

Did you know...?

Background on nutrition and health



Did you know...?



... DSM is the world's number-one supplier of the lactase enzyme in dairy. Lactase is the enzyme that makes dairy lactose-free and is needed to digest the lactose (milk sugar) in milk. Many people are lactose intolerant, particularly in Asia and Africa. In the Netherlands, 2% of adults suffer from lactose intolerance.



... DSM is a leader in vitamin development and manufacturing and has the most extensive portfolio of fat-soluble and water-soluble vitamins in the world. DSM produces all 13 types of vitamins, from A to K. Vitamins are essential nutrients for physical and mental health.



... DSM's healthy food ingredients can be found in virtually all food products consumed on a daily basis: from vitamins and healthy fatty acids in margarine to enzymes in bread. DSM's ingredients are also found in almost all kinds of cheese and yogurt.



... The ideal color for an egg yolk depends on the culture. At DSM, we develop carotenoids – antioxidants that play a role in preventing serious disease and have a positive effect on the immune system – which lead to yolks of different colors when mixed into chicken feed. For instance, in the Netherlands consumers like yolks to have a golden-yellow color, while consumers in Germany prefer an orange yolk.



... Eggs contain 14 essential nutrients, as much as 6 grams of protein and only 70 calories (in a large egg). In addition, eggs are extremely nutritious and available more or less anywhere in the world. Eating eggs is also good for the immune system, the physical growth of the body and brain development.



... Flamingos in the wild get their pink color from pigments in the crustaceans and algae they eat. There are no algae or crustaceans in the diet of flamingos kept in the zoo. But they still have that lovely pink color. This is due to the red carotene pigments in their feed. Without carotene in their feed, they would become white. There is also a link between the color of the flamingos, their health and their reproduction. A study carried out at Basel Zoo by DSM's predecessor showed that flamingos only reproduce if they are pink.

Did you know...?



... The holes in holey cheese are created by starter cultures from DSM. Cheesemakers also use the starter cultures to give their cheese a distinctive taste and to reduce the ripening time of the cheese and energy consumption. So adding starter culture to cheese not only creates holes, but also adds flavor and is better for the environment.



... The most popular cheese in the world is mozzarella. This is because we love pizza so much. Almost a quarter of all the cheese produced in the world is mozzarella. At DSM, we help cheesemakers make mozzarella taste even more delicious, with less salt and fat and a good texture.



... Dutch people eat an average of 352 grams of dairy products per day. Adults and children eat almost the same amount of dairy. Most of this dairy is milk (42%), with yogurt in second place (15%) and cheese in third (9%).



... Over the last 50 years, global consumption of fish has more than doubled. From 9 kilos per person per year at the start of the 1960s to over 20 kilos now.



... Research by Wageningen University & Research shows that the most sustainable option is to get our protein from a mix of meat (1/3) and plant sources (2/3). At DSM, we see an important role for both sources in our future food system: healthy, nutritious vegetable proteins as well as sustainably produced animal proteins. This is especially true in the Global South, where undernourished populations also need access to the high-quality proteins, micro-nutrients and essential fatty acids in meat.



... During research on healthy nutrition for astronauts, NASA discovered that algae are naturally rich in DHA, one of the essential omega-3 fatty acids. Omega-3 is good for the brain, eyes and heart. DSM built on NASA's research and developed Omega-3 and other nutritional supplements for maternal and baby health. DSM has the largest library of living microalgae in the world: no fewer than 3500 species.

Did you know...?



... Dutch people eat on average four slices of bread a day. Whole wheat is the most popular type of bread, followed by multigrain and brown bread (wheat). For more than 150 years, our enzymes have been helping bakers to bake bread that is healthier, looks and tastes good, while also containing less salt and staying fresh for longer. Whole wheat bread containing DSM's enzymes has more volume, is of better quality, has a crisp crust and stays fresh for longer.



... 85% of Dutch people eat more salt than the recommended daily amount. On average, each person eats a kilo of salt too much per year. Among other things, too much salt causes hypertension. So prevention is definitely better than cure! DSM develops natural flavor enhancers based on yeast extracts. This allows food manufacturers to use much less salt in soups, sauces, dressings and chips, among other things. They ensure that dishes have a delicious savory taste despite the lower salt content.



... Consumers need to drink much more almond milk, a popular plant-based milk substitute, to achieve the same nutritional value as one glass of cow's milk. Cow's milk contains about 8–10 grams of protein per glass and is naturally rich in calcium, potassium and other essential nutrients. There are 1–2 grams of protein in a glass of almond milk, and it also contains 40% less calcium and 60% less potassium than cow's milk. The environmental impact of almond cultivation is high: producing 1 kilo of peeled almonds uses an average of 16,095 liters of water and results in more than three kilos of CO₂ emissions.



... Microbes, the smallest but most versatile beings on earth, have populated our planet for over 3.5 billion years and have been helping us to preserve and ferment food for thousands of years. Microbes hold the key to making our global food system more sustainable. We use microbes such as yeast, fungi and bacteria to produce food through fermentation, such as cheese, yogurt, bread and beer. Nowadays we do this on a large scale at DSM, including at our biotechnology hub in Delft.



... Around 2 billion people worldwide suffer from hidden hunger, a shortage of essential micronutrients. Since 2007, DSM has been working with the World Food Programme (WFP) to enrich rice and porridge with vitamins, minerals and micronutrients. Since the start of the partnership, we have provided nutritious and healthy food to tens of millions of vulnerable people worldwide.

Sources:

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DSM – a health, nutrition and bioscience company with offices throughout the Netherlands and worldwide

As nearly all of us are aware of, the way we produce and consume food needs to change. It is a huge challenge to allow around 10 billion people access to healthy food which is also produced sustainably. This challenge calls for creative and innovative solutions. And that's what DSM does: turn food ingredients into smart solutions, both with and for its customers and partners. Based on more than 100 years of scientific knowledge and experience, we make food healthier, more sustainable and tastier.

As a company with a rich history in the Netherlands, we are firmly building our future in the Netherlands, an international leader in agrifood. DSM is an important mainstay of that Dutch innovative force in this sector. From our R&D center in Delft, which is among the best in the world in the field of fermentation R&D for food, working together with TU Delft, surrounded by our growing open-innovation campus in collaboration with PlanetB.io, and through participating in our partners' hubs such as Foodvalley and Wageningen University & Research, the entire innovation cycle is supported. At the heart of our innovation process, we work with our customers to create innovative solutions for the entire chain. This enables us to respond quickly to the ever-changing demands of society: from the sustainability of animal protein production to the development of more nutritious and healthy vegetable proteins.

Many of DSM's global food innovations were born in the Netherlands. For example:

- Enzymes for gluten-free beer (Brewers Clarex®)
- Lactase for lactose-free milk, yogurt, quark and other dairy products (Maxilact®)
- Natamycin, a natural preservative used, for example, on cheese coatings (Delvo®Cid)
- Vegetarian rennet for cheese production (Fromase®)
- Fermented calorie-free sweetener (EVERSWEET™)
- Durable, high-quality vegetable protein from rapeseed (CanolaPRO®)

At DSM, we believe that doing good for the world and doing well financially go hand-in-hand. This is reflected not only in our targets for reducing our impact, such as lowering our greenhouse gas emissions, but also in our food system commitments. These are concrete, measurable goals with which DSM contributes to human, animal and environmental health in its core activities. These objectives are anchored in our company: not only do we set these targets, we also achieve them. And, where possible, we make them even more ambitious in the interim.

All of this makes DSM a pioneer in the international food transition. This means that the growing world population of soon to be 10 billion people can be fed in a healthy and sustainable way in the future too.