



## OUR CROP INTELLIGENCE GROWS

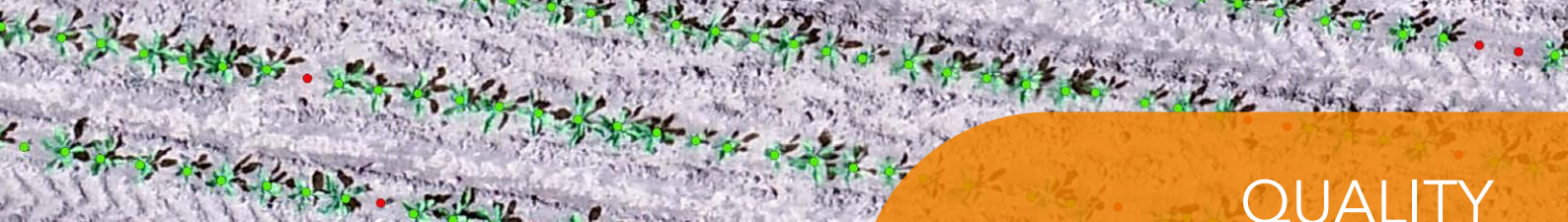
### SERVICES

- Organizing and execution of drone flights
- Benchmarking crop production and soil moisture at plant level
- Detection of anomaly spots and alerting stakeholders
- Provision of maps with variable rate application tasks
- Crop yield factor analysis
- Soil surveying and mapping

### OUR CROP INTELLIGENCE GROWS

Spectral measurements from drones provide spatial information at the level of individual plant leaves. This information reflects the actual growing conditions and health of crops. By comparing pixel values against their reference values, growers and breeders visualize spots with possible problems that require actions. Task maps on variable rate planting and spraying fertilizers, agro-chemicals and water are created for appropriate handling.





# QUALITY AREAL MAPPING



## Agricultural challenges

The agricultural sector is challenged by producing more food, while land and water resources are not sufficiently available. It is known that the production variability within and between fields is significant. This shows scope and opportunities to increase harvestable yield and net income, if proper actions are taken. Field and crop conditions cannot longer be observed from the farmers' eyes walking around; instead flying sensors are needed to survey crop and soil health of large fields on a regular basis.

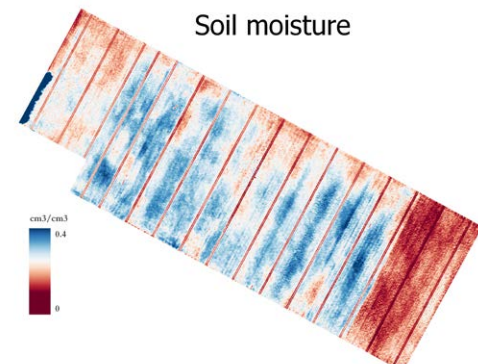
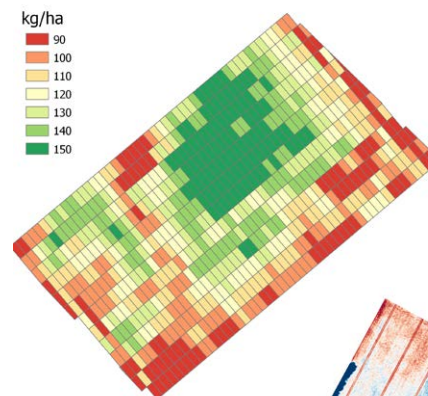
## Quality aerial mapping using drones

Drone flights under cloudfree and clouded conditions will timely detect problems with crop and soil health. The information gathering process should be proceeded by timely actions to stop stunted crop development. Soil with more organic matter or higher plant density will require more fertilizers than spots that are less physically favourable for crop production. Locations with a higher water holding capacity can be irrigated with more water. Precise drone measurements will steer the variable rate applications, reduce operational costs and saves the environment.

## Aurea factor analysis

The Aurea factor analysis of crop yield will reveal the local constraints to production. Historic information on soil properties, terrain elevation and crop yield information help to evaluate agronomic decisions on for instance variable planting, selection of specific varieties among others. Just to prevent the same mistake is being repeated. In addition, factor analysis may yield to longer term strategic investments in land levelling, ripping of soils, drainage maintenance, investing in drip irrigation systems, etc.

## Variable rate application



# NL-FSA

The NL-Food Security Alliance (NL-FSA) is a network of mainly Dutch companies and institutions developing exclusive and sustainable solutions in the agri-water-food-business.

NL-FSA is a Royal Eijkkelkamp initiative



Contact: [f.eijkkelkamp@eijkkelkamp.com](mailto:f.eijkkelkamp@eijkkelkamp.com)



## CONTACT:

Aurea Imaging  
Bert Rijk

T +31 6 53 39 80 66  
E [bert@areaimaging.com](mailto:bert@areaimaging.com)  
I [www.areaimaging.com](http://www.areaimaging.com)