



**TERRESTRIAL ECOTOXICOLOGY
LABORATORY**

STRONGER TOGETHER

Welcome to Eurofins Agrosience Services

We are a leading provider of product development consultancy and technical support to the crop protection industry. Our technical activities involve conducting field and laboratory studies to determine the safety and efficacy of new agrochemicals and crop varieties. With over 25 years of experience, Eurofins Agrosience Services offers outstanding technical knowledge and project management skills. By acquiring a carefully selected range of CRO's, we have created a unique portfolio of expertise that provides analytical, regulatory and field support to plant breeders, agrochemical, biopesticide, biocide and fine chemical manufacturers.

Terrestrial Ecotoxicology Laboratory

Eurofins Agrosience Services offers a wide range of standardized Tier I laboratory studies as well as more complex higher tier studies under extended laboratory, semi-field and field conditions with standard or special designs. All studies are planned and performed by an experienced team of scientists and technical personnel in accordance with the current guidelines (IOBC, OECD, ISO, EPA) and guidance documents.

Honey Bees and Bumble Bees

The toxic effects of plant protection products (PPPs) on bees (*Apis mellifera*, *Bombus terrestris*) are examined in different types of studies following current OECD and EPA guidelines. The studies can be conducted throughout the whole year (April to September in Germany, October to March in Spain). We also offer non-GLP screening tests. Honey bee larval tests are conducted at our laboratory and we are involved in the ring test group.

Non-Target Arthropods On Plants

We perform basic and extended testing on parasitoids (*Aphidius rhopalosiphi*, *Trichogramma cacoeciae*), predatory mites (*Typhlodromus pyri*), aphidophagous predators (*Chrysoperla carnea*, *Coccinella septempunctata*) and anthocorid bugs (*Orius laevigatus*). Test designs can be adapted to your specific requirements depending on the product or application technique. Extended studies are either based on the classical laboratory or the aged residues design. In aged residue studies, the persistence of an agrochemical in the specimens is assessed. All tests are performed following the IOBC/WPRS guidelines.

Non-Target Soil Organisms

As standard, we conduct the soil microflora test throughout the year using natural soil. This test includes the short-term respiration and the nitrogen transformation tests. Eurofins Agrosience Services has more than 10 years experience in laboratory testing of ecotoxicological effects on earthworms. Our stock culture of *Eisenia fetida* provides test organisms needed to perform acute toxicity studies, reproduction toxicity studies and bioaccumulation studies all the year round. Furthermore we offer studies, and / or screening tests with several soil inhabiting arthropod species like carabid beetles

(*Poecilus cupreus*, adults and larvae), staphylinid beetles (*Aleochara bilineata*), lycosid spiders (*Pardosa* sp.), springtails (*Folsomia candida*) and predatory soil mites (*Hypoaspis aculeifer*). Tests follow the most recent OECD and ISO guidelines.

Non-Target Dung Organisms

We offer studies for testing chemicals for veterinary use with the face fly *Musca autumnalis* and are involved in the ring test group for dung beetles (*Onthophagus taurus*).

Portfolio of Capabilities

- Ability to develop and adapt test designs
- Studies with aged residues are designed to assess PPP persistence under outdoor climatic conditions. Leaves for exposure are taken from field crops or from potted plants sprayed outside, simulating a field application.
- Testing of coated seed or metabolites in laboratory and higher tier studies with soil inhabiting arthropods
- Adapted Tier I design for non-GLP screening-tests with *Pardosa* sp., *Folsomia candida*, *Hypoaspis aculeifer*, *Typhlodromus pyri*, *Aphidius rhopalosiphi*, *Apis mellifera* and *Bombus terrestris*
- Bee larval test
- Chronic feeding tests with *Apis mellifera*
- Acute oral and contact toxicity tests with *Apis mellifera* in laboratory in autumn and winter in Spain
- Ecotoxicological tests with Nematodes

Eurofins Scientific Group

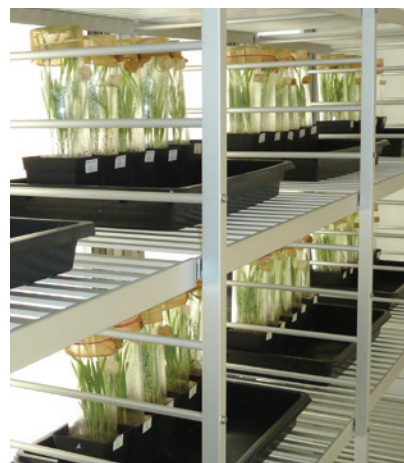
Eurofins Scientific is a life sciences company that serves a wide range of industries including the pharmaceutical, agricultural, food and environmental sectors.

Today the Eurofins Group is a leading provider of analytical services with:

- An international network of 150 laboratories across 30 countries in Europe, the USA, Asia and South America
- About 9,500 staff
- A portfolio of over 40,000 reliable analytical methods
- More than 80 million assays per year to establish the safety, composition, authenticity, origin, traceability, identity and purity of biological substances



Collecting honey stomachs to determine residues of a pesticide in nectar NC, USA & Niefern, Germany



NT arthropods on plants Niefern, Germany



OxiTop® system for short term respiration test, Niefern, Germany