

What's your favourite fungus?

The One That Veggies Like To Eat

In the 1960s there was concern over the future supply of protein from the traditional sources of cattle, pigs, poultry and fish. It was thought that the supply of these foods would not be able to match the world demand, and protein would have to be obtained from a new source. Projects were started to produce protein from microorganisms.

In 1964 it was decided to try to produce protein from filamentous fungi. Ideally, the fungus used should have good nutritional value, be easy to cultivate and inexpensive to produce. Three thousand species of fungi were collected and tested to see if they were suitable, the one finally chosen was called *Fusarium venenatum*.

This fungus is grown continuously in a large fermenter at the optimum temperature of 30°C. Constant production and collection of the fungal biomass occurs. The product is then heated to 64°C so that the RNA is destroyed to make it safe for people to eat.

It's then filtered to remove the liquid medium, leaving behind what looks much like a sheet of raw pastry, which is then flavoured and shaped ready to be transported to the shops. This product is called 'Quorn' and has been on sale since 1980. It is available in a wide range of forms, such as burgers, sausages, mince and chunks. Quorn has been very successful, with annual sales of more than £15 million per year, and is popular with vegetarians who can obtain many nutrients from it that others get from eating meat.

Apart from the high protein content it is low in calories and saturated fats, contains no cholesterol and is rich in zinc, B-vitamins, and fibre. It is ideal for people who are watching their diet but who still want to enjoy the taste and texture of meat. This is because *Fusarium venenatum* is a filamentous fungus with a stringy consistency which is comparable to the texture of meat. The fungus also absorbs flavours well so can be altered easily during cooking to suit individual tastes.

