



Original thinking... applied

Predatory Bug (*Orius laevigatus*)

For plant protection product registration data are required on non-target plant dwelling organisms, under EU Regulation (EC) No 1107/2009.

The predatory bug (*Orius laevigatus*) is an important leaf dwelling pest predator in orchards and off-crop sites throughout Europe. It was chosen as an indicator species due to its abundance, distribution and ease of handling.

LABORATORY TESTS

Fera offers standard laboratory tests with the predatory bug following IOBC/WPRS guidelines.

How we carry out the tests

Orius laevigatus, is exposed to the test compound on treated leaves for nine days. At this point the predatory bugs are assessed for mortality and any treatments with less than 50% mortality may be used for a reproduction assessment. The number of eggs laid and the hatching success are assessed twice and at two-day intervals.

Endpoints

Endpoints for the test are:

- Mortality after nine days of exposure
- Reproductive capacity of surviving predatory bugs
- An LR₅₀ (lethal rate producing 50% mortality), ER₅₀ (dose rate causing 50% reduction in reproductive rate), and/or a (NOER) no observable effect rate

ADDITIONAL TESTING

Fera's studies are GLP-compliant and can be adapted to provide bespoke tests that meet your specific data requirements. Fera also offers in-house dose verification or residue analysis to validated methods.

Test guidelines

Bakker F.M., Aldershof S.A., Veire M v.d., Candolfi M.P., Izquierdo J.I., Kleiner R., Neumann Ch., Nienstedt K.M. and Walker H., 2000: A laboratory test for evaluating the effects of plant protection products on the predatory bug, *Orius laevigatus* (Fieber) (Heteroptera: Anthocoridae). - In: Candolfi, M.P., Blümel, S., Forster, R., Bakker, F.M., Grimm, C., Hassan, S.A., Heimbach, U., Mead-Briggs, M.A., Reber, B., Schmuck, R. & H. Vogt (edt.) (2000): Guidelines to evaluate side-effects of plant protection products to non-target arthropods. IOBC/WPRS, OILB/SROP.

MORE ABOUT FERA

Fera is based at the National Agri-Food Innovation Campus near York, UK. We have a long track record of developing and providing ecotoxicology services to support environmental risk assessments for companies developing plant-protection products.

Our scientists combine extensive expertise with Fera's advanced resources and GLP-compliant laboratories, to assess the impact of plant protection products on terrestrial non-target arthropods.

We'll work in partnership with you to devise and conduct the appropriate tests to provide the essential data you need for robust environmental risk assessments.

GET IN TOUCH

For more information and to book a test, call Fera on **+44 (0)300 100 0321**, email **sales@fera.co.uk** or visit **www.fera.co.uk/terrestrial-ecotoxicology**

