If you find a sucking insect in a client's field that you don't recognize, there's probably an app to help you make an identification. And that app most likely had its genesis at the University of Georgia Center for Invasive Species and Ecosystem Health, also known as Bugwood.

From its humble beginnings as a simple image-based website, Bugwood has evolved alongside the pests it tracks to encompass nearly 4,800 species of insects, plants, animals, and disease. Interactive maps form the heart of this data aggregator that helps get the word out about pests from Florida to Montana.

Bugwood was developed at the University of Georgia by two extension specialists who were looking to more efficiently get insect pest information to their clientele. One was with the College of Agriculture and the other with School of Forestry; hence, the moniker, “Bugwood.”

In the beginning, the product was based around images: What does the pest look like? What do I do about it now that I know I have it?

The case of the kudzu bug

As technology has evolved over the last two decades, so has the look and mission of Bugwood. About 10 years ago, an early detection and distribution mapping system (EDDMapS) was launched that allows for real-time tracking of invasive species. That system played a key role when kudzu bug was first noticed in nine northeast Georgia counties in October 2009.

Initially, the pest—also known as globular stink bug—was considered a nuisance as it invaded homes, leaving behind its distinctive odor. But within a year, kudzu bug had spread to 60 counties and began invading soybean fields.

Yield losses of up to 47% were recorded on untreated beans on a research station near Midville, GA, in 2011—a terrifying statistic given that only two kudzu bugs had been found there the previous year.

As farmers and county extension agents began reporting sightings of kudzu bug to EDDMapS, a picture quickly emerged of how fast the pest was moving. These sightings, like any other first-detector reports to EDDMapS, are...