

...the quality of the cheese in terms of both taste and texture and has also allowed Agropur to save several million dollars.

In general, biotechnology has contributed toward great improvements in milk processing techniques to the point where milk can be used for virtually everything. The three main types of milk — lactose, fat and protein — can also be used to manufacture a wide range of products.

Protein is undoubtedly the most useful ingredient in milk. Protein hydrolysis is used to segment the proteins with the help of enzymes, thus providing smaller protein fragments that can be

Can other food products be far behind?

On a larger scale, the food industry in general continues to reap the benefits of biotechnological developments.

George Weston Limited of Toronto, Ontario, has been active in the food industry for more than 100 years. Through its affiliate, Diversified Research Laboratories Ltd., Weston's has been a leader in research and development in the food industry for more than 30 years. The company has undertaken research in a wide range of areas, including biotechnology, and concentrates particularly on the study of fermentation.

For example, Diversified Research Laboratories Ltd. has developed a yeast-based fermentation process for the production of a cocoa butter substitute. The process is characterized by the use of a single yeast strain that

can use inexpensive milk byproducts as a source of food. The substitute product obtained is very similar to the original cocoa butter, but is much less expensive. Moreover, it is entirely compatible with cocoa butter in the preparation of various food products.

Agri-food products can also be used as raw materials for the extraction and purification of enzymes and proteins. STC Laboratories Inc. of Winnipeg, Manitoba, an affiliate of Export Packers Company Ltd., is involved in this field, working with eggs and horseradish. The company extracts and purifies compounds such as "horseradish peroxidase," which is used in tests to measure the cholesterol rate; and avidin, which is prepared from eggs and is used in pregnancy tests. Compounds extracted from agri-food products are used mainly by the pharmaceutical industry.



Bulk cheese being drained (boxes weighing 275 kg each).
(Coopérative agro-alimentaire Agropur)