

PARTIAL PURIFICATION OF A PINEAPPLE PROTEIN WITH ANTIFUNGAL ACTIVITY

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Fusariosis, caused by *Fusarium subglutinans* f. sp. *ananas*, constitutes the most serious pineapple orchards disease in Brazil. A resistant genotype (EC-099) was developed and the aspect that leads to this resistance is under investigation. From the soluble protein extract from non-chlorophyll pineapple leaf of greenhouse cultivated plants, an ammonium sulphate precipitation was conducted and each fraction was assayed by Red Sepharose column chromatography (RSC). After RSC, two protein peaks were obtained. Antifungal activity of each peak toward *Fusarium subglutinans* f. sp. *ananas* was conducted by assaying its ability to inhibit the conidial germination (20,000 conidia/ml in potato broth) for 48 hours at 28 °C. The second peak (P2) was able to inhibit conidia germination by 76% and exhibited high antifungal specific activity compared to the first peak (P1) which showed 39%, both at 25 µg ml⁻¹ protein concentration. These antifungal fractions isolated from leaf extracts could yield one or more potent antifungal proteinaceous compounds that will provide a basis on the understanding of the mechanisms underlying *Fusarium* resistance in pineapple.

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