

GROWERTALKS

Growers Talk Production

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IPM Meets AI: Where the Biological & Technological Intersect

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(For this month's column, I've asked my colleague Janeen Cooper for her perspective on exploring AI in her role. Hope you enjoy her insight!—SS)

When people think about AI in horticulture, they might picture robots taking over greenhouses or computers making all the decisions for us. Honestly, my own introduction to AI was much more down to earth. Like many folks, I would occasionally use it to answer basic questions or gain a deeper understanding of a topic. Eventually, I began using it as a thinking partner, something to help me organize what I was seeing in the field and make sense of all the information we deal with in integrated pest management.



Let's be honest: Growers and IPM professionals collect buckets of data. One of the biggest challenges I've faced is filtering all that information in a way that helps the team make the best decisions for the plants. Wouldn't it be cool if you could take the data in scouting reports and spreadsheets and condense it into pertinent information to share with your team? If I had a nickel for every time I was asked, "How did we navigate that problem a couple of years ago?" I'd be able to retire early and chase insects purely for fun.

These were some of the many reasons I decided to explore using AI at our nursery, although, like most things, the hardest part was figuring out where to start. A few years ago, our Technical Lead showed me a platform that claimed it could identify and count insects on sticky traps. To say my interest was piqued would be an understatement (thanks, Steph!). I went home that night and dove headfirst into research. I was blown away by what I learned and was excited about what it could mean for our industry. Just imagine machine learning working in tandem with IPM professionals to help predict outbreaks and their economic impact. The possibilities seemed incredible to me.

That first sticky-card platform seemed awesome on paper, but when we put it into practice, every insect suddenly became a fungus gnat, the first of many growing pains. However, after some good old fashioned trial-and-error, we found a software platform that could detect many of our recurring pests with impressive consistency. The great thing is it wasn't limited to just sticky cards—we could record observations, upload photos and even track the efficacy of treatments. And, of course, maintain our scouting records. Soon the day-to-day scouting began to have more fluid movement, reports were generated quickly and accurately. It was the first step in a very exciting journey for us.

This experience taught me something valuable: there's really no one-size-fits-all solution. Every organization has different needs, so don't be afraid to try different options and determine what works best for your team and what you're trying to accomplish. As we became more comfortable with AI, we started using it to summarize scouting reports, create simple SOPs and (one of my personal favorites) translate dry technical information into something easier to understand. I found myself spending less time sitting in front of a computer and more time in the field with the plants, which is exactly where I want to be.

Now, that isn't to say AI in horticulture comes without limitations. Its suggestions should always be checked against product labels, regulations, laboratory results and direct crop observations.

AI should strengthen and support human judgment, never bypass it. After all, a tool is only as good as the hand that wields it.

Thinking of giving it a try yourself? My advice is to start small and move slowly. Pick one crop, one problem or even one aspect of the job that feels a bit tedious and explore where AI might be able to fill in the gaps. Take the time to learn both what it can do and where its limitations lie before trusting it with larger workflows. Most importantly, enjoy the journey—it's a lot of fun. **GP**

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