Di@gnoPlant and VigiPl@nt: field level diagnosis, surveillance and detection of plant diseases using smartphone applications

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Summary
The early and reliable identification of a disease and the timely detection of emergent pests are crucial elements in plant protection. We have developed two applications for smartphones to help identify (Di@gnoPlant) and locate (VigiPl@nt) diseases in the field. With Di@gnoPlant, users are able to identify diseases on a range of crops (grape, vegetables, tobacco...) via a smartphone (available from App store or Google Play), with the assistance of an image identification module. They can then obtain information on the characteristics of the identified disease/pathogen: biology of the pest, symptomatology and a description of optimized protection methods. Through the mobile VigiPl@nt application, users can report the presence of pathogens or of emergent diseases and therefore contribute to a surveillance network. This involves making observations and taking pictures of symptoms, filling out a form on the smartphone. Dated and geotagged, the information is stored or transferred directly to the e-Phytia database. Pathogen/disease presence or impact maps can be displayed on the smartphone.

Di@gnoPlant® provides knowledge on the pests and diseases of plants, a diagnosis tool, and comprehensive information detailing the symptoms of the identified disease, the biology of the pathogen, and methods to control it.

VigiPl@nt® allows to collect some observations and photos of a diseased crop with a smartphone. Dated and geotagged, the information is stored or transferred directly to the e-Phytia database. Diseases and pests distribution and density can be displayed on the smartphone screen.

Fact sheet
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