

Feature Story



Insect forecasting

In an instant, you can open an app for weather forecasts or check text alerts for market forecasts, but where do you turn for forecasting insect pests? All three subjects can impact farm operations and profitability, but the latter is much tougher to quickly gauge.

Forecasting insect pressures takes consistent work and a good deal of ecological background. Christa Eilers-Kirk, Technical Market Manager, BASF, says growers first need to understand what they are up against.

“Every situation is different thanks to varying insect species and geographies,” said Eilers-Kirk. “As a result, forecasting practices will change depending on the unique grower.”

Eilers-Kirk explains that growers face numerous insect species, but for the purpose of forecasting, they can be sorted into two basic categories: overwintering and migratory. Overwintering insects do just as they sound, surviving in the soil, crop residue, or on another host during the harsher winter months, only to return to crops as they emerge in the spring. In contrast, migratory insects make for warmer climates as local weather cools and begin their way back north after winter passes.

Specific forecasting practices will vary depending on the prevalence of overwintering and migratory insects.

For overwintering species, growers can look back on the characteristics of previous populations before they entered diapause, or the period of suspended development during adverse winter conditions. Key characteristics to evaluate include population size and general health. Additionally, some insects require host organisms, so size and health of viable hosts can also forecast the strength of the returning population.

“The stronger the insect or host before winter, the greater a threat it may be in spring and summer,” said Eilers-Kirk.

Migratory species can be predicted in a couple of ways. Conditions in warmer destination regions, such as Texas, can offer a look into what sort of pest populations will return north. If growers see excellent weather conditions further south, for example, they may expect more cutworm challenges of their own. Physical tools also exist to predict prevalence of migratory species. Pheromone traps containing attractive scents can capture insects during migration, allowing trap operators to keep count of the incoming pests.

Next steps for insect control

After evaluating their situation and making predictions, growers need to closely watch their crops. Regular scouting allows growers to notice if a forecasted problem becomes an actual problem.

“For insects, it is especially critical to get out there and monitor,” said Eilers-Kirk. “There is no replacement for eyes in the field.”

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When scouting, noticing a small number of insects may be permissible—problems emerge after populations pass a certain threshold. Thresholds also vary by pest, region and crop, and are usually set by local extension experts.

What can growers do if they tip past the threshold? Growers should make an insecticide application to preserve maximum yield potential. Fastac® CS insecticide offers consistent control of many of the familiar insect species, including cutworm, flea beetle, corn rootworm beetle and bean leaf beetle.

“In addition to insecticides, I’ll often recommend growers consider a proactive fungicide application as crops damaged by insects are more susceptible to disease,” said Ellers-Kirk. “BASF fungicides such as Priaxor® fungicide can be tank-mixed with Fastac CS insecticide per the label, delivering this additional protection.”

When raising healthy crops, there is no substitute for dedication. Maybe insect forecasting won’t be as instantaneous as weather or market forecasting, but don’t let that bug you. Effective crop protection and higher yields are worth the work.

Always read and follow label directions.
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