

IDENTIFICATION OF GENE EXPRESS FOR *PUCCINIA PSIDII* IN INTERACTION WITH *EUCALYPTUS GRANDIS*

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Puccinia psidii is one basidiomiceto parasite obligator causing of rust of the eucalyptus, one of main illnesses of plantation of eucalyptus in Brazil. This illness occurs in plants with less than two years of age, in new sprouts and fisheries. The symptoms are yellow necroses, deformation and presence of wounds in new leves, being able to cause death of apex portions and reduction of photosynthesis area. With the objective to identify express genes for *P. psidii* in interaction with *E. grandis*, one library of cDNA was constructed from mRNA isolated of young leves of *E. grandis* contaminated with rust. This library was called EUGR_PU, as part of the Genolyptus project. The 9864 ESTs generated had been analyzed "in silico". The comparison of these sequences with the GenBank, through BlastX (NCBI), disclosed 1.9% of the ESTs similar the genes of fungi, 69.2% with genes of plants and 28.9% without similar sequence. 50% of the sequences had been similar the genes of basidiomycetos and the remain similar the genes of other fungi. Moreover, 60.5% of the ESTs have similarity with protein hypothetic and 39.5% with proteins of known function: metabolism of fat, amino acids, DNA and RNA, tolerance the metals heavy, stress oxygen and chaperones. It will be carried macroarrangements to prove the fungi origin of genes and one an analysis of the level of expression of them.

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