

**Title: BIOACTIVITY OF THE EXTRACT OF *Pyrostegia venusta* IN *Colletotrichum truncatum***

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**Abstract:**

Anthracnose is a common disease in soybean, caused by the pathogen *Colletotrichum truncatum*. The indiscriminate use of pesticides has been causing several problems. Thus, bioprospecting has been valued and many researchers have been devoted to studying the bioactivity of plant extracts. We evaluated the *in vitro* bioactivity of the aqueous extract of *Pyrostegia venusta* (“cipó-de-são-joão”) on mycelial growth and sporulation of *C. truncatum* by disk diffusion technique. The extract was tested at concentrations of 0.1; 0.2; 0.3; 0.4 and 0.5 mg/ml, autoclaved distilled water as negative control, and pyraclostrobin+epoxyconazole fungicide, as a positive control. Four discs were placed on the surface of the Petri plate containing PDA using five repetitions for each treatment. The diameter of the colonies were evaluated daily, 24 hours after the beginning of the experiment and until the moment in which they covered 2/3 of the surface of the growth medium. The effect of the extracts on the formation of *C. truncatum* spores was evaluated with Neubauer chamber. The aqueous extract of “cipó-de-são-joão” showed no significant inhibitory effect on the mycelial growth of *C. truncatum* in any evaluated concentration, for all concentrations tested showed a percentage of inhibition between 2.74 and 17.25%, compared with the negative control. The concentrations also did not show significant inhibition when compared with the positive control. However, all concentrations showed percentage inhibition of sporulation above 93 and 73% over the negative control and positive control, respectively, showing a significant reduction in sporulation. The results show that the plant extract has the potential to be used for controlling diseases, requiring studies of germination and *in vivo* action against plant pathogens.

**Keywords:** anthracnose, “cipó-de-são-joão”, phytopathogen, plant extracts