



VIRTIGATION – Emerging viral diseases in tomatoes and cucurbits: Implementation of mitigation strategies for durable disease management

Deliverable 2.4 Genome Detective Platform adaptations for plant viruses

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PUBLISHABLE SUMMARY

Within the Virtigation project, dedicated to combating viral diseases in tomato and cucurbits, Genome Detective Platform is being used as a web-based software application to assemble the genomes of viruses quickly and accurately from next generation sequencing data. Two important changes were made to the Genome Detective Platform to accommodate the collection and analysis of plant virus samples, including metagenomic viral sequences and epidemiological metadata annotations, for the analysis of plant virus outbreaks. Firstly, it is now possible to store, manage, import, export and explore metadata based on the descriptor list created in Deliverable 2.1. The metadata is linked to a sample, and can be entered via a web interface, or via Excel upload. Secondly, the bio-informatics analysis for full-length viral nanopore sequencing (ONT) Rolling Circle Amplification wet lab protocol developed in T2.2 is supported in the analysis pipelines.