fera

Original thinking... applied

Freshwater Algal and Cyanobacteria, Growth Inhibition Test

This test is designed to determine the effects of the test material on green algae, diatoms and cyanobacteria.

Populations of exponentially growing test organisms are exposed to the test material for a 72 hour period. Increase in cell number is measured at 24 hour intervals over the exposure period.

Typical test species are *Pseudokirchneriella subcapitata* (green algae), *Navicula pelliculosa* (diatom) and *Anabaena flos-aquae* (cyanobacteria).

Samples are taken for analysis at the start and end of the exposure period to determine the concentrations tested.

EC_{50} values – the concentration of the test chemical which is estimated to cause a 50% inhibition of growth or reduction in biomass relative to the control group within a defined exposure period – are calculated.

In addition, the No Observed Effect Concentration (NOEC) and Lowest Observed Effect Concentration (LOEC) values may also be calculated.

Test guidelines and references
OECD Guidelines for the Testing of Chemicals. Guideline 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test adopted 23 March 2006 with Annex 5 corrected 28 July 2011.

FERA'S WORK IN AQUATIC ECOTOXICOLOGY

Fera offers a full package of studies to GLP complaint studies on aquatic organisms. Fera tests for the potential toxic effects of plant protection active ingredients and products, veterinary products, biocides, industrial chemicals and their significant metabolites in accordance with current OECD and if appropriate EPA guidelines, covering the requirements for the registration process.

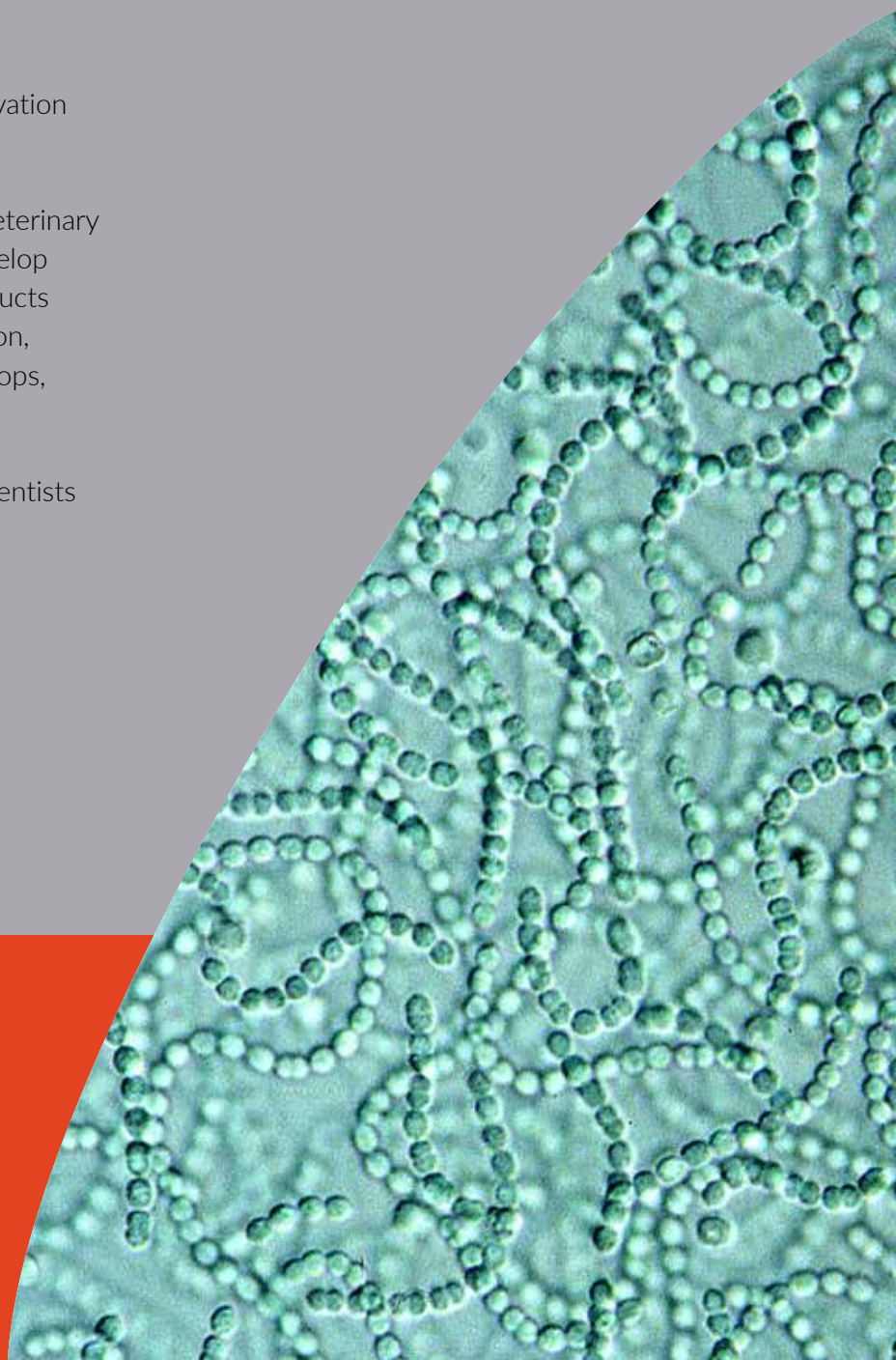
All of Fera's studies are planned and performed by an experienced team of scientists and technical personnel, with the analytical dose verification and fate of the active ingredient(s) performed as close as possible in parallel to the biological part of the study. We can also adapt our services to provide bespoke tests that meet your specific data requirements.

MORE ABOUT FERA

Fera is based at the National Agri-Food Innovation Campus near York, UK.

We work closely with plant protection and veterinary medicine product manufacturers to help develop effective, sustainable and safe chemical products that minimise ecosystem impacts and pollution, while maximising the beneficial effects for crops, plants and animals.

Combining the extensive expertise of our scientists with advanced resources and GLP-compliant laboratories, we provide valuable support to companies in their chemical evaluation and registration efforts.



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/chemical-regulation**