

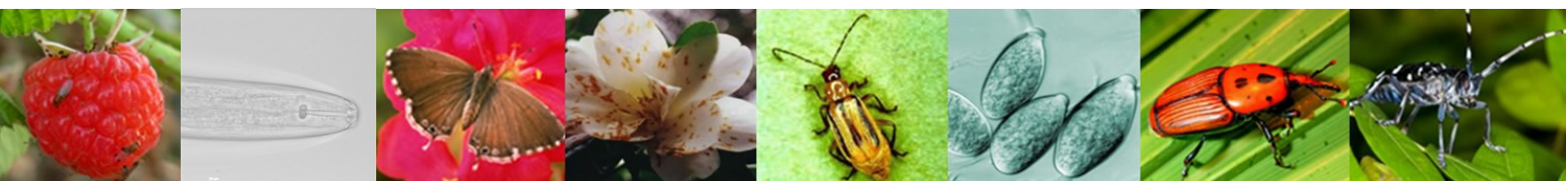


# EPPO-Q-bank

## A database to support plant pest diagnostic activities

Increased risk of plant pathogenic quarantine pests and diseases, due to globalization and climate change, enhances the need for up-to-date knowledge and validated identification and detection methodologies. DNA barcoding is increasingly used as a diagnostic tool in phytosanitary laboratories. This method uses sequence data of short standardised genetic DNA markers to aid species identification.

EPPO-Q-bank database provides a wide range of information about specimens, isolates, strains or populations of quarantine species or their look-alikes and supports plant pest diagnostics using DNA barcoding by sharing curated sequence data. The data is curated by an international network of experts.



### MISSION

The objective of EPPO-Q-bank is to support diagnostic activities of phytosanitary organizations: National Plant Protection Organizations, general inspection bodies, and private laboratories. A database with reliable sequences generated from vouchered biological material is an indispensable tool to identify and detect harmful quarantine organisms.

### CONTENT

EPPO-Q-bank is an open-access database comprising

- Genomic sequence data of properly documented specimens, isolates, strains or populations of quarantine species or their look-alikes.
- For most of the specimens, isolates, strains or populations, links to collections from which items may be obtained for further studies, or for use as controls in identification and detection tests.
- Barcoding protocols published in EPPO Diagnostic Protocols or being identified as useful protocols by our curators.
- Tools to perform quick analyses of barcoding sequences, including single or multilocus blast and tree views.
- Links to other relevant databases, e.g. EPPO Global database.

Information is provided per discipline (arthropods, bacteria, fungi, nematodes, phytoplasmas, viruses & viroids, and invasive plants).

## BENEFICIARIES

National Plant Protection Organizations and stakeholders in the statutory plant health domain, including:

- National Reference Laboratory and National Inspection Services
- Diagnostic laboratories, R&D organizations in plant health
- Agricultural production and trade

## HISTORY

This database originally started as part of a Dutch project to strengthen the plant health infrastructure (Q-bank). Q-bank was launched in 2010 and further developed in the framework of the EU funded project QBOL. The Dutch Ministry of Economic Affairs financed this project from 2011 to 2018. In September 2018, the EPPO Council agreed that the database should be transferred to EPPO. Data from the original Q-bank database was transferred to the EPPO-Q-bank database which was launched in May 2019. During 2019 and 2020, further work was conducted to harmonize the content and structure of the data among disciplines.

## ORGANISATION

The entries in EPPO-Q-bank are updated by seven teams of curators with taxonomic, phytosanitary and diagnostic expertise from National Plant Protection Organizations and institutes with connections to relevant phytosanitary collections.

The curators work under the supervision of the EPPO Panel on Diagnostics and Quality Assurance and specialized EPPO Diagnostics Panels.

The EPPO Secretariat is in charge of the coordination of the work and of the development and maintenance of the database.

### Curators of the insect database



<b>Dr. T. Bukovinszki</b>	<b>J.-C. Streito</b>	<b>É. Pierre</b>	<b>Dr. P. Rousse</b>
NIVIP (NL)	INRAE (FR)	INRAE (FR)	EURL-ANSES (FR)

### Curators of the plant database



<b>Dr. H. Duistermaat</b>	<b>Dr. J. van Valkenburg</b>	<b>F. Verloove</b>
Naturalis Biodiv. Center (NL)	NIVIP (NL)	Meise Botanic Garden (BE)

### Curators of the fungi database



<b>Dr. U. Damm</b>	<b>Ir. M. van Raak</b>
Senckenberg Mus. of Natural History (DE)	NIVIP (NL)

### Curators of the nematode database



<b>Ir. E. van Heese</b>	<b>Dr. S. Kiewnick</b>
NIVIP (NL)	JKI (DE)

### Curators of the phytoplasma database



<b>Dr. M. Nicolaisen</b>	<b>Prof. Dr. A. Bertaccini</b>	<b>Dr. N. Contaldo</b>
U. Aarhus (DK)	U. Bologna (IT)	U. Bologna (IT)

### Curators of the bacteria database



<b>Dr. M. Bergsma-Vlami</b>	<b>J. van de Bilt</b>	<b>Dr. B. Cottyn</b>	<b>Prof. Dr. P. de Vos</b>
NIVIP (NL)	NIVIP (NL)	ILVO (BE)	LM-U Gent (BE)

### Curators of the virus database



<b>Dr. ir. R. van der Vlugt</b>	<b>Dr. A. Roenhorst</b>	<b>P. de Koning</b>	<b>Dr. W. Menzel</b>
PRI (NL)	NIVIP (NL)	NIVIP (NL)	DSMZ (DE)

***We count on you to help us enrich the database***

If you have data to contribute, **please contact us**: <https://qbank.eppo.int/contact>