Fusarium disease in humans

*Fusarium* disease often causes painful red lesions on the skin and ulcers. A common point of entry for *Fusarium* species is the nails, resulting in gruesome and debilitating infections.

In patients with reduced immunity (immunocompromised), *Fusarium* can grow and spread throughout the body and in the blood. Invasive lung infections can occur as a result of lesions on pulmonary tissues. In such cases, health deteriorates markedly and the control of infection is difficult.

Eye infections

Infection by a number of *Fusarium* species, in particular *Fusarium solani*, can cause inflammation of the cornea in the eye. This is known as keratitis. Although uncommon in Western countries, recent outbreaks have been associated with unhygienic contact lens use.

Use as a food source

Quorn™ is a food product created from *Fusarium venenatum*. It was developed in the 1960s because of concerns that protein sources besides animals would be necessary to feed the world’s population.

The hyphae of *Fusarium venenatum* are similar to animal muscle fibres. The fungus is grown in a fermenter, and used to produce a wide variety of meat substitutes.

Use in crop production

Plant hormones known as Gibberellins were first discovered in the rice pathogen *Fusarium fujikuroi*, and are used in crop production. Gibberellins regulate aspects of plant growth and development.

Gibberellins isolated from *Fusarium fujikuroi* are used to produce seedless grapes, break seed dormancy, speed up malting and elongate genetically-dwarfed plants.

Use in biotechnology

*Fusarium oxysporum* can convert silver ions into minute, nano-scale parcles called silver nanoparticles, in a process believed to be mediated by enzymatic reactions. Silver nanoparticles are used in a wide range of applications, including electronics, textiles, food storage, medical devices and biosensing—detecting chemicals with a device that includes a biological component.

Fusarium: Friend or foe

Healthy crops, healthy food