

One-stop service - world-class, worldwide

Environmental Fate & Metabolism

Eurofins Agroscience Services

With over 30 years of experience in Crop Protection, Eurofins Agroscience Services is a global CRO offering exceptional technical knowledge, testing and regulatory consultancy to plant health and crop protection manufacturers, the agri-tech sector, plant breeders and the seed industry.

In a dynamic and complex regulatory environment, our priority is to support clients through every stage of the agrochemical registration process.

Eurofins Agroscience Services offers a full range of environmental fate and metabolism services (both labelled and unlabelled) including both field and laboratory studies

These studies will provide information on the mechanism, route and rate of substance degradation and risks these pose for human or environmental health.

Our studies are planned and performed by a highly experienced team of scientists and technical personnel according to the recent guidelines (OECD, ISO, EPA) and guidance documents.

We have well-equipped laboratories and a glass house with climatic test chambers to simulate various environmental conditions. The analytical laboratories are equipped for the qualification and quantification of radiolabelled and non-labelled test material, including radio-TLC and -HPLC, HPLC-UV, GC-MS, HPLC-MS/MS, Accurate Mass Spectrometer (Orbitrap). Access to NMR for definitive metabolite identification is also available. We also have dedicated areas of arable land for outdoor confined plot studies.



Portfolio of Services

The following service guide details our primary Environmental Fate activities. Other services are also available on request.

Field Services

- Field soil degradation / dissipation
- Field soil accumulation
- Rotational crop studies
- 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 sites / soils available

Laboratory Services

- Abiotic transformation (Hydrolysis) (OECD 111, U 7035/VI/95)
- Photolysis in soil and water (OECD 316, 91/414/ EEC, Annex II)
- Analytical method for residues in air (SANCO/825/00)

- Adsorption / desorption studies (OECD 106)
- Column leaching (OECD 312)
- Aerobic and anaerobic transformation in soil (OECD 307)
- Aerobic and anaerobic transformation in water / sediment systems (OECD 308 including irradiated conditions)
- Aerobic Mineralisation in Surface Water (OECD 309)
- Plant metabolism (OECD 501)
- Rotational crop (OECD 502)
- Toxicokinetics Rat (OECD 417)
- Metabolism in Livestock (OECD 503)
- Residues in Livestock (OECD 505)
- Incubation at various laboratory and outdoor conditions (e.g. Temperature, humidity)
- Establishment of radioactive balance
- Determination of volatiles (CO₂, organic volatiles)
- Determination of bound residues (Combustion)
- Analysis (radio-TLC, HPLC-UV and radio detector, GC, LC-MS/MS and MicroBeta)
- Calculation (e.g. DT50, Koc)
- Metabolite identification (Accurate mass / Orbitrap)
- Soil database for more than 50 different soils world wide

We also develop non-standard studies to suit a specific active substance or situation.

All laboratory and field services are supported by Eurofins Regulatory AG – the regulatory Group provides a full range of consulting and regulatory services leading to the compilation of registration documentation for agrochemicals, biopesticides, biocides & REACH.

Eurofins Scientific

Eurofins Scientific, through its subsidiaries, provides Contract Research Services to a wide range of industries including environment, pharmaceutical and agroscience.

**Worldwide excellence in
bio-analytical testing**

