Poster n. 49

PLANT VIRUSES ARE GROWING IN THE EUROPEAN VIRUS ARCHIVE NETWORK

GIAN PAOLO ACCOTTO[1], THIERRY CANDRESSE[2], MATTHIEU CHABANNES[3], MARINA CIUFFO[1],CECILE DESBIEZ[4], PASCAL GENTIT[5], MIROSLAV GLASA[6], MARIE-LINE ISKRA-CARUANA[7,8], WILHELM JELKMANN[9], ARMELLE MARAIS[2], WULF MENZEL[10], JULIA MULABISANA[11], ANNETTE NIEHL[12], CHRISTINE PRAT[13], LUKAS PREDAJNA[8], KATJA R. RICHERT-PÖGGELER[12], JEAN-LOUIS ROMETTE[13], LUISA RUBINO[14], CICA URBINO[7,8], ERIC VERDIN[4], HEIKO ZIEBELL[12] and KERSTIN ZIKELI[9]

[1]CNR, Institute for Sustainable Plant Protection, 10135 Torino, Italy; [2]UMR 1332 BFP, University of Bordeaux, INRAE, France; [3]CIRAD, UMR AGAP Institut, F-34398 Montpellier, France; [4]Unité de Pathologie Végétale, INRAE, F84143 Montfavet, France; [5]ANSES – Plant health laboratory – Unit BVO, 49044 Angers, France; [6]Biomedical Research Centre, Slovak Academy of Sciences, Institute of Virology, Bratislava, Slovakia; [7]CIRAD, UMR PHIM, F-34398 Montpellier, France; [8]PHIM Plant Health Institute, University of Montpellier, CIRAD, INRAE, Institut Agro, IRD, Montpellier, France; [9]JKI, Institute for Plant Protection in Fruit Crops and Viticulture, Dossenheim, Germany; [10]Leibniz-Institute DSMZ - German Collection of Microorganisms and Cell Cultures, Germany; [11]Agricultural Research Council, South Africa; [12]Julius Kühn-Institut (JKI), Institute for Epidemiology and Pathogen Diagnostics, Braunschweig, Germany; [13]Unité des Virus Emergents (UVE), Aix-Marseille University-IRD 190-INSERM 1207-IRBA, IHU Infection, Marseille, France; [14]CNR, Institute for Sustainable Plant Protection, 70126 Bari, Italy

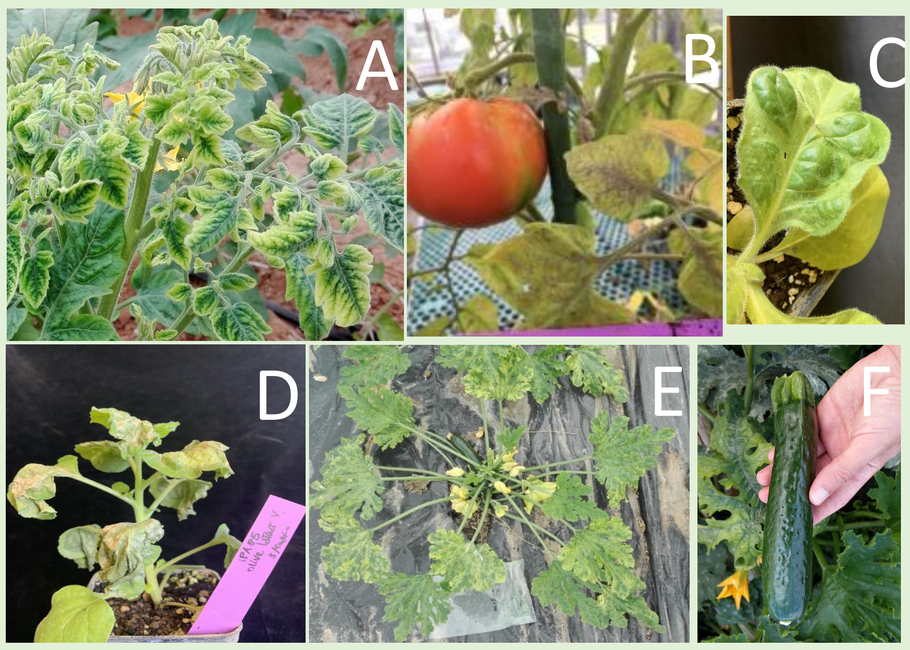
The current virus pandemic has brought to the general attention the need of sharing resources for the development of antiviral strategies. In this framework, key players are collections of biological resources and derived products, which can provide different laboratories and Institutions with virological material of utmost importance.

The European virus Archive - Global (EVA-GLOBAL; https://www.european-virus-archive.com/) is a non-profit organisation including a global network with expertise in virology, consisting of >40 partner laboratories both based at EU member state and non-EU institutions (Romette et al., *Antiviral Res* 2018;158:127–134; Coutard et al., *Biopreserv Biobank* 2020;18:561-569). The aim of the project is to collect, amplify, characterize, standardize, authenticate, and distribute viruses and derived products.

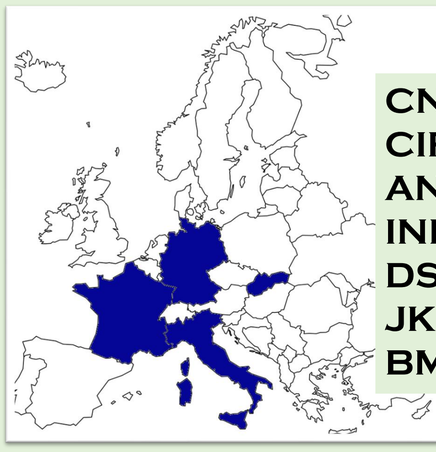
collect | **authenticate** | **standardize** | **amplify** | **distribute** | **track**

The main strengths of the network rely on the synergic collaboration between laboratories, the quality of the offer in terms of viruses and derived products, the availability of diagnostic material and protocols.

Plant viruses represents a serious threat to worldwide agricultural production and a potential problem to meet the food request of the growing world population. Several plant virus diseases are epidemic in Euro-Mediterranean countries on vegetables, fruit trees and ornamentals, while others (i.e. Tomato brown rugose fruit virus or Tomato leaf curl New Delhi virus), currently are emerging and cause devastating damages to horticultural crops.



Symptoms of (A) tomato yellow leaf curl virus; (B) tomato brown rugose fruit virus; (C) cumber mosaic virus; (D) olive latent virus, (E, F) tomato leaf curl New Delhi virus.



Country distribution of plant virology institutions taking part to EVA-GLOBAL

Starting in 2020, plant viruses have been included in EVA-GLOBAL catalogue. Since then, the number of available plant virus isolates and derived products is constantly increasing, reaching **285 isolates and 36 derived products** in Sept. 2022.

Quality is essential for the success of EVA-GLOBAL and the preservation of virus biodiversity

Vials containing freeze dried leaf tissue, ready for distribution.

Quality standards are being envisaged and adapted to plant viruses, in order to maintain the high profile of the EVA-GLOBAL products. This will support the advancement of knowledge in plant virology.

Access to the EVA-GLOBAL resources is provided against payment of the production cost and the shipment cost, or, under certain conditions, can be free of charge (Trans National Access).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871029

International Advances in Plant Virology 2022
Ljubljana, Slovenia, 5th-7th October 2022