DiagPOT, A NEW DIGITAL APPLICATION FOR THE PICTURE-BASED DIAGNOSTIC AND KNOWLEDGE ON POTATO DISEASES, PESTS AND DISORDERS

Yves Le Hingrat* [1,2], **Jean-Michel Gravoueille**[3], **Michel Straëbler**[4], **Jonathan Gaudin**[5], **Jean-Marc Armand**[5], **Dominique Blancard**[5]

[1] FN3PT/RD3PT (French Federation of Seed Potato Growers), 75008 Paris, France
[2] UMT InnoPlant (FN3PT-INRA), 35653 Le Rheu, France
[3] ARVALIS-Institut du végétal, 91720 Boigneville, France
[4] GNIS, 75001 Paris,
[5] INRA UMR SAVE, 33882 Villenave d'Ornon, France

* Corresponding author : yves.lehingrat@fnppt.fr

Introduction

- **An early and reliable identification** is a key point to prevent disease development and for appropriate crop management.
- **New technologies** allow visual diagnosis directly in the field through a smartphone or a tablet giving access to knowledge and helping for the diagnosis of biotic and abiotic diseases.
- **Such digital application has been developed for potato (DiagPOT)** in cooperation between French potato experts and an INRA team developing digital applications in plant health.

Material and methods

- The application has been developed in cooperation with **INRA SAVE team in Bordeaux** which had previously edited several diagnostic tools accessible over the internet on **Ephytia** site [1] and also in the field with **Di@gnoPlant** applications for mobile devices to help to identify diseases through an image identification module and to provide information on the cause. They are available for salad, tomato, vine, tobacco, etc. and new applications are under development.
- DiagPOT derives from the **Practical guide on diseases, pests and disorders of the potato** [2], available in French, English and Spanish and edited by **FN3PT, GNIS and ARVALIS**, in collaboration with potato experts and research (Innoplant).

Overview of the application

DiagPOT is available free of charge:

- **on internet** through Ephytia website: http://ephytia.inra.fr/en/Home/index
- **on mobile** (smartphones or tablets) as an application, which will be soon downloadable on Apple or Android platforms and could be used offline once installed.

DiagPOT application on internet, smartphone and tablet

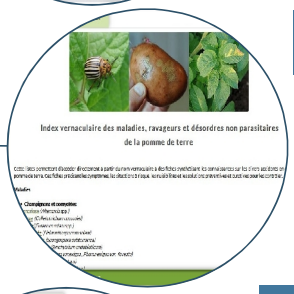
- **French and English versions are available** and a Spanish version is in preparation.

- **DiagPOT includes:**

Identification key

- **A visual diagnostic key** - with more than **400 high-quality photographs** - to help in the identification of the cause of symptoms.

Index



- **An index of 150 diseases, pests and disorders** affecting potato, with a direct access to the datasheets (search via latin or common name).

Data sheets

- **94 datasheets** presenting the causes, symptoms, risk factors and management of well-known or less common **pathogens** and of **non-infectious factors** (climate, treatments, etc.), **physiological disorders** and **nutrient imbalances.**

Conclusion

- DiagPOT offers to a wide audience (producers, technicians, researchers, students, gardeners, etc.) **a user-friendly picture-based identification** key as well as accurate **information on the main diseases, pests and disorders of the potato**.
- DiagPOT can be **a practical tool** for potato crop management, to secure potato production and to monitor emerging pathogens.

Credits and references

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