

## Seed Endospermic Hemicellulose–Agar Blends, as Substrate in Fungi Culture

Gomes-Gonçalves, N.G.; Monteiro, R.M.; Monteiro-Moreira, A.C.O.; Moreira, R.A.  
Centro de Ciências da Saúde, Universidade de Fortaleza – UNIFOR, Ceará,  
Brasil.

Leguminous seeds are rich sources of endospermic galactomannan and cotyledonary xyloglucan. These hemicelluloses, corresponding to as much as 40-50% of the seed weight, are used by the seed as energy reserve and defense against water stress. Their structures are characterized by mannan or glucan backbones with 6-O-galactose substitution, which confers a high viscosity and gel forming capacity. The main objective of this study was to evaluate the behavior of fungi cultures in semi-solid culture medium, containing hemicellulose-agar blends. *Caesalpinia pulcherrima* galactomannan and *Hymenaea courbaril* xyloglucan were used substituting 50% of agar (in Sabouraud-Dextrose) in cultures of *Aspergillus flavus*, *A. fumigatus*, *Candida Albicans* and *Fusarium oxysporum*. The radial colonies development (24, 48, 72, 144 and 168 h) in the blended medium was compared to the results obtained with the industrialized agar medium. While the *C. albicans* cultures apparently were not affected by the presence of the hemicellulose in the medium, *A. flavus*, *A. fumigatus* and *F. oxysporum* cultures were positively affected by both galactomannan and xyloglucan, although the *Aspergillus fumigatus* development were the best in the presence of xyloglucan, with an increase of 74%.

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