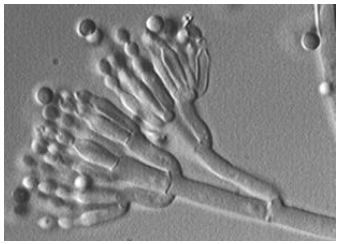
Diversity of fungi

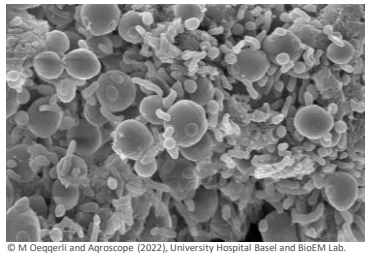


Natural cheese cellar

Humid cheese cellar

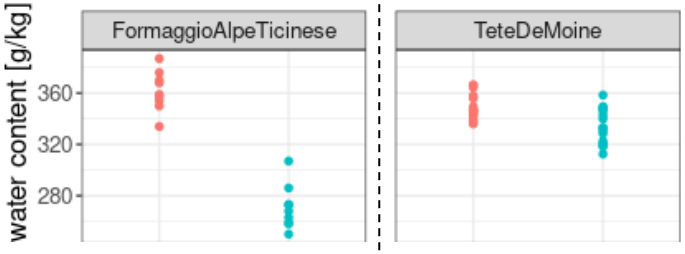
Cheese care

Diversity of bacteria



Dry cheese cellar

Filamentous fungi
- ***Penicillium* spp.**
- ***Mucor* spp.**
- **undescribed spp.**



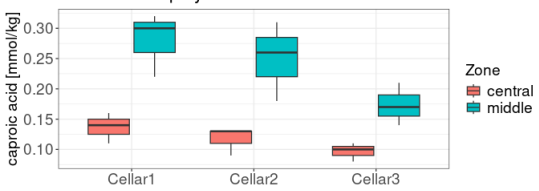
***Brevibacterium aurantiacum*, *Brevibacterium* spp., *Agrococcus casei*, *Leucobacter sp.* metabolise the amino acid methionine into methanthiol and ammoniac (NH3) and further into…**

***Corynebacterium* spp., *Corynebacterium variabile*, *Staphylococcus equorum* metabolise lactic acid into pyruvate and further into…**

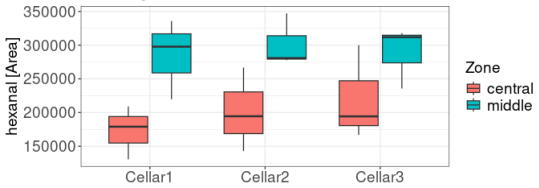
3 alpine cellars in Ticino

1
2
3

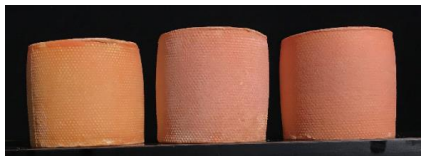
indication of lipolysis



odor = grass

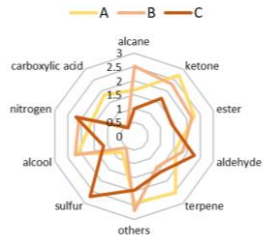


3 cellars in jura mountains

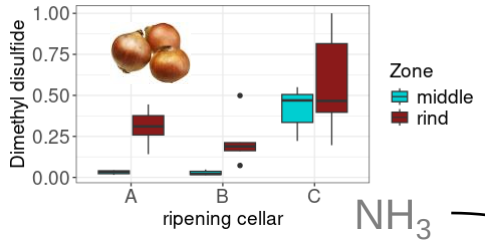


A B C

Aroma compounds with GC-MS

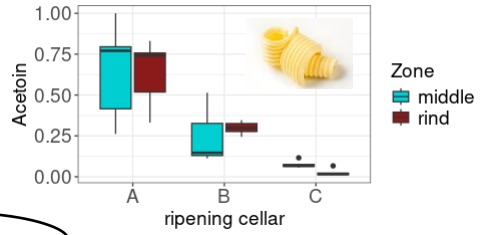


odor = sulfurous/cabbage/onion

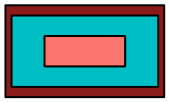


NH_3

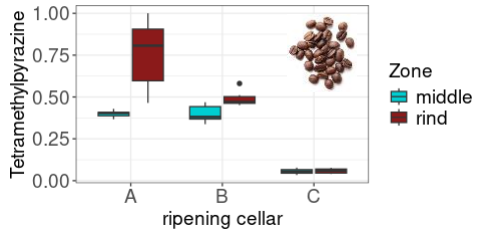
odor = sweet/buttery/creamy



Sampling scheme
- **rind**
- **middle zone**
- **central zone**



odor = nutty/musty/chocolate/coffee



Take home message
- The climate in the cellar and the care taken influence the microorganisms on the surface.
- These microorganisms influence the flavour of the cheeses

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