Penicillium chrysogenum and Acetobacter aceti

Author name

Affiliations

Penicillium chrysogenum and Acetobacter Aceti

**Reply 1:**

*Penicillium chrysogenum* is a species of Penicillium that has been studied extensively. Its commercial strains are a source of antibiotics such as penicillin that works by stopping the biosynthesis of bacterial cell walls. It is specifically present in indoor environments that have high humidity and dampness such as food products and water-damaged building. Moreover, its colonies are blue-green also having yellowish pigment. It is mainly responsible for breaking down organic material in nature. It is famous for allergen as well as for pathogen and assist in protecting crops from certain pathogenic attacks. Furthermore, it causes infection in immunocompetent patients (Barcus, Burdette, & Herchline, 2005).

**Reply 2:**

*Acetobacter aceti* is an environmental bacterium that is mainly associated with flowers, fruits, and soil. In fruits, it causes rotting and browning discoloration such as in apples, pears, and citrus products. I agree that it is used by many economies to support them as they use it for food production on a commercial scale. Furthermore, it is being studied in bacteriology for its ability to oxidize ethanol and produces acetic acid that is used in the production of vinegar (Arai, Sakurai, & Ishii, 2016). It is an obligatory aerobic bacterium that can fix nitrogen and produce alcohol as a byproduct. Likewise, it can also be used in the spoilage of alcoholic products such as wine. However, it is yet not reported as a pathogenic microbe to humans as well as animals as it does not yield any toxin or enzyme that can cause harm to human or animal. Its nature is ubiquitous and all animals come in contact with this bacterium frequently.

References

Arai, H., Sakurai, K., & Ishii, M. (2016). Metabolic features of Acetobacter acetic. In *Acetic Acid Bacteria* (pp. 255–271). Springer.

Barcus, A. L., Burdette, S. D., & Herchline, T. E. (2005). Intestinal invasion and disseminated disease associated with Penicillium chrysogenum. *Annals of Clinical Microbiology and Antimicrobials*, *4*(1), 21.