



Ecotoxicology services

A complete package
available globally

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Research

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A complete ecotoxicology package

SynTech Research offers a full ecotoxicology package to GLP or GEP standards with laboratory tests, semi-field and field studies on a wide range of terrestrial and aquatic non-target organisms. The following list includes the studies that are commonly required for the submission of chemical (agrochem, pharma, petrochemical, specialty/consumer, animal health and biocides) and seed/traits regulatory dossiers submitted to OECD, EPA, JMAFF, PMRA and Latin American authorities. Other studies especially designed to suit client's requirements are also performed.

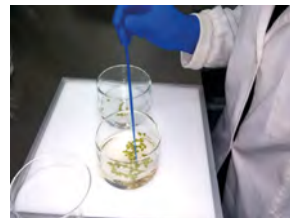
Aquatic Toxicology – Fish and invertebrates

- Zebra fish
- Rainbow trout
- Carp
- *Daphnia magna*
- *Daphnia pulex*
- Acute toxicity test
- Growth
- Reproduction



Aquatic Toxicology – Algae and plants

- *Navicula pelliculosa*
- *Anabaena flos-aquae*
- *Skeletonema costatum*
- *P. subcapitata*
- *Lemna gibba*, *L. minor*
- *Myriophyllum spicatum*
- *Glyceria maxima*
- 72 or 96-hour growth
- 7-day growth



Honeybee and other pollinator lab testing

- Adult oral and contact tests
- Adult chronic test
- Larval acute and repeated exposure tests
- Aged residue test
- Residues in larvae, pupae and adults
- *Apis mellifera* ssp
- *Bombus* spp
- *Osmia* spp
- Stingless bees



Honeybee and other pollinator semi-field testing

- Cage or tunnel testing
- Foliage application or seed treatment
- Aged residue and re-entry period
- Brood studies
- Residues in bees and bee products
- Bee or hand collection
- Pollen load and stomach preparation, nectar extraction
- *Apis*, *Bombus*, wild bees



Honeybee and other pollinator field testing

- Spray application and seed treatment
- Residues in bees and bee products
- Honey stomach and pollen load extraction
- Guttation studies
- Seed treatment dust
- Brood studies
- Feeding studies
- *Apis*, *Bombus*, wild bees



Services available globally

SynTech Research's ecotoxicology laboratories are located in France, Spain, USA and Brazil, with additional laboratory and field study resources in its worldwide network of field stations throughout Europe, North America, Latin America, Asia Pacific and Africa.

Non-target plant (NTP) testing

- Seedling emergence and growth
- Vegetative vigour
- NTP screen
- Dry or fresh weight
- Shoot height
- Phytotoxicity effects
- Crops and weeds
- Monocots and dicots
- Spray application, soil incorporation or drip irrigation



Lab and field testing on soil organisms

- Earthworms
- Collembola
- Predatory mites
- Enchytraeids
- Mortality and sublethal effects
- Re-colonisation / recovery
- Taxa identification
- Soil microflora (respiration inhibition, carbon and nitrogen transformation)



Non-target arthropod (NTA) lab, aged residue and semi-field testing

- Artificial or natural substrate
- Mortality and sublethal effects
- Predatory mites
- Aphid parasitoids
- Lacewings, ladybirds, spiders
- Rove and ground beetles
- Hemipterans, hoverflies
- Dung flies and beetles
- Egg and whitefly parasitoids
- In-field / off-field scenarios
- Contact or feeding routes of exposure



NTA field testing

- Short and long-term effects
- Re-colonization / recovery
- Predatory mites
- Litterbag studies
- Total entomofauna
- Inventories / identification
- Bio-indicators
- Capture-mark-recapture
- Spray application, seed treatment or soil incorporation



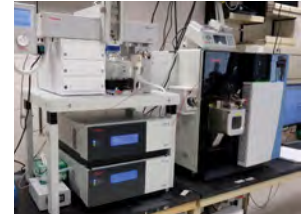
Residues in arthropods

- Foliage dwelling arthropods
- Ground dwelling arthropods
- Other organisms (molluscs etc.)
- Pitfall trapping, beat sampling, sweeping, chemical knockdown
- Taxa identification



Analytical support

- Fully equipped analytical laboratory for rapid analysis of test solutions, aquatic test media and honey bee matrices
- Method development and validation
- Residue analysis
- LC/MS/MS, HPLC, GC/MS, LSC etc.



Risk assessment and study directorship

- Preparation of registration submissions with ecological risk assessment, environmental fate and modelling for active substances and products
- Highly qualified Study Directors specialized in each domain of ecotoxicology (honey bees, NTAs, NTPs, soil and aquatic organisms)



For further information visit
www.syntechresearch.com
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Research

Expert services -
quality results