

GCP Annual Research Meeting 2007

Evaluation of cassava interspecific hybrids for resistance to pests and diseases in different environments of Brazil

Alfredo A. C. Alves¹, Alba R. N. Farias, Miguel A. Dita, Alineaurea F. Silva; Anthony C. Bellotti; Martin A. Fregene

¹ *Embrapa Cassava and Tropical Fruits, Cruz das Almas, Brasil*

Theme:

Marker development and breeding applications

Cassava interspecific hybrids were evaluated for pest and disease resistance in different environments of Brazil. Experiments were established in São Miguel das Matas (SMM), Tancredo Neves (TN), Cruz das Almas (CA) in the Bahia State and in Petrolina (PT), in the Pernambuco State. SMM, TN and CA are characterized as subhumid environments with different annual average rainfall varying from 1000 to 1800 mm and PT is representative of the semi-arid (around 560 mm). Evaluations were performed every month starting 6 months after plantation (MAP) to 12 MAP. In all the places, the most relevant pest were cassava green mite (*Mononychellus tanajoa*) and cassava mealy bug (*Phenacoccus manihoti*), respectively, with the highest incidence in PT. Diseases were increasingly severe in TN, SMM and CA. Anthracnose (*Colletotrichum gloesporioides* f sp. *manihotis*), brown spot (*Cercosporidium henningsii*) and rust (*Uromyces manihotis*), were the most severe diseases, in this order. Hybrids with high levels of resistance to both pests and diseases were identified in all the places. These hybrids are promising genotypes, not only for the introgression of resistance traits into elite cassava varieties, but also to understanding the genetic basis of resistance to pests and diseases.