



COST Action no. FA1104

Identification of viruses infecting cherry and sour cherry in the Czech Republic

Objectives

- To identify viruses infecting cherry and sour cherry in the Czech Republic

Methods

- Collection of samples from wild and cultivated symptomatic cherry and sour cherry trees and germplasm collection
- Transmission of viruses by mechanical inoculation to herbaceous hosts
- PCR detection of cherry infecting viruses ApMV, PNRSV, PPV, PDV, ASGV, ASPV, ACLSV 1, ACLSV 2, LChV1, LChV 2, CMLV, CVA, ArMV, CLRV, SLRSV, ToRSV, CGRMV, CRLV, APLPV, CNRMV and universal primers for como-, clostero-, potex-, and potyviruses.
- Optimization of isolation of nucleic acids for Next Generation Sequencing

Results

- Symptomatic leaf samples of cherry, sour cherry and wild cherries were collected at 10 locations in the Czech Republic. In total 134 samples were collected.
- PNRSV and CVA were successfully transmitted by mechanical inoculation onto differential herbaceous hosts *Chenopodium quinoa* and *Nicotiana occidentalis* 37B, respectively.
- PDV, PNRSV, CVA, LChV1, LChV2 and CGRMV were detected by PT-PCR in cultivated sweet cherry trees and partial sequences obtained. LChV2 and CGRMV were firstly detected in the Czech Republic.

Food and Agriculture (FA)

Authors

Josef Špak
Jaroslava Příbylová
Jana Fránová
Ondřej Lenz

Contact details

Biology Centre of the Czech
Academy of Sciences
Institute of Plant Molecular Biology
Branišovská 31
37005 České Budějovice
Czech Republic
spak@umbr.cas.cz

Website

<https://www.umbr.cas.cz>

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Cherry tree Lambert SE 5053 with symptoms of multiple virus infection.



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