

More sustainable, resilient, and competitive food systems through the development of intermediate food value chains



PRACTICE ABSTRACT No: 26

Cheese wheys: too valuable to waste !

Little known by consumers, whey is the watery part remaining after milk is curdled during cheese making. The production of 1 kg of cheese leads to the generation of up to 9 liters of whey, depending on the cheese type.

Thus, despite its high nutritional value, whey has long been and still is considered a major by-product of the dairy industry because of the large volumes produced.

Whey mostly contains water but also lactose, minerals (calcium, magnesium & phosphorus), vitamins (B6, B1, B12) and high nutritional quality proteins containing essential amino acids not produced by the body.

Depending on the cheese produced, the concentrations of these components in the whey varies. Since whey is obtained during manufacture of a fermented product, it also contains fermenting microorganisms.

Traditionally, whey has been poorly valorized and mainly used as feedstock for pigs or discarded (to waste treatment). In dairy plants, it can be indirectly valorized for food ingredient production, after energy-consuming processes. It is not directly valorized in human diet.

The reasons are diverse but are mainly related to organoleptic properties of whey: its sour, salty taste and yellowish color make it not appealing to the consumer's eye.

Whey from dairy plants can be used to develop new food products, thus reducing its waste, and contributing to better valorize the whey produced by cheese manufacturers. For this purpose, it is necessary to: - assess consumer sentiment towards these new whey-based products - develop products that meet consumer expectations.

A great challenge for FAIRCHAIN!

Authors

Marine.penland@inrae.fr

Stephanie.deutsch@inrae.fr

Affiliation

INRAE

Contact

Marine.penland@inrae.fr

Stephanie.deutsch@inrae.fr

End Users

Consumer, Farmer & Cooperative, Industry & Retail

Country

Name or Worldwide



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ABOUT FAIRCHAIN

The FAIRCHAIN project launched in 2020 and coordinated by INRAE, is developing intermediate food value chains in the fruits and vegetable and dairy sectors. Through technological, organizational and social innovations and by developing business models FAIRCHAIN will enable small and mid-size stakeholders to scale up to supply fresh, sustainable and high-quality food products to consumers at a regional level.

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