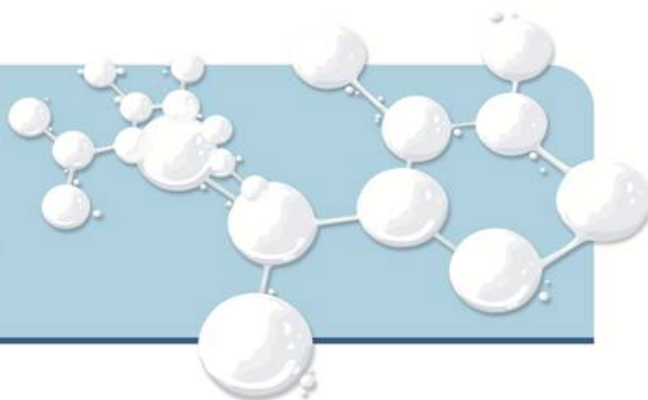


Dairy Research for a Healthy World.



Human Nutrition and Health

Milk and dairy products, outstanding sources of vitamin B12: a farm to fork approach

Summary 2016

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The project will define several aspects of a “farm to fork” approach linking consumption of ruminant products to human nutrition and health.

More specifically, it will:

- 1) give dairy farmers the knowledge to monitor milk concentration of B12 to ensure a constant nutritional quality for this factor ; and
- 2) to identify factors present in milk and dairy products responsible for improving efficiency of absorption of this vitamin.

Moreover, it will help to identify dairy products that are the best sources of this vitamin and will give the opportunity to develop new market products enriched with the vitamin naturally present in milk.

The study will provide:

1. A novel method for rapid, low-cost determination of B12 concentration in milk to ensure a constant supply of B12 to consumers;
2. Identification of specific milk components providing protection of B12 in the gastric environment and promoting its intestinal absorption;
3. Knowledge of the ability of different dairy products (cheese, yogurt, etc.) to retain the original characteristics of milk as a unique source of B12;
4. Knowledge of the effect of dairy food matrices on the kinetics of release of B12 in the gastric and intestinal environments.