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## Buttermilk – a strategic review of opportunities and applications

Report # 4 in DairyMark.com's 'Target business opportunities' series of publications

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**'Buttermilk – a strategic review of opportunities and applications'**

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This report is predicated by the fact that there is a significant amount of buttermilk produced each year. On that basis that 4.13 million mt of butter is produced on an industrial scale p.a., this equates to around 410,000 buttermilk powder equivalent. Of course not all buttermilk is recovered, and not all is converted to BMP. Nevertheless the volume of buttermilk solids produced for commercial purposes is significant, and is increasingly recognized as containing some unique components – including protein & lipid material with purported nutraceutical qualities that place the material as a greater potential goldmine than the currency of whey stream value-adding that is very much in fashion.

Buttermilk solids are widely recognized as the liquid product remaining after wholemilk is churned. It typically contains more fat than skim milk, can be more acidic, and is recognized as having a mild laxative effect, and is widely accepted as having applications in feed systems. But, this report does not look at buttermilk for feed. Nor does it consider buttermilk as a cultured product made from pasteurized or ultra-pasteurized skim milk. The focus is squarely on buttermilk derived from four essential dairy processing activities:

- Sweet buttermilk derived from conventional creamery butter churning operations
- Cultured buttermilk derived by churning cultured cream during the manufacture of lactic butter
- Buttermilk arising from phase inversion during the manufacture of AMF
- Whey buttermilk arising from the churning of whey cream

There is plenty of knowledge about the manufacturing, properties and applications of primary buttermilk forms - fresh buttermilk, concentrated buttermilk and buttermilk powder - and buttermilk used in blends, fat-filled buttermilk products, and the like. This report refreshes these areas with a perspective on the future. The reader is also drawn to some key developing fields, including:

- Derivation of buttermilk from AMF manufacture
- Utilizing buttermilk for yield improvements, tailoring specific outcomes (high fat SMP, high fat BMP)
- Second stage separation with applications in low fat table spreads, standardizing cheese milk, for manufacturing table cream, to improve the texture of ice cream products
- UF concentration of buttermilk with various applications
- A two-step UF/MF process delivering a product for various applications
- SCFE of buttermilk for high value, high end derivatives
- MFGM isolation
- Buttermilk as a source of unique dairy protein material
- Fractionation of buttermilk – deriving lipids, proteins
- Buttermilk as an ingredient in cheese manufacture

The report contains 84 pages and can be purchased at a cost of Euros 4,140 (Australian subscribers \$A7,285 including GST).





## About Dairymark.com

Dairymark.com is a division of Shainwright Consulting & Research Group Pty Ltd, and is a specialist dairy industry intelligence and consulting organization. The company has completed a number of strategic, market and business development dairy research assignments for Australian and international clients. Recent examples include:

- Bangladesh dairy market study
- An overview of global dairy supply and demand
- A longitudinal dairy pricing study
- A strategic review of dairy industry patent activity
- A strategic review of dairy R&D activity
- A strategic review of trends in whey permeate utilization
- A study of the Australasian dairy industry
- Strategic research identifying trends and opportunities in Asian feed markets for dairy ingredients

In addition the company has published multi-client reports, including:

- Milk ingredients – a strategic review of opportunities and applications in the oral care industry
- Dairy carbohydrates – a strategic review of opportunities and applications
- Dairy permeates – a strategic review of opportunities and applications

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