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PHYTOPHTHORA LITE: REDUCING INFECTION WITH BETTER INFORMATION

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PHYTOPHTHORA LITE is a software application used in the Netherlands that takes users' local and regional weather and makes predictions about the chance of a given crop becoming infected with phytophthora. The application provides information for both treated and untreated crops. Predictions on the chance of infection are rated as 'low', 'medium', or 'high' and are shown for a period of 3 days: the day before, the present day, and the following day.

This information allows users to predict when the best time to water, treat or harvest their crops may be in order to prevent or reduce phytophthora infection. This information allows for better decision-making, which could potentially lead to a reduction in plant protection treatments and improve the efficiency of use of farming resources like water, providing improved plant health for both the crop and the surrounding environment. This would also lead to a significant reduction in economic costs related to the purchase of plant protection products and the costs associated with personnel, machinery and equipment.

| Application scenario |
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| Advice for avoiding phytophthora infection on smartphone. |
| **Digital technologies** |
| GPS and weather data; big data. |
| **Socio-economic impact** |
| ▪ Economic: decreased financial risk. |
| ▪ Environmental: plant health. |
| **More info:** http://agroapps.nl/apps/dacom-phytophthora-lite/ |

Purpose of the tool

PHYTOPHTHORA LITE allows users to make informed decisions about when and how to treat their crops in order to avoid phytophthora, a fungus-like pathogen that damages or destroys crops, leading to poor plant health and financial loss.

Description of the tool

Users allow the application to access their location data. The application connects to weather services and cross-references weather with known rates and types of phytophthora infections in a given crop. The application can then offer advice to users about when to treat a crop, as well as a model for comparison: the risk of infection the day before, in the present day, and in the following day.

Users are able to input data on their crops, treatments, and the progress of phytophthora. This additional data allows the algorithm to improve its predictions.
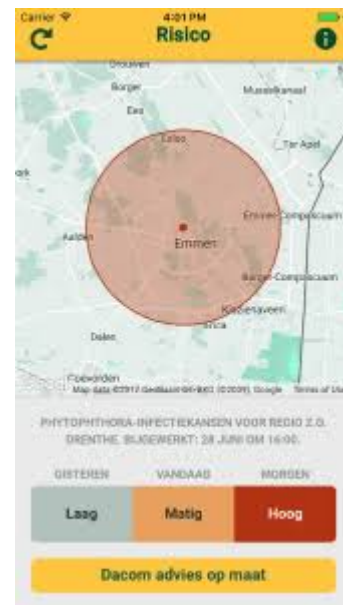
Areas of socio-economic impacts

Economic	Enabled better decision-making in crop treatment thereby minimising financial loss.
Environmental	Improved crop health and improved decision making about using treatments may allow for a reduced use of treatments overall.