

## **RESIDUAL EFFICACY OF SPINOSAD AND DIFLUBENZURON AGAINST MOSQUITO LARVAE IN SPAIN**

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Effective mosquito management in urban and periurban environments is reliant in large part on larvicide applications to artificial and/or natural breeding areas. However, larvicide application is often too costly to implement in mosquito abatement programs in areas with high extensions of breeding sites (ditches, channels, rice fields, etc.). Therefore there is a clear need for larvicides that could offer long-lasting residual activity that will offset the expense of applying the larvicide. With the aim to deep into the knowledge of these issues, several residual efficacy trials were carried out against *Culex pipiens* larvae in Valencia (Eastern Spain) during 2010 and 2011. The assays were performed in seven irrigation channels with similar conditions (depth, width, vegetation, chemical conditions, etc.). The insecticides selected were Spinosad and Diflubenzuron, being Spintor 12 SC® and Device SC-15® the commercial products tested respectively. In recent years, the efficacy of both larvicides has been widely proved by several authors. The analysis of studied larvae and pupae has put in evidence that the insect growth regulator (Diflubenzuron) not only causes problems in the shedding, but also provokes the appearance of different types of morphogenetic anomalous. The results of the residual efficacy, as well the characterization of morphogenetic anomalous, will be exposed.

**Key Words** Management, *Culex pipiens*, larvicides, efficacy