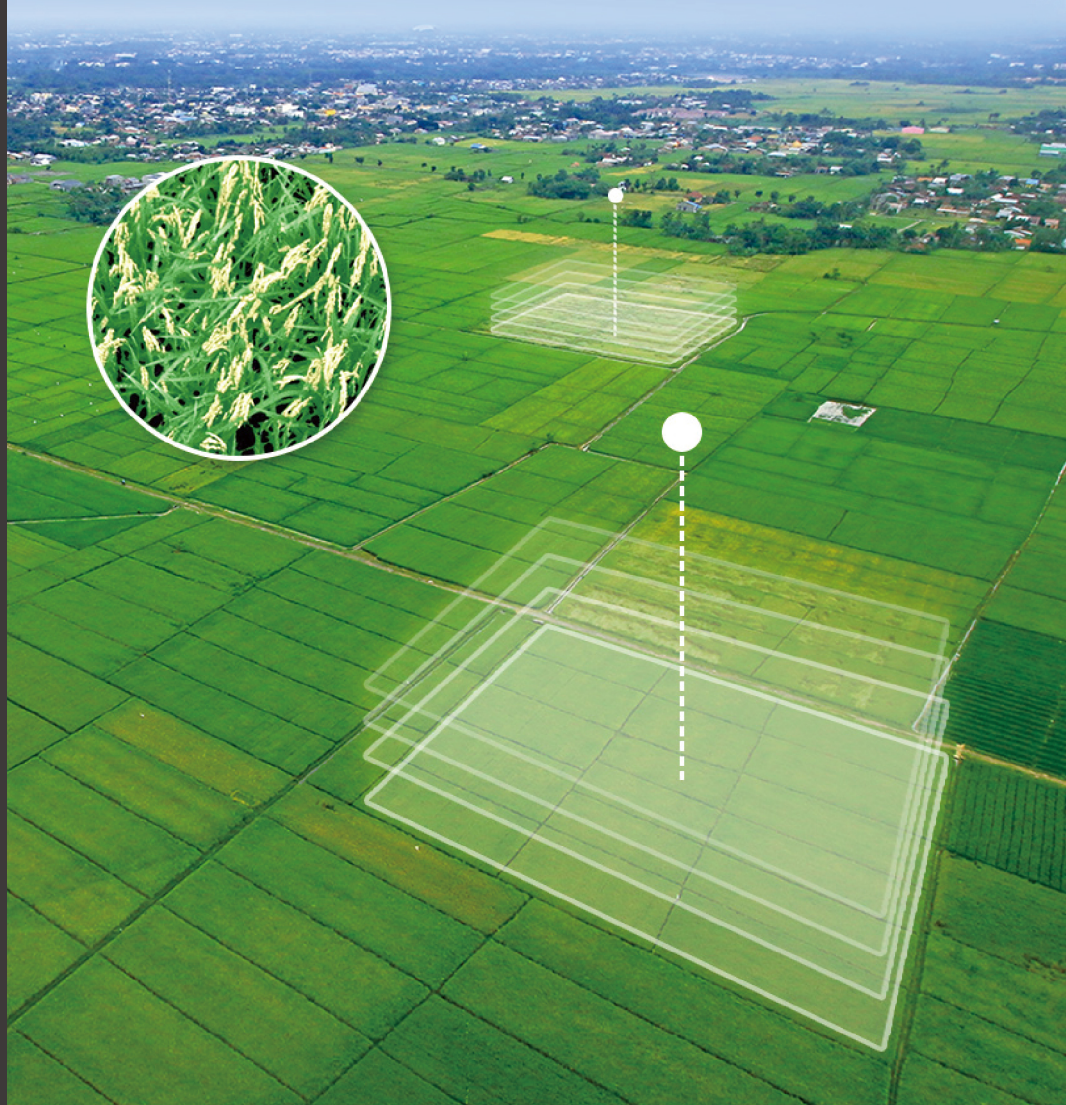# Agri Assist Service

One stop support for smart agriculture

Established a cultivation system for grains, vegetables, and fruits

We analyze and simulate the growth conditions of fields and crops, and support the establishment of cultivation systems and growth management according to variety, region, and soil quality.

Growth analysis/disease detection

Growth can be visualized on a field map

Growth analysis results can be aggregated on Nile Bank, a cultivation support platform. Visualize what s in the field and where it is.

Nile Bank

Nileworks

Agri Assist Service

Grains, vegetables, fruit trees

One stop support for smart agriculture

Field analysis/maintenance assist

Averageness analysis : Analysis of levelness and elevation differences using drones for ideal field preparation
Soil analysis : Soil information management, fertilization design assistance

Growth analysis/cultivation assist

Growth analysis : Analyzing growth variations with drones, NDVI*
Disease detection : Disease detection using multispectral cameras

Drone sensing/consulting

Drone sensing : Providing know-how on sensing methods according to purpose
Growth analysis/ : Compatible with various analysis AI development
disease detection AI

*NDVI (Normalized Difference Vegetation Index)

Disease detection example

Detecting signs of disease in grapes

Detect signs of disease and abnormalities from images using Nileworks' multi-spectral camera photography

Disease

Grey mold

Healthy
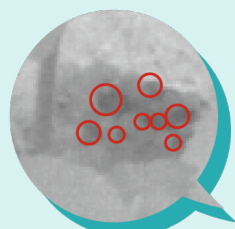
Analysis of direct-seeded paddy rice effectiveness

Determine the amount of sowing required for the target number of seedlings (plants/㎡) and establish with sowing by drone

Sowing plan/ execution		Images/ Evaluation		Improved seeding methods
Generate flight paths and seed	➤	Pictures immediately after sowing and create sowing map	➤	Optimize sowing based on analysis results

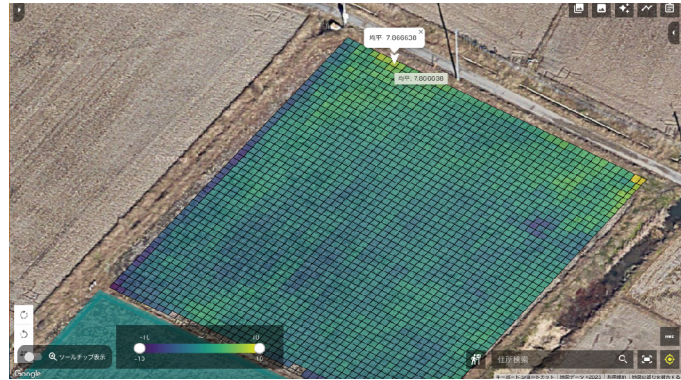| 1.Uniformity	2.Sowing	Germination	Growth	3.Seedlings	Division	Heading	Maturation	Harvest

(Seeds/㎡) ⟷ (Seedlings/㎡) ⟷ （kg / ㎡）

01 Ground levelness and Uniformity

Analyzing the ground's evenness/uniformity for planting optimisation.
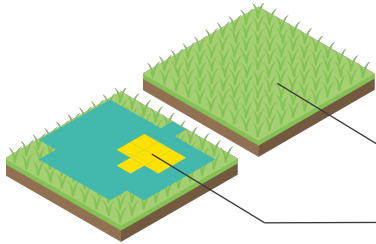
No leveling required

Needs leveling

02 Sowing count

Count the number of seeds using image recognition and quantify seeding irregularities.

Capture images of dispersed seeds in the field.

Detect and count seeds using image recognition
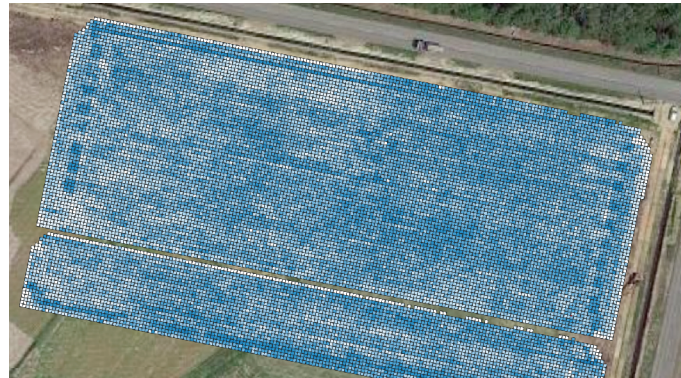

03 Seedling Emergence Count

Count the number of seedlings using image recognition.
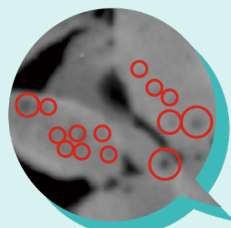
Capture images of seedlings in the field

Detect and count seedlings using image recognition.

Detection of lesions on potatoes

Early detection of small lesions that cannot be seen with the human eye using image recognition

Lesions

We can develop and provide disease counseling methods and detection software for various grains, vegetables, and fruit trees according to your requests.

Agri-assist service flow

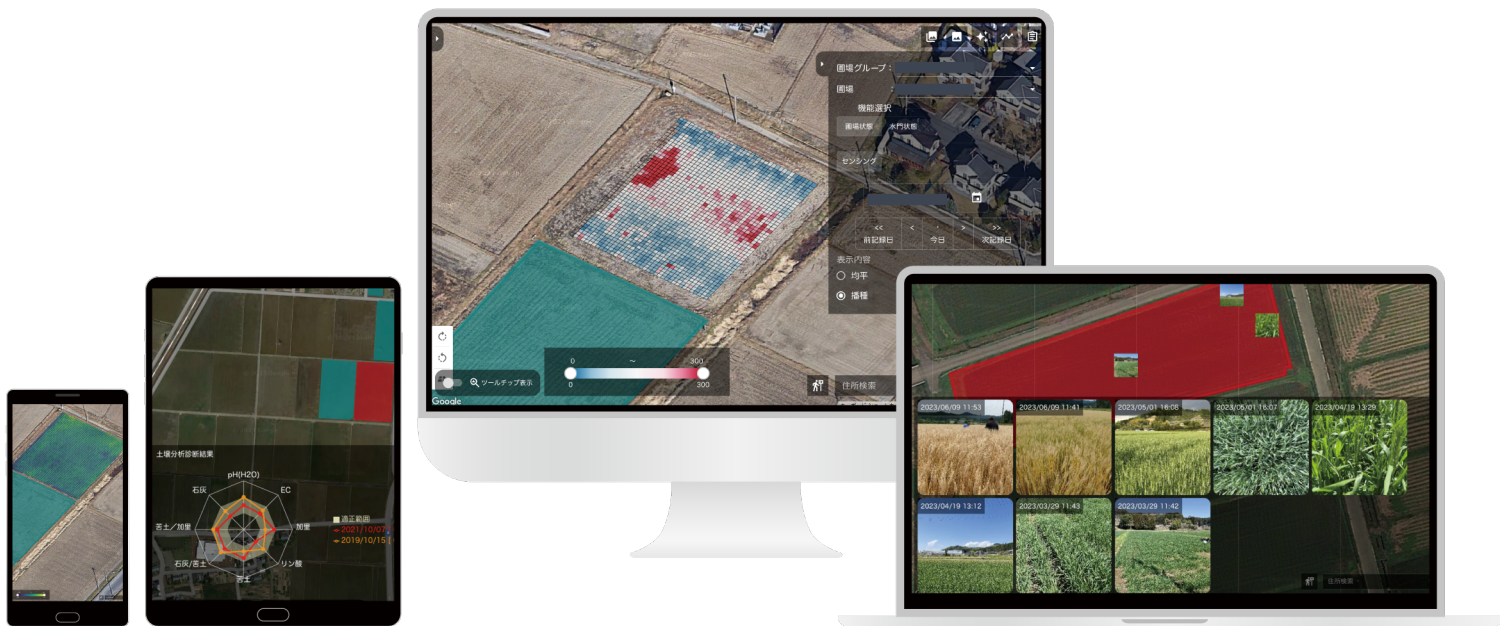| Preparation	Set up	Flight	Analysis	Evaluation
Consulting Benchmark introduction	Measurement Flight plan creation	Drone imaging service Image acquisition	Analysis AI development	Create evaluation report

Analysis results can be aggregated on the Nile Bank cultivation platform

Nileworks Inc.

🌐 https://www.nileworks.co.jp/en

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