



ENVIRONMENTAL FATE & METABOLISM

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.

"We are experts in managing global field studies, worker exposure studies, ecotoxicology, analytical services, physico-chemical property testing, ¹⁴C / environmental fate laboratory and field studies"

The intrinsic biological activity of pesticides poses potential risks to operators, consumers and the environment. No risk, however small, can be considered acceptable unless there is a proven benefit from the use of the pesticide. The fate and behaviour of pesticides and their degradation products are of critical importance to Regulatory Authorities.

Offering a full range of environmental fate services, both field and laboratory, Eurofins Agrosience Services can provide clients with data on the mechanisms, route and rates of substance degradation, and the risks these pose to human or environmental health.

For investigating the behaviour of substances in the environment, we use mainly ¹⁴C labelled test items. This simplifies the detection and analysis of the test item and its degradates.

Portfolio of Services

The following service guide details our primary Environmental Fate activities but is not exhaustive.

Field Services

- Field soil degradation / dissipation
- Field soil accumulation
- Rotational crop
- Field leaching
- Groundwater monitoring
- Surface water monitoring
- Air monitoring
- Run-off

Scope of Service

- Precision drilling for seed treatment soil residue trials
- Soil deep coring up to 100 cm
- On site weather stations
- Large pool of available sites/soils all over Europe

Laboratory Services

- Adsorption / desorption studies (OECD 106)
- Aerobic and anaerobic transformation in soil (OECD 307)
- Aerobic and anaerobic transformation in water / sediment systems (OECD 308)
- Column leaching (OECD 312)
- Plant metabolism (OECD 501)
- Abiotic transformation (Hydrolysis) (OECD 111, EU 7035/VI/95)
- Photolysis in soil and water (OECD 316, 91/414/EEC, Annex II)
- Analytical method for residues in air (SANCO/825/00)
- Incubation at various laboratory conditions (e.g. Temperature, humidity)
- Determination of volatiles (CO₂, organic volatiles)
- Determination of bound residues (Combustion)
- Establishment of radioactive balance
- Analysis (radio-TLC, HPLC-UV and radio detector, GC, LC-MS/MS)
- Calculation (e.g. DT50, Koc)
- Metabolite identification (LC / MS Orbitrap)

We also accept non-standard studies.

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



Natural pond system for E-Fate laboratory studies



Transformation in aquatic systems



350 sqm restricted access area for projects with radio labelled test items