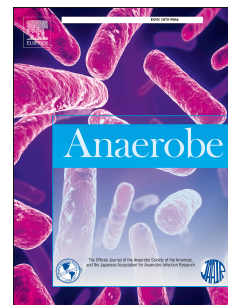


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Comparative evaluation of lignocellulolytic activities of filamentous cultures of monocentric and polycentric anaerobic fungi

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1 **Comparative evaluation of lignocellulolytic activities of filamentous cultures of**
2 **monocentric and polycentric anaerobic fungi**

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13 **Abstract:**

14 Sixteen strains of monocentric and polycentric anaerobic fungi were evaluated for cellulase,
15 xylanase and esterase activities. Though strain level variations were observed among all
16 genera, *Neocallimastix* and *Orpinomyces* strains exhibited the highest lignocellulolytic
17 activities. The esterase activities of a monocentric group of anaerobic fungi were better than
18 the polycentric group.

19

20 **Key Words:** cellulase; esterase; gut fungi; rumen; xylanase

21

22 Anaerobic (or rumen) fungi are a member of phylum *Neocallimastigomycota* [1],
23 which inhabit the gastrointestinal tracts of diverse herbivores [2]. So far, nine genera of these
24 fungi have been recognized under monocentric filamentous (*Neocallimastix*, *Piromyces*,
25 *Buwchfawromyces*, *Oontomyces*, and *Pecoramyces*), polycentric filamentous (*Anaeromyces*

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