Sit down with any farmer, and they will tell you that farming is not a profession for the faint of heart. Modern day agriculture is filled with significant risk. Challenges present themselves in unpredictable weather, labor shortages, ever-changing market demands and prices, and the growing intensity of advancing technology. Add pest and pollination concerns to the mix, and it’s enough to threaten the sanity and livelihood of even the most experienced grower.

One coping strategy is to separate the concerns a farmer has control over from those he or she does not. While growers cannot change the weather, they can use weather data to influence their management decisions, including integrated pest management (IPM). In 1996, the U.S. Congress defined IPM as “a sustainable approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that minimizes economic, health, and environmental risks.” Federal and state policies and programs have been established to identify measurable goals and improve IPM adoption to deliver economic, health, and environmental benefits.

Of course, the rubber meets the road on the farm. Programs and policies to support IPM adoption are a great start, but the benefits of IPM are truly evident when IPM practices are fully utilized on the farm. In this article, we refresh the basics and challenge consultants to consider opportunities to improve their IPM game and maximize the benefits to their customers.

The IPM toolbox

Integrated pest management can be thought of as a toolbox of best management practices for protecting crops from pressures imposed by insect pests, weeds, diseases, and wildlife. These tools continue to evolve to meet new challenges posed by introduced invasive pests, pest resistance to pesticides, and changing consumer demands. Integrated pest management offers flexible selections from a menu of research-based practices, pest thresholds, and technologies, allowing growers and consultants to select those that best fit the need. There are four primary “drawers” in the IPM toolbox:

1. Systematic monitoring and accurate identification of pests, damage, and/or pest conducive conditions. Although remote sensing tools, region-wide trapping networks, and weather monitoring or prediction systems are very useful for some pests, scouting is often the primary tactic. This involves systematically moving through fields, looking for, and documenting pest populations. Assessing the pest situation at pre-set intervals, using research-based protocols ensures your results are repeatable and comparable from one farm to another and from one date to another. This field-level pest threat assessment enables the consultant and grower to precisely determine if, when, and where pest control treatment is needed and establish what effective options are available, practical, and affordable. It’s a very different approach from walking or driving the edge of a field where it’s convenient and simply looking for any sign of pest activity. It’s also more time and cost intensive. Do you know where systematic sampling pays off for your clients? Do you effectively sell the benefits of this service for a reasonable fee and/or as an advantage of using your services vs. your competition?

2. Pest management decision-making based on real-time pest assessments. Systematic scouting opens the door to the opportunity to use science-based economic thresholds and reliably determine if the cost of a pest