

# agroscience services



# We are the partner of choice for end-to-end regulatory data generation and GLP studies for agrochemicals, biocidal products, specialty and industrial chemicals

#### **OUR SERVICES INCLUDE**

#### Chemistry

- + Impurity profiling and 5 batch analysis
- + Physical chemical properties and stability studies

### **Environmental fate studies (14C radio-labelled studies)**

- + Rate and route of degradation on soil (aerobic and anaerobic)
- + Adsorption/ desorption in soil
- + Rate and route of degradation on sediment systems
- + Hydrolysis
- + Direct and indirect aqueous photolysis
- + Photolysis on soil surface
- + Mobility in soil

### **Ecotoxicology**

#### **Aquatic**

- + Acute toxicity to fish, daphnia, algae, and Lemna
- Fish embryo acute toxicity (FET) test
- → Fish, early-life stage toxicity test
- + Fish, short-term toxicity test on embryo and sacfry stages
- → Fish, juvenile growth test
- + Chironomus immobilization test
- + Daphnia reproduction test
- Water-sediment Myriophyllum spicatum toxicity test
- + Bioaccumulation in fish: aqueous and dietary exposure

### Metabolism, residue and persistence studies

- + Residue method validation for residues (body fluids, animal / plant matrices, water, soil and air)
- + Persistence studies
- + Toxicokinetics (OECD 417)
- Metabolism studies in
  - Crops and rotational crops OECD 502
  - Livestock (comparative, general and residues)-OECD 503
- Skin absorption (in vitro method) OECD 428
  (14C radio-labelled / cold)



# **Terrestrial**

- + Acute toxicity to earthworms, honeybees (oral and contact), and birds
- + Avian dietary and reproduction toxicity tests
- → Earthworm reproduction test
- + Collembola reproduction test
- Honeybee larval toxicity tests (single and repeated exposure)
- Honeybee chronic oral toxicity test
- + Terrestrial plant tests (seedling emergence and growth test & vegetative vigour test)
- + Silkworm acute toxicity test
- Soil microorganism tests including nitrogen and carbon transformation
- + Activated sludge respiration inhibition test
- + Ready biodegradability



# Household pesticides - laboratory bio-efficacy studies and field trials for household insect control products

# Insects culture available for testing: Mosquitoes (Aedes, Anopheles and culex), Cockroaches (American and German species), Houseflies (Musca domestica)

- + Flying insect efficacy: Studies in Peet Grady and 20/30 M3 chambers
- + Mosquito larvicide testing: for Aedes, Anopheles, and Culex species
- Surface and spray efficacy: Testing persistence (cement, wood, tiles, glass), space spray, and indoor residual spray (IRS) against mosquitoes, cockroaches, and houseflies (CIB & RC and WHOPES compliant)
- Long lasting insecticide net (LLIN) bioassays
- + Gel-bait studies: Targeting cockroach species
- + DSKD testing: Direct Spray Knockdown tests for cockroaches
- Housefly efficacy: Testing at both larval (maggot) and adult stages

### **Evaluation against following major storage pests:**

- Rice weevil (Sitophilus oryzae)
- Red flour beetle (Tribolium castaneum)
- + Pulse beetle (Callosobruchus chinensis)

Bio-efficacy study with field collected insects i.e., Termites, Ants etc. Evaluation of pet's products against different mosquito species

### Toxicology studies\*

- Acute six pack studies
- In vitro toxicology
- → Mutagenicity studies
- Repeat dose toxicology studies (28-day -180 day)
- + Reproduction and teratology studies
- + Chronic and carcinogenicity studies

\*performed as per OECD GLP through our partner laboratory

# **30+ years** for **GLP** experience

**30,000+** regulatory studies

# Multidisciplinary scientific team

Supporting development and testing of all varieties of agrochemicals, bio-stimulants, industrial chemicals, UVCBs and other specialty chemicals

Proven track record in meeting international regulatory requirements





CIB&RC

**OECD** 





**FAO** 

**US-EPA** 





CIPAC

**EEC** 





**ABNT** 

NBR





MAFF

**SANCO** 



agroscience services

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