

Influence of Phenybut on Regulation of Daily Rhythm of Adult Eclosion in *Trichogramma embryophagum* Htg. (Hymenoptera, Trichogrammatidae)

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Abstract—Phenybut is an agonist of GABA_b receptors. Adults of *Trichogramma embryophagum* Htg. were fed with 0.5–20% solution of phenybut in 50% sugar solution. The experiments demonstrated that adult mortality during 48 h increased significantly with phenybut concentration. Thus, a dose-dependent response was revealed by enteral application of a GABA_b receptor agonist. When *T. embryophagum* females were fed with 1% solution of phenybut in 50% sugar solution, significant changes in the daily eclosion pattern in their progeny were revealed. In particular, more intensive eclosion was observed under development at the photoperiod L : D = 12 : 12 and anticipatory (after a 2-h long scotophase) light-on in the day when eclosion was recorded. The increased sensitivity to light may be due to the phenybut effect on the serotonergic system, which controls daily rhythms.