

DigiAgriApp, using the free and open source application to monitor agricultural fields in viticulture

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DigiAgriApp

DigiAgriApp is a *Free and Open Source Software* solution aimed at farmers and anyone with cultivated land.

DigiAgriApp is able to save the *operations, observations, measurements, treatments, irrigations, harvests, etc.* carried out in the field and all the data from different devices (mobile phones, weather stations, remotes such as drones or satellites) in a capillary manner, from the *field to the individual plant*.

DigiAgriApp is composed by a *RESTful API server*, as interface to the *database*, a *multi-platform client* able to be run in most of the operative systems, a *QGIS plugin* to manage the geo-data, a *web admin panel* to manage all the data more deeply.

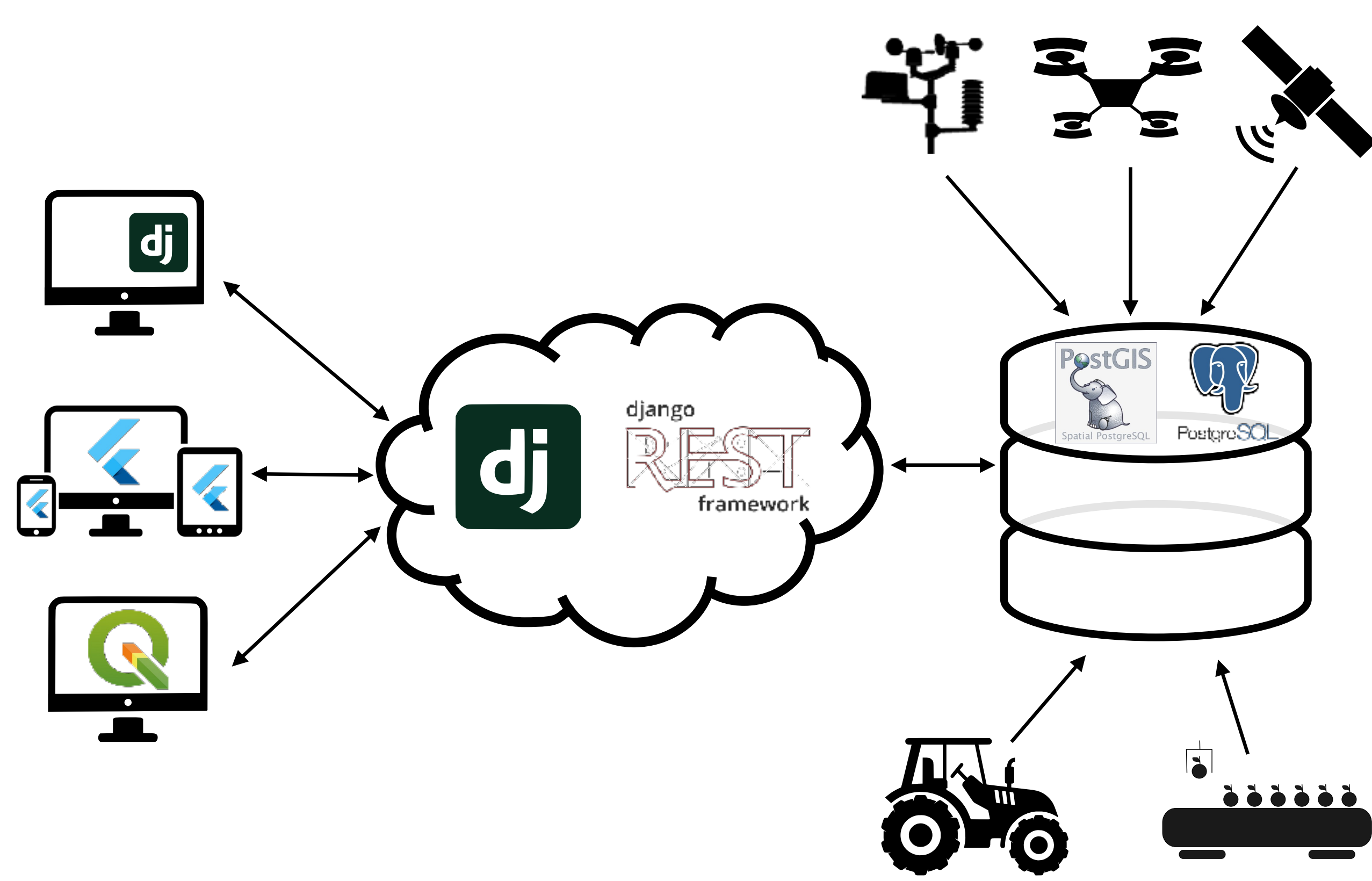


Fig 1. The structure of DigiAgriApp suite

FD-shield

The main objective of the project is to **develop and implement innovative solutions for managing Flavescence dorée in vineyards**.

- *monitor and analyze the spread of the disease* in the region, in order to promptly identify at-risk areas and develop predictive models;
- *test new biological and chemical control techniques*, evaluating their effectiveness and environmental impact;
- *conduct in-depth studies of the dynamics of interaction between the pathogen and host plants*, as well as the role of insect vectors in the infection process.

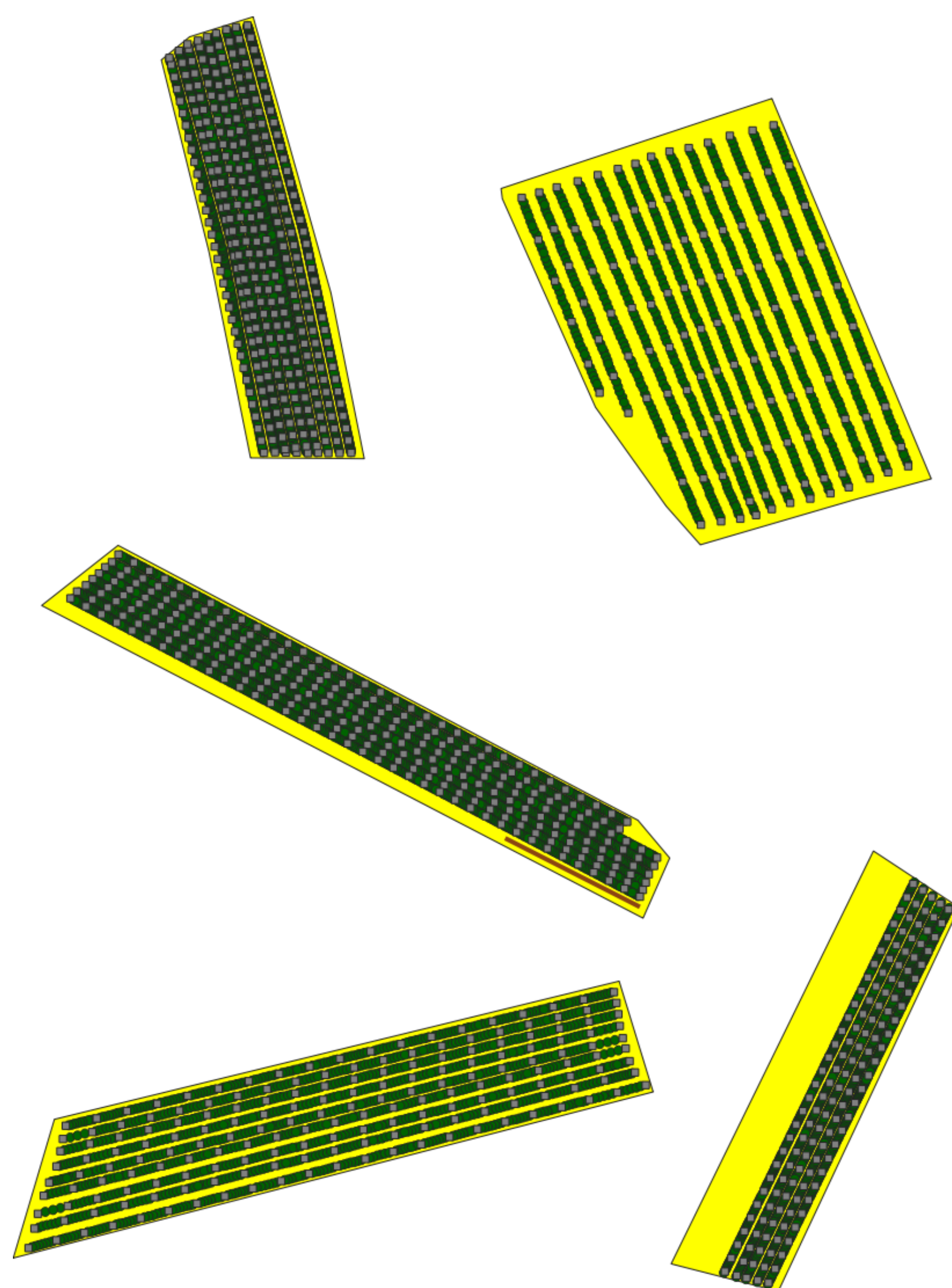


Fig 2. The five monitored fields in the project

Useful info:

- **5** farms and fields
- **1.9 ha** mapped
- **7632** plants
- **4** users

First results

DigiAgriApp was useful to *collect detailed data* of the diseased plants

Collected data:

- **60 observations** (52 in 2025, already 8 in 2026) related to **135 symptomatic plants**
- **5 plant images** (2026 new feature)

2026 news:

- new feature to collected plants images
- use of existing **AI model to detect Scaphoideus titanus** on yellow sticky traps



Fig 3. Symptomatic plants in a field

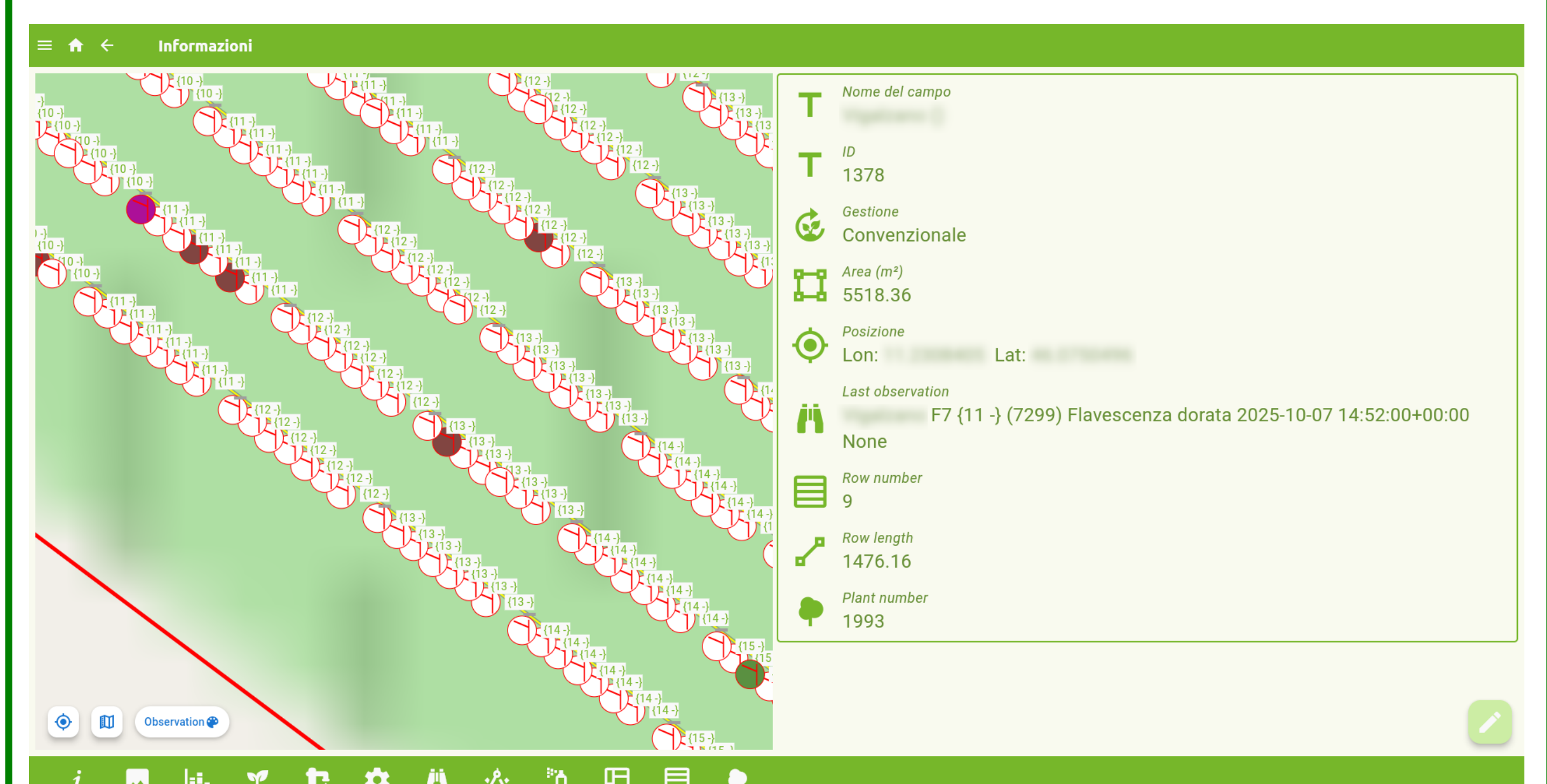


Fig 4. Plant visualization according to observations in DigiAgriApp app



<https://digiagriapp.gitlab.io/digiagriapp-website/>
<https://gitlab.com/digiagriapp/>



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