Experiences and Insights for Developing and Delivery Plant Disease Risk Information to Small Stakeholder Farmers in Kenya

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In plant pandemics, rapid response is essential. In Sub-Saharan Africa (SSA), 73.8% of farms are < 2ha in size and under certain scenarios there may be a requirement to determine areas of high risk of disease establishment and disseminate rapid response messaging relating to control options. PRISE (Pest Risk Information SErvice) generates and provides information on the optimum time to intervene against insect pests for smallholders in SSA. The PRISE datacube acquires, stores and handles multiple datasets from reanalysis, meteorological and Earth observation sources, which drive pest models. Outputs are accessed via interfaces (web portals and APIs) and used by third party disseminators in country to deliver "time to act" messages coupled with good agricultural practice information through the most appropriate extension channels. Through PRISE, the feasibility of generating and disseminating plant pathogen risk information was investigated in Kenya. A successful early warning system should ensure that information generated and disseminated is actionable and effective for farmers. In low-income countries, the means to intervene can be resource limited therefore, to investigate how information should be presented to farmers, structured phone surveys were undertaken to investigate whether farmers had encountered key plant pathogens in their growing systems and what means they undertook to prevent or manage them. Here we report initial survey results and barriers to uptake of management practices reported by farmers. Additionally, we present prototype risk maps for *Pseudocercospora griseola*, showing areas at high risk from infection generated using data from the PRISE datacube and disease parameters.