

# First step towards global attack on potato blight

May 28 2015

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European researchers and companies concerned with the potato disease phytophthora will work more closely with parties in other parts of the world. The first move was made during the biennial meeting of the European network EuroBlight, held in Romania earlier this month. Colleagues from North-America, South-America and Asia were also

invited. "They are very interested in our approach; the way we analyse the genetic variation in the field, for example", says Huub Schepers, phytophthora specialist at Wageningen UR and one of the driving forces behind EuroBlight. "Conversely, we can learn a lot from them. The more we know about this pathogen, the more we can do to devise a comprehensive strategy."

## **Fingerprints in the field**

The first real step involves exchanging information about methods so that the researchers can use each other's tools and data. In Europe, the potato industry makes 'fingerprints' of *Phytophthora infestans* by rubbing infected parts of the plant onto special cardboard cards. These are then analysed in laboratories in Scotland and the Netherlands, and a DNA profile is compiled, generating a picture of the [genetic variation](#) in Europe.

Research in other parts of the world tends to be more fundamental and does not involve a systematic practical inventory of this kind. It is not yet clear whether this would even be possible in these other countries. Working alongside commercial parties, such as crop protection firms or cultivators, is also less common. "But that was a gradual process here too", remembers Schepers. "Several parties need to be convinced that precompetitive research is useful. This is perhaps where we come in."

## **More targeted use of chemistry and species to combat phytophthora**

In the long term, cooperation will extend beyond simply exchanging information. It has been decided that networks from other parts of the world will be allowed to take part once a European research programme has been launched to study Integrated Pest Management (IPM). The

EuroBlight instigators will submit a research proposal to the EU. According to Schepers, this is a unique approach that can also be applied to other major plant diseases.

The parties' ultimate aim is to gain more control over phytophthora. The European inventory, which has been operating for two years now, has already given the parties a better understanding of the strains of phytophthora that are active in Europe. This information enables a more targeted use of crop protectors and helps growers to choose potato species with the right levels of resistance.

## **Romania joining in**

The process of monitoring the disease inside Europe is still continuing and expanding. More attention is being paid to phytophthora and knowledge about the pathogen is increasing. Host country Romania has not taken part in the European disease monitor until now, despite the country's 190,000 hectares of potato fields, which make it the biggest potato grower in Europe. Potatoes are part of the staple diet for the majority of the population. Sponsoring from the business world means that this country will be able to take part in the inventory as from next year, and the ties with the national [potato](#) research institute can be reinforced.

Provided by Wageningen University

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