



MANIHOT WILD SPECIES AS SOURCE OF RESISTANCE TO CASSAVA GREEN MITES

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INTRODUCTION

Cassava wild species are important sources of genes for resistance to biotic constraints that can be used for genetic improvement of the cultivated species, *M. esculenta*. Cassava green mites (CGM), *Mononychellus tanajoa* (Bondar), is one of the most important pest affecting cassava crop, mainly in semi-arid environment (Fig. 1).



Fig. 1 - *Mononychellus tanajoa*

MATERIAL AND METHODS

Individuals of *M. tanajoa* coming from Petrolina (Northeast Brazil)

Experimental conditions: 25±1°C, 70±10% (RH) and 12h of photoperiod

Wild species/accessions used:

M. anomala (ANO058v-01, ANO050v-01 and ANO002-01), Fig. 2

M. peruviana (PER009v-06, PER001v-02, PER002-09 and PER005-01)

M. flabellifolia (FLA030v and FLA005-06)

M. glaziovii or 'Maniçoba de Petrolina' (MAN093v)

M. dichotoma (DIC001p08 and DIC587-02)

Manihot sp. or 'Mandioca Sete Anos' (UFBA096v)

Daily evaluations: mites development and reproduction (Fig. 3).

The experimental design: completely randomized with 50 replications per genotype.

Genotypes grouped by Scott-Knott test.



Fig. 2 - *Manihot anomala*

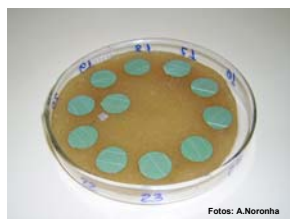


Fig. 3 - Methodology

RESULTS

The period from egg to adult varied from 10.08 to 13.99 days, with distinction of five groups (Figura 4). The rate of oviposition varied from 0.80 to 2.18 eggs/female/day with distinction of four groups (Figs. 5 and 6).

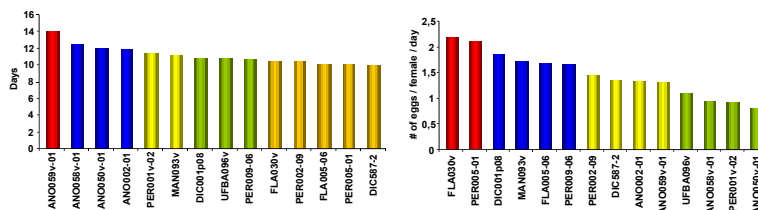


Fig. 4 - Clustering of *Manihot* accessions based on life cycle (egg-adult) of *M. tanajoa*

Fig. 5 - Clustering of *Manihot* accessions based on the oviposition rate of *M. tanajoa*.

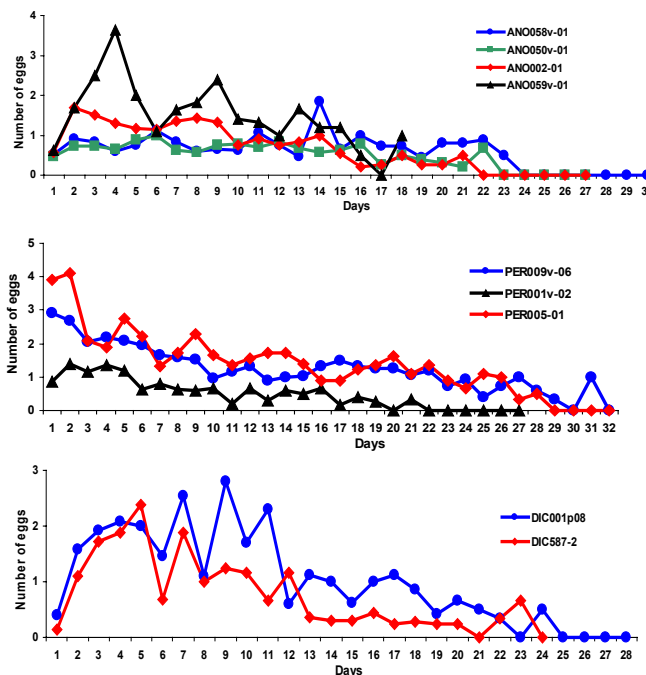


Fig. 6 - Daily oviposition rate of *M. tanajoa* in accessions of *M. anomala* (ANO), *M. peruviana* (PER), and *M. dichotoma* (DIC). Average oviposition of 50 females.

CONCLUSION

The wild genotypes presented lesser fecundity of *M. tanajoa* in relation to the cultivated species (*M. esculenta*), selected as resistant to semi-arid condition in the Northeast Brazil. These results suggest the presence of high levels of source of resistance within wild species of *Manihot*.