

Effect of DIMBOA, an aphid resistance factor in wheat, on the aphid predator *Eriopis connexa* Germar (Coleoptera: Coccinellidae)

Martos, Agustin

Givovich, Arturo

Niemeyer, Hermann M.

DIMBOA (2,4-dihydroxy-7-methoxy-1,4-benzoxazin-3-one), a secondary metabolite found in cereal extracts, confers resistance in wheat to aphids. Its effect on beneficial organisms was tested on larvae of the aphid predator *Eriopis connexa* Germar. Larvae were fed until pupation on artificial diets to which different concentrations of DIMBOA (2-200 μ g/g diet) were added, as well as on aphids that had been feeding on wheat seedlings with different DIMBOA levels (140-440 μ g/g fresh tissue). In diets, the effect of DIMBOA was greatest on survival of third-instar larvae and on the duration of the second and fourth instars. When aphids were provided as food, those that had fed on a wheat cultivar with an intermediate DIMBOA level led to a significantly longer larval duration in the predator than did those that fed on either low or high DIMBOA cultivars. Shortest predator development times were obtained with aphid prey that had fed on high DIMBOA seedlings. Higher DIMBOA levels in the plant appe