



Presentation title

Presenter name/last name

Presenter job title

Agenda

1. Welcome
2. Introducing Pix4D
 - a. Few words about the presenter
 - b. Corporate
 - c. Products
3. Getting started
 - a. Drones in agriculture
 - b. Cameras in agriculture
4. Introducing Pix4Dfields
 - a. Pix4Dfields workflow
 - b. Inputs
 - c. Outputs
 - d. Agriculture workflows
5. Pix4Dfields tools and features
6. Pix4Dfields use cases
7. Demo
8. Q&A

A landscape of rolling green hills under a blue sky, with three trees on the horizon.

Introducing Pix4D

Speaker Notes:

Name

Job title

- Couple of words about me

Offices



160+ global employees
23 nationalities
26 business languages spoken



SAN FRANCISCO
U.S.A.



MADRID
SPAIN



LAUSANNE
SWITZERLAND



BERLIN
GERMANY



SHANGHAI
CHINA

Pix4D products: agriculture



Pix4D**mapper**



Pix4D**capture**



Pix4D**model**



Pix4D**bim**



Pix4D**fields**



Pix4D**engine**

Getting started

Drones in agriculture



Fixed Wing

- Longer Flight Time
- Large project areas
- Nadir camera orientation
- Longer take off and landing zone



Multi-rotor

- Shorter flight time
- Small project areas
- Nadir and oblique camera orientation
- Vertical takeoff and landing



Cameras in agriculture: multispectral



MicaSense RedEdge-M



Parrot Sequoia+

Cameras in agriculture: RGB



senseFly S.O.D.A



DJI Phantom 4 PRO

Cameras in agriculture: thermal and modified



MicaSense Altum



MAPIR cameras

The image shows a field of crops, likely corn and wheat, with a teal overlay. The text "Introducing Pix4Dfields" is centered in the image.

Introducing Pix4Dfields

Pix4D products: agriculture



Pix4D**fields**

Aerial crop analysis
for digital farming

The three pillars behind Pix4Dfields



Accurate



Instant



Intuitive

Pix4Dfields workflow - capture



Capture



Process



Scout



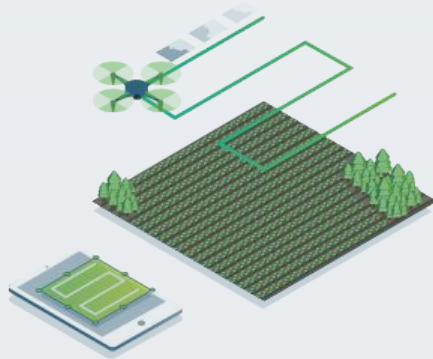
Analyze



Share



Integrate



Capture

Collect images with any standard RGB or a selected multispectral camera like Parrot Sequoia+ and MicaSense RedEdge.

Use our Pix4Dcapture app to easily plan and control your drone flight.

Pix4Dfields workflow - process



Capture



Process



Scout



Analyze



Share



Integrate



Process

Process imagery with the new instant processing engine and get your maps directly in the field: 4.1 GB, 1800 images, 1.5 min (MacBook Pro 2018).

Pix4Dfields workflow - scout



Capture



Process



Scout



Analyze



Share



Integrate



Scout

Generate orthomosaics, digital surface models, index maps, zones and prescription maps.

Trim your fields to a desired field boundary to create more targeted outputs.

Pix4Dfields workflow - analyze



Capture



Process



Scout



Analyze



Share



Integrate



Analyze

Visualize and understand your crop stages and stress levels.

Compare different layers of information for a full insight into your crop performance.

Pix4Dfields workflow - share



Capture



Process



Scout



Analyze



Share



Integrate



Share

Share your maps with all project stakeholders for seamless collaboration.

Pix4Dfields workflow - integrate



Capture



Process



Scout



Analyze



Share



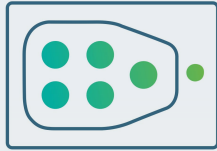
Integrate



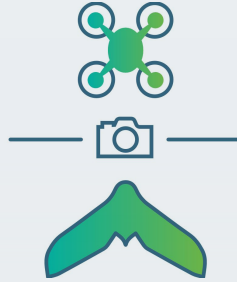
Integrate

Download all outputs and import into the Farming Management Platform of your choice in various industry standard formats.

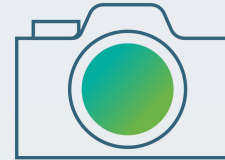
Pix4Dfields inputs



Multispectral images



RGB cameras,
drone images



Modified cameras

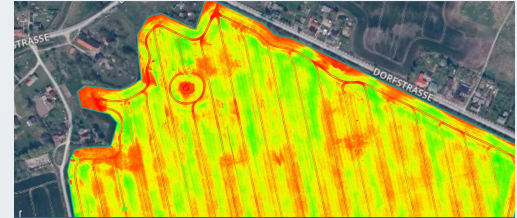
Pix4Dfields outputs



Orthomosaic



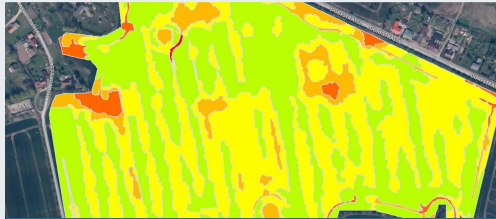
Field boundaries



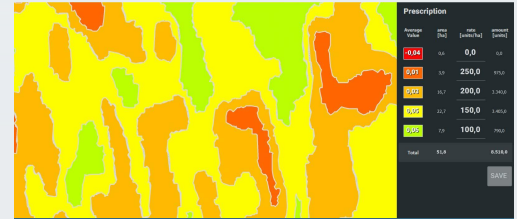
Vegetation index map



Digital surface model

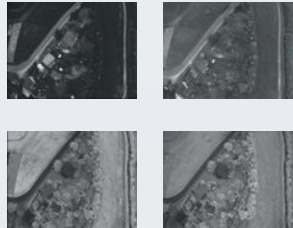


Zonation map

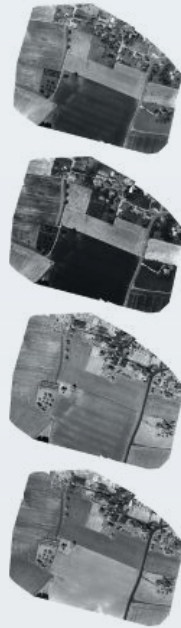
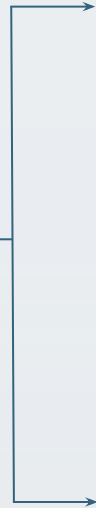


Prescription map

Multispectral workflow



Multispectral images



> Green

> Red

> Red-edge

> Near Infrared

Reflectance maps

Index formula



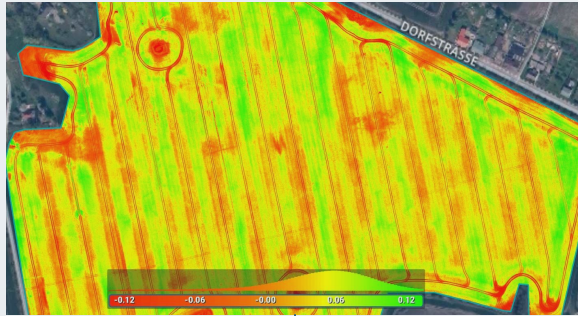
Orthomosaics
(or false- RGB orthomosaics)



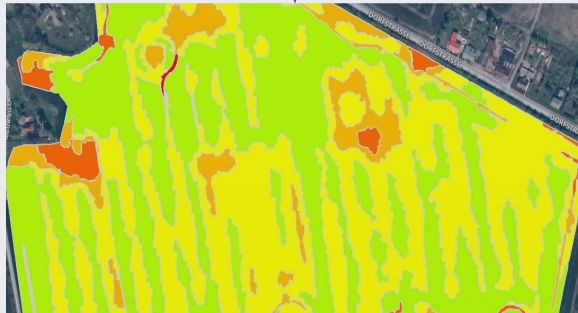
Index map (ie NDRE)

Drone-to-tractor workflow

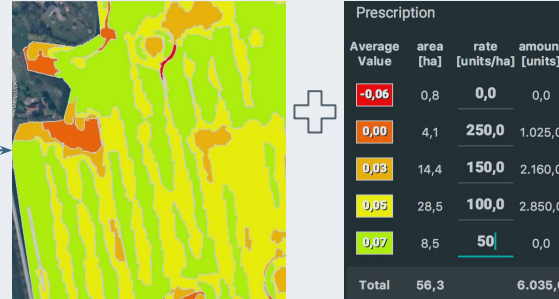
Index map (ie. NDRE)



Zonation map



Prescription map
(or Variable Rate Application Map - VRAM)



Farming Management Platforms
(examples)



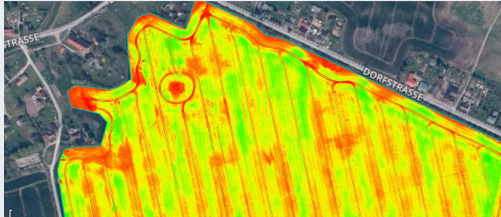
Digital agriculture workflow



Orthomosaic



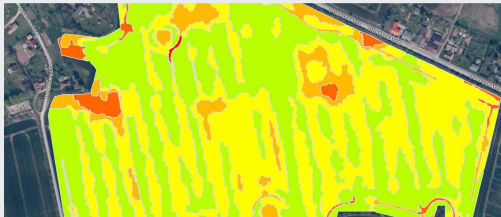
Field boundaries



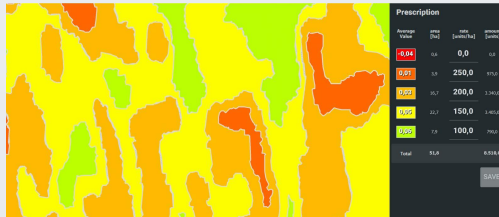
Vegetation index map



Digital surface model



Zonation map



Prescription map

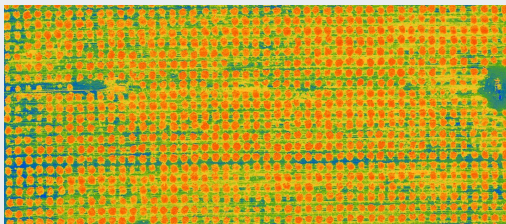
Farming Management Platforms (examples)



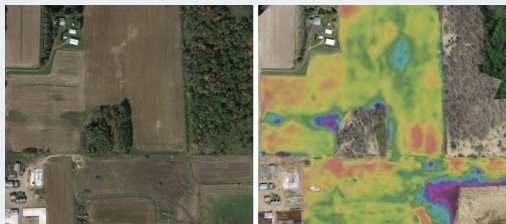
JOHN DEERE



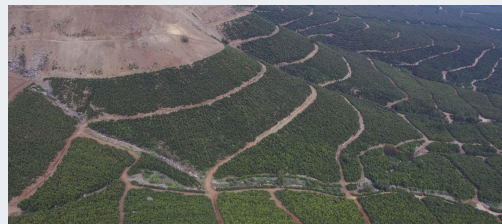
Fields of applications



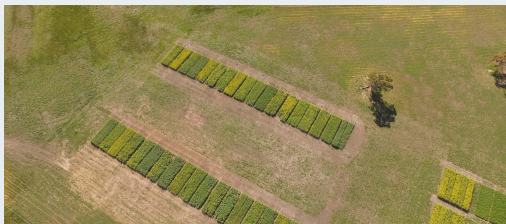
Digital scouting and crop protection



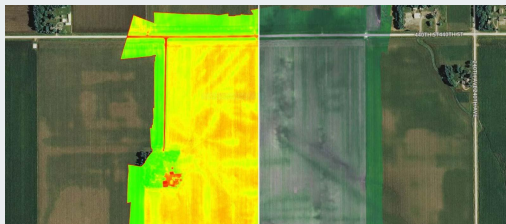
Crop production



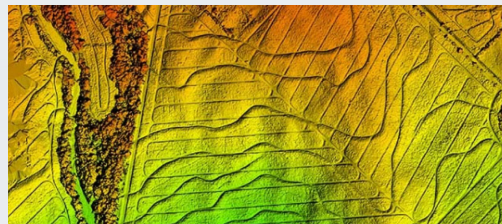
Insurance



Breeding



Irrigation management

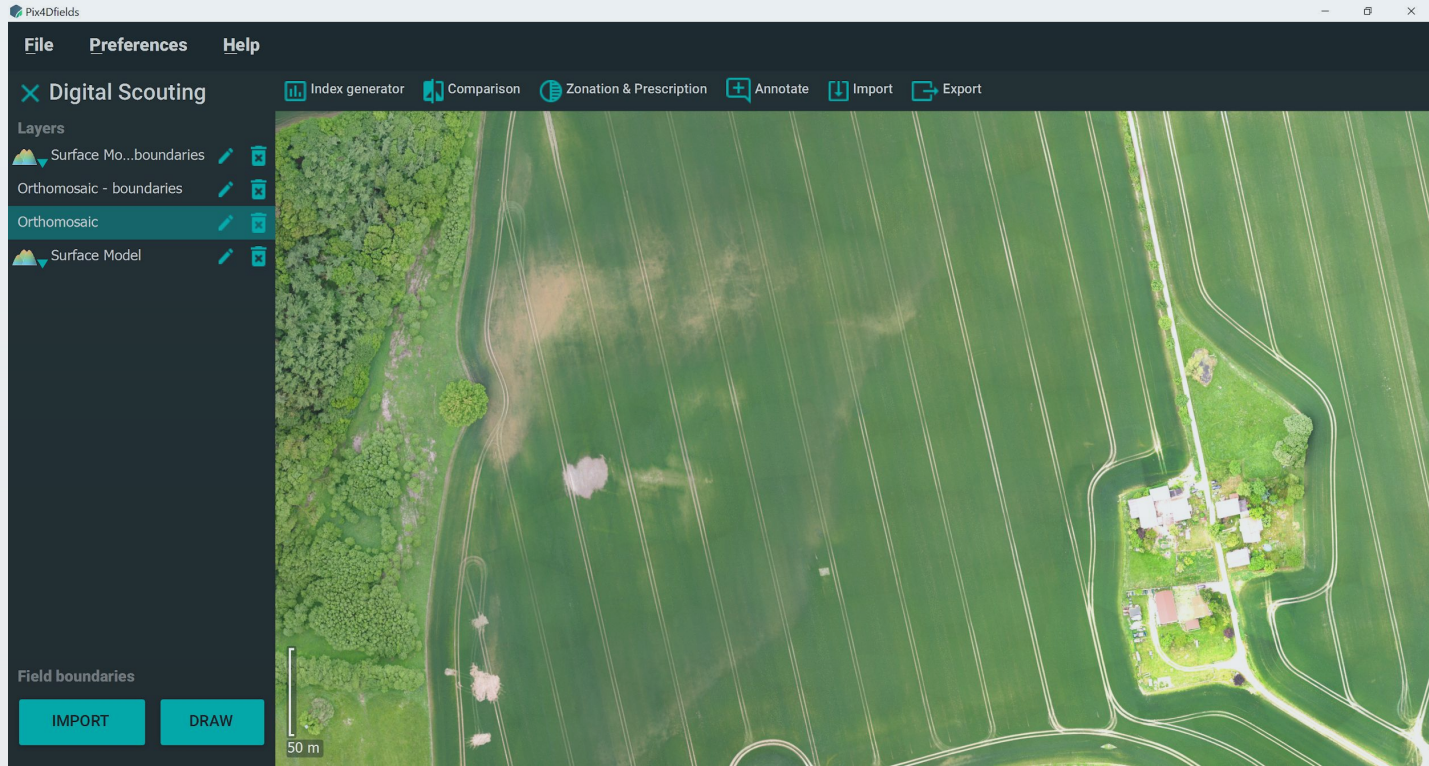


Erosion control

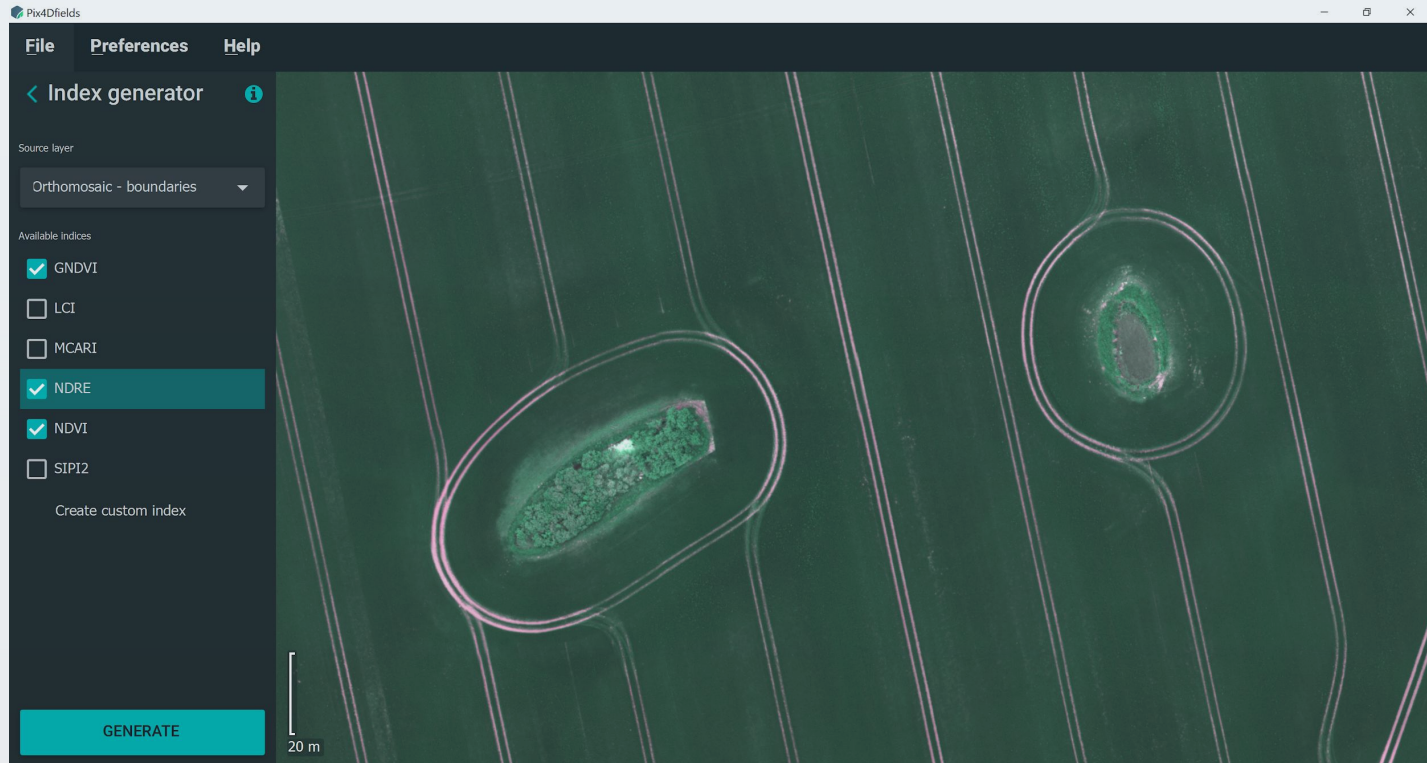
A photograph of a field with rows of crops, likely corn and wheat, under a teal color overlay. The text "Tools and features" is centered in white.

Tools and features

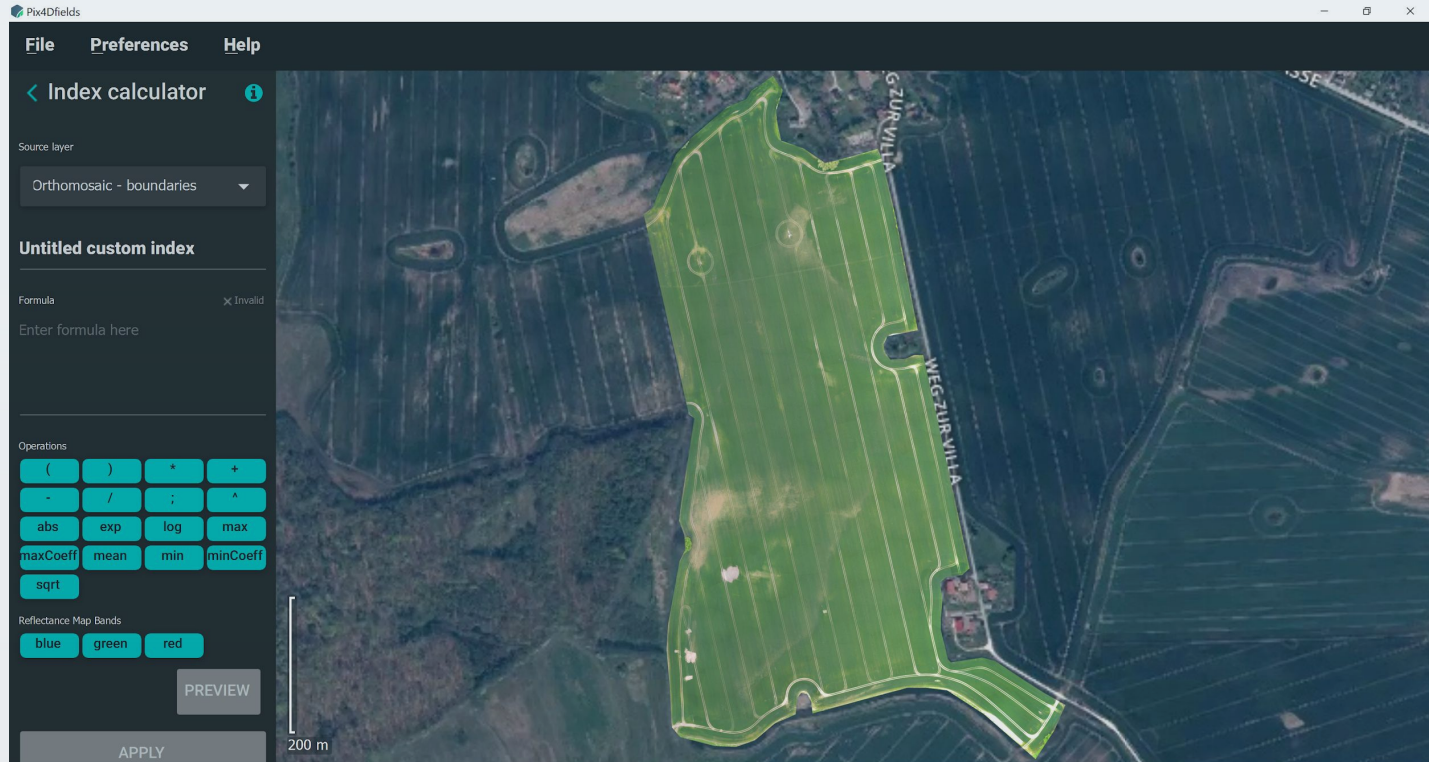
Pix4Dfields - instant mapping



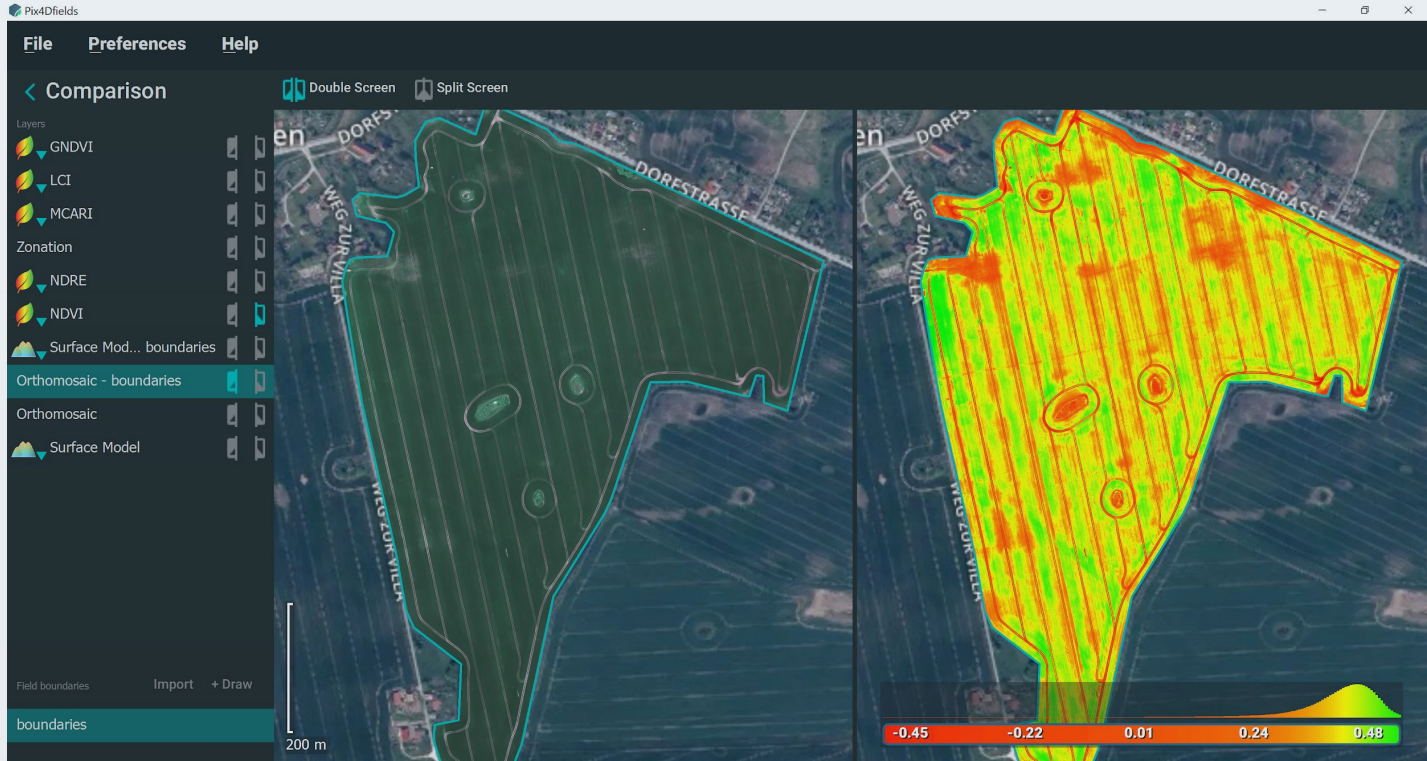
Pix4Dfields - index generator



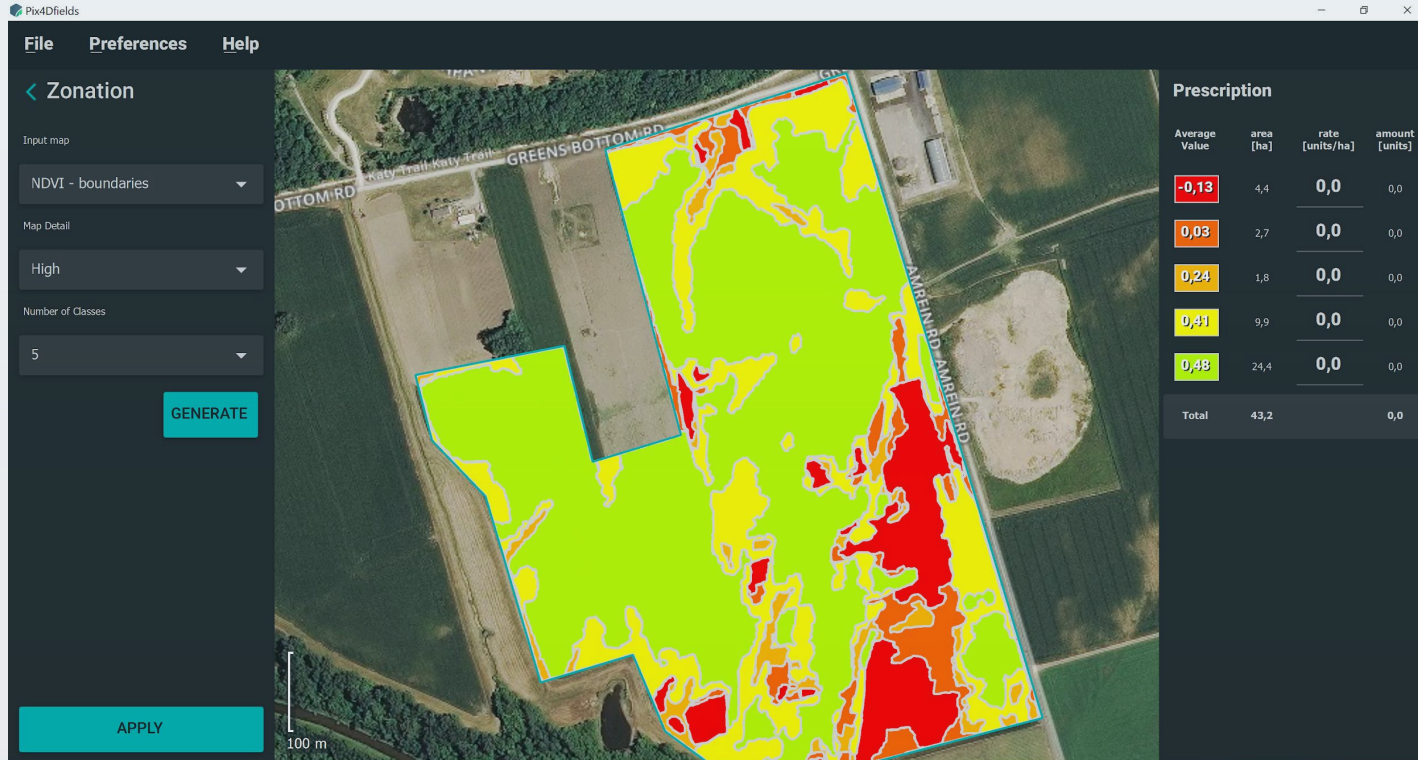
Pix4Dfields - index calculator



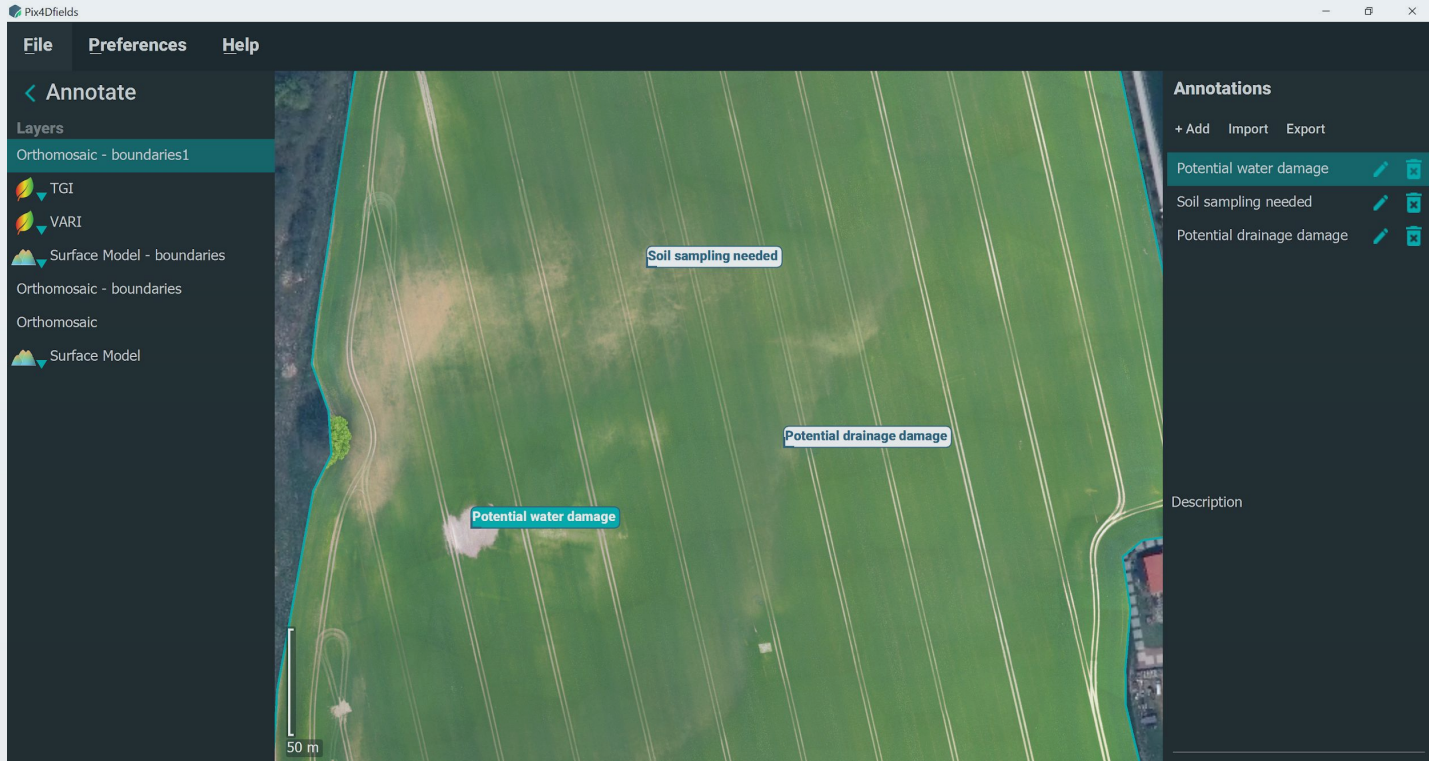
Pix4Dfields - comparison



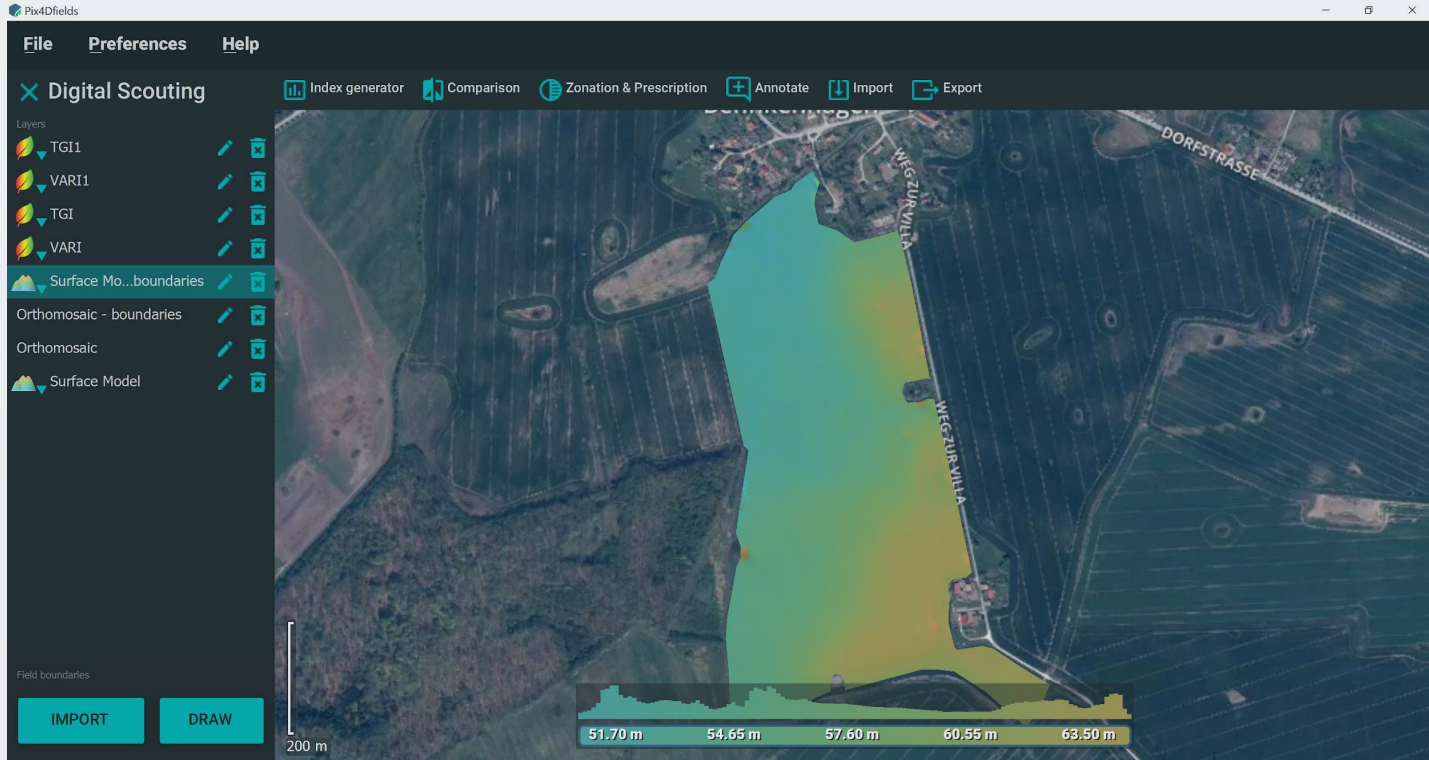
Pix4Dfields - zonation and prescription



Pix4Dfields - annotations



Pix4Dfields - digital surface model



An aerial photograph of a rural landscape, likely in a tropical region. The image shows a dense grid of agricultural fields, possibly rice paddies, separated by narrow paths or roads. The fields are interspersed with clusters of palm trees and other tropical vegetation. Several small, simple buildings with gabled roofs are scattered throughout the landscape, particularly in the upper left and right areas. The overall scene depicts a typical rural agricultural setting.

Use cases

Use case - digital scouting and crop protection



Problem statement

Prunes from this farm are tunnel dried ahead of packaging and are sold per ton per acre. The price (ton per acre) depends on the sugar quantity and fruit quality.

In other words, each tree matters and having stable and fast tools for crop protection has a direct impact on farm management – and consequently on farm's profit.

Use case - digital scouting and crop protection



Challenge 1

How to assess farm's health after the last foliar nitrogen application?

Challenge 2

How to process 6.35GB of data while being in the field?

Challenge 3

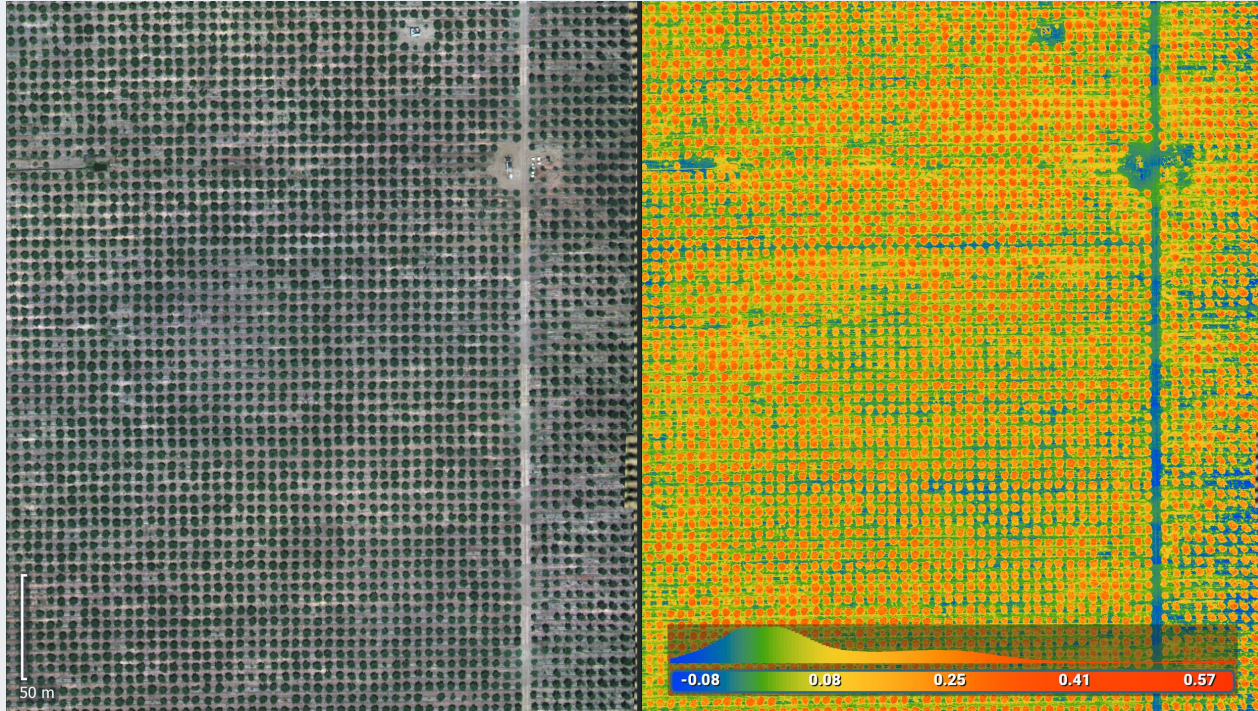
How to deliver meaningful results in less than 30 minutes?

Use case - digital scouting and crop protection

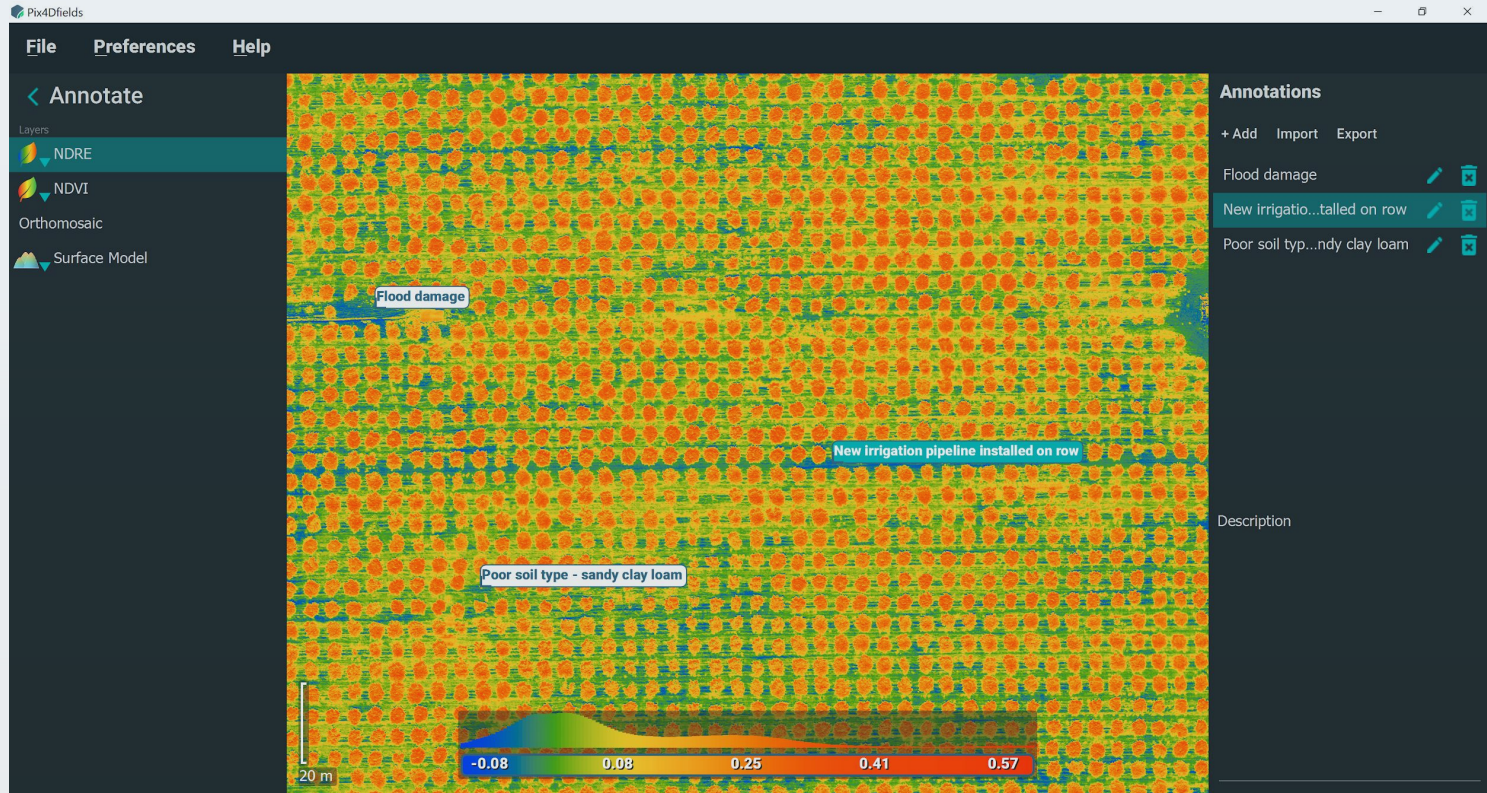
Solution

- Process the images and generate an orthomosaic.
- Generate two index maps: NDVI and NDRE.
- Use the comparison tool with the orthomosaic and NDVI to do a quick comparison of the field.
- Use the zonation tool to create an “easy to read” map of the problem areas.
- Use annotations to highlight the ‘focus areas’ and add more information to them.

Use case - digital scouting and crop protection



Use case - digital scouting and crop protection



Use case - digital scouting and crop protection

SERVICE PROVIDER

FARM MANAGER



Use case - irrigation management



Problem statement

Drainage tiles are extremely important because they help control moisture levels in soil, and are also a significant investment for farmers.

Knowing where existing pipes are can save growers lots of time and money while ensuring optimal crop growth.

Use case - irrigation management



Challenge 1

How to identify where existing drainage tiles are located in your fields?

Challenge 2

How to cut down on the processing time by a large margin for a 160 acre / 65 hectare farm?

Challenge 3

How to present the results in an intuitive way to your customer while still in the field?

Use case - irrigation management

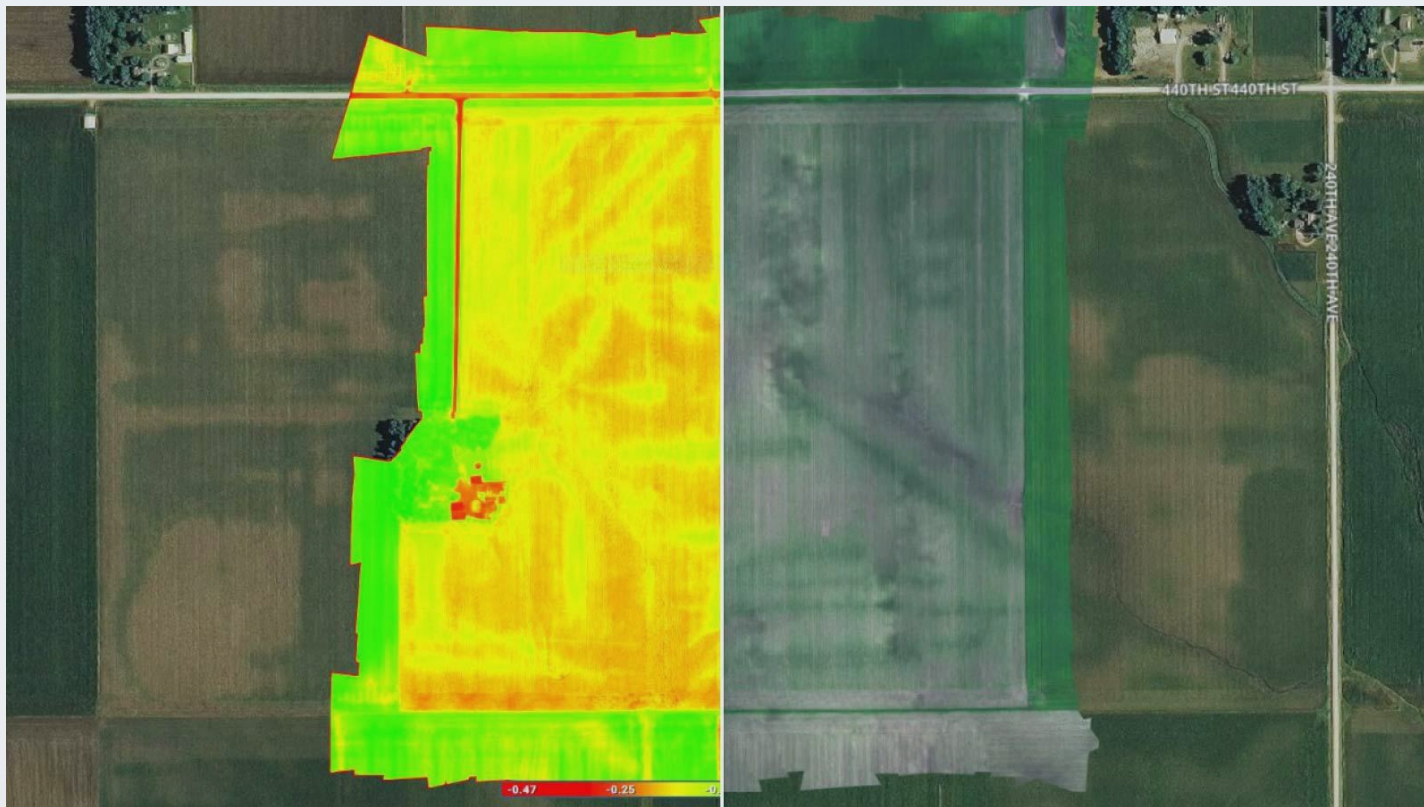
Solution

- Process the images and generate an orthomosaic.
- Generate an NDRE index map.
- Use the comparison tool (split-screen mode) to highlight the differences between layers while in the field.
- Use the zonation tool to delineate areas of the field that are experiencing more stress.
- Use annotations to mark the spots where the tile lines are throughout the field.
- Use the the DSM generator to show how water behaves on the field due to the low slopes and small hills that aren't always obvious.

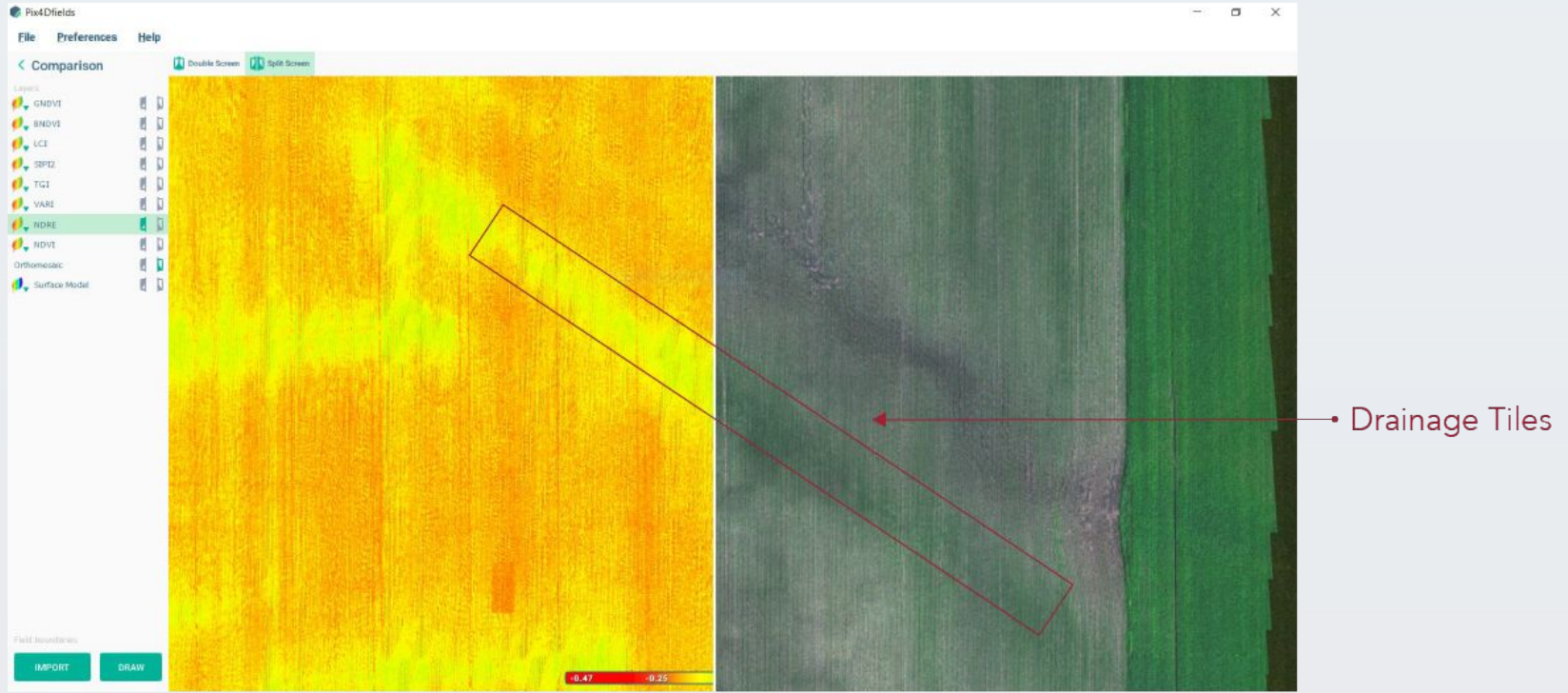
Use case - irrigation management



Use case - irrigation management



Use case - irrigation management



An aerial photograph of a vast, lush green agricultural field, likely a cornfield, with a small, light-colored structure or building visible in the lower-left quadrant. The word "Demo" is overlaid in white text in the center of the image.

Demo

The image features a field of tall, thin grasses with feathery seed heads. The entire scene is overlaid with a color gradient that transitions from a deep teal on the left to a bright green on the right. The text 'Q&A' is centered in the middle of the image in a white, bold, sans-serif font.

Q&A

A wide-angle photograph of a lush green agricultural field, likely corn, stretching to the horizon. The sky is a clear, bright blue, with a single white contrail or streak of light visible in the upper right quadrant. The overall scene is vibrant and open.

Thank you