

Southwestern Entomologist (2006) 31, p. 147 (Rodriguez-Perez et al.)

Mario A. Rodríguez-Pérez and Marco A. Sandoval-Bautista (2006)

Experimental infection of *Simulium ochraceum* s.l. (Diptera: Simuliidae) in an ivermectin controlled onchocerciasis area of Mexico

Southwestern Entomologist 31 (2), 147-147

Abstract: Feeding experiments of *S. ochraceum* s.l. to explore the infectivity of a cohort of microfilariae (mf) carriers before and after receiving treatments with ivermectin were performed in an endemic area for onchocerciasis infection in southern Mexico. Results demonstrated a reduced infectivity to flies fed on individuals with multiple ivermectin treatments. The mean skin mf load of 14 participating individuals from Las Golondrinas and Morelos with no ivermectin treatment was 29 mf/mg (range = 0.3 - 144 mf/mg), while that of 16 individuals with 1-14 ivermectin treatments was 2 mf/mg (range = 0.1 - 8.0 mf/mg). Overall mean ingestion of mf/fly in those individuals decreased from 30 mf/fly to 1.9 mf/fly, while successful L3 larvae/fly from these mf intakes decreased from 0.26 to 0.006 (i.e., a 98% reduction). Flies that fed on patients treated with regular ivermectin treatments were less infectious than those that fed on untreated patients or with irregular treatments.

Database assignments for author(s): Mario A. Rodríguez-Pérez

Research topic(s) for pests/diseases/weeds:

general biology - morphology - evolution

control - general