[2672] BIOLOGY OF IMMATURE CHRYSOPERLA EXTERNA PREDATOR FED WITH SCHIZAPHIS GRAMINUM APHIDS REARED ON RESISTANT, MODERATELY RESISTANT AND SUSCEPTIBLE SORGHUM GENOTYPES

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Studies were conducted in laboratory at temperature of 25 ± 1°C, 70 ± 10% RH and 12 hours of photoperiod. A completely randomized design was used in this study with four genotypes: GR 11111 and TX 430 x GR (resistants), GB 3B (moderately resistant) and BR 007B (suscetible) and twenty replications. Recently hatched larvae were confined individually in 8.5 x 2.5 cm glass vials and fed with aphids (3-6 days old) reared on different genotypes. The duration of the larval and pupal stages were not influenced by genotypes offered to aphids, except for the prepupal stage. The average of the development of the first, second and third instars, larval, pupal and larvae to adult took 4.07, 3.06, 4.29, 11.45, 7.60, and 23.30 days, respectively. Aphids reared on GR 11111 genotype were responsible for the higher duration of the prepupal stage, 4.89 days, distinguished from chrysopids fed with aphids reared on other genotypes, with duration of 3.98 days. The percentages of predator survival for the larvae at adult stage were 75.00, 80.00, 90.00, and 100.00% when fed with aphids reared on genotypes GR 11111, TX 430 x GR, GB 3B e BR 007B, respectively. The average sexual ratio found was 0.46. These results indicate that biological control and plant resistance could be compatible and complementary strategies in integrated control of S. graminum in sorghum, standing out the genotypes TX 430 x GR e GB 3B as the most promising in interaction of resistance with C. externa predator.

Index terms: biological control, Chrysopidae, greenbug, host plant resistance.