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LARVICIDAL EFFICACY AND PERSISTENCE OF INZECTO CHIPS® (PYRIPROXYFEN 0.027%) IN LABORATORY CONDITIONS AGAINST AEDES ALBOPICTUS

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Abstract Larviciding is the base of mosquito control programs. Mosquito control companies plan their treatments according to the persistence of the larvicide formulations in rearing spots. Inzecto Chips® formulation, with pyriproxyfen embedded in a porcelain substrate, is registered for the Spanish market promising a long-lasting control method against mosquito larvae. We measured the larvicidal efficacy of water (5L) treated with ¼ of Inzecto Chips®. Aedes albopictus larvae (L4 stage) were exposed every week to samples of treated water to determine the emergence of adults. Monthly, half of the water in each 5L container was renewed to imitate cleaning effect of rain. Low efficacy was observed if the water for exposure tests was sampled without shaking the container, but after shaking it, the water caused high emergence reduction along 15 weeks. This new formulation is a promising product for mosquito control, avoiding the washing of the product after a heavy rain. It also adapt to those rearing spots that can't be treated frequently, reducing the annual number of treatments. No pyriproxyfen formulation against mosquitoes is registered in EU Biocide Product Directive, so Inzecto Chips® is not available in several countries.

Key words Aedes albopictus, Piriproxifen, larvicide, Inzecto Chips