

# "Agriculture and Rural/Natural Land Uses"

Mediterranean Regional Information Network (MedRIN), 20<sup>th</sup> March 2019

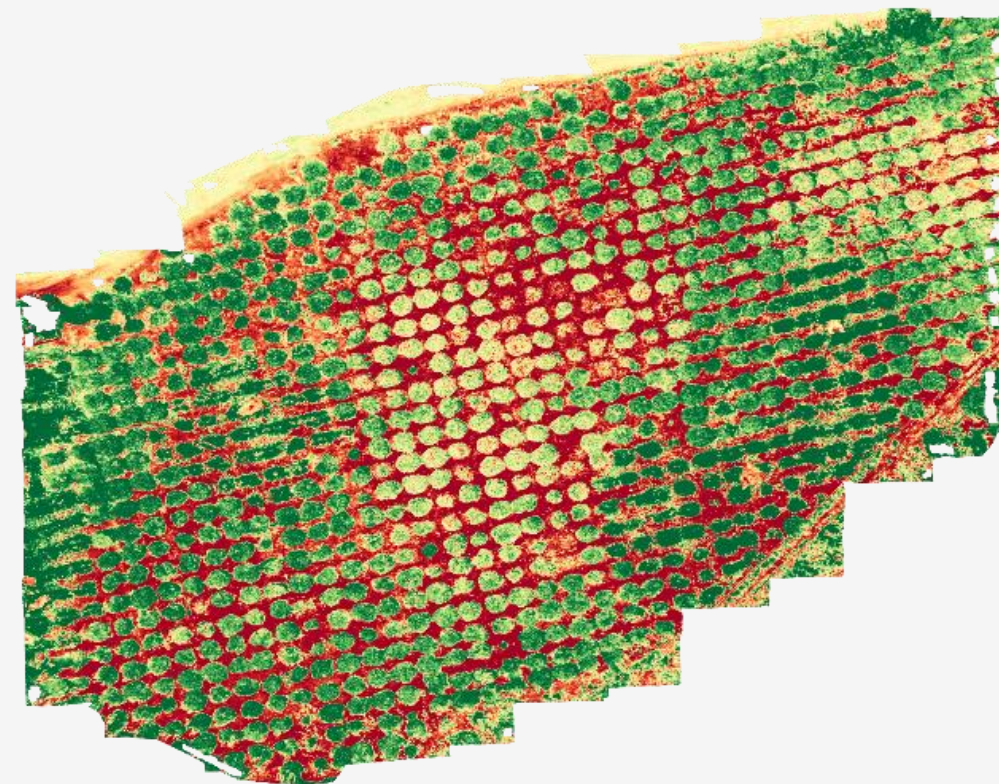
Chariton Kalaitzidis

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# Disease Detection

## Citrus Tristeza Virus

The Citrus Tristeza Virus (CTV) has been identified in the area of Chania and since it is a quarantine virus. The authorities are following the protocol related to these situations but we have offered to monitor suspicious areas through remote sensing, in order to help the selection of trees to be sampled.



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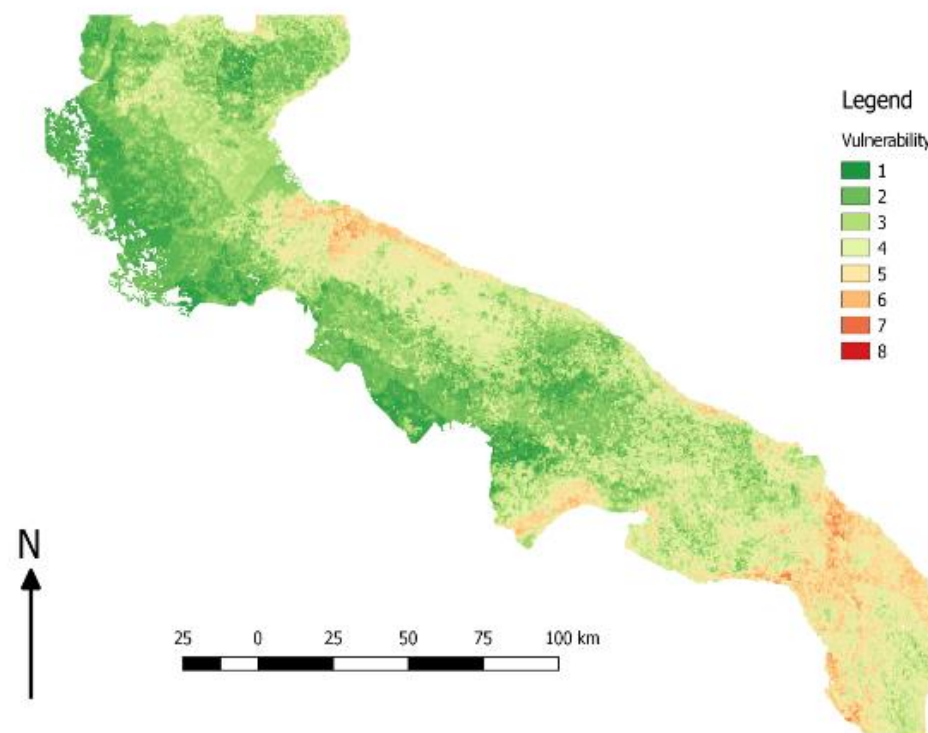
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# Disease Detection

## Xyllela fastiosa

The *Xyllela fastiosa* bacteria has infected the Puglia region, SE of Italy and is severely affecting olive production. The Xf-Actors H2020 project is attempting to learn more about the infectivity and progression of the bacteria and model the process, evaluate varieties resistant to the bacteria and improve early detection capabilities by integrating remote sensing methods with in situ measurements.

Vulnerability Map for Puglia region



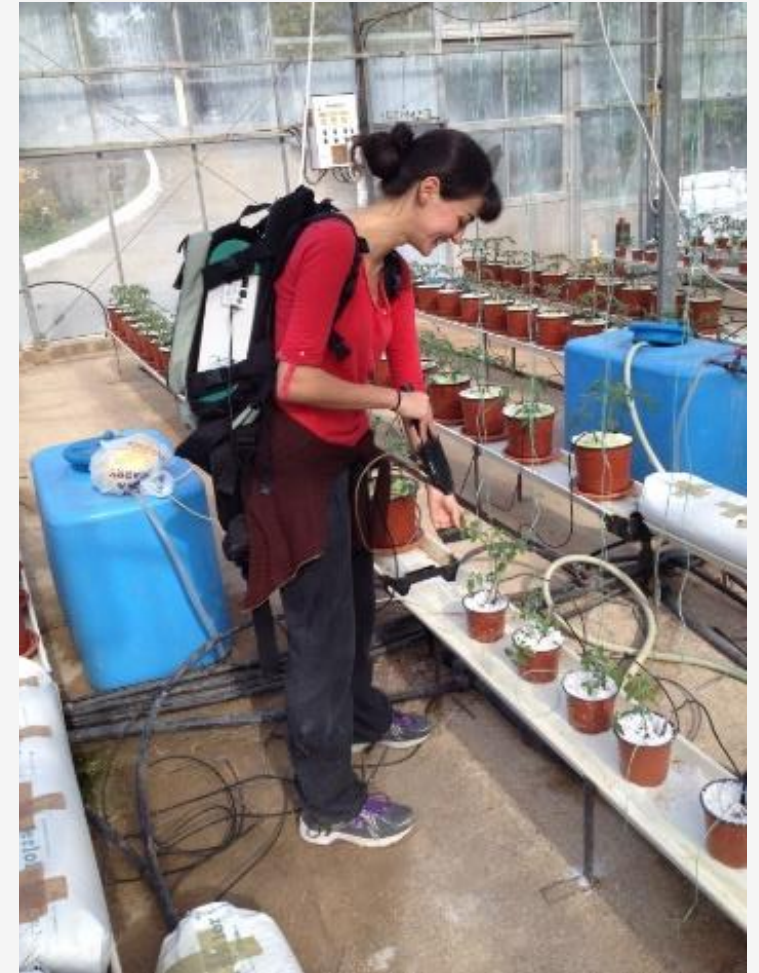
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# Monitoring Stress Effects

## Greenhouse plants

Through the use of a spectroradiometer, spectral signatures of plants grown in greenhouses and receiving various treatments inducing stress are being tested. So far there have been experiments on tomato, beans and young olive trees, exposed to water deficit, high salinity and nutrient deficiency.



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# Forest Fires

## Fire Lab

A fire lab equipped with a wind tunnel has been established through EU funded projects, which allows for monitoring of fire progression experiments.



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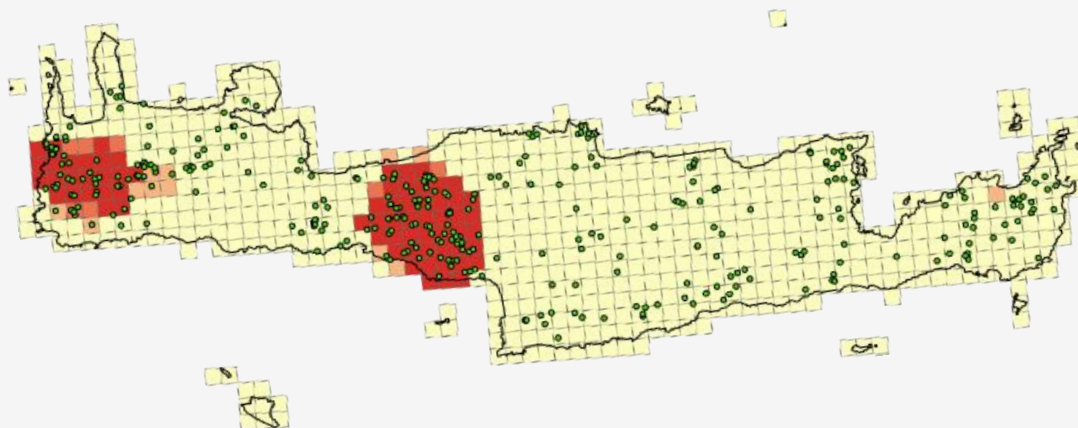


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# Forest Fires

## Trends on Fire outbreak patterns

Historical satellite data were used to map the fires that have occurred over the last 30 years on Crete. The spatial distribution of those fires as well as their relation to environmental, topographic and land covers affected are being evaluated to identify patterns and their evolution over time.



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# Education

## MSc Geoinformation in Environmental Management

One of the five MSc programs offered by MAICh concerns the use of geoinformation technologies for the monitoring and managing the environment. The program consists of courses focusing on the interrogation of remotely sensed data and the extraction of information for a range of applications, during the first year, followed by a thesis undertaken during the second year of the program. The program is financially supported by the Greek State, offering registration fee waiver, free accommodation and coverage of basic living expenses for the attending students.

## Summer schools

MAICh is also routinely organizing self-funded summer schools on a range of topics concerning rural development and agriculture.

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# Thank you

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