

morphology similar to the control group. In individuals exposed to 1031 ppm permethrin, changes were more prominent in comparison to other concentrations, since the glands were in advanced degeneration with disorganized acini, strongly vacuolated cells and apoptotic bodies, forming an amorphous mass. However, the salivary glands subjected to 2062 ppm permethrin showed acini intensely vacuolated and disorganized, which were classified as undetermined, once their identification was not possible in most of the cases. Thus, based on the data presented, it can be concluded that permethrin accelerates glandular degeneration, preventing the females to finish the feeding process, which reflects on the reproductive process, especially by reducing the egg-lay. This research was financially supported by FAPESP (Grants 2009/13859-4 / 07/59020-0) / CNPQ.

Wednesday 25, Afternoon, Auditorium - Poster

332 - Oviposition rate as a tool for evaluating species of *Manihot* for resistance to cassava green mite (CGM), *Mononychellus tanajoa* (Acari: Tetranychidae)

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This paper reports results on development and oviposition rate of the cassava green mite (CGM), *Mononychellus tanajoa*, on wild *Manihot* genotypes and cultivars of *Manihot esculenta*, to identify genes for resistance to CGM in wild species of cassava as part of the project "Potential of utilization of cassava wild relatives as source of resistance to biotic and abiotic stresses". The following accessions: *Manihot peruviana* (PER-011V, PER-001V-02, PER-002V, PER-015V, PER-009V-06, PER-002-09, PER 005-01), *M. anomala* (ANO 059V-01, ANO 058V-01, ANO-050V-01, ANO-002-01), *M. flabellifolia* (FLA-030V, FLA 027V, FLA-005-06, FLA 005-09), *M. caerulescens* (CAE-BM-20, CAE-BM-021), *M. irwinii* (IRW-A027-07), *M. dichotoma* (DIC-602-06, DIC-

001p08, DIC-587-03, DIC-602-01), *M. esculenta* (BGM 116, BGM 384), *M. glaziovii* (MAN-093V) and *Manihot* spp. (UFBA-096V). The study was carried out in a laboratory at Embrapa Mandioca e Frutos Tropicais, at 25±1 °C, 70±10%RH and 12:12 h L:D. Development of immatures was evaluated daily on 24 accessions, while oviposition rate was evaluated for ten days on 26 accessions. The experimental design was completely randomized with 50 replicates per genotype. Data were subjected to analysis of variance and grouped using Scott-Knott test. Overall duration of the immature phase (egg to adult) of *M. tanajoa* was 11.4 ± 2.9 days, ranging from 10.0 to 14.0 days. Based on this parameter, the accessions were divided in four groups; accessions ANO-059V-01, CAE-BM-20, PER-011V and IRW-A027-07 had highest duration of the immature stage (13.1 to 14.0 days). Overall oviposition rate was 1.8 ± 1.3 eggs per female per day, ranging from 0.7 to 3.3 eggs per female per day. Based on this parameter, accessions were divided in five groups; accessions ANO-050V-01, ANO-058V-01, ANO-059V-01, PER-001V-02 and PER-015V had the lowest oviposition rates. The results suggest: a) the existence of sources of resistance at highest levels in wild genotypes; b) that oviposition rate can be used as a faster tool to select genotypes for breeding programs for resistance to CGM.

Thursday 26, Afternoon, Auditorium - Poster

333 - Relationship between GSK3 β and PEPCK in bovine tick *Rhipicephalus (Boophilus) microplus*

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Phosphoenolpyruvate carboxykinase (PEPCK) is considered a key rate controlling enzyme in the gluconeogenesis pathway. Normally, insulin rapidly and substantially inhibits PEPCK gene transcription. The primary means of modulating PEPCK activity, which is proportional to the rate at which its gene is transcribed, is through hormonal control of PEPCK gene transcription. Some authors suggest a correlation between PEPCK and Glycogen Synthase Kinase (GSK3 β). GSK3 β is an