ANTIBIOSIS OF ACTINOMYCETES FROM *Paullinia cupana* var. *Sorbilis* (Mart.) Ducke AGAINST FUNGI PATHOGENIC

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Guarana *(Paullinia cupana* var. *Sorbilis* (Mart.) Ducke) is a native species of economic and social importance in Brazil serving the domestic and international demands. This culture is attacked by *Colletotrichum guaranicola* Albuq. and *Fusarium decencellulare* Brick, causal agents of anthracnose and overbudding, respectively. Actinomycetes are bacteria that may produce secondary metabolites with antibacterial and antifungal potential. The isolation of endophytic with antibiosis agaist pathogenic fungi is the first step in biological control and bioprospecting antimicrobial compounds programs. Thus, the antifungal potential of 15 endophytic actinomycetes was evaluated by the antibiosis *in vitro* against three strains of *Colletotrichum guaranicola,* 1 strain of *Colletotrichum* sp. and 3 strains of *Fusarium decencellulare.* Actinomycetes fragments activated in TSA (10%) for 15 days were inoculated in TSA (10%) plaits with mycelial fragment of plant pathogenic strains. The mycelial growth was accompanied by seven days and the growth rate (µ) was compared to the control. All fungi showed a reduction of at least 70% of the µ value for at least one actinomycete. Two actinomycetes (A3 and A15) showed antibiosis activity to 5 different fungi. The µ the three strains of *Colletotrichum guaranicola reduced to* 96, 63 and 81% in antibiose to A3; and 70, 94 and 27% reduced with A15. The µ of *Colletotrichum* sp. reduced *by* 83% and 76% in antibiose with A3 and *A15,* respectively. The µ of the three *Fusarium decencellulare* strains reduced to 76, 77 and 84% with A3 and 72, 68 and 39% with A15. Therefore, endophytic actinomycetes from guarana showed antibiosis activity against pathogens of this plant species. The results show promise for the control of anthracnose using the A3 and A15. Studies of natural products of these two strains are being investigated.

Keywords: *actinobacteria, antagonism, Colletotrichum guaranicola, Fusarium decencellulare,* guarana

Development agency: CAPES and FAPEMAT