PalAdapt

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Novel and improved tools for monitoring and tackling genetic selection in the potato cyst nematode *Globodera pallida* populations

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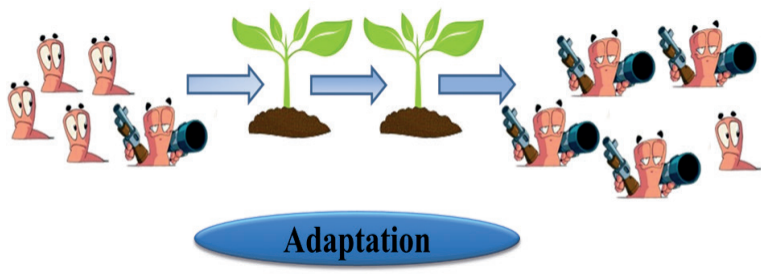
EFSA Partnering Grant Project GA08

PALADAPT represents the first step of a European battle plan against the emergence of virulent *Globodera pallida* populations and aims at improving the methods and tools for a fast identification of virulence outbreaks.

Except for laborious, costly and often moderately accurate pot experiments, there is currently no rapid and reliable method to identify virulent populations. This represents a strong limitation and prevent an accurate and durable management of infestations.

4 research questions

- Do resistance breaking populations correspond to novel introductions into Europe? Do they correspond to single or different adaptation events?
- Can miniaturized *in vitro* tests be used to get more rapidly an accurate identification of the virulence status?
- Do resistance breaking populations present a fitness cost? Is there a life history trait useful to estimate the virulence status of a population?
- Can we identify polymorphism to design molecular tools for an accurate virulence monitoring?



Activities

- Create networks focusing on the development of tools for the monitoring emergence of resistance breaking potato cyst nematode populations.
- Disseminate knowledge and provide recommendations to Potato producers, Potato-breeding companies, diagnostic companies and European and National Plant Protection Organisations (EPPO).
- Organize a workshop on rapid and reliable resistance assays and tools for monitoring virulence in *Globodera pallida*.

efsa European Food Safety Authority

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Partnering Grant Project GA08

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