



PRACTICE ABSTRACT NR. 56

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Tagetes cultivation for biological pest control

The Agrilink project investigated the implementation of the cultivation of tagetes as a biological agent for soil disinfection in the Netherlands. Infestation of soils with the nematode *Pratylenchus Penetrans* is a severe threat to the production of fruit, strawberries, potatoes, roses and lily. The cultivation of tagetes can, in contrast to harmful pesticides, control this nematode species in a biological manner. The tagetes crop reduces the nematode population strongly, thus reducing the damage to the subsequent crops.

Research and farm advice organisations worked already in the 1990s together to investigate the best ways to apply tagetes to reduce nematode infestation and effectively disseminate the acquired knowledge among farmers and other advisors. Only when stricter policies restricted the use of pesticide for chemical soil disinfection the interest in tagetes cultivation grew. This is therefore marked as the trigger event of the innovation.

Since *Pratylenchus Penetrans* is only present on sandy soils, the focus area of the innovation tagetes are located at the sandy soils of the Netherlands where arable crop production occurs. The sectors that experienced the most severe problems with both the nematode and chemical soil disinfection are tree nursery and strawberries. These were the first ones to adopt the innovation.

ADDITIONAL INFORMATION

Farmers that implemented the tagetes cultivation into their crop rotation made a very conscious decision. Tagetes cultivation is not easy since it demands several skills and knowledge. Especially compared with the chemical soil disinfestation. Farmers in the South-east of the Netherlands are more innovative than their colleagues in the North-east. Therefore, first adaption started in the South-east.

Currently in all sectors and regions most farmers have implemented the innovation and cultivate tagetes whenever the nematode populations in the soil become too big. A good and close relationship between farmer and farm advisor is essential in order to assess tagetes and help farmers overcome difficulties during implementation. The advisor together with researchers were therefore very important source of knowledge and support in all phases of the innovation process. Study groups organised by farmers also contributed to the dissemination of information and contributed to the broad uptake of the innovation.

The success of the innovation process resulted from changing legislation in combination with timely research and a close collaboration between researchers and advisors.

[The role of advisory services in farmers' decision making for innovation uptake. Insights from case studies in The Netherlands](#)



ABOUT AGRILINK

Agrilink is a multi-actor project funded by the European Union's Horizon 2020 research and innovation programme. It brings together 16 partners from 13 countries, including universities, applied research institutes, advisors and consultants from public organisations, private SMEs, a farmer-based organisation and specialists in communication and distance learning.

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All the Practice Abstracts prepared by the Agrilink project in the EIP-AGRI common format can be found here: <https://ec.europa.eu/eip/agriculture/en/find-connect/projects/agrilink-agricultural-knowledge-linking-farmers>