Support the Future of Responsible Pesticide Application – The AGDISP Modernization Project

Pesticide application plays a crucial role in sustainable agriculture, but with it comes the responsibility to minimize off-target spray drift and its associated environmental and human health risks. For over two decades, the **AGDISP** model has been the backbone of all EPA risk assessments for pesticide drift, underpinned by physics-based droplet dynamics and validated through extensive field data.

However, AGDISP is showing its age.

Originally developed in the 1980s, the code was a remarkable achievement for its time—but computing technology, agricultural practices, and regulatory demands have advanced dramatically. The model is limited by its outdated, 2D, steady-state framework and lacks the flexibility modern applications require.

We now have an unprecedented opportunity to build on AGDISP's strong scientific foundation and transform it into a next-generation, **open-source tool** that meets the diverse and evolving needs of regulators, applicators, manufacturers, and conservationists alike.

The **AGDISP Modernization Project (AMP)** will:

- Recode AGDISP into a modern, open-source language with clear documentation.
- Enable 3D modeling of droplet motion, terrain, and atmospheric conditions.
- Support advanced nozzle types, real-time cockpit use for aerial applicators, and integration of drone technologies.
- Enhance support for adjuvants and other drift-reduction technologies.
- Provide future potential for more accurate, scenario-specific modeling that could **reduce or eliminate the need for large buffer zones for all application methods depending on drift reduction technologies and techniques used.** This is a game-changer for both environmental protection and agricultural productivity.

The project is uniquely positioned as the **only effort that can ensure AGDISP remains the EPA's standard** for ecological, human health, and endangered species assessments.

But we need your help. To complete the critical recoding phase, the project urgently needs an additional **$225,000.** CDC, American Mosquito Control Association, Cotton Foundation, National Corn Growers Association, and the National Agricultural Aviation Research and Educational Foundation have already invested in the project. Your support will help deliver a model that empowers innovation in application technology, improves regulatory efficiency, and ensures scientifically grounded environmental stewardship.

Join us in modernizing AGDISP for the next generation of precision agriculture. For more information contact Andrew Moore at admoore@agaviation.org

Let's put science, safety, and sustainability in sync.

AGDISP
Modernization Project

Stakeholder Committee

Elyssa Arnold, USDA
Adam Barlow, John Deere
Amy Blankenship, EPA
Jane Bonds, Bonds Consulting Group
Ross Breckels, Canadian PMRA
Chad Brewer, National Cotton Council
Travis Bui, Corteva
Madison Dixon, Miss. State Univ.
Francis Donaldson, BASF
Cameron Douglass, Compliance Services International
Rebecca Haynie, CropLife America
Sarah Hovinga, Bayer
Terry Kippley, CPDA
Steve Li, Auburn University
Andrew Moore, NAAA
Justin Nairn, Scion Research
Neill Newton, Syngenta
Michelle Ranville, USDA
Brian Richardson, Scion Research
Colleen Roy, Syngenta
Andrew Shelby, EPA
Amy Sullivan, AAPCO
Zahra Tafreshi, Canadian PMRA
Jane Tang, Bayer
Sarah Warner, USFWS
Rebecca Willis, BASF
Kianna Wilson, FMC

Technical Committee

Jane Bonds, Bonds Consulting Group
Scott Bretthauer, NAAA
Steve Foster, Foster & Assoc. Tech. Consulting
Brad Fritz, USDA
Matt Gill, NAAA
John Manobianco, BASF
Justin Nairn, Scion Research
Brian Richardson, Scion Research
Jane Tang, Bayer
Harold Thistle, USFS (Ret.)