

If you enjoy cheese, you can thank GMOs

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

It used to be that making cheese meant killing cows. . . . The stomach of an unweaned calf produces enzymes that turn liquid milk into good, hard, flavorful cheeses. . . .

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Previous studies had shown that an enzyme called chymosin was responsible for most . . .milk-coagulating properties. . . . In the late '80s, scientists at Pfizer successfully inserted the calf chymosin gene into *Escherichia coli*. This transformed the bacteria into chymosin-synthesizing powerhouses. . .

. . .Chymosin derived from GMOs was more pure than animal rennet. Called Fermentation-Produced Chymosin (FPC), it produced a more consistent cheese with [less waste](#) . . .

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But FPC is especially interesting for [the divisive role it plays](#) in contemporary debates over the safety of genetic engineering, and the labelling of GMO foods. Most cheese is produced with FPC synthesized by genetically modified microbes. Should consumers be made aware of this?. . . It's not as though the cheese itself is genetically modified. Neither is the chymosin that produces the cheese. Chymosin is a protein and therefore contains no genetic material. . . .

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Cheese, in other words, may be an unambiguous product of genetic engineering, but it is two steps removed from the genetically modified organism responsible for its existence. This raises difficult questions for consumers and companies with a taste for cheese and a distaste for GMOs. . . .

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It's up to you whether you consider FPC to be a GM food, vegetarian, or just a modern solution to an old problem, but it is undeniable that using genetically engineered microbes to make FPC has saved countless animal lives while keeping the cheese industry afloat. For that, we should be grateful.

**Read full, original post:** [You Can Thank Genetic Engineering For Your Delicious Cheese](#)