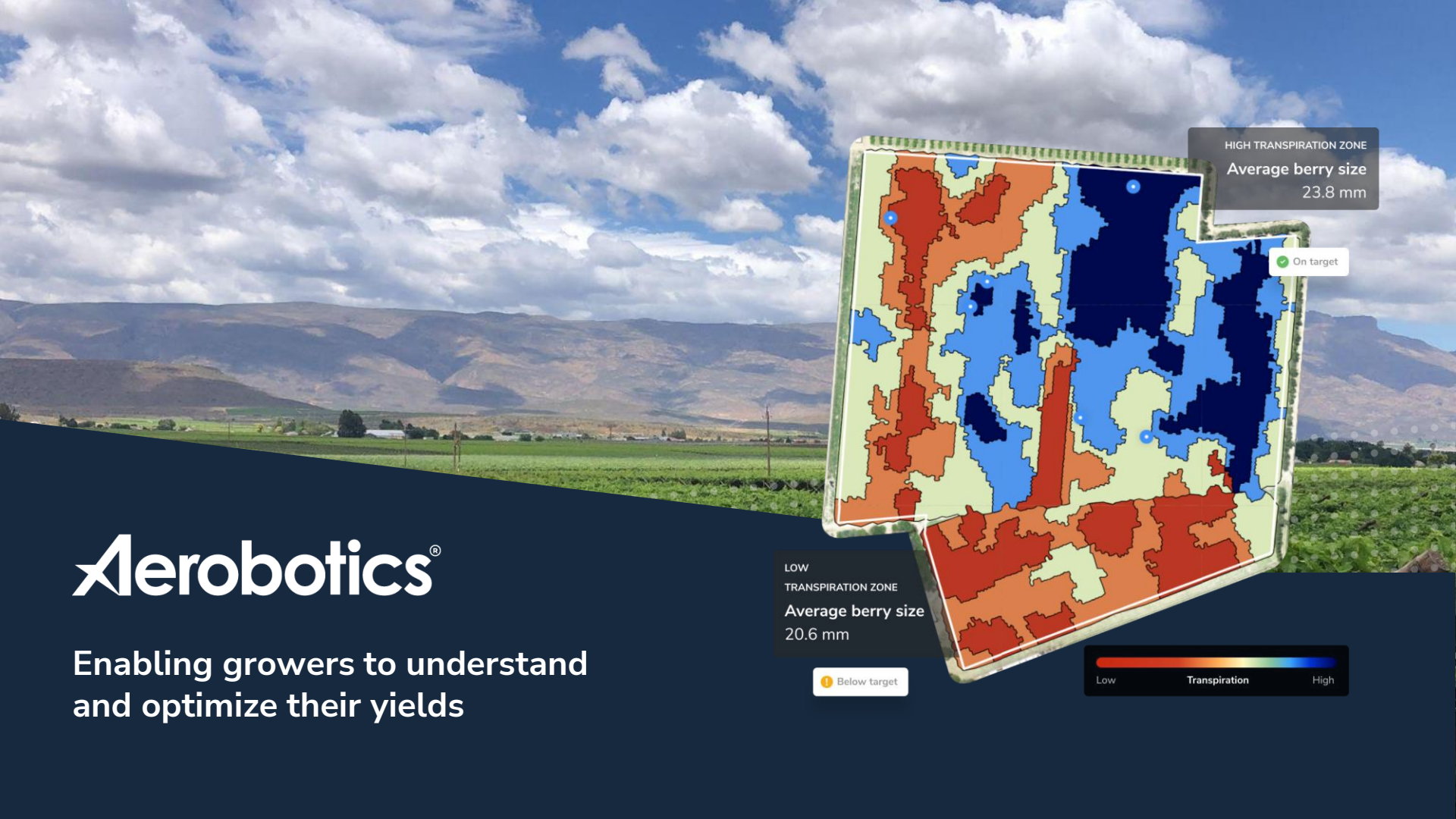


Aerobotics®

Enabling growers to understand and optimize their yields

Aerobotics **enables** growers to get accurate insights to performance and yield data, **at scale**, to make important **decisions with comfort**

We work with leading growers across the world

4 international service regions

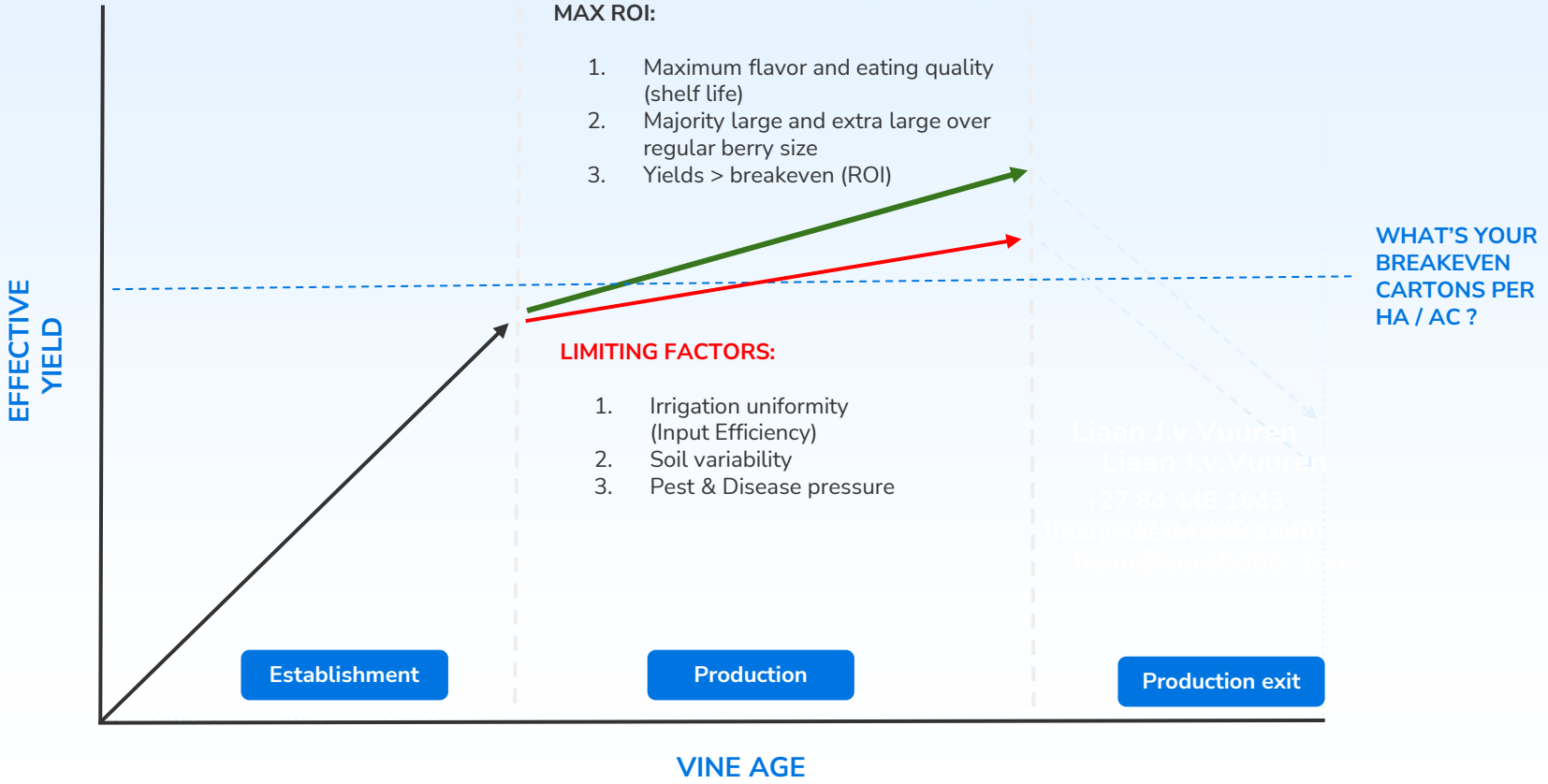
Over 180k active hectares

200+ Grower customers

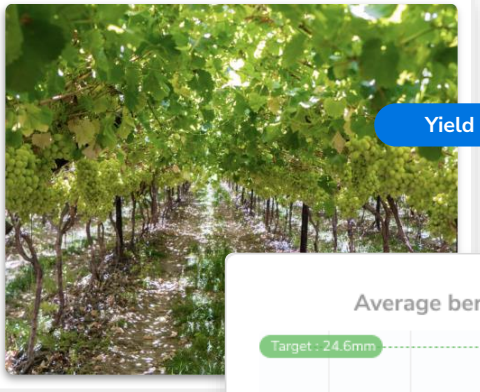
200 Million trees analysed

600 Million fruit analysed

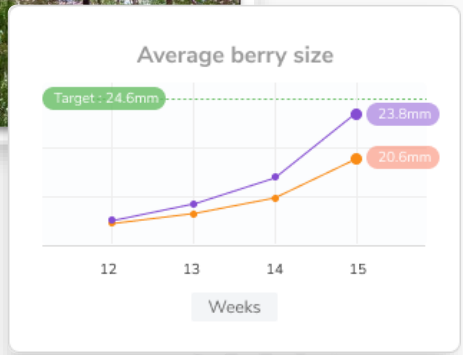
Importance of maximising your ROI



Understanding your yield is the first step towards achieving optimal results

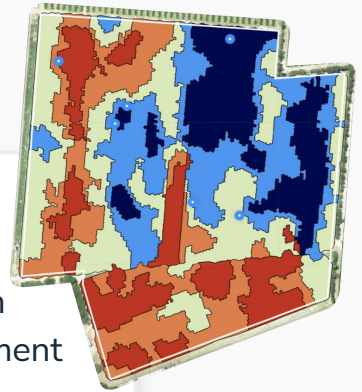


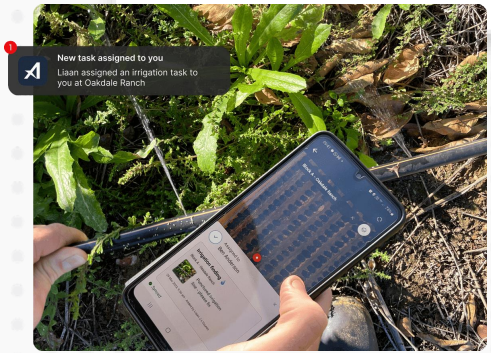
Yield tracking



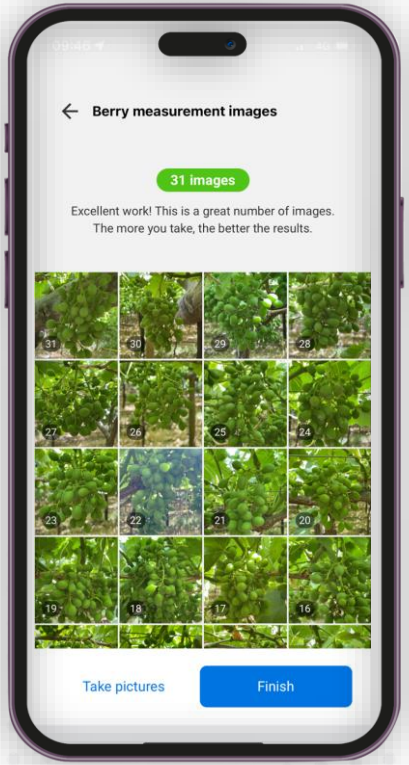
Yield optimisation

Efficient Irrigation distribution management



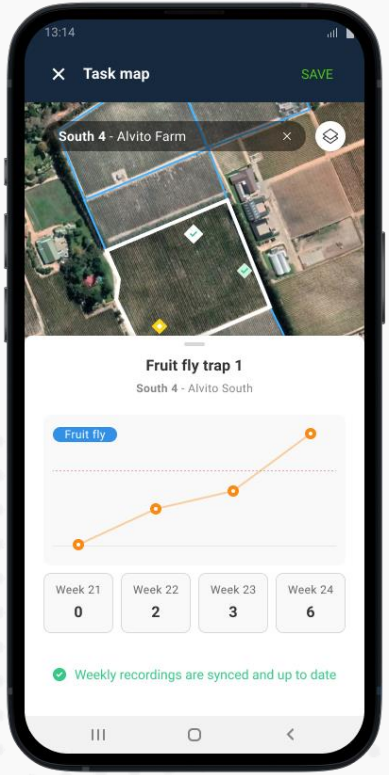


Yield

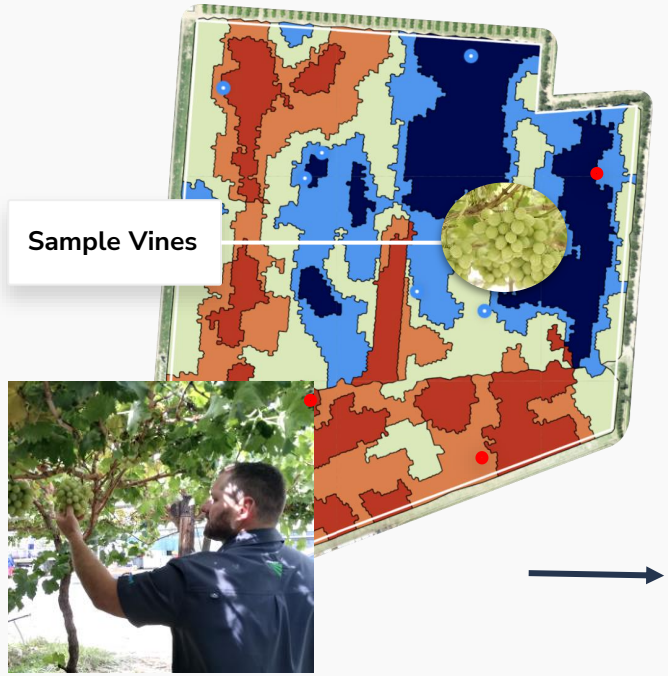


Tree performance & Irrigation

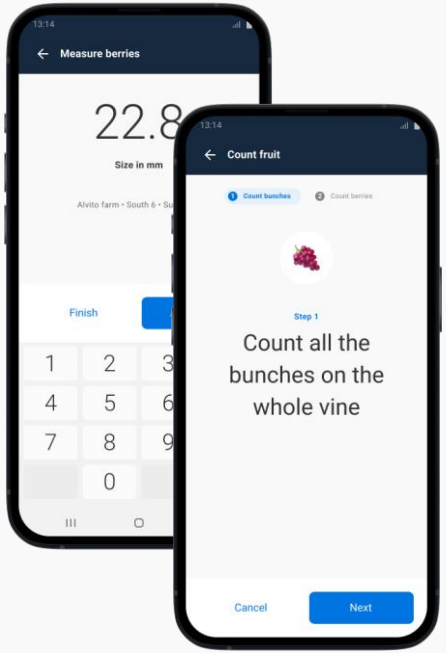
Pest monitoring



Understand your yield



Multiple layers of per-tree drone data are used to statistically select sample vines.



In-field data collected by digital smartphone inputs

Reporting on berry and bunch count, size development and size structure

View weekly fruit growth in easy to understand dashboard

Aerobotics Demo
Liaan Janse van Vuuren

- All farms
- Yield overview
  - Operations
  - Measured sizes
  - Forecasted sizes
  - Yield settings
- Account settings

Measured Sizes Overview

Export | Season: 2022/2023 | Share

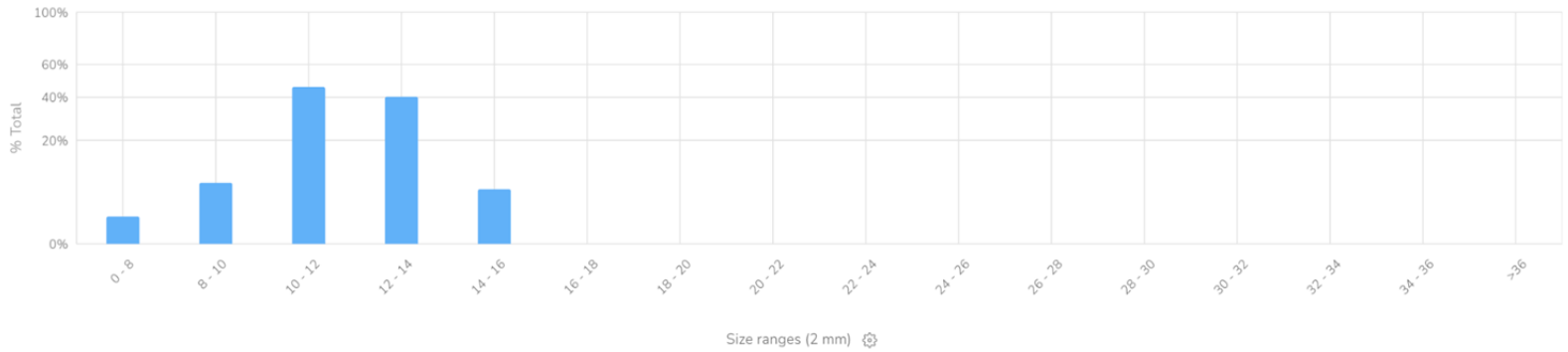
Crops: All | Farm: All | Block: All

Farm-level overview | Table | Graph | Forecast | Farms | Blocks

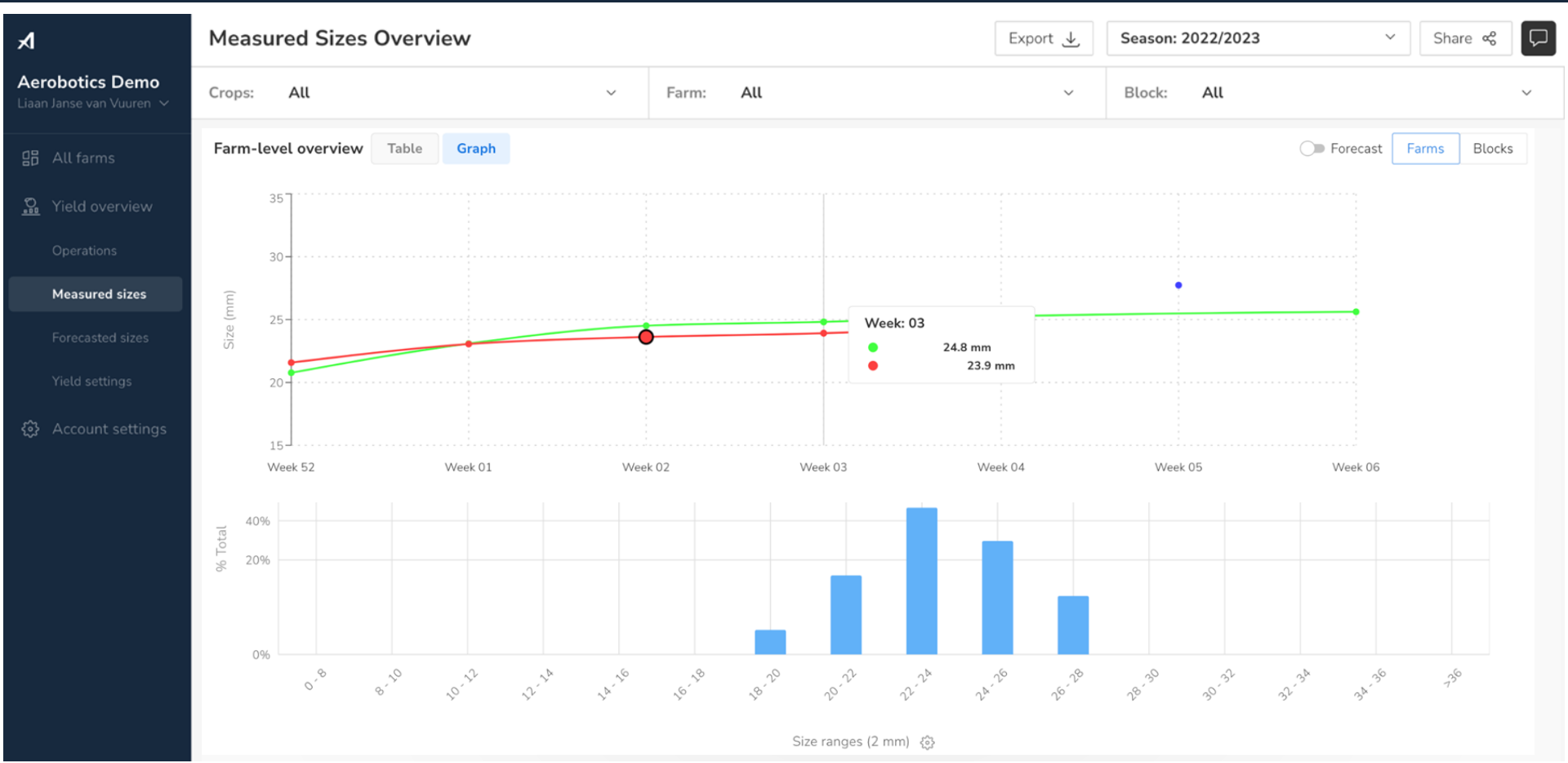
Crop type	Cultivar	Farm name	Nov					Dec			Jan				Feb		Mar
			W44	W45	W46	W47	W48	W49	W50	W51	W52	W1	W2	W3	W4	W5	W6	W9
Table Grapes	Allison										17.1	19.1	20.8	21.5	22.4			
	Autumn Crisp										20.4	22.7	25.0	25.8	27.3		27.7	30.8
	Cotton Candy		11.9	13.0	16.2	18.0	20.0	21.9	22.8	23.2								
	Flame Seedless		12.4	13.5	16.5	18.4	19.8											
	Ivory		13.2	14.0	15.9	18.6	20.7	21.8	23.0	23.4								
						18.2		19.2										
	Prime		18.3			23.0		22.8										

Farm-level size structure

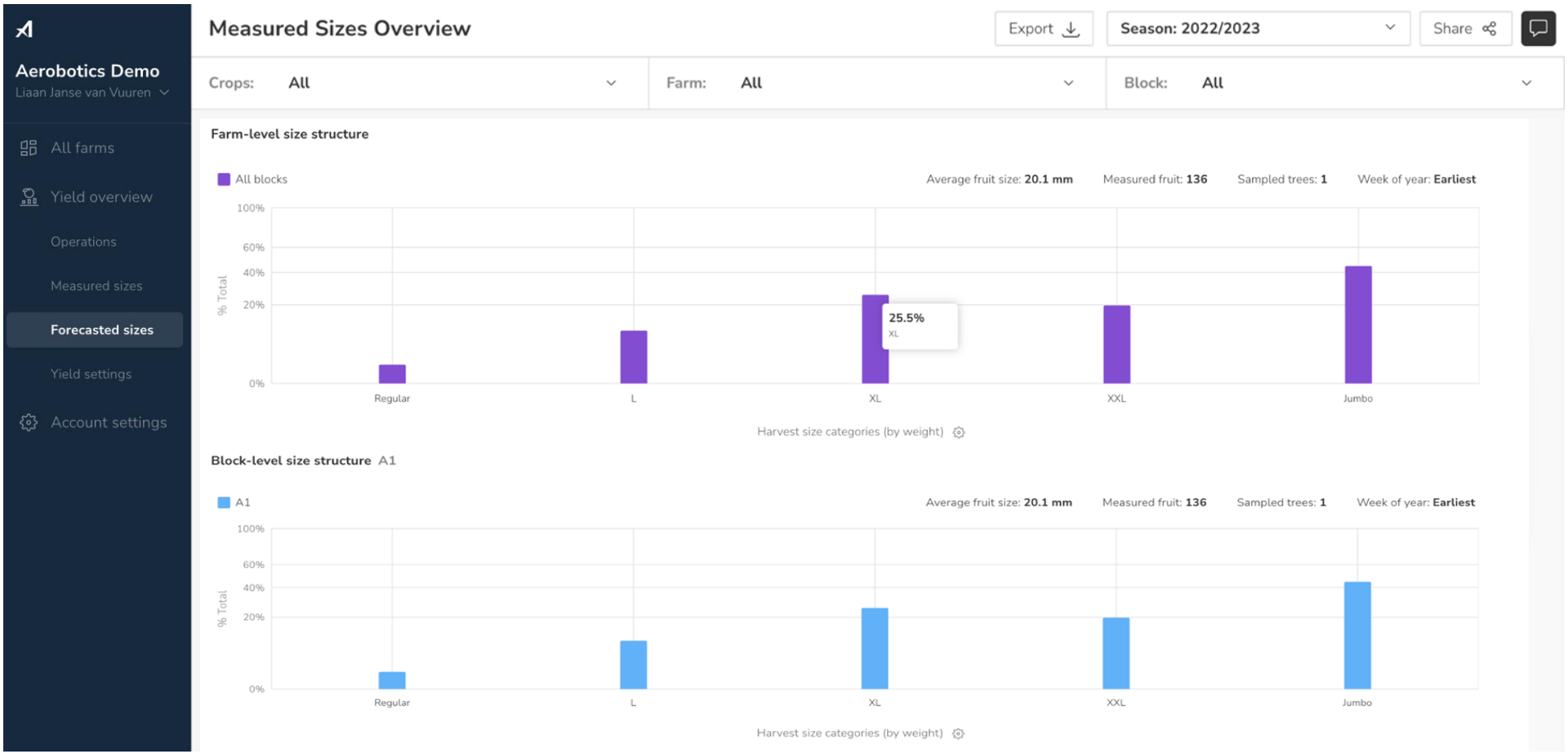
All blocks | Average fruit size: **11.9 mm** | Measured fruit: **72** | Sampled trees: **1** | Week of year: **44**



Build accurate growth curves for every block on every farm

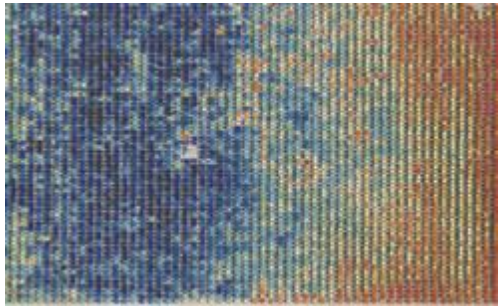


Build accurate growth curves for every block on every farm



Optimal yields with efficient irrigation distribution management

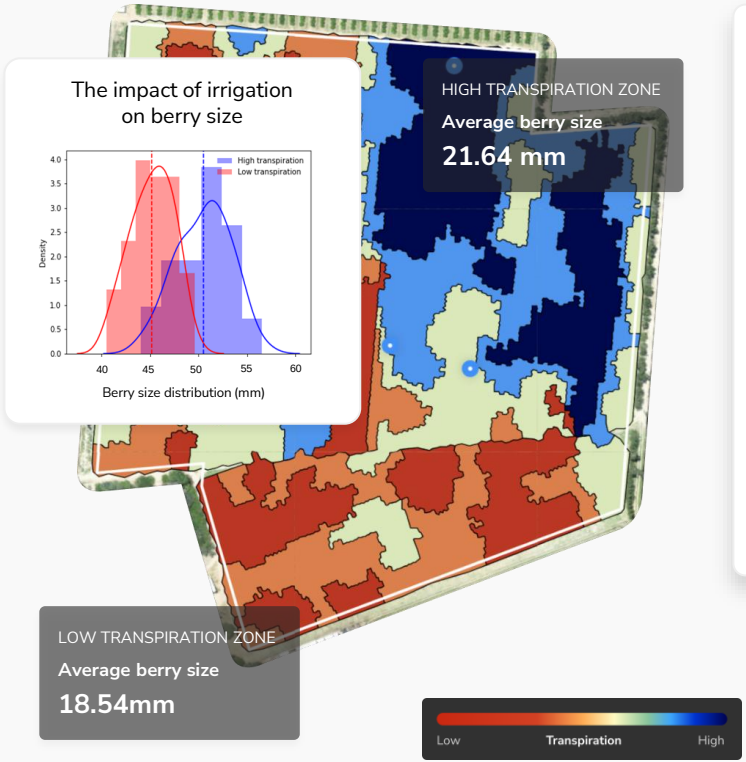
By using aerial imagery we provide a full overview of your entire production in one snapshot.



Our models interpret tree transpiration insights to create management zones and automatically detect areas of risk.

Using our tools your teams and service providers can manage where to take action and you can keep track of what’s happening.

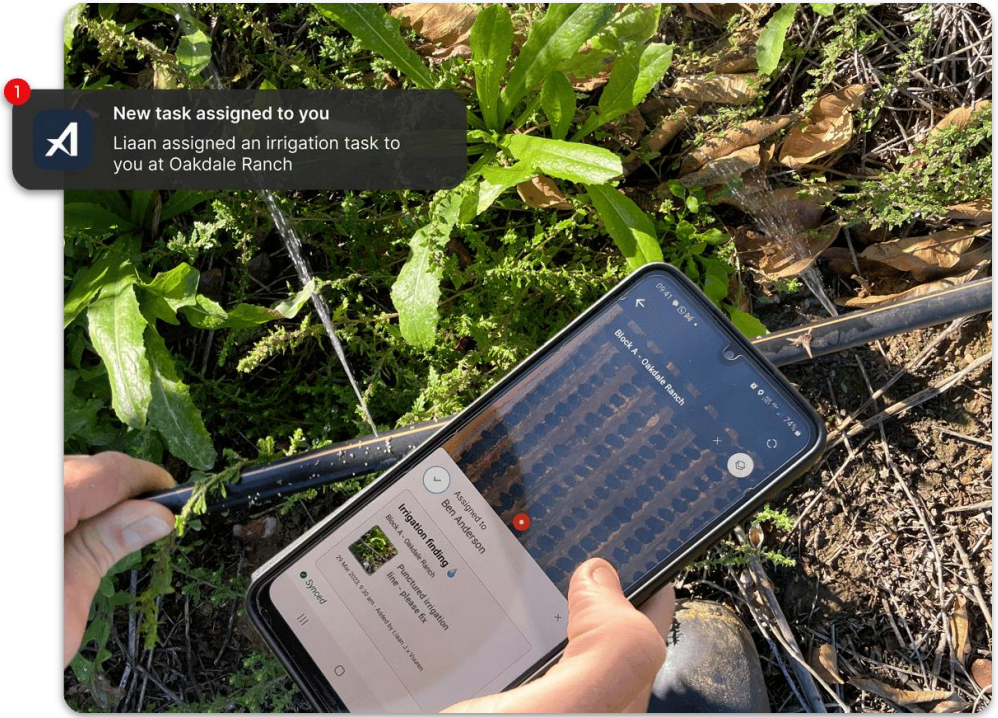
Identify and correct irrigation risks that are impacting your yield



Block	Area at Risk	Impact %	Agronomic Interpretation	Recommended Actions
13	**0.24** of 1.41 ha	17%	Pattern correlating with low transpiration may indicate a blocked or low omitting line.	output, soil moisture
14	**0.81** of 3.9 ha	21%	Lower elevation areas of the orchard show lower transpiration and health indicating possible tree stress. Ensure roots in this area are not too moist.	soil investigation, root audit
15	**0.19** of 1.1 ha	17%	Map shows signs of water logging, possibly due to soil properties. Lower transpiration also indicates possible soil related changes, to be investigated	soil moisture

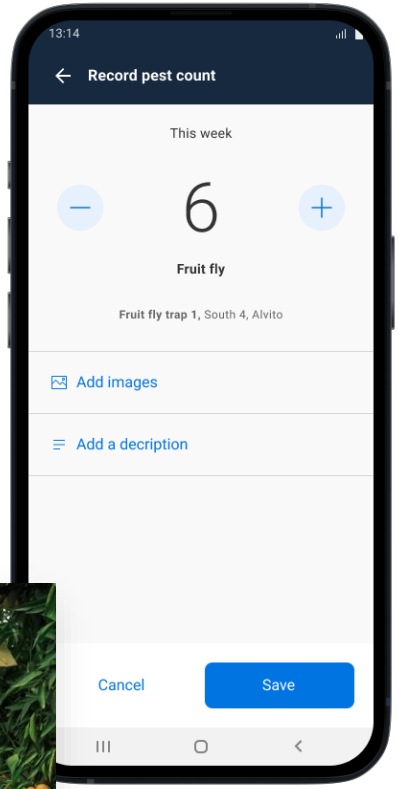
We help growers optimize their yields

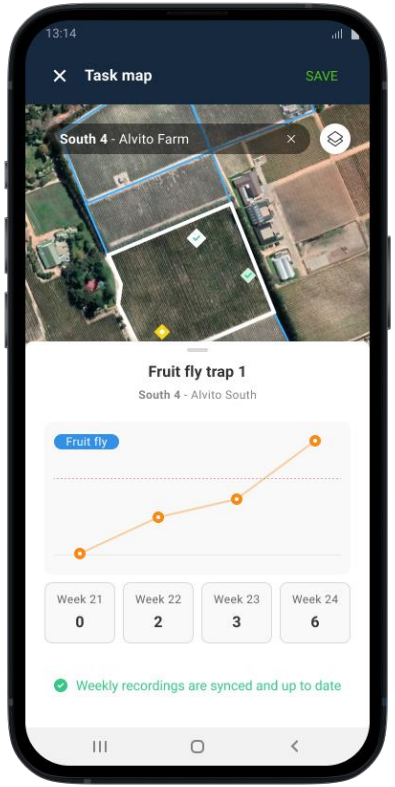
Our workflows enable growers to manage an efficient irrigation distribution and achieve better nutrient efficiency, reducing yield variability and enabling optimal outcomes.



Seamless digital monitoring from the field to the office

Our end-to-end digital pest and disease monitoring solution gives you visibility over your monitoring program in real time. With immediate in-field reports, you can make swift decisions to intervene before pest or disease pressure increases. Deliver comprehensive regulatory reports at the end of the season with no extra sweat.





Reducing input cost and improving yield quality through variable rate technology with Aerobotics

Challenge:

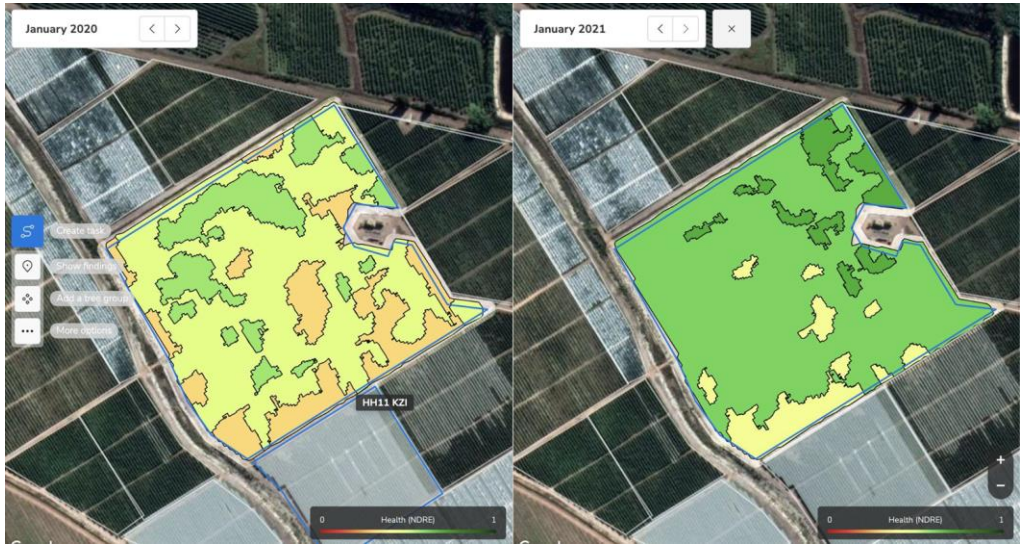
- Rising fertiliser costs (and overall production costs), combined with an ever-growing market demand.
- Critical to ensure that every cent spent on the farm was put to optimal use
- Continuous improvement of yield efficiency is a big focus and ensuring every input results in maximum yield (quality and quantity) output is the number one priority.

Solution:

- Analysing actual vine health variability, calculated using high resolution drone imagery and AI
- Refine the nutritional program by applying inputs only where needed, and at the rates suitable to those areas.

Result:

- Reduce fertiliser and ameliorant inputs by **34,186 kg**, which resulted in a cost savings of **R1780 per hectare**.
- Increasing their yield by 9% (20,000 cartons), and generating an additional **R2 221 300 in revenue**.
- Overall, this grower achieved a significant improvement of the farm's overal input efficiency and successfully optimised the farm's yield outcomes.



Phenological Stage	Total Product Conventional Application (kg)	Total Product VRA (kg)	Input Savings (kg)
Post Harvest 2019/20	38,365	37,638	728
Budbreak 2020/21	15,346	14,123	1,223
Post Harvest 2020/21	38,365	6,130	32,235
Total	92,076	57,891	**34,186**

Yield quality improvement from mealybug pest management with Aerobotics.

Challenge:

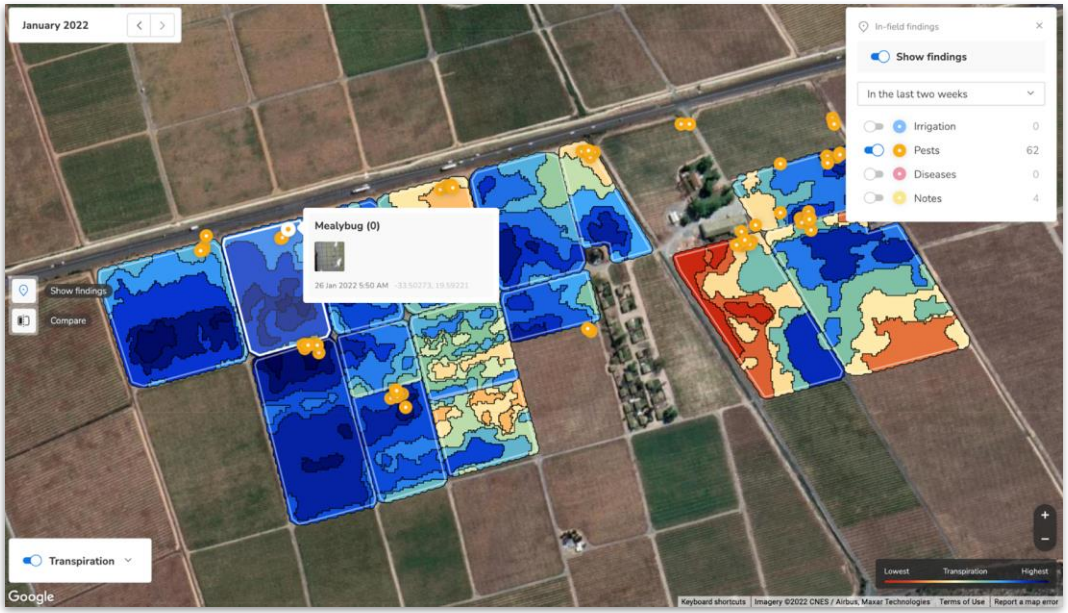
- Mealybug infestations contaminate grape clusters, making them unmarketable, and are subject to strict phytosanitary regulations. In the 2019/20 season, The Grower estimated a loss of 43,740 grape cartons due to mealybug, worth USD 325,490 in export value.
- Effective monitoring of pests and diseases requires time and labor investment, and even in cases where regular monitoring is taking place on the ground, it is not feasible to visit every area regularly.

Solution:

- Weekly scouting using the mobile app as well as ad hoc investigations in areas of higher and lower vine vigor generated in the Aerobotics platform.
- The farm, was divided into three IPM zones: red, yellow and green – based on the pest counts recorded and geotagged in the Aeroview InField® app. Interventions were adjusted accordingly.

Result:

- Actual loss areas going down from an initial 72 acres to 0 mealybug infected acres.
- **Revenue uplift of USD 374/acre**.



Season	Total (AC)	Red IPM zone (AC)	Average cartons per acre	Average price per carton	Cartons lost due to mealybug	Revenue lost due to mealybug
2019/20	872	72.0	2,025	USD 7.5	43,740 cartons	USD 326,272
2020/21	872	9.4	2,025	USD 7.5	5,820 cartons	USD 43,413
2021/22	353	0.0	2,025	USD 7.5	4 cartons	USD 30

Ensuring easy implementation on the farm is our priority

Personalised training

Receive comprehensive training to get you going

User management

Enable multiple users on your farm with different permissions

Cloud based

Our fully digital platform ia always available and you never have to worry about losing data.

Multi language

You can use all products and services in English, Spanish, Portuguese or Afrikaans

Accessible devices

Use any Android or Apple device for easy digital data collection in the field

SPECIALIZED CUSTOMER SUPPORT

Liaan J.v.Vuuren
Global Head Agronomist

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www.aerobotics.com

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