

Isolation and Evaluation of Tannin-degrading Fungal Strains from the Mexican Desert

Mario Cruz-Hernández^a, Juan Carlos Contreras-Esquivel^a, Faustino Lara^b, Raúl Rodríguez^a, and Cristóbal N. Aguilar^{a,*}

^a Food Research Department, School of Chemistry, Universidad Autónoma de Coahuila, Saltillo, Coah, México. Fax: +52 (844) 415-9534. E-mail: cag13761@mail.uadec.mx

^b Centro Internacional de Servicios Fitosanitarios, S.A. de C.V. Saltillo, Coahuila, México

* Author for correspondence and reprint requests

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Eleven fungal strains (4 *Penicillium commune*, 2 *Aspergillus niger*, 2 *Aspergillus rugulosa*, *Aspergillus terricola*, *Aspergillus ornatus* and *Aspergillus fumigatus*) were isolated, characterized morphologically and by their capacity to degrade tannins. *Aspergillus niger* Aa-20 was used as control strain. Several concentrations of hydrolysable tannin (tannic acid) were used as sole carbon source. All strains were able to degrade hydrolysable tannins. *Aspergillus niger* GH1 and PSH showed the highest tannin-degrading capacity (67 and 70%, respectively). Also, the fungal capacity to degrade condensed tannin (catechin) was tested. *Aspergillus niger* PSH and *Penicillium commune* EH2 degraded 79.33% and 76.35% of catechin. The results demonstrated the capacity of fungi to use hydrolysable and condensed tannins as carbon source.

Key words: Fungal Strains, Screening, Tannin Degradation