

# GMOs in Dairy

## Frequently Asked Questions

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### What are GMOs?

GMOs are organisms whose genetic material has been altered using biotechnology in ways that don't occur in nature. GMOs can be commodity crops such as corn, soy and canola, with foreign DNA added to make them herbicide tolerant or make them produce their own insecticide. New GMOs made from emerging techniques are generally cheaper and easier to make than traditional commodity crops. New GMOs face fewer regulatory hurdles and are entering the market at an alarming rate.

### Where do GMOs show up in dairy products?

Genetically modified crops are commonly used in animal feed. Animal-derived products such as milk, butter and cheese are on the Non-GMO Project's High-Risk List because of the prevalence of GMOs in animal feed. Today, companies use genetically modified microorganisms such as yeast and algae to manufacture "precision fermented" dairy. These non-animal dairy proteins are used to make ice cream, liquid milk, spreadable cheese, protein powder and more.

### Is synbio dairy okay for people with allergies?

No, synbio dairy can contain the same potential allergens as traditional dairy.

### What kind of buzzwords or marketing terms should I be aware of to avoid GMOs in dairy?

Many companies are purposefully avoiding the term "GMO" – and some are going so far as to market their products "non-GMO" even though their products are made using biotechnology. Keep an eye out for terms that can be used to describe GMO techniques or ingredients including: bioengineered, bioidentical, engineered yeast, nature identical, precision fermentation, non-transgenic, synbio dairy, animal free dairy and cultured.

### Are synbio dairy products really a climate solution?

No, these patented products are highly processed and dependent on industrial agriculture. To manufacture synbio dairy, microbes are genetically engineered in a laboratory to produce dairy proteins. Inside industrial vats, the microbes are fed a growth medium of simple sugars, most likely GMO corn or soy. The proteins are then separated from the growth medium and combined with flavorings, other proteins, colorants, texturizers, processing aids, etc. The process also produces biohazardous waste that requires incineration. On the other hand, regenerative, organic and non-GMO farming offers holistic solutions.

Livestock farming done right is crucial for rebuilding soil health and moving agriculture away from energy-intensive and greenhouse gas-emitting synthetic fertilizers. Eliminating cows entirely from dairy production cements our reliance on synthetic fertilizers and the fossil fuels that go into producing them. Well-managed and healthy herds are an important part of efforts to draw carbon out of the atmosphere and down into the soil. New research also shows that food grown well can impact the amount of nutrients a product contains.