

Workshop Soil disease management 13 April 2016 15.00 – 16.45

Soil health management in intensive and non-intensive grown crops in Moderate and Mediterranean climate in presentations of André van der Wurff & Miguel de Cara Garcia

- In heated glasshouses Nematodes are often present in a mix of *M. hapla*, *M. javanica* and *M. incognita*;
- The main soil health problems are nematodes, *Verticillium*, corky root, *Pythium* and *Rhizoctonia*
- Suppression is based on competition (general) and antagonism (specific);
- Different soils show different expression of suppression;

Suppression can be explained by both physical- and biological components. For *Pythium* the soil structure, present minerals and labile carbon influence the capacity of suppression. For *Meloidogyne* also soil structure and minerals. Good soil structure and active soil life are the most important conditions.

“ We take care of the soil and the soil will grow plants” .

Soil disinfestation

Beside soil steaming and solarization, bio fumigation is an instrument. Anaerobic disinfestation show better results. In Almeria, Biodisinfection is used with large amounts of organic matter (Mustard, sheep manure, or orange juice factory wastes) followed by a solarization during approximatively 30 to 50 days.

Other measures against soil diseases are:

- Grafting;
- Hygiene;
- Water disinfestation (irrigation water);
- Good quality (certificated) seeds and plant materials.

Knowledge gaps and actions

- How can we introduce micro-organisms in the soil to improve suppression;
- Which ingredients are effective for bio disinfection (bio fumigation)

More experiments and research for stimulation actions (introduction of microorganisms) and repair (bio disinfection) in both moderate and Mediterranean climate conditions.

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