

Lesson 31

Effect of milk constituents on operation of membrane process

- The dairy industry has used membrane processing to clarify, concentrate and fractionate a variety of dairy products.
- Applying membrane technology to whey processing allowed the production of refined proteins and commercial usage and thus transformed a waste byproduct from cheese production into a valuable product.
- In addition to whey processing, membrane technology is also used for fluid milk processing with clear advantages.
- Further, specific milk components can be obtained without causing a phase change to the fluid milk by the addition of heat as in evaporation.
- Membrane filtration technologies, such as ultrafiltration and reverse osmosis, are capable of the molecular fractionation of fluids.
- Milk is ideally suited for processing by membrane filtration because it is a fluid consisting largely of water, lactose, butterfat, and protein molecules.
- Separation at the molecular level means that butterfat, lactose, and protein can be isolated from one other.

Thank You