EpiVectors

Epidemiosurveillance of vectors of PVY, phytoplasmas and bacteria





Abstract

Seed potatoes are susceptible to a number of diseases, which means that checks must be carried out at every stage of the propagation process. Some of these are carried by insects, which transmit the micro-organisms they carry when they eat to the plants. This is particularly the case for viral diseases, those caused by phytoplasmas and phloem bacteria.
Many aphid species are capable of transmitting virus Y, as are leafhoppers of the Typhlocibinae sub-family (results obtained in the laboratory). Bacteria of the genera *Pectobacterium* and *Dickeya*, which are responsible for rejection and downgrading, have been found on certain insects (Rossmann et al, 2018). Other pests transmitted by biting and sucking insects have recently emerged or re-emerged (*Candidatus* Phytoplasma solani (stolbur), *Candidatus* Liberibacter solanacearum (zebra chip), *Candidatus* Arsenophonus phytopathogenicus. To maintain the health of seed potato crops over the long term, it is essential to step up biovigilance and prophylactic measures against these pests and their vectors. The aim of this project is therefore to acquire knowledge about the epidemiology of the vectors of harmful organisms in order to identify ways of managing them more effectively and reducing their harmfulness.

Actions

Action 1 : methodologies for detecting harmful organisms and identifying insects

Action 2 : acquisition of epidemiological data (wildlife inventories, disease prevalence, research into reservoirs and secondary hosts)

TECHNICAL MEMO

Project leader :

Project duration : 36 months

Start/End of project :

01/01/2025 – 31/12/2027

Partners :

- The 3 regional seed potatoes growers organisations : Bretagne Plants (BP), Comité Centre et Sud (CCS), Comité Nord (CN)

Providers :

- Fredon Hauts-de-France
- Chambre d'Agriculture des Hauts de France

Financial support :

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