

## Pest infestation prediction for farmers

### **Introduction:**

Pests can cause damage to plants, humans, structures, and other creatures, including crops that are grown for food. The destruction not only threatens production, but also impact farmer income.

### **Intervention:**

Microsoft collaborated with United Phosphorous (UPL), India's largest producer of agrochemicals to create an API which can indicate in advance the risk of pest attack. The Pest Risk Prediction API enables farmers to get predictive insights on the possibility of pest infestation.

In the first phase, about 3,000 marginal farmers with less than five acres of land holding in 50 villages across in Telangana, Maharashtra and Madhya Pradesh received automated voice calls for their cotton crops. The calls indicated the risk of pest attacks based on weather conditions and crop stage in addition to the sowing advisories. The risk classification is High, Medium and Low, specific for each district in each state.

### **Impact:**

This technology has empowered farmers to plan in advance, reducing crop loss due to pests and thereby helping them to double the farm income. In addition AI-based sowing advisories led to 30% higher yields, as the farmers are getting regular updates on possible pest infestation they are able to plan their activities better. Taking queue from the intervention, the Government of Karnataka is working towards predictive analysis for price forecasting.

*Source: Microsoft News Centre India, Digital Agriculture: Farmers in India are using AI to increase crop yields, 7 November 2017, accessed on 13 January 2019*