

casei



**FACE
Conference
2023**

Program



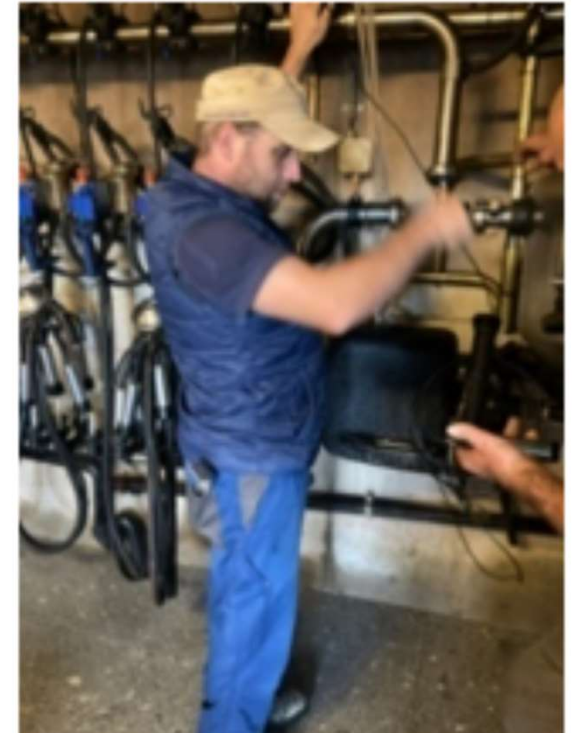
- ❑ Who is CASEi, How is organized...
- ❑ Presentations of current analyses in cheese making.
- ❑ Demonstration of preincubated reductase, Acidity of the lactofermentor (lucernois test)
- ❑ Questions /answers, discussions

Who is CASEi

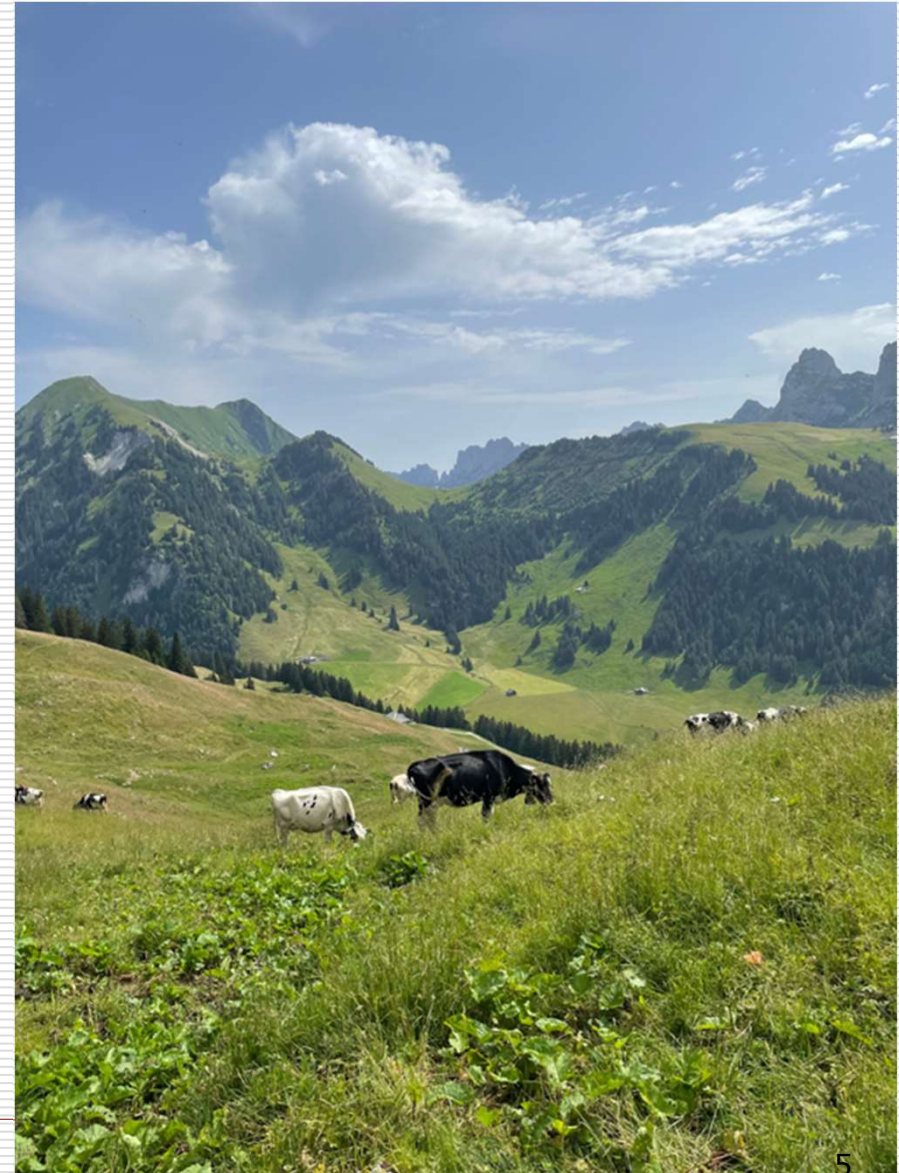
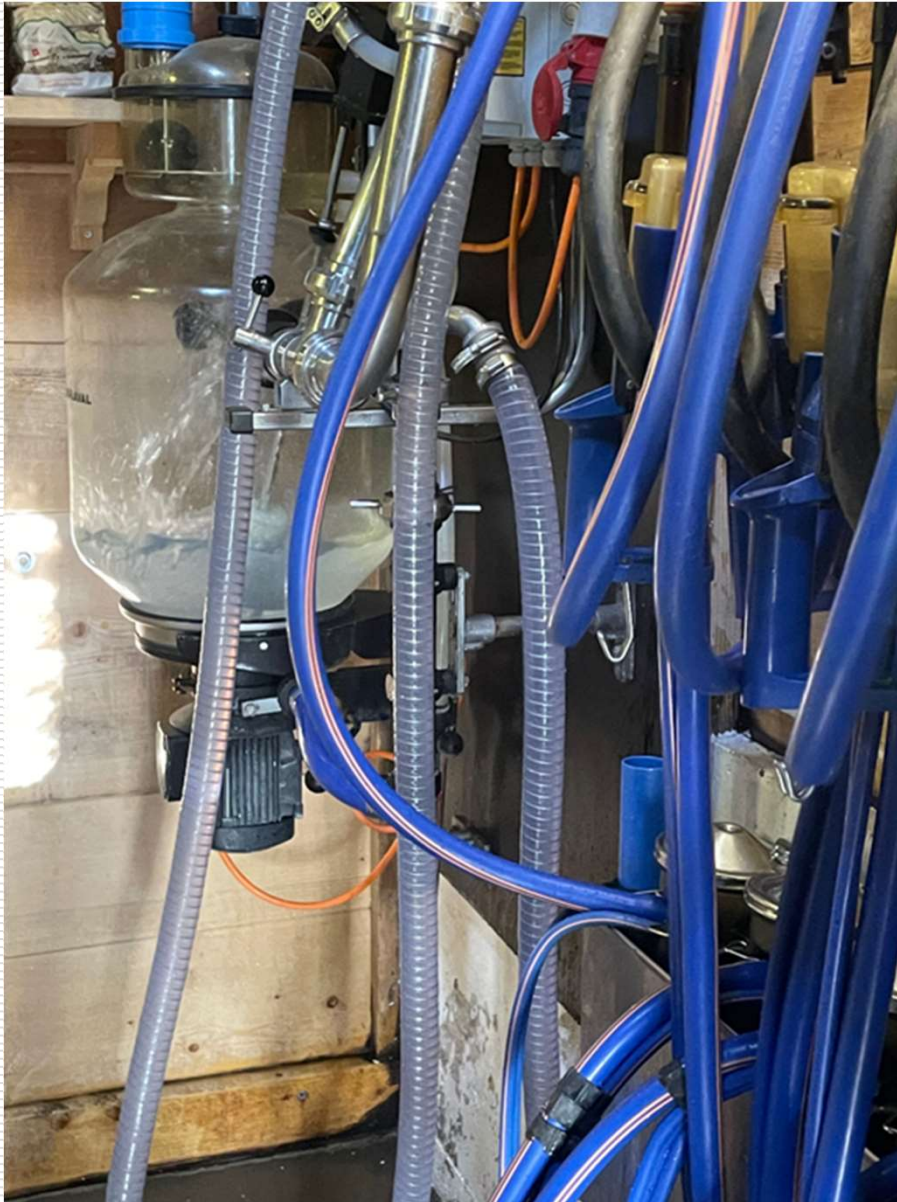


- ❑ CASEi is a consulting company in dairy production, cheese technology, cheese ripening.
- ❑ 8 employees, the head office is in Grangeneuve, founded in 2006.
- ❑ About 200 dairies and small farms under contract. We are the quality partner for the “interprofessional” of the regions FR-BE-NE-JU.
- ❑ The legal form of CASEi is a “simple company” and is not agree to support industrial companies

Our activities on the farms



In the mountains as in the plain



Our activities in the cheese dairies **casei**

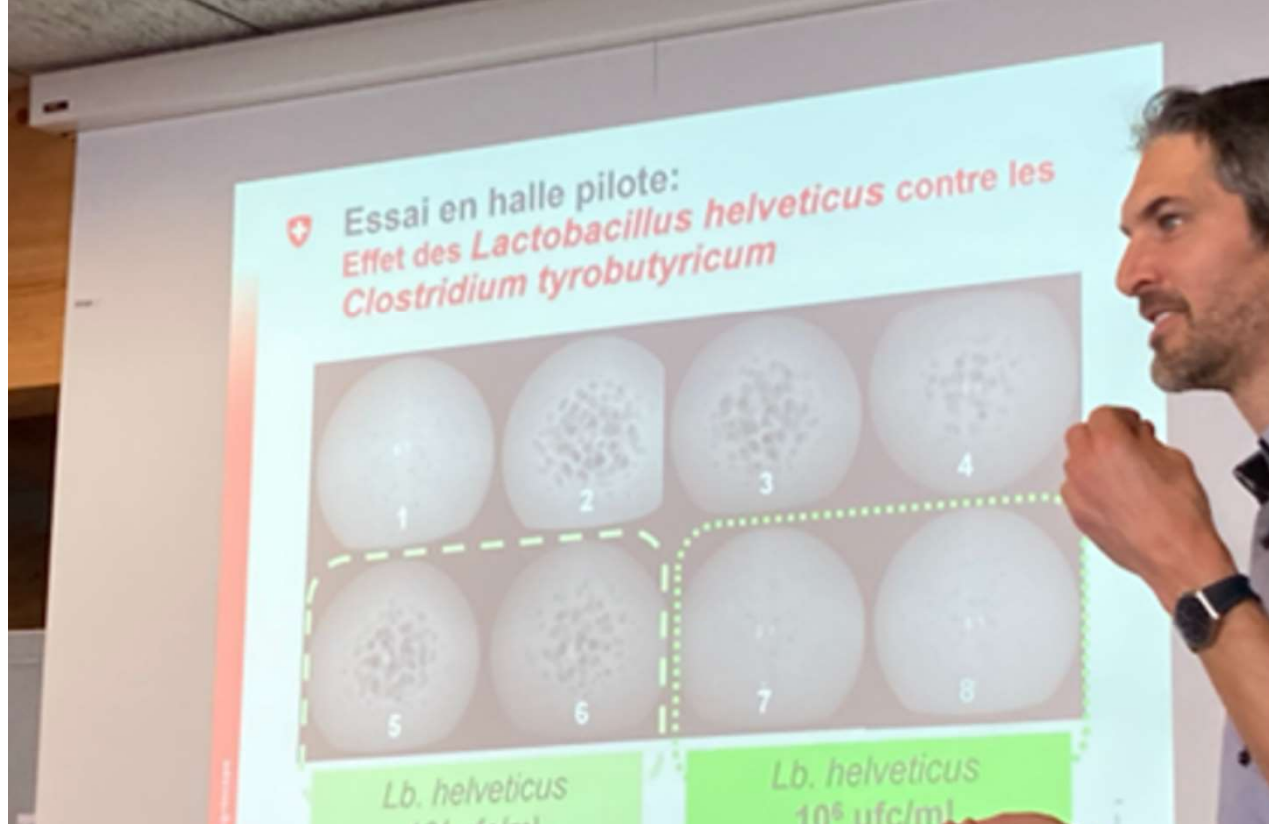


Our activities in the cheese dairies

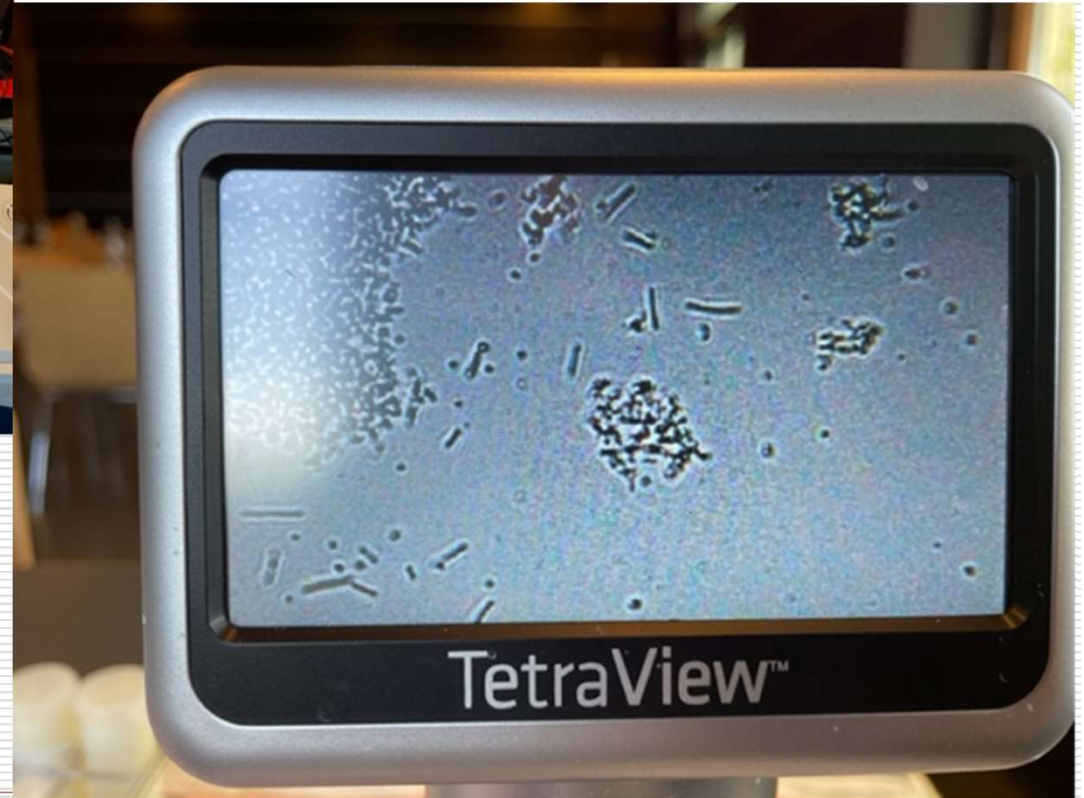


Continuing education





Control of lactic acid culture



Training course for mountain production every springs



Supervision of mountain production during the summer season



Advice and production monitoring at refiners



19/10/2023

Champions 2022



We are proud that many of our clients have won worlds and national contests



Analyses in dairies



Some dairies have small laboratories well equipped with equipment for contents fatt, protein, cells etc. Bacteriological analyses are carried out in certified laboratory here in Grangeneuve

Example of payment system to quality

Critère	Norme	Incidence financière	Niveau de déduction	Nombre d'analyse par mois	Intervention du service conseil
Réductase préincubée	> 15 min	Déduction progressive (voir tableau)	Historique des 8 derniers résultats Sur les 12 derniers mois	4, dont 1x propioniques et max. 2x même critère	Au 3ème résultat hors normes
Acidité du Lactofermentateur	< 15°SH				
Bactéries propioniques	< 20				
Spores butyriques	< 350				
Acides gras libres (AGL)	Moyenne des 3 derniers résultats ≤ 3.3 mmol/ 10 kg	Aucune	Aucune	2	A la 1ère moyenne hors-norme

Simple analysis demonstration



- Preincubated reductase
- Acidity of the lactofermentor (lucernois test)
- Test of lactofermentation (lactofermentor)

Preincubated reductase test

- ❑ Preincubated reductase test shows the undesirable activity of milk bacterial flora during cheese making.
- ❑ The temperature of 32°C is important from the point of view of production process.
- ❑ With this test, Instead, we look for the activity of a mesophilic bacteriological flora of milk. Principle: Milk samples are incubated for 11 hours at 32°C. During this time, the bacteria have a good growth at this temperature.
- ❑ 5 min at 38°C, Added methylene blue is transformed by their enzymes into colorless leuco-methylene. The rate of discolouration serves as a measure for the activity of some milk bacteria.
- ❑ > 15 minutes must stay blue

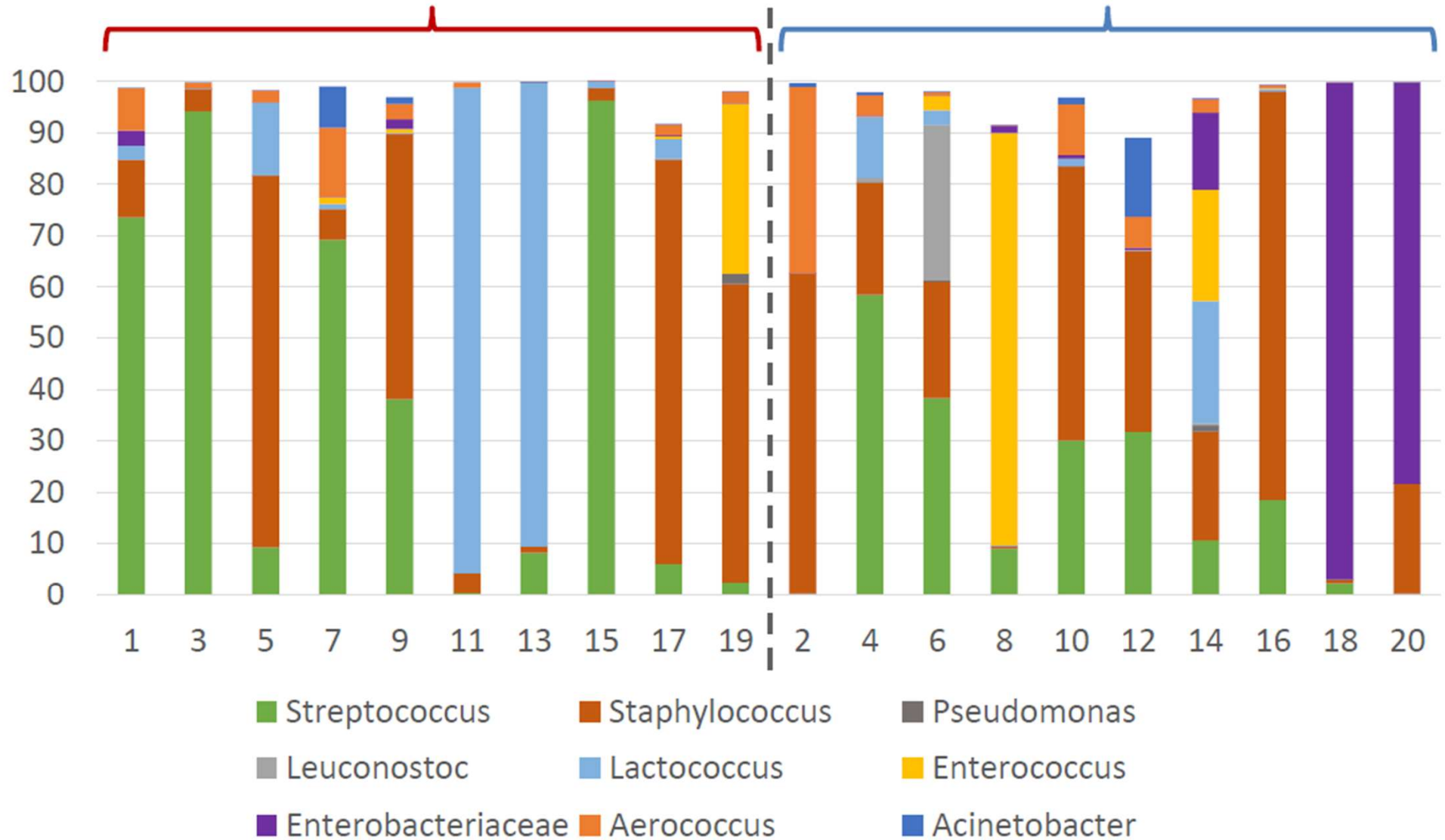




Abondance **mauvais** / bon

mauvais

bon



Acidity of the lactofermentor (Lucernois test)



- ❑ Acidifying bacteria with unknown properties present in producer's milk can cause paste and taste defects when making raw milk cheese. Thus, during insufficient cleaning of the milking system or milk transport containers, these germs can end up in highly quantities in the producer's milk and then enter into competition with the lactic bacteria of added cultures.
- ❑ The acidity of the lactofermentor (Lucernois test) makes it possible to detect this.
- ❑ When milk is incubated for 11 hours at 38°C, it forms acidity due to the decomposition of lactose caused by thermophilic bacteria. The acidity formed is measured.
- ❑ < 15 °SH is a good result

Acidity of the lactofermentor (Lucernois test)

- According to current knowledge, it is mainly lactobacilli that lead to defects in opening or pasta that are too short. Recommendation for problem cases: Sample microscopy after incubation.

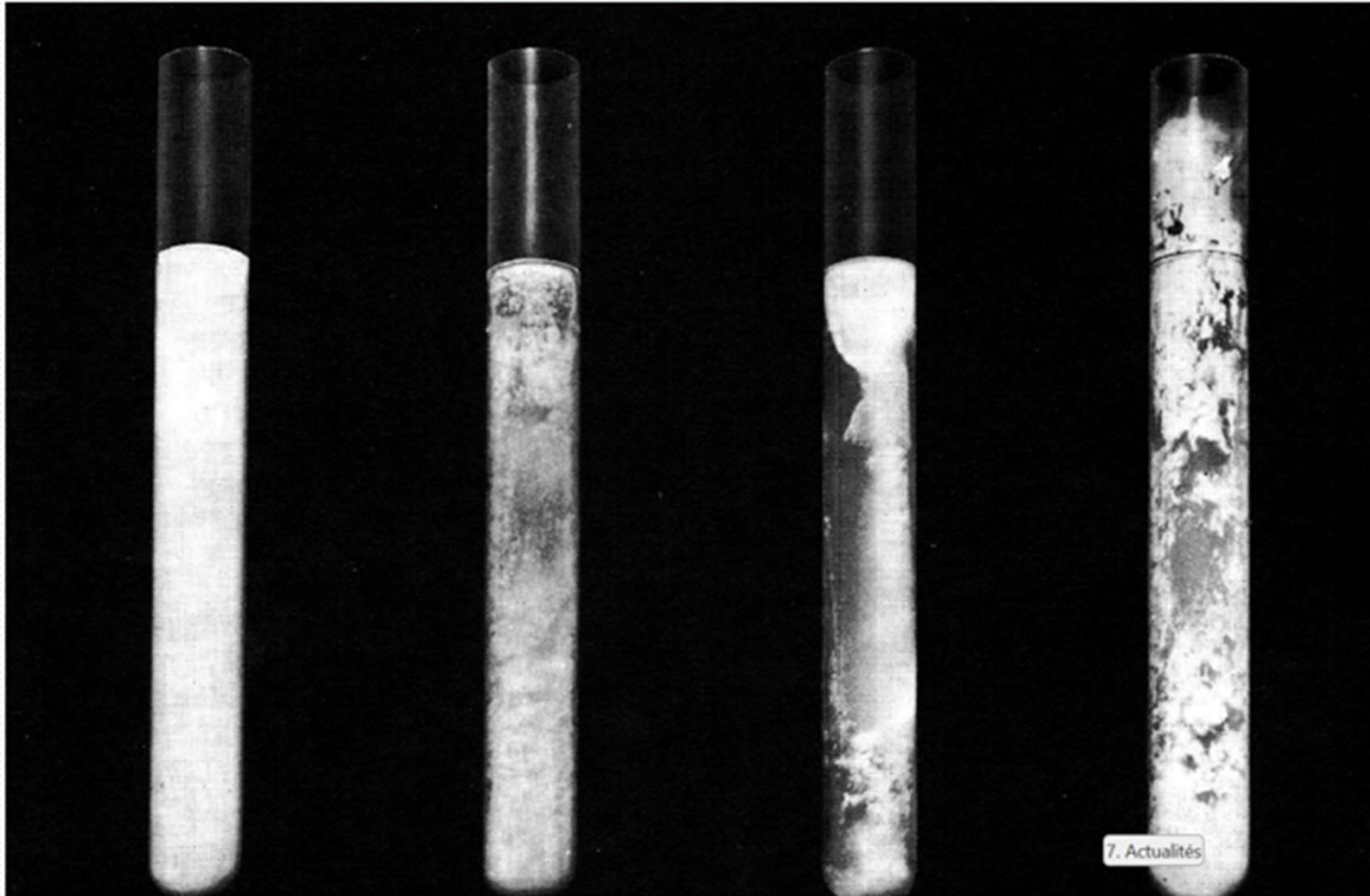


Test of lactofermentation (lactofermentor)



- The lactofermentor allows to determine the different groups of germs that dominate in milk, based on the appearance they give to the lactofermentor.
- This test depends on: the groups of bacteria contained in milk and the specific products of their metabolism; the activity of bacteria contained in milk; the content of bacteria.
Principle: A certain amount of milk is left to incubate for 24 hours at 38°C and the lactofermentor (type) is judged according to its appearance

Test of lactofermentation (lactofermentor)



«gélatineux»

«floconneux»

«caséux»

«gonflant»

Gelatinous-Flaky-Caseous-Swelling

Test of lactofermentation (lactofermentor)



- ❑ Liquid interpretations: low in germs (possible inhibitors)
- ❑ Gelatinous: lactic acid bacteria, if gas = heterofermentary
- ❑ Flakes: homo or heterofermentativ, lactic acid bacteria, proteolytics (psychrotrophes), milking machine, milk residues, milking hygiene...
- ❑ Caseous: lactobacilli, proteolytics, milking and farm hygiene, milking machine...
- ❑ Swelling: enterobacteriaceae, coli bacteria, milking hygiene, milk cooling, udder health...

Test of lactofermentation (lactofermentor)



	gélatineux	caséux 1	caséux 3	floconneux avec gaz
Germes étrangers	++	++++	++++	++++
lactobacilles	+	++++	++++	++++
Entérobactéries	+	+++ <small>[Sans titre]</small>	+++	+++
Escherichia coli	-	-	++	+++
Entérocoques	+	+	+	-
Germes tolérant au sel	-	+	++	-
Levures	-	-	-	-
Germes protéolytiques	+	++++	++++	++++

- <100'000 + 100'000-1'000'000 ++ 1-10 Mio +++ 10-100 Mio ++++ > 100 Mio.

Questions and answers. discussions





Thank you for your attention



FACE
Conference
2023