



## Insect monitoring

### Identify what's bugging you

#### Complexity



#### Price



#### Scale



Insects are necessary for agriculture to function – pollinators keep plants reproducing, and are key to sustainable farming.

However, many insects are pests for growers. They eat away at produce, act as parasites that stunt plant growth, and can ruin entire harvests if left unchecked.

Knowing what type of insect – and how best to control them – is integral to the success of any farm. Insect monitoring sensors aim to make it quick and easy to identify what type of pest is causing problems, and finding the best solution.

## How

Insect monitoring sensors work by combining auditory and optical sensors with machine-learning algorithms.

Sensors detect visuals using cameras, and can also detect flying insects using auditory equipment. This data is then fed into a computer that runs through algorithmic analysis, identifying the type of insect as well as extrapolating flight patterns over long periods.

The sensors themselves are distributed in paddocks and growing areas, which can then transmit the data to a centralised hub for analysis and insect identification.

Looking at real-time data allows the insect monitoring system to adapt based on environmental trends that are specific to the area in which the monitoring is being deployed.

## Why

When it comes to pesticides, time is of the essence.

Real-time information provided by their sensors allows for early detection and thus the timely deployment of pest-management tools, such as insecticide or biocontrols. Current mechanical traps used for monitoring may only yield important intel 10 to 14 days after the bugs' arrival.

Even thinking beyond addressing financial insecurity for farmers and threats to our global food chains, insect monitoring might prove useful in tracking and spreading critical information about disease-vectoring insects, like mosquitoes.

Having access to immediate data allows trends and patterns to be identified faster – this can save farmers money, labour and time. No longer will farmers need to place hundreds of sticky traps in the hopes of catching pest insects.

Using targeted pesticides, as opposed to broad spectrum chemicals, can also help promote biodiversity, as this avoids collateral damage that impacts local harmless fauna. It can also help avoid the overuse of chemicals that may impact the quality of produce in the long-term.

Insects

Data

AG TECH BYTES

## Benefits

### Sustainability

Improving biodiversity outcomes by avoiding broad-spectrum pesticides.

### Rapid response

Real-time data keeps you informed about what's happening on farm.

### Efficiency

The sensors save time and labour.

## Getting started

1. Obtain insect monitoring sensors and software from reputable suppliers.
2. Install the sensors as directed.
3. Monitor for pest activity and counter as needed.

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## More Info

For more information on how you can deploy this technology on farm, give us a call or visit our website via the link below or QR code.



136 186



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