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Precision Pest Management by the Use of Pheromone Traps and Forecasting Module in Mobile App

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Abstract : In 2021, our organization has launched our proprietary mobile App i.e. Farm Intelligence platform, an industrial-first precision agriculture solution, to Pakistan. It was piloted at 47 locations (spanning around 1,200 hectares of land), addressing growers' pain points by bringing the benefits of precision agriculture to their doorsteps. This year, we have extended its reach by more than 10 times (nearly 130,000 hectares of land) in almost 600 locations across the country. The project team selected highly infested areas to set up traps, which then enabled the sales team to initiate evidence-based conversations with the grower community about preventive crop protection products that includes pesticides and insecticides. Mega farmer meeting field visits and demonstrations plots coupled with extensive marketing activities, were setup to include farmer community. With the help of App real-time pest monitoring (using heat maps and infestation prediction through predictive analytics) we have equipped our growers with on spot insights that will help them optimize pesticide applications. Heat maps allow growers to identify infestation hot spots to fine-tune pesticide delivery, while predictive analytics enable preventive application of pesticides before the situation escalates. Ultimately, they empower growers to keep their crops safe for a healthy harvest.

Keywords: precision pest management, precision agriculture, real time pest tracking, pest forecasting **Conference Title:** ICPFPM 2023: International Conference on Precision Farming and Pest Management

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