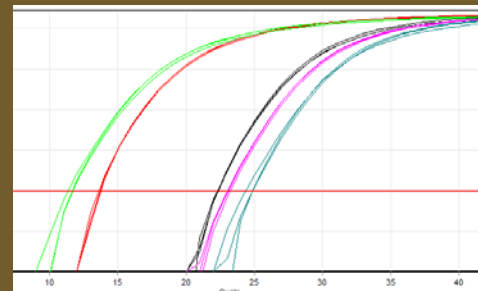
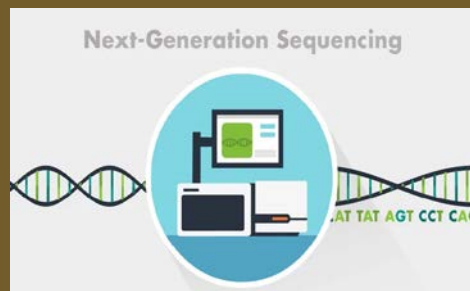


Development of detection methods for viruses on potato (PVT, APMoV, APLV and APMMV) and test performance study



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 99 950

Research consortium

SASA (GB), AGES (AT), CFIA (CA), ANSES (FR), JKI (DE), (NL), CIP (PE), APHIS (US)

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Objectives

- Evaluate NGS methods for the detection of potato viruses and RT-PCR assays for confirmation of NGS results.
- Existing diagnostic protocols for detection and identification of APLV/APMMV will be evaluated in test performance studies. For PVT and APMoV, molecular detection methods will be developed.
- Identification of new potato infecting viruses.
- Improved characterisation of potato viruses in current collections.

Goals

Numerous diseases affect potato production negatively, therefore quarantine regulations are in place to prevent introduction of quarantine pests and diseases into areas where these pathogens are currently not present. Import controls and NPPOs need reliable, quick and sensitive detection methods to prevent the introduction of these pathogens. *Potato virus T* (PVT), *Andean potato mottle virus* (APMoV) and *Andean potato latent virus/Andean potato mild mottle virus* (APLV/APMMV) are quarantine viruses listed by EPPO. For APLV/APMMV, RT-PCR tests have been developed recently for detection and identification. Detection methods will be developed/validated during this project.

Next generation sequencing (NGS) offers the potential to detect all viruses, both known and currently unknown in a single assay, thus reducing the costs of quarantine testing and the risk of not detecting a virus. NGS however requires to be validated and costs reduced before it can enter mainstream use.