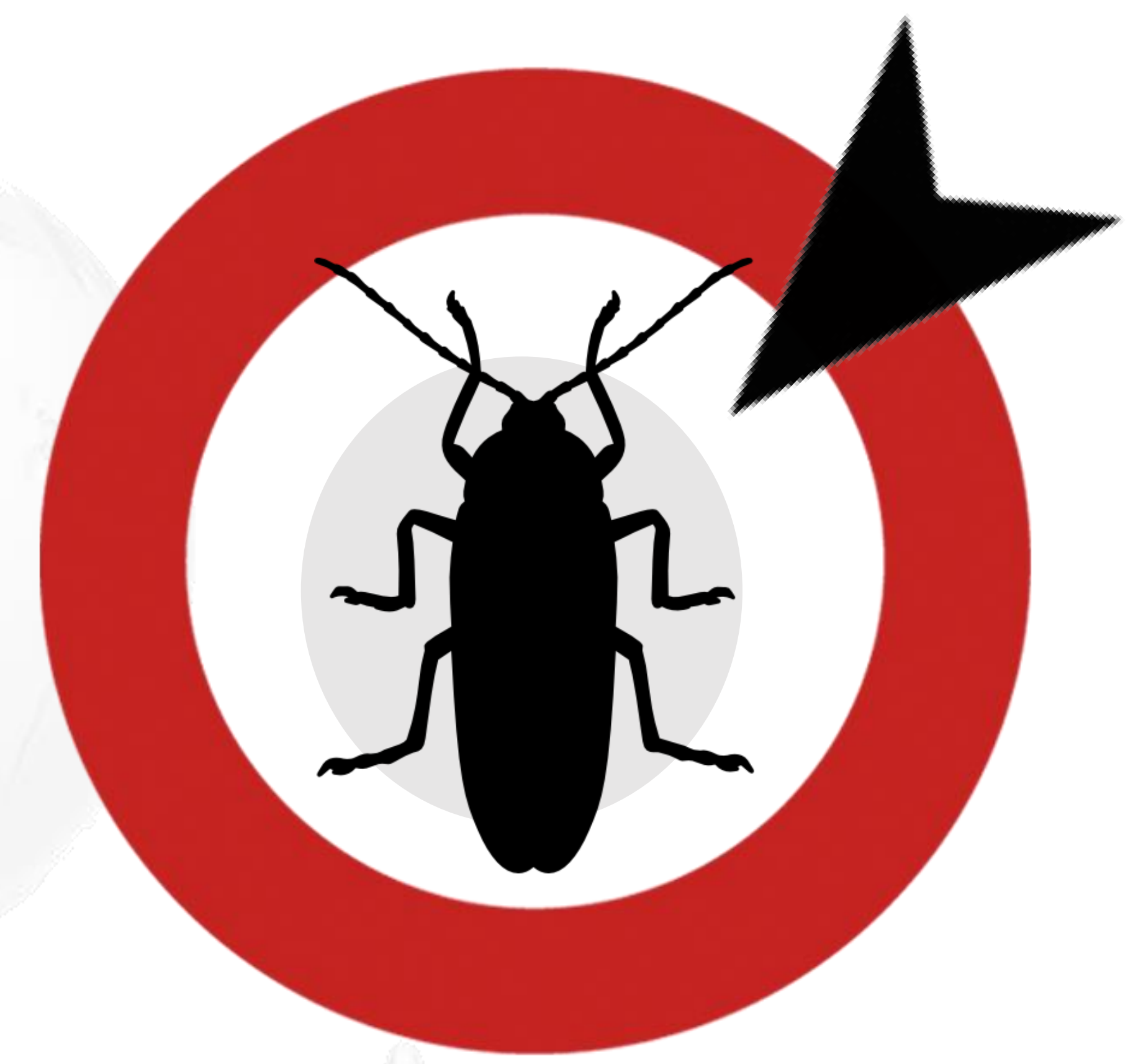


# Insecticide paint: A practical tool of long-lasting cockroach control in sewers



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## Introduction

*Periplaneta americana* and *Blatta orientalis* are cockroach species found in drains and sewage systems which are appropriate places for insecticide treatments. New advanced paint formulations allow the treatment of sewers to reduce cockroach infestation levels long-term, as was demonstrated on Oriental cockroaches in Zaragoza (Spain) (Spain)<sup>1</sup> and on American cockroaches in Abu Dhabi (United Arab Emirates)<sup>2,3</sup>.

## Materials & Methods

**Inesfly 5A IGR NG paint** was applied in Zaragoza to sewage sumps, electric boxes and hydrants drain. Paint was diluted 10% in water and sprayed by airless spray systems with a dose range of 50-70 g per spot. Paint treatment was conducted in 16 spots.

**Inesfly 7 A Delta** paint was sprayed in Abu Dhabi inside sewage inspection chambers at 200-250 ml of 10% diluted paint per unit. Treatment was performed in 100 chambers.

The number of cockroaches counted monthly for 14 months in Zaragoza and 38 months in Abu Dhabi, and infestation levels per treated spot recorded (level 0 to 3 for Zaragoza's study and low-medium-high for Abu Dhabi trial).

## Conclusions

- The trial results of Zaragoza and in the UAE indicate that treatments of sewers with insecticide paints provide long-lasting control of Oriental and American cockroach infestations.
- The successful treatments with Inesfly 5A IGR NG in Zaragoza have led to PCO companies using the paint regularly for the control of Oriental cockroaches in sewage systems of Spain.
- The 3 years lasting control of American cockroaches in the treated chambers in Abu Dhabi with Inesfly 7 A Delta has convinced the city administration to adopt Inesfly paint as an essential and a major component of IPM plan for controlling American roaches in sewer inspection chambers.

## Results

### Control of Oriental cockroaches (*Blatta orientalis*) in sewers of Zaragoza (Spain)

**Inesfly 5A IGR NG paint:** 0.7%  $\alpha$ -cypermethrin / 1.0% d-allethrin / 0.063% pyriproxyfen

Already one week after treatment a significant reduction of cockroaches was observed. High efficacy occurred over the entire evaluation period of 14 months, with complete absence of cockroaches for 9 months (level 0) and limited presence (level 1) at months 9, 10 and 14.

### Control of American Cockroaches (*Periplaneta americana*) in Abu Dhabi (UAE)

**Inesfly 7 A Delta paint:** 0.25% deltamethrin

In the sewer inspection chambers that received one treatment only in November 2014 with the deltamethrin paint, infestations dropped significantly under 1% within one month and remained correspondingly low over the entire 38 months observation period, giving persistent efficacy until the end of December 2017.

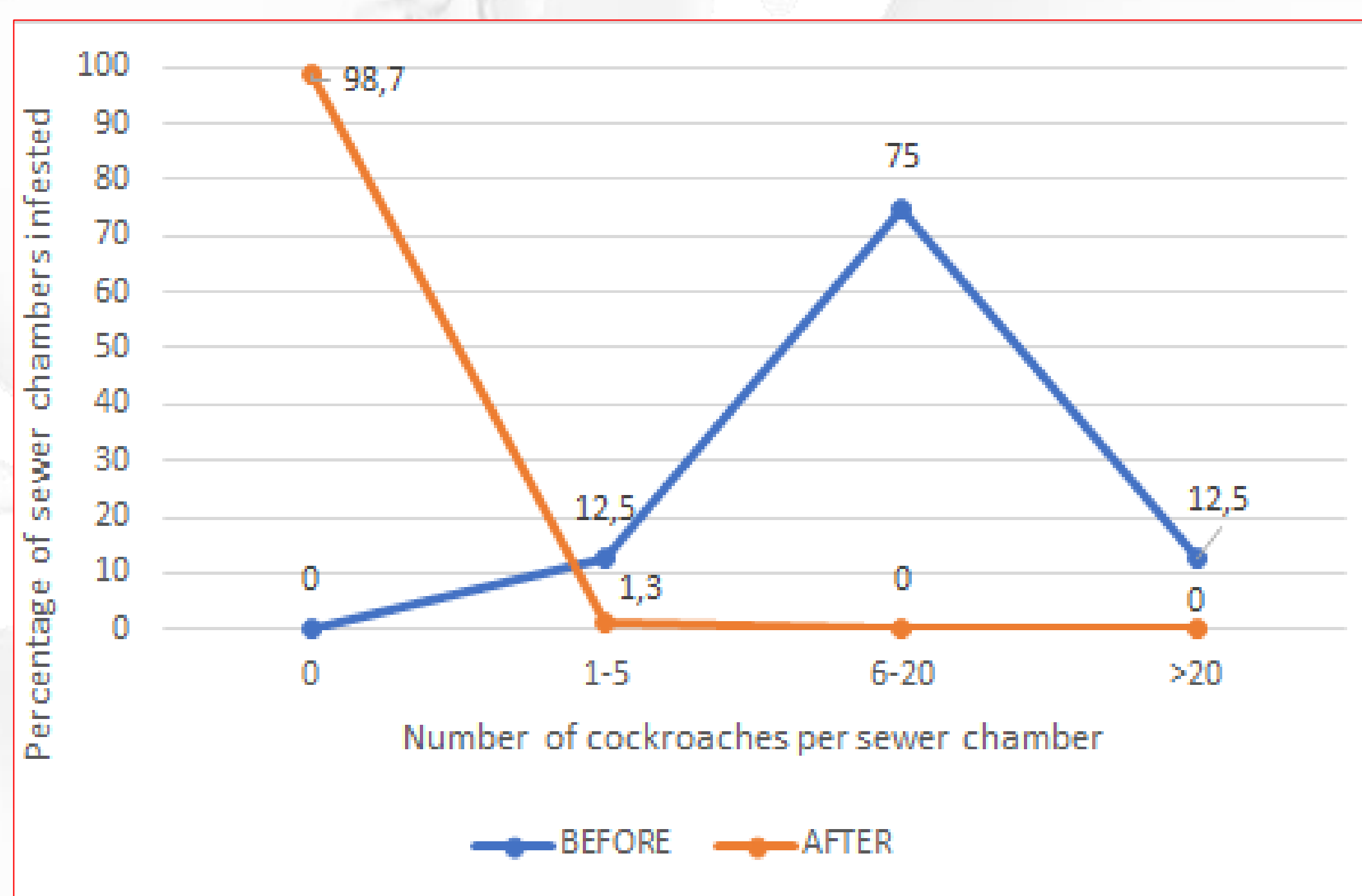


Fig 2. Oriental cockroach infestation levels in sewer chambers before and after (14 months average) treatment with INESFLY 5A IGR NG.

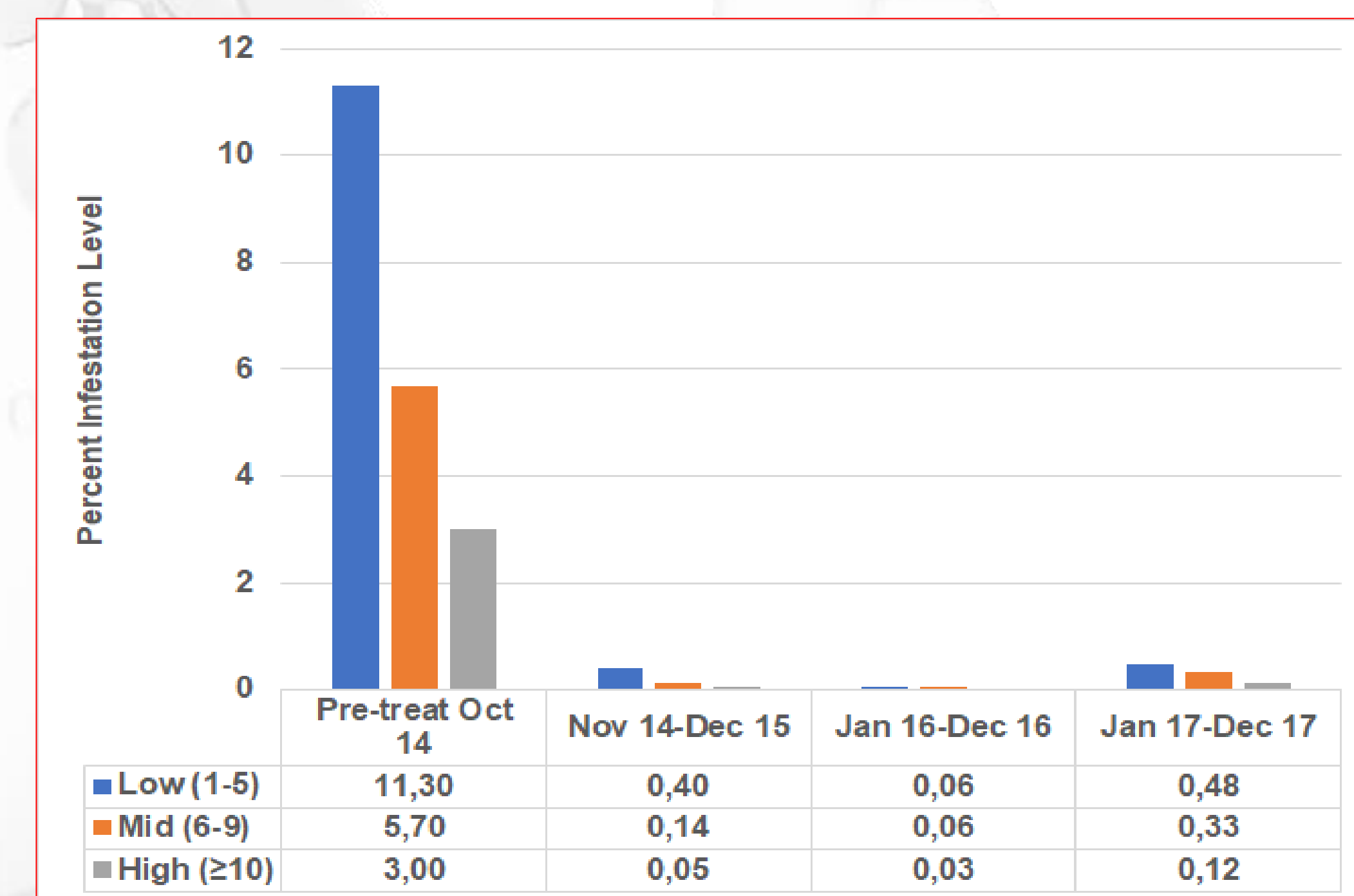


Fig 3. American cockroach infestation levels in sewer chambers treated with INESFLY 7A DELTA.



Figure 1. Paint application in Abu Dhabi

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