CEFAS SOLVING PROBLEMS IN FISHERIES AND THE ENVIRONMENT

Hazard Assessment of Chemicals

ECOSYSTEM EVALUATION USING FRESHWATER POND SYSTEMS

Successful pesticide registration portfolios increasingly require advanced hazard and risk assessments. CEFAS's freshwater pond systems provide a highly flexible environmental facility for controlled yet realistic fate and effect studies of chemicals in aquatic ecosystems.

- PESTICIDE REGISTRATION.
- FATE AND BEHAVIOUR OF NOVEL CHEMICALS.
- BIOACCUMULATION STUDIES.
- ECOTOXICOLOGY; BEHAVIOURAL, PHYSIOLOGICAL, REPRODUCTIVE AND ECOLOGICAL STUDIES ON FRESHWATER ORGANISMS.
- EFFICACY AND SAFETY ASSESSMENT.
- INTERPRETATION OF DATA

20 years experience in hazard and risk assessment of chemicals

CEFAS has an in-depth knowledge and over twenty years experience of international regulatory processes for risk assessment and evaluation of pesticides and hazardous chemicals.

We provide comprehensive and impartial data assessment, evaluation and interpretation to help our customers meet the most rigorous regulatory scrutiny.

CEFAS

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Reliable and realistic advanced risk assessment

Laboratory-based toxicity studies on single species, and exposure predictions, cannot provide a full picture of the impact of pesticides and other hazardous chemicals on natural communities. Pond studies provide a more realistic measure of environmental risk, and pesticide regulatory authorities increasingly require data provided by such 'mesocosm' evaluations.

CEFAS's unique pond facilities with accurate dosing and environmental data logging, combined with expert analytical chemical support and taxonomic identification, and our experience of the regulatory approvals process, enable us to provide reliable and realistic assessments tailor-made to customer's requirements.

Pond facilities

Flexible

- 24 x 50 m3 ponds allow a range of exposure concentrations to be tested simultaneously.
- The facility is large enough to support studies with fish. Successful life cycle studies using sticklebacks have been completed.
- Versatile range of methods for dosing chemicals is available, including accurate overspray dosing.

Realistic and controllable

- All ponds have a high standard of natural water quality with good replication between ponds.
- The purpose-built well-established ponds naturally support a diverse flora and fauna.
- Experimental design and execution are to SETAC guidelines
- Monitoring of chemical exposure and test conditions is precisely controlled.
- Continuous data-logging of environmental parameters such as dissolved oxygen, pH and temperature.
- All studies carried out without damage to the environment and to exacting safety standards.

Expert experimental support

- CEFAS has a successful track record of mesocosm testing.
- Experience of experimental design and sampling strategies enables us to provide the optimal design for your study.
- We offer capability and experience in the use of a variety of water and biological sampling techniques.
- Our in-house taxonomic expertise satisfies a wide range of requirements.
- We have extensive knowledge and experience in the use of statistical packages for analysis of complex community perturbations.
- Extensive experience in aquatic ecotoxicology and environmental chemistry.
- CEFAS has comprehensive ecotoxicology laboratory facilities available to confirm or validate field observations. State-of-the-art GC/ MS, LC/MS, ICP/MS and radio chemistry provide methods for tracing the fate of chemicals.

Impartial, confidential service

- We are independent of regulatory bodies and manufacturing companies.
- We have a long established track record for the quality and integrity of our work.
- We are experienced in undertaking work for clients who are engaged in commercially sensitive development projects and can be relied upon to respect client confidentiality.

For further information about any of our services or to discuss your needs with one of our specialists please contact

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