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Pineapple germplasm and Fusariosis resistance

D.T. Junghans and P.M. Aristoteles. Embrapa Mandioca e Fruticultura Tropical, Caixa Postal 7, 44380-000, Cruz das Almas, Bahia, Brazil. Email:

apmatos@cnpmf.embrapa.br, davi@cnpmf.embrapa.br

Pineapple breeding programs in Brazil are based on genetic resistance to *Fusarium subglutinans* f. sp. *ananas* the causal agent of the pineapple fusariosis; the most serious problem in Brazilian pineapple fields. Yield losses due to fusariosis disease vary according to harvesting period and growing season as well. The genetic resistance is considered the most effective and economic measure of disease control. The Pineapple Germplasm Bank at Embrapa Cassava & Tropical Fruits has a total of 616 pineapple accessions of pineapple and related species. Since 80's, several experiments were carried out at Embrapa Cassava & Tropical Fruits, under greenhouse or nursery conditions, in a completely randomized design with five replicates, in order to evaluate the reaction of pineapple genotypes to inoculation, by the wounding and dipping technique, with *F. subglutinans* f. sp. *ananas*. A total of 273 genotypes were evaluated for resistance to the pathogen. The reference genotypes were the Smooth Cayenne and Pérola cultivars (susceptible) and Perolera and Primavera (resistant). Evaluations showed that 144 genotypes (52, 7%) showed no symptoms of the disease, while the remaining 129 genotypes (47, 3%) behaved as susceptible to *F. subglutinans* f. sp. *ananas*. Among the resistant genotypes, 105 belonged to the *Ananas comosus* var. *comosus*, the species with edible infructescence. All inoculated plants of the Pérola and Smooth Cayenne cultivars, control genotypes for susceptibility, showed fusariosis symptoms at evaluation. These data indicate that resistance to the pathogen is of fairly common occurrence among pineapple genotypes. These genotypes will be submitted to an agronomical evaluation in order to be indicated for use in the breeding program aiming to generate new pineapple hybrids.