

Decision Making System with Remote Sensing Data for Disease Control in Tomato Field

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Late Blight, caused by the *Phytophthora infestans* (*P. infestans*), is a rapidly developed and widely spread disease in tomato and potato field. Such spore can develop symptoms on plants in 2 days and destroy it within 10 days. We aim to utilize Reinforcement Learning (RL) for a near real-time disease control with fungicide management in tomato field. We obtain data from satellite image and extract spectral reflectance data from the target area. These data can be used for setting up baseline of optical observations with and without infection in our simulation. Our model interacts with the simulated environment by observing optical information, and react with proper fungicide applications.