BATTELLE AGRICULTURAL DRIFT TUNNEL

A FIELD-LIKE WIND-CONTROLLED ENVIRONMENT FOR AGRICULTURAL APPLICATIONS

Generate reliable, repeatable application data to predict results of open field testing. Our first-of-its-kind agricultural drift tunnel (AgDT) lets you evaluate drift potential in controlled laminar flow wind speeds with less than 5% variability from 0 to 11 mph.

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THE NEED

Spray drift testing in open field conditions is expensive, time consuming and subject to unpredictable weather conditions. With Battelle's Agricultural Drift Tunnel, we can conduct tests and evaluations of products and spray systems under precise wind speeds without worrying about precipitation. We provide repeatable, quality data for agricultural chemical companies in support of regulatory product submission and equipment manufacturers, so you can predict performance in open field studies and ultimately reduce time to market.

THE BATTELLE ADVANTAGE

The Battelle Agricultural Drift Tunnel is a first-of-its-kind facility for spray drift and particulate size testing. It allows us to conduct studies under controlled wind speeds to determine how spray outputs are likely to drift under different wind speed. The tunnel produces wind speeds between 0 and 11 mph with smooth, laminar flow and low turbulence and variability. The tunnel was designed, built and tested by Battelle according to EPA guidance protocols for wind tunnel testing.

The Agricultural Drift Tunnel enables us to conduct studies under consistent wind speed and direction, while protecting the spray area from exposure to precipitation that would interfere with study results.

The results closely mimic open field testing, providing data that is more accurate and predictive of field conditions than preliminary data gathered during indoor laboratory testing. Unlike open field testing, companies can conduct repetitive tests in rapid succession—even multiple tests in the same day. This enables quicker evaluation of differences in formulations, spray methods, application systems and other variables that impact spray applications, leading to better quality decisions that will move products to market faster.

All studies are conducted under ISO or GLP as required.

OUR SERVICES

- Wind-controlled spray drift and deposition studies of products
- Non-target plant exposure or drift studies
- Droplet and particle size characterization/atomization
- Drift reduction technologies/adjuvant tank mix compatibility studies
- Spray nozzle characterization
- R&D and characterization of drift reduction technologies for agricultural application equipment
- Drone studies, including spray drift and application methods

Facility Details

- Located near Columbus, Ohio
- Construction completed June 2019
- Usable study space 130 feet long x 15 feet wide x 8 feet high
- Delivers uniform wind speeds of 0 to 11 mph
- Low turbulence and low variability (less than 5%) in wind speed
- Covered roof protects from precipitation; ambient temperature and humidity conditions
- Can add simulated crop cover
- Accommodates boom and drone application methods
- Onsight analytical support (GC-MS and LC-MS/MS) for quantification of active ingredients

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products, and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio since its founding in 1929, Battelle serves the national security, health and life sciences, and energy and environmental industries. For more information, visit www.battelle.org.

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