

CONTROLE ALTERNATIVO

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Antagonistic action of *Agrobacterium tumefaciens* and essential oils against *Aspergillus flavus* isolates from *Bertholletia excelsa* (brasil-nuts).

Ação antagonística de *Agrobacterium tumefaciens* e de óleos essenciais sobre *Aspergillus flavus* isolados de castanha-do-brasil (*Bertholletia excelsa*).

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The chestnut-do-brasil (*Bertholletia excelsa*) is a tree found in the Amazon region, whose fruit called “the Brazil nut” has an important role in regional economy. Such seeds are affected by the growth of several fungi that produce mycotoxins. The fungus *Aspergillus flavus* is the main producer of aflatoxins, compromising the nuts. The main objective of this study was study the growth inhibitory action of *A. flavus* by essential oils of rosemary, anise, beta-caryophyllene, cinnamon, lemongrass, clove, eucalyptus, limonene, mint-citrata and thyme. The culture medium used was the LB, and the incubation was performed at 28°C for 48 hours in the presence of 10µL of the respective oils. Simultaneously, were tested the *Agrobacterium tumefaciens* and yeasts as possible agents for controlling *A. flavus*. The results point to a more effective inhibitory activity of essential oils of rosemary, anise, mint-citrata, eucaliptus, lemongrass, thyme, beta-caryophyllelene and limonene. Cinnamon and clove oils were unable to inhibit the growth of *A. flavus* strains. The *A. tumefaciens* was able to inhibit 16 of 70 *A. flavus* strains, but is not recorded any inhibition by yeasts.

Apoio: EMBRAPA (Micocast)