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Abstract

Fungi play an important role in the solution to important global problems. Making use of processes and goods that are based on fungi can help promote sustainability by making the most efficient use of natural resources. Fungi stand apart from other organisms due to their extraordinary capacity to generate organic compounds. They are necessary for the psychological and physiological well-being of people worldwide. They are excellent producers of vitamins, pigments, hydrolytic enzymes, biofuels, organic acids, polysaccharides, and secondary metabolites such as antibiotics, anticancer treatments, hypocholesterolemic pharmaceuticals, and immunosuppressants. Other secondary metabolites include biofuels. In addition, polysaccharides are produced by them. We provide a condensed explanation of the significance of secondary metabolites in a variety of industries, such as the pharmaceutical industry, the food industry, the textile industry, and the transportation industry. In addition to providing a better understanding of biosynthetic regulation and the possibilities of genetic engineering, improved laboratory processes for the selection of nontoxigenic fungal strains have permitted the manufacture of larger quantities of safe commercial items. The significance of fungi in industrial settings is the topic that will be investigated in this review.

Keywords: [Bioactive Compounds](#) ▪ [Fungi](#) ▪ [Secondary Metabolites](#) ▪ [Fungal Therapeutic Compounds](#) ▪ [Mycotoxins](#)

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