

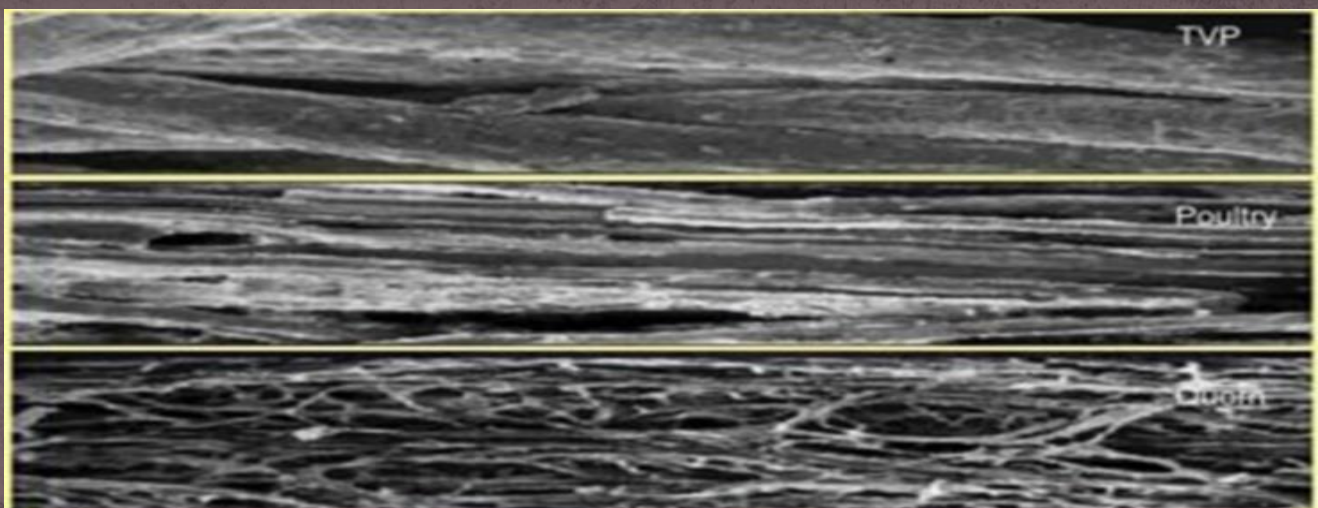
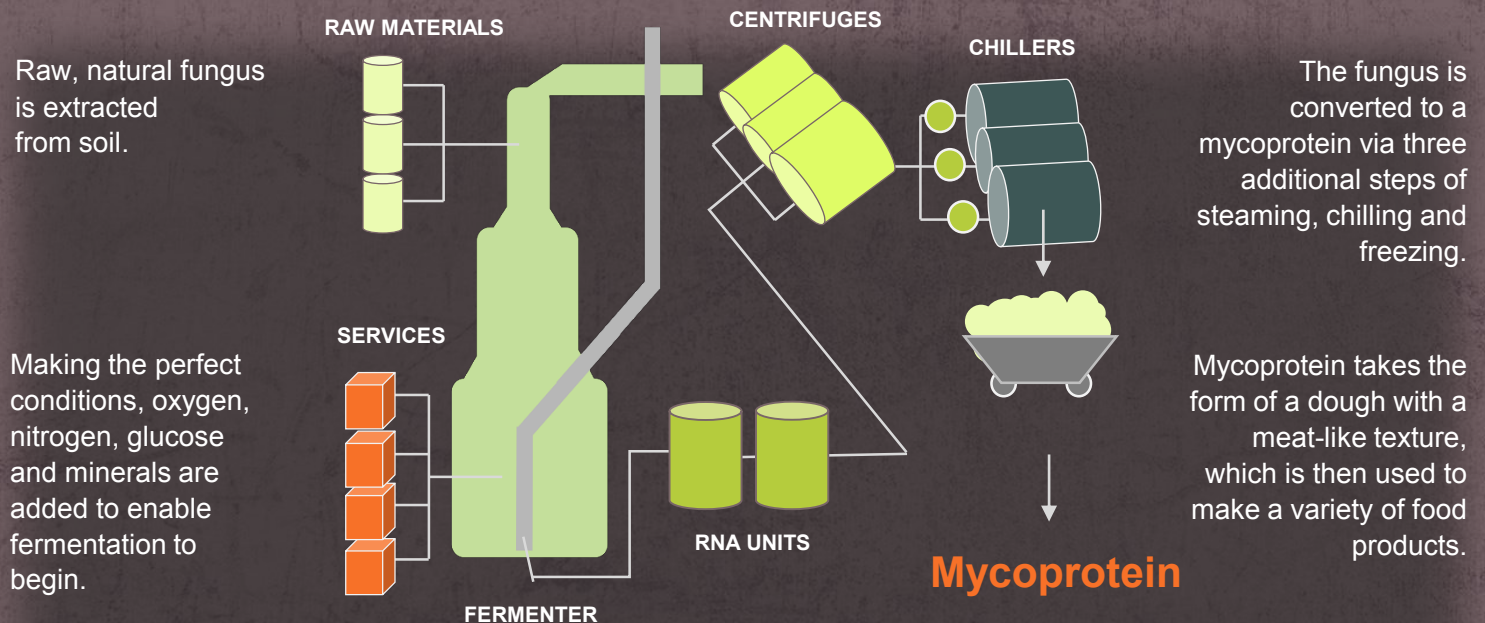
MYCOPROTEIN

What is Mycoprotein?

The work to find an alternative protein source for humans began in the 1960s. The fungus, *Fusarium Venenatum*, was discovered in Buckinghamshire, UK, and selected for development as a mycoprotein. Greek for fungi-protein, mycoprotein is a unique and nutritious protein that can be part of a balanced diet and also has a reduced environmental impact.

The Science Behind Mycoprotein

Mycoprotein is made by fermentation from *Fusarium Venenatum* found in nature, and has decades of food safety history. The fungus is grown via fermentation, and the resulting mycoprotein is exposed to steaming, chilling and freezing which creates a meat-like texture, similar to chicken breast when seen under a microscope. Additional ingredients, such as water and a little egg white, may be added, depending on the end use.



Microscopic view comparison of mycoprotein with textured vegetable protein and poultry muscle tissue.

Why Mycoprotein?

Mycoprotein was developed during the time of the Green Revolution, a 30-year period in the mid-1900s, when there were genuine concerns about feeding the world, which led to growth of agricultural research and technology to help increase harvesting yields and production.

At present, we are again facing potential insecurity of global resources to feed a projected world population of nearly 10 billion by the year 2050, and an expected 80 percent greater demand for animal-based food by the same year.

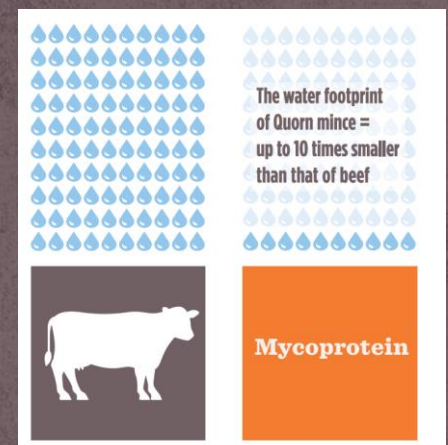
Mycoprotein is made using a protein source from the earth, and is produced with minimal demand for land or environmental burden. This is as revolutionary now, as it was then.

The United Nations projects a world population of nearly 10 billion by 2050.

Environmental Benefit

Mycoprotein has distinct environmental benefits. Producing protein through fermentation is more efficient and far more sustainable than animal protein.

- ✓ Mycoprotein has a significantly smaller carbon footprint and requires less land and water resources than livestock.
- ✓ In comparison with beef:
 - The product carbon footprint of mycoprotein can be considered to be at least 10 times lower than that of beef.
 - The water footprint of mycoprotein is 20 times lower than that of beef (global average).
- ✓ In comparison with chicken:
 - The product carbon footprint of mycoprotein can be considered to be at least 4 times lower than that of chicken.
 - The water footprint of mycoprotein is 6 times lower than that of chicken.
- ✓ The Carbon Trust has certified the carbon footprint of mycoprotein since 2012.



Where to Find Mycoprotein

Mycoprotein is sold exclusively by Quorn Foods in Quorn™ products and ingredients. The Quorn™ product range includes grounds or mince, roasts, cutlets, patties and nuggets. They can easily be added to recipes, and can be grilled, sautéed, stir-fried, breaded, baked and more.

Visit www.mycoprotein.org and www.quorn.us for more information about mycoprotein, products and recipes.

1. Quorn Sustainable Development Report 2017. Available at https://www.quorn.us/files/content/Sustainability_2017_Report.pdf.