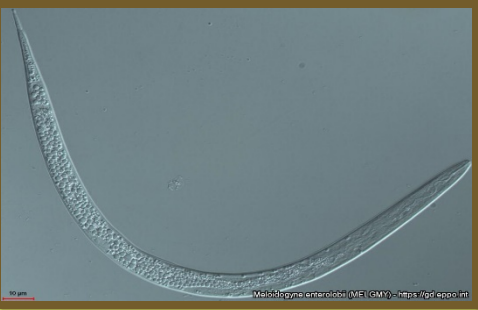
Global warming and distribution of root-knot nematode species of the tropical group (MeloTrop)

Euphresco

04/2017-03/2020



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 92 000

Research consortium

KIS (SI), ANSES (FR), INIAV (PT), NVWA (NL), AES (RS), UC (PT)

Contact information

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Goals

Several root-knot nematodes (RKN) species belong to the 'tropical' RKN group (*M. incognita, M. arenaria, M. javanica, M. enterolobii, M. ethiopica, M. hispanica, M. paranaensis,* etc.) which may cause substantial economic losses in agriculture particularly tropical regions. However, climate change is likely to influence the future distribution of these pests and their expansion through temperate regions. The project aims at increasing the knowledge on these species.

Objectives

The project objectives are:

- to provide distribution maps of the tropical RKN species in some of the European countries;
- to evaluate survival ability of two tropical species in two different European climate conditions;
- to validate biochemical and molecular methods for the detection of tropical RKN nematodes and;
- to build geographical maps of the possible open field spreading of tropical RKN species in Europe.

Key outputs and results

The project will deliver:

- Distribution of tropical RKN species at different agricultural production.
- Evaluate available molecular diagnostic methods for tropical RKN species identification.
- Validation data for isozyme phenotyping
- Knowledge on the species biology (ability of survival in open field in continental climate).
- Models on possible open field spreading for each tropical RKN species occurring in Europe.