



## Pollinator Testing

Smithers Viscient provides a complete offering of Tier I, II and III pollinator testing services for the agrochemical and specialty chemical industries.

We provide a full range of services that include validated laboratory-based studies, semi-field, and field exposures with the scientific expertise and logistical management that ensure the quality of the data. With technical experts in both ecotoxicology and residue chemistry available to you for these studies, we provide up-to-date guidance on methodologies and efficient execution of the testing. Our analytical staff has breadth of experience with analysis at low concentrations, small sample volumes, and complex matrices to support these pollinator studies.

Smithers Viscient is a single-source provider for all of your pollinator testing needs.

### Laboratory Pollinator Tests (Tier I)

#### Honeybee

- Acute oral/contact (OECD 213/214)
- Honeybee 10-day adult chronic feeding
- Honeybee larval acute/chronic (OECD 237/OECD draft, Feb. 2014 with UF modifications)
- Honey Bee Toxicity of Residues on Foliage (850.3030)

#### Bumble Bee

- Acute oral/contact
- Bumblebee chronic (queenless micro)

#### Solitary bee

- Acute oral/contact

#### Dose verification/homogeneity

### Pollen & Nectar residue (Preliminary Field)

- Initial assessment of exposure risk (step between laboratory and semi-field)
- Collection of nectar and pollen samples by mechanical or biological techniques
- Application of Plant Protection Products by typical commercial methods
- Analytical support to define residue levels

### Semi-Field Studies (Tier II)

#### Tunnel Studies

- Locations (North Carolina, California, North Dakota, other states)
- Colony Condition Assessments (CCA)
- Hive health assessments
- Short-term (42 days) and Long-term (over winter)

#### Field Feeding Studies

- Location (North Carolina or California)
- Colony Condition Assessments (CCA)
- Hive health assessments
- Short-term (42 days) and Long-term (over winter)

### Field Studies (Tier III)

Exposure (Residue levels)

Effects monitoring (Short-term and Over winter)

Hive health assessments

Colony Condition Assessments (CCA)

- Visual estimates
- Digital imagery