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Q-bank: a unique and valuable resource of plant virus information

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Plant viruses, viroids and phytoplasmas are the smallest known plant pathogens. They attract less attention than insects or fungi but are by no means less important. In Europe alone they cause hundreds of millions of Euro's loss in yield and export. Virus diseases cannot be cured, so healthy propagation material and preventing infections are the only effective means to control these problems. To achieve this, reliable diagnostic methods and epidemiological knowledge are indispensably vital. Diagnostic methods can only be developed with sufficient knowledge on the characteristics of a virus and evaluated using well-characterized reference specimens. In addition prevention of infections evolves around knowledge on means of spread, (alternative) hosts and the spectrum of possible strains and variants of a virus.

In the Netherlands plant virologists in the public domain cooperated within the Dutch Q-bank project to develop and safeguard their knowledge on plant viruses, to share their expertise and to valorise their knowledge to the Dutch agricultural sector.

Within Q-Bank a database has been created in which essential data are stored of regulated and economically important plant viruses, –viroïds and phytoplasmas. These data can be used for reference and support virus detection and identification. In addition, the most important isolates of these pathogens have been included in a reference collection to use in the development and validation of new detection techniques. This information is now freely available for everyone on **www.q-bank.eu** and will be updated and expanded on a regular basis.

Q-Bank contains relevant information on the origin of an isolate, a description of the typical virus symptoms in the original host and several indicator plants (supported by pictures), information on serological and molecular tests, and genomic sequences. The fact that next to this digital information the isolates themselves are available from a reference collection distinguishes Q-Bank from several other databases and makes it a unique and valuable resource of plant virus information.