



Bay Zoltán  
Research Centre



BAY AGRI / BIOTECHNOLOGY DIVISION

# Our solutions for farmers

Assessment and monitoring of field  
and plant conditions and identification of areas  
in need of precision management.

## WHY WORK WITH US?

### Our unique solutions

Our knowledge and experience in plant biology and agro-informatics allow us to provide a tailor-made solution to the problem at hand. We know that no two fields are the same, and no two farmers have the same needs, so we always respond to our partners' precise requirements with our services.

### Skilled professionals

In addition to long-term experience in soil and plant sampling and condition assessment using drone and satellite data, our team members have up-to-date expertise in a range of fields, including plant biology, agro-informatics, microbiology and analytical chemistry.

### Extensive experience

In recent years, our team has provided services to our partners in the agriculture, horticulture, plantation and forestry sectors for the specific improvement of yields of various crops.

### Modern technical background

Our team has its own fleet of drones, as well as advanced geospatial, microbiological and analytical laboratories, which allow rapid and accurate analysis of field samples and remote sensing data.

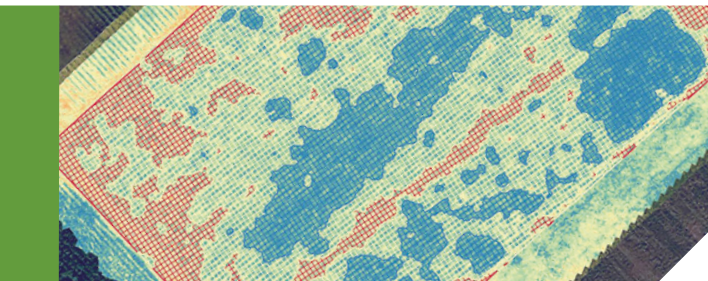
## IF YOU ARE LOOKING FOR ANSWERS TO THE FOLLOWING QUESTIONS:

- How can I reduce my production costs using drone or satellite data?
- How can I increase my yields using drone or satellite data?
- How can I find out which parts of my fields are producing less than expected?
- How can I irrigate more efficiently?
- How much yield can I expect from my fields?
- Where and what kind of intervention should I apply?
- How can I get information on the spatial extent of damage events such as wildfires, droughts, inland excess water?

## OUR OBJECTIVES

The aim of our services is to provide our partners with accurate information and monitoring of the condition of the fields and the crops grown on them. We help our partners to increase production efficiency, reduce potential damage and thereby gain a competitive advantage in the agricultural market.

- We use geographic information systems technology to pinpoint areas in need of precision management (e.g. nutrients, pesticides or herbicides).
- We use leaf-level analysis to determine the location of crops affected by potential diseases.
- We provide a long-term perspective: the condition of the plants provide our partners with precise feedback on the effectiveness of different cultivation techniques, nutrient mixtures, growth stimulants, thus allowing the selection and development of optimal cultivation techniques.



## THE COOPERATION PROCESS

### I. PREPARATIONS

Together with the farmer, we will identify the needs and then provide a concrete, tailor-made solution proposal and offer, including the precise technical content and timing of the cooperation, covering the following areas of application:

- weed assessment;
- plant count;
- zonation;
- plant health assessment (NPK, content and molecular biological analyses);
- plant health monitoring;
- plant cover and plant height assessment;
- nutrient distribution map;
- testing of the effectiveness of plant growth stimulants;
- creation a time series database.

### II. FIELD WORK

This includes the collection of soil and plant samples and mapping of the area of interest using multispectral and thermal imaging drones and/or satellite data. Depending on the requirements, sampling and data collection can be carried out multiple times in order to monitor plant development and to evaluate the result of precision management.

### III. EVALUATION AND DELIVERY OF RESULTS

After field sampling and measurement data analysis, results and conclusions will be presented, including through an online map interface. Subsequently, we will propose the most effective precision treatments, cultivation techniques and follow-up steps.

#### LET'S WORK TOGETHER!

FOR PERSONAL CONSULTATION CONTACT US WITH ANY QUESTIONS YOU MAY HAVE:

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