Effect of tannin concentration on mycelial growth and development of *Auricularia cornea*

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Abstract

It is proved that the effect of tannin concentration on the mycelial growth of fungi. *Auricularia cornea* (white strain) were treated with different concentrations of tannins in petri-dishes and liquid shaking flasks. The growth rate of mycelium, the ratio of clamp connection, morphology of mycelium, biomass of mycelium and activity of antioxidant enzymes were determined. The results showed that different concentrations of tannin significantly decreased the rate of mycelium. However high concentration of tannin stress increased the content of thiobarbituric acid in mycelia and had obvious time and concentration effects. Different antioxidant enzyme activities also had different responses to tannin stress. It provides theoretical basis for fungi to utilize and develop substrates containing tannin such as pine.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the latest manuscript can be downloaded and [accessed as a PDF](#).

Tables

Due to technical limitations, the tables are provided in the Supplementary Files section.

Figures

Figure 1

Photos of *A. cornea* on different concentrations of tannins PDA medium

Figure 2

Effect of different concentrations of tannins on mycelial growth rate of *A. cornea* in PDA medium

Figure 3

Effect of different concentrations of tannins on mycelial dry-weighted of *A. cornea*

Figure 4

Effects of concentrations of tannins on the clamp-connection hyphae ration of *A. cornea*

Figure 5

Effect of different concentrations of tannins on TBARS content of mycelial of *A. cornea*

Figure 6

Effect of tannins on TBARS content of mycelial of *A. cornea*

Figure 7

Effect of tannins on SOD activity of mycelial of *A. cornea*

Figure 8

Effect of tannins on POD activity of mycelial of *A. cornea*

Figure 9

Effect of tannins on CAT activity of mycelial of *A. cornea*

Supplementary Files

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