

Emmentaler: Switzerland's king of cheeses

Amanda Ruggeri

(Image credit: DeAgostini/Getty Images)



"Swiss cheese" with its iconic holes is known throughout the world, but true Emmentaler is a handcrafted, carefully controlled product.

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Switzerland is a nation of cheese. With a population of just under nine million, it produces 207,000 tons a year – and of the more than 450 kinds of cheese produced, there's one that's known as the "king of cheese", a food so famous it has become synonymous with the country itself. That cheese, of course, is Emmentaler – or "Swiss cheese", as it's known in North America.

It's hard not to overstate Emmentaler's ubiquity. Along with Swiss army knives, cuckoo clocks and cowbells, the cheese with holes is one of Switzerland's most immediately recognisable symbols. Souvenir shops sell Emmentaler-shaped key rings and Emmentaler-inspired socks. For six years, the speed suits of the Swiss ski team looked like Emmentaler, earning [international attention](#) at the 1994 Olympic Games. The cheese's international fame even starts in childhood: from the [The Very Hungry Caterpillar](#) book to the cartoon [Peppa Pig](#), when there's cheese, it is yellow with holes.

It's also delicious and varied, its flavour changing with age. The youngest versions, which in Switzerland are aged for just four months, taste nutty and sweet with a mild flavour. As the

cheese ages, it takes on an intense, almost spicy flavour, along with the aroma of herbs or hay.



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Despite that, few people really know what many would consider to be Switzerland's most famous cheese. That's because the majority of "Swiss cheese" consumed outside the country isn't "true" Emmentaler – according, at least, to [Emmentaler Switzerland](#), the Swiss association of Emmentaler producers. It's an imitation – usually one made industrially, outside of the Emmental region, and in a process that has little in common with the handcrafted, carefully controlled cheesemaking of Emmentaler AOP (Appellation d'Origine Protégée, or Protected Designation of Origin).

"We are a traditional, artisanal product that is produced from fresh milk," said Fred Rufer, deputy director of Emmentaler Switzerland. "We are not an industrial product where milk is coming from 200, 300, 400, 500km away and is then industrially transformed into a rectangular cheese-type product that, on occasion, has some holes."

Located in western Switzerland, the Emmental is an idyllic region of rolling hills, patchworked with forests and pasture and punctuated with traditional farmhouses with large, sloped roofs. It is also the only region where, according to Swiss regulations, true Emmentaler cheese – designated with the AOP label – can be made.



The Emmental is an idyllic region of rolling hills, patchworked with forests and pasture and punctuated with traditional farmhouses (Credit: Amanda Ruggeri)

Outside Switzerland, legislation is much laxer and other Emmentalers abound. Making matters more confusing, there are three other Emmentaler-inspired cheeses with Emmentaler in the name – one from Germany and two in France – which have protected EU status. Emmentaler Switzerland [recently lost a European Union court case](#) that would have given it the exclusive right to trademark its cheese as Emmentaler.

In the US, for example, the terms Emmentaler and Swiss cheese "are used interchangeably," says Laura Werlin, an award-winning author of six books on cheese. "So even if a cheese is made in large blocks rather than wheels like traditional Emmentaler, the cheese operation can still call it Emmentaler."

That, she says, has affected Emmentaler's reputation abroad. "Because the terms Swiss cheese and Emmentaler are used interchangeably in the US, true Emmentaler is not understood and not appreciated," she says. "So-called Swiss cheese is used more often as an ingredient than as a table cheese here. It is not taken as seriously as, say, its Swiss counterparts Gruyère and Appenzeller."

The careful regulations governing Switzerland's Emmentaler AOP start with the milk. Emmentaler dairies, which have about 26 cows each, abide by strict guidelines on how much exercise, fresh air and space the cows get. The cows eat only fresh grass and hay, no additives. They must live within 20km of the cheesemaker. Once they're milked, the raw (non-pasteurised, non-homogenised) milk must be delivered in time for the cheese-making to begin within 24 hours of milking, ensuring freshness.

Only then can the process begin. At [Käserei Hüpfenboden](#), a 150-year-old hilltop farmhouse that

doubles as both cheese factory and home, cheesemaker Bernhardt Meier opened a side door from the family's kitchen into one of the region's 110 Emmentaler cheese factories.



At Käserei Hüpfenboden, cheesemaker Bernhardt Meier opened a side door from the family's kitchen into one of the region's 110 cheese factories (Credit: Amanda Ruggeri)

The whole operation is run entirely by Meier, his wife and an apprentice. When I arrived that morning, Meier already had been at work for three hours. He starts at 05:00, when he adds natural bacteria – including [proof-of-origin markers](#) that prevent counterfeiting – to the raw milk delivered the night before. This doesn't mean his days end early, either. Cheese-making, then cleaning each machine by hand, lasts till midday. Afternoons are spent on administration or selling the cheese at market.

Making Emmentaler isn't just a time-consuming business, it's a tricky one. "Emmentaler is one of the most difficult cheeses to produce," Rufer said. While biased, he is far from the only one who thinks so; [other dairy specialists](#) also say "it's the hardest cheese to make well" and "the list of things that can go wrong is almost endless".

When I arrived at Käserei Hüpfenboden, the natural bacteria and rennet, a coagulant that gets the milk to curdle, had done its work. Small white curds had formed in the enormous copper vat. Using a cheese harp, which looks how it sounds, Meier cut the curds. Then the heating process began in the same vat. The curds were warmed to 52C. He checked them again and again for size and consistency.



Small white curds had formed in the enormous copper vat (Credit: Amanda Ruggeri)

After an hour and a half – during which time the Meier family had a breakfast of fresh-churned butter, milk, bread and chunks of the family cheese, a meal they assured me wasn't for my benefit but was what they ate each day – the curds were pumped into the cheese moulds. Nothing went to waste; the whey was pumped out separately to feed neighbouring farmers' pigs.

Meier carefully applied the Emmentaler AOP mark, a circle radiating cheerful red stripes, to each mould. As well as a signifier of AOP designation, the seal is decorated with his factory number. Buy any Emmentaler AOP today, and it will have this mark, meaning you can find the number and see where the cheese was made online.

Each mould then gets pressed for almost a full day before going into a salt bath for two days, which helps remove excess water and forms a hard, protective rind over the cheese. Finally, the cheese is brought to the cellar to mature for at least four months. Before going to sale, it's assessed by Emmentaler quality control experts.

None of this is plug-and-play. Even with heating up the curds, something as small as whether the day is warm or cool can affect the entire process, requiring a cheesemaker to make adjustments accordingly. Messing up is expensive. About 1,200 litres of milk – about a 1,800CHF (about £1,600) investment for a cheesemaker like Meier – go into one 90kg wheel of cheese.

One sign of a perfect wheel of Emmentaler? The holes. In a sample that inspectors remove with a cheese drill – about 10cm long and 1cm in diameter – you should see two or three round, shiny, cherry-sized holes, said Rufer. Failing to achieve this results in a loss of points for the cheesemaker, who is rated on a scale of 1 to 20; each wheel must earn at least 18 points before it can be sold.



Each wheel must earn at least 18 points before it can be sold (Credit: Amanda Ruggeri)

This isn't just aesthetic preference. Proper holes signify the cheese's general quality because they're a key indicator of how the process itself went. Other hard cheeses have one stage of fermentation, where the cheese's lactose turns into lactic acid. But Emmentaler, thanks in part to the fermentation cellar's specific temperature of 19C-24C, has a second stage: a fermentation of propionic acid. That stage produces carbon dioxide, which, trapped in the cheese by the hard rind, has nowhere to go. The gas produces air pockets – the holes. "No other cheese has this type of production step, that second step with a second fermentation," Rufer said. "This is unique to Emmentaler."

Unique – and, in recent years, in danger. Over the last couple of decades, cheesemakers were finding it was harder and harder to get the desired number of holes. Something was going wrong with the process, a process that had worked for some 750 years. What was it?

In 2015, [Agroscope](#), the Swiss government's food research centre, [published a study with an intriguing finding](#): Swiss milk was becoming too clean. Microscopic bits of hay had provided the perfect "home" for bubbles of carbon dioxide to stick to, helping to create the holes. But over the last few decades, as many dairies have converted to newer, cleaner technologies – automatic pumping machines instead of milking by hand, for example – milk has become purer.

In fact, Rufer said that at the last general assembly of the Emmentaler consortium, one of the main agenda items was whether to allow hay particles to be added back into the milk. "Not as an [artificial] additive," he hastened to say. "But to be added to the milk in order to produce more holes, cleaner holes, more beautiful holes."

The association is still deciding. But along with saving Emmentaler's holes, they have another

challenge: rehabilitating Emmentaler's reputation. Around the world, it seems, Emmentaler is taken a bit for granted. Part of that is the sheer volume of Emmentaler imitations. But even within Switzerland, where people are more likely to have tasted Emmentaler AOP and know the difference, it's often seen more as a staple than a delicacy. That, too, may be a downside of its historical popularity. After World War Two, the Swiss Cheese Union, which later dissolved in 1999, [promoted three cheeses above all](#) – including Emmentaler. "Emmentaler used to be the everyday cheese for everything," said Rufer. As a result, its image today, he says, might be "a little bit old-fashioned".



Proper holes signify the cheese's general quality because they're a key indicator of how the process itself went (Credit: Amanda Ruggeri)

This stereotype makes less sense today. For one, despite the ubiquity of its image, Emmentaler AOP is hardly common; with only 110 factories making Emmentaler AOP, it makes up just 8% of Switzerland's cheese production – half the amount of Gruyère AOP and less than even mozzarella. Making it, as I saw first-hand, is a complex mix of art and science, making it one of the toughest cheeses to make well.

And – yes – Emmentaler AOP is delicious.

At Käserei Hüpfenboden, Meier cut slices of six-, 12- and 18-month Emmentaler to taste. The younger cheese was subtle and sweet; as the cheese aged, the flavour became more intense – nutty, almost tangy, with the pleasant smell of hay. Then he sliced a piece of a very special cheese: a wheel that had been maturing for nine years, a rare find for an Emmentaler – normally the oldest you see in stores is 18 months. The taste was extraordinary, the flavours even more intense and complex.

This was not the "Swiss cheese" I might have put in a sandwich with turkey and mustard and eaten without even tasting it. It was something else entirely – something that deserved the moniker "king of cheeses" and, even, its place as Switzerland's main culinary symbol.

CORRECTION: *An earlier version of this story incorrectly identified cheesemaker Bernhardt Meier as Bernhardt Hüpfenboden. We regret the error.*

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