

## Abstract

The effects of a methanolic extract of the plant *Haplophyllum tuberculatum* (ME-Ht) and of teflubenzuron (TFB) were compared on several reproductive variables and ecdysteroid titers in the females of *Locusta migratoria*. The test products were administered orally to newly emerged females at doses of 1500 (ME-Ht) and 10. µg/female (TFB). The methanolic extract and TFB had comparable effects on several of the variables examined. Both significantly delayed the first oviposition and reduced fecundity and fertility. ME-Ht and TFB also displayed similar effects on ovarian growth, vitellogenesis and ecdysteroid titers. Both treatments induced a drop in hemolymph protein levels as well as a reduction in vitellogenin uptake by oocytes. This delay in oogenesis was accompanied by a resorption of terminal oocytes. However, whereas TFB completely blocked egg hatch, ME-Ht only had a modest inhibitory effect on this variable. Hemolymph and ovarian ecdysteroid titers, as measured by radioimmunoassay, were similar and low in both control and treated females, except for a peak observed only in control females at the end of vitellogenesis. We discuss the functional significance of the observed effects in the context of the putative modes of action of the methanolic plant extract and TFB