

Eucablight – A Late Blight Network for Europe

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euca
blight



Scottish Crop
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Late blight of potato, caused by *Phytophthora infestans*, is one of the most devastating diseases of potato worldwide. The migration of the A2 mating type of *P. infestans* from central Mexico to other parts of the world during the 1970s and 1980s resulted in increased disease severity and has re-focused attention on this disease. Late blight can cause tuber losses of 100% in susceptible germplasm and crop losses and protection costs are substantial.

Eucablight is an EU funded Concerted Action which has more than 80 registered participants coming from 24 member institutes in 15 European countries.

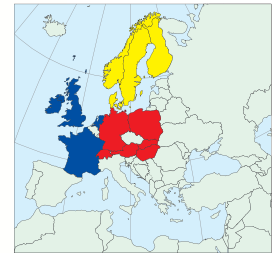
Eucablight provides tools for investigating variation in host resistance to late blight and in *P. infestans* populations.

A database containing information on the resistance of past and current potato cultivars and late blight populations in participating countries has been developed (www.Eucablight.org).

In addition, protocols for testing host resistance and pathogen diversity have been designed and tested and recommendations made.

Target groups include DSS advisers who can access the model parameters needed to build locally adapted forecasting systems, and scientists, who can employ the data to study host and pathogen interactions, and to place this in an historical perspective.

Submission of data is open to anybody who wishes to contribute and who follows the standard protocols.



Eucablight data entry tools, databases and graphic analysis:

Host and Pathogen Databases

The databases are structured so that different target groups can use the data.

All information is associated with specific years and geographic areas, allowing direct comparisons of specific host events (e.g. breaking of a new resistance gene) to specific pathogen events (introduction of a new genotype of the pathogen).

New data entries are made easily using Cultivar.exe and Phytophthora.exe, software programs specially designed by Eucablight.

Both the host and pathogen data are processed into secondary variables such as AUDPC or frequency of metalaxyl sensitivity, providing overviews of the resistance of the cultivars, the diversity of the pathogen population and their distribution in time and space across Europe.

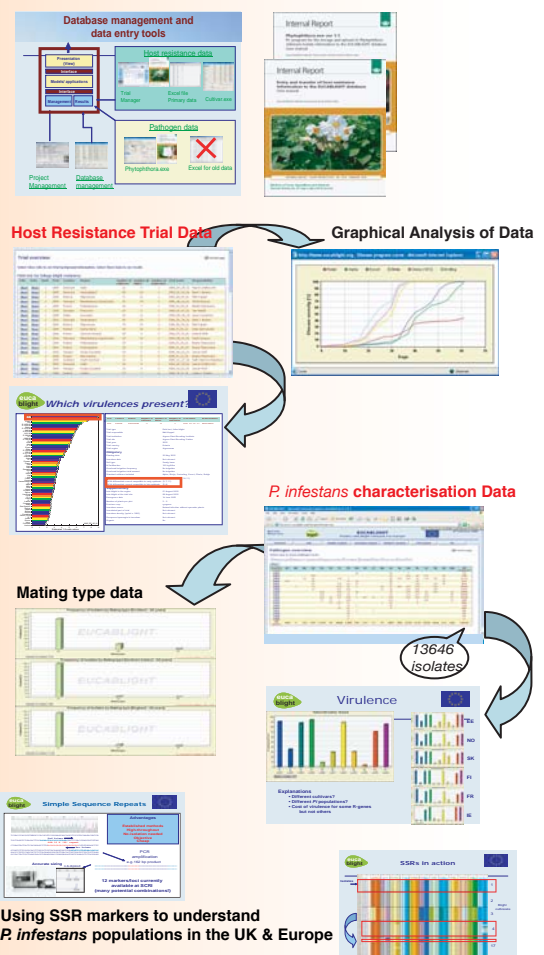
The displays, available through the Eucablight website, are automatically updated when new data are added to the database.

Protocols and training

Protocols for assessing pathogen diversity and host resistance vary between laboratories, and technologies evolve rapidly, making the comparison of data difficult.

Therefore, one of the main objectives of Eucablight is to collate, formalise, assess and recommend the suitable protocols,

These protocols are available through the Eucablight website, and both members and non-members have been trained in their use.



Summary

- Data entry tools and databases have been created and European data on host resistance and pathogen characterisation has been collated
- The Eucablight database contains over 4,000 potato cultivar and 13,500 pathogen entries from across Europe.
- Collection of data will continue and efforts will be concentrated on the outputs available to all on the website.
- Standardised protocols and information are available on the website

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