

## Efficiency for Enzyme Production of Fungi Isolated from the Stomach of Buffalo

**Authors :** Suphalucksana, Wichai, Sangsophonjit Settasit, Soytong Kasem

**Abstract :** A study on the efficiency for enzyme production of fungi isolated from stomach of buffalo was conducted. The fungi were collected from 4 parts of stomach as rumen, reticulum, omasum and abomasums. The objective to study the efficiency of fungi from stomach of buffalo had effected to produced enzyme and to selected fungi for their ability to produced enzyme cellulase, hemicellulase and ligninase. Results shown that the fungi isolated from rumen were: Eupenicillium sp. (B-RU-01-1), Eupenicillium sp. (B-RU-02-3G), Rhizopus stolonifer (B-RU-01-4) and Trichoderma sp. (B-RU-01-2). From the reticulum, Aspergillus glaucus (B-RET-02-3), Aspergillus ochraceus (B-RET-02-2) and Penicillium sp. (B-RET-02-4) were found. In the omasum Aspergillus fumigatus (B-OMA-01-1G), Eurotium sp. (B-OMA-01-4) and Rhizopus stolonifer (B-OMA-02-3) were isolated and in the abomasums Aspergillus flavus (B-ABO-02-3), Aspergillus fumigatus (B-ABO-02-1), Aspergillus niger (B-ABO-01-3G), Aspergillus terreus (B-ABO-02-4) and Mucor sp. (B-ABO-02-4G). Results of enzyme analysis revealed that cellulase was produced by isolated: Eupenicillium sp. (B-RU-02-3G), Eupenicillium sp. (B-RU-01-1), Penicillium sp. (B-RET-02-4), Aspergillus glaucus (B-RET-02-3), Aspergillus ochraceus (B-RET-02-2), Aspergillus fumigatus (B-OMA-01-1G), Eurotium sp. (B-OMA-01-4), Aspergillus flavus (B-ABO-02-3), Aspergillus fumigatus (B-ABO-02-1), Aspergillus niger (B-ABO-01-3G), Aspergillus terreus (B-ABO-02-4). Hemicellulase was produced Eupenicillium sp. (B-RU-02-3G), Eupenicillium sp. (B-RU-01-1), Rhizopus stolonifer (B-RU-01-4), Trichoderma sp. (B-RU-01-2), Aspergillus glaucus (B-RET-02-3), Aspergillus ochraceus (B-RET-02-2), Penicillium sp. (B-RET-02-4), Aspergillus fumigatus (B-OMA-01-1G), Eurotium sp. (B-OMA -01-4), Aspergillus flavus (B-ABO-02-3), Aspergillus fumigatus (B-ABO-02-1) Aspergillus niger (B-ABO-01-3G), Aspergillus terreus (B-ABO-02-4), Mucor sp. (B-ABO-02-4G). For the enzyme ligninase, two isolates were found to produced this enzyme namely : Trichoderma sp. (B-RU-01-2) and Mucor sp. (B-ABO-02-4G).

**Keywords :** enzyme production from fungi, enzyme production, fungi, agricultural technology

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