

Soil-borne plant pathogens survival in soil



Funding

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

Research consortium

MOAG (IL), AGES (AT), AU (DK), SASA (GB)

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Goals

Knowledge on the biology and pathology of soil-borne pathogen survival in soil is expected to promote the development of innovative means to reduce the negative impact of pests. The goal of the project is to elucidate basic properties of soil-borne pathogens' survival and duration of viability in order to achieve a better control and effectively manage the diseases they cause.

Objectives

The objectives of the project are:

- to detail the characteristics and the importance of selected soil borne pathogens-crop systems at the biological, agricultural and economical level. Some of the selected pathogens are: *Fusarium* spp., *Pectobacterium atrosepticum*, *Verticillium dahliae*;
- to describe the biological and agronomic significance of a positive diagnosis;
- to quantify the survival of pests as a result of exposure to different management practices.

Key outputs and results

Some of the key deliverables of the project are:

- a database of soil-borne pathogens and their hosts for different climatic zones;
- DNA-based tools to study disease etiology;
- tools and knowledge to support pest risk analysis;
- validated management and disinfestation practices (e.g. crop rotations, soil amendments with bio-organic substances and beneficial microorganisms, fumigation, bio-fumigation and mulching, soil solarisation, etc.).