



Dr. Eugenie-Lien Louw
March 2026



Nurseries & Plant Propagation



Fruit Farming



Fruit Packing & Processing



Technical & Advisory



Crop Protection



Software Development



Marketing & Sales



Brands Management



JV

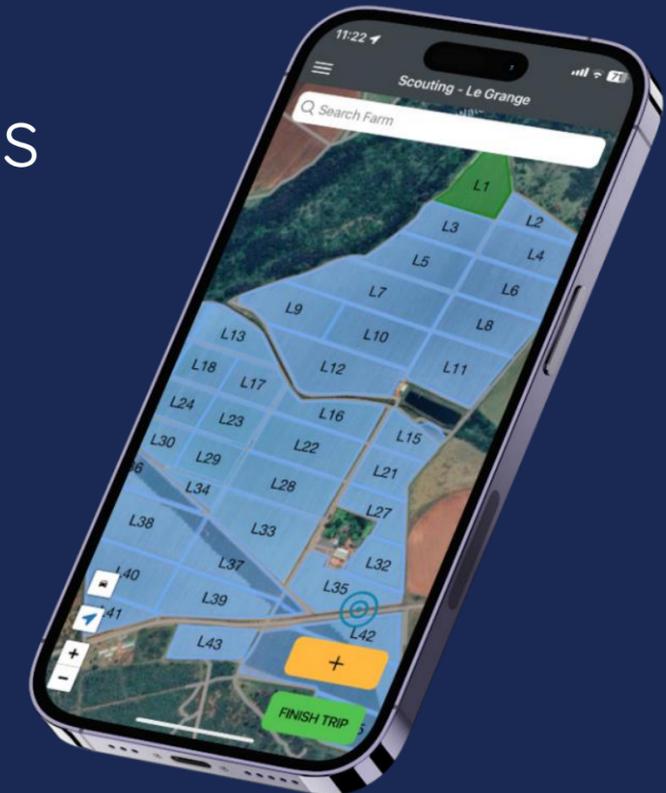
JV

JV



FARMNODE

- Est. 2017
- 45 Clients
- 20 Commodities
- 34 000 ha
- 4 Countries



Features



- Crop Protection
 - Monitoring
 - Traps
 - Sprays



- Spray

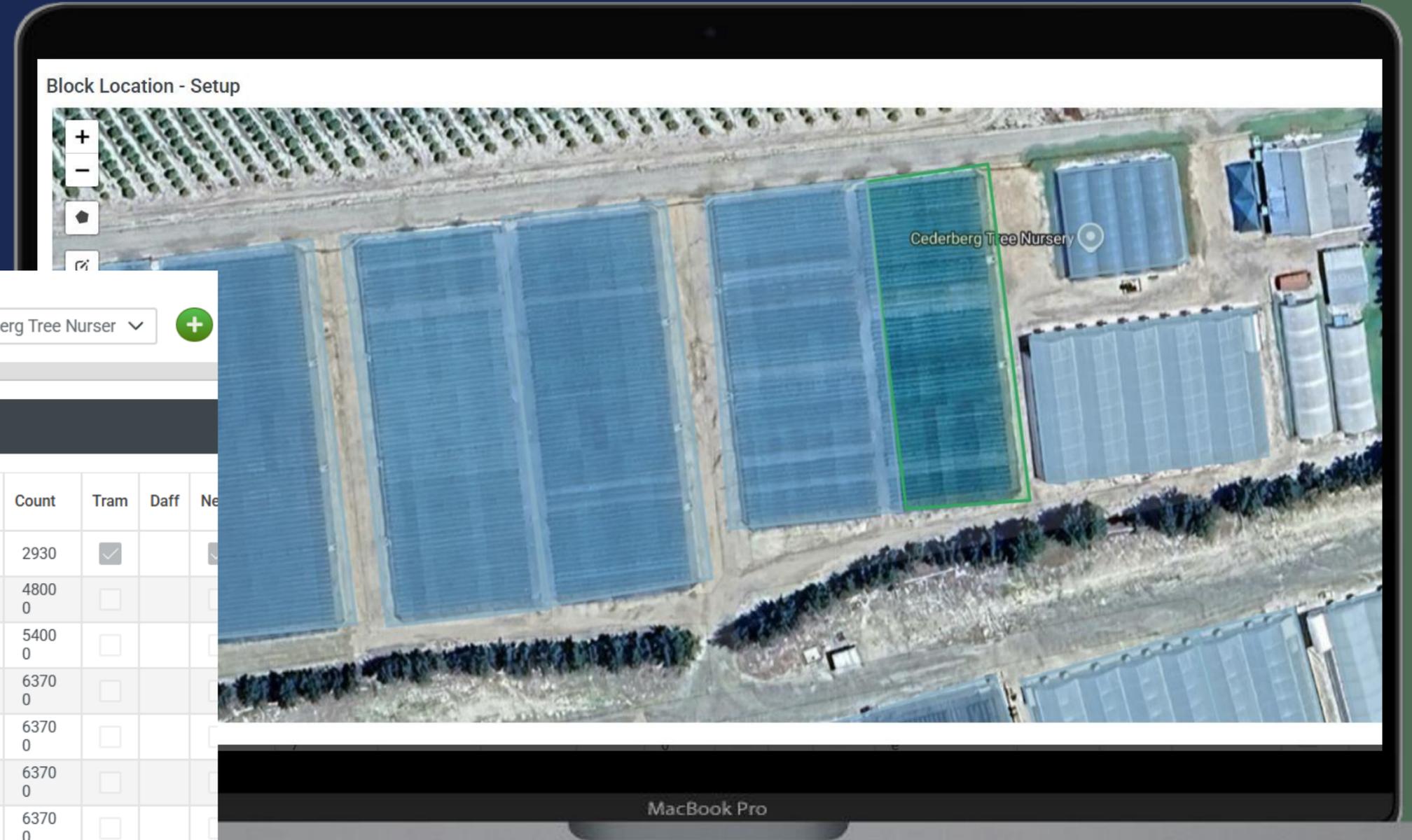


- Irrigation





Census & Structure Mapping



Organization: ANB Nurseries + Farm: Cederberg Tree Nurser + PUC: Cederberg Tree Nurser +

Farm Census

Name	Short Name	Planting	Topwork	Trees Per Ha	Hectare	Count	Tram	Daff	Ne
Cederberg Trial block	Trial Block	2020/10/31	2021/09/08	1333	2.20	2930	<input checked="" type="checkbox"/>		
Net A	Net A	2021/06/07		208696	0.23	48000	<input type="checkbox"/>		
Net B	Net B	2021/06/07		234783	0.23	54000	<input type="checkbox"/>		
Net C	Net C	2021/06/07		212333	0.30	63700	<input type="checkbox"/>		
Net D	Net D	2021/06/07		212333	0.30	63700	<input type="checkbox"/>		
Net E	Net E	2021/06/07		199063	0.30	63700	<input type="checkbox"/>		
Net F	Net F	2021/06/07		199063	0.30	63700	<input type="checkbox"/>		
Net G	Net G	2021/06/07		222222	0.27	60000	<input type="checkbox"/>		
Net Z1	Net Z1	2021/06/07		190476	0.42	80000	<input type="checkbox"/>		
Net Z2	Net Z2	2021/06/07		200000	0.42	90000	<input type="checkbox"/>		

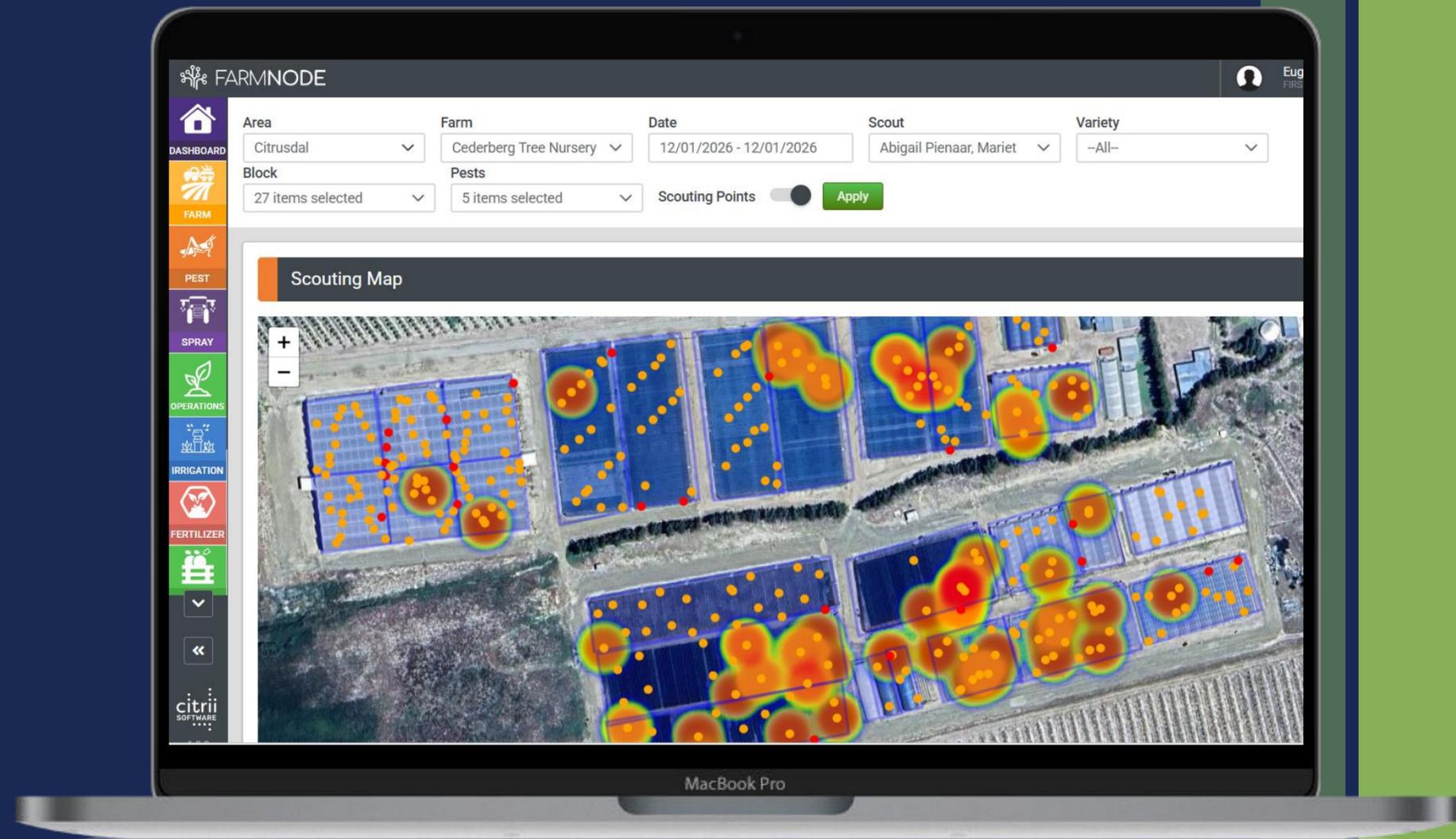


Crop Monitoring



Crop Monitoring

- Pest monitoring app
- Web-based interface
- Interactive graph
- Traps
- Scout efficiency monitoring





Pest Monitoring App

Scout phone

No internet or data

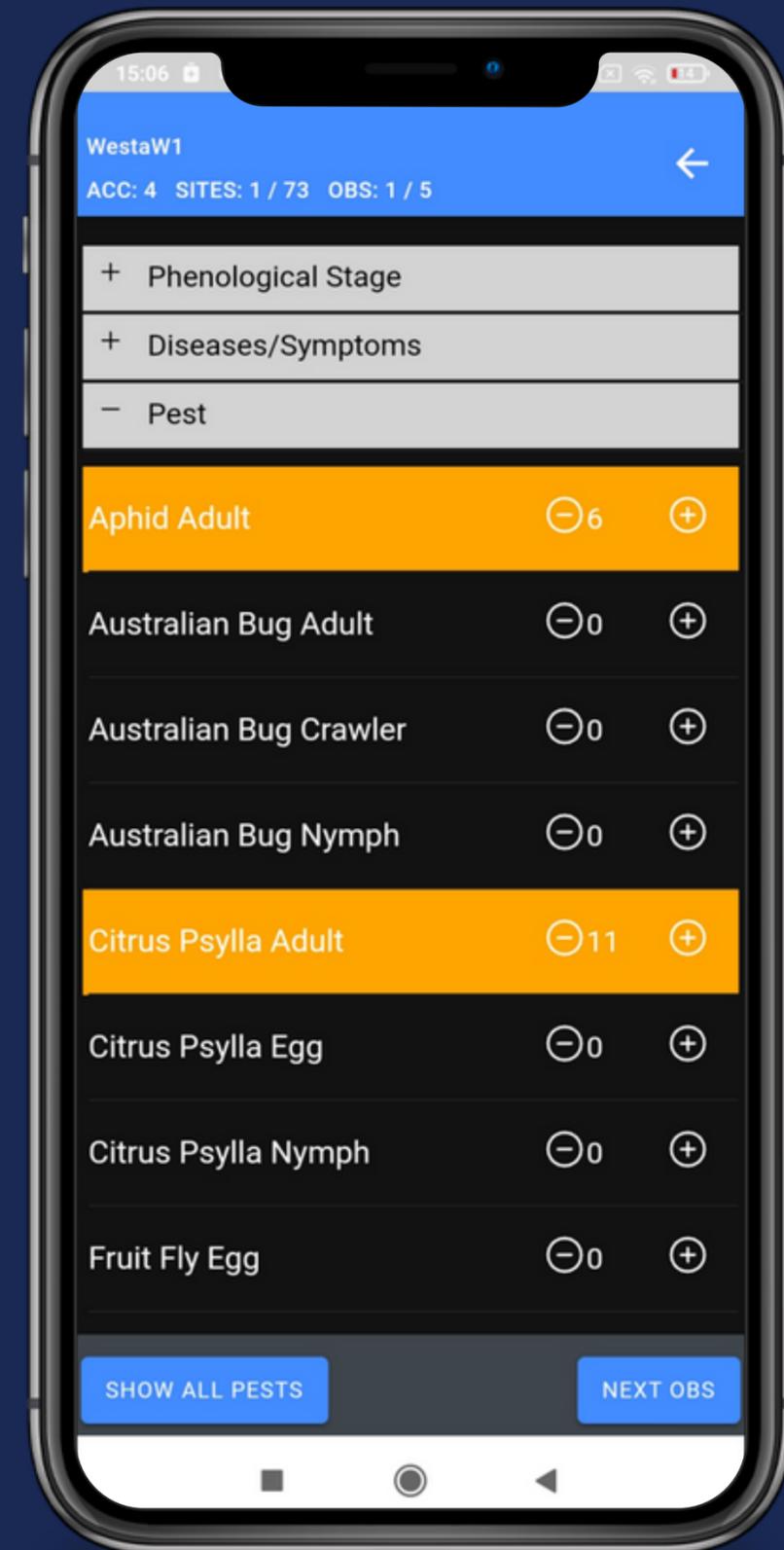
Fully offline capabilities

Sync at office with Wi-Fi

Live data

Yes/No – percentage

Severity – count





Pest Monitoring



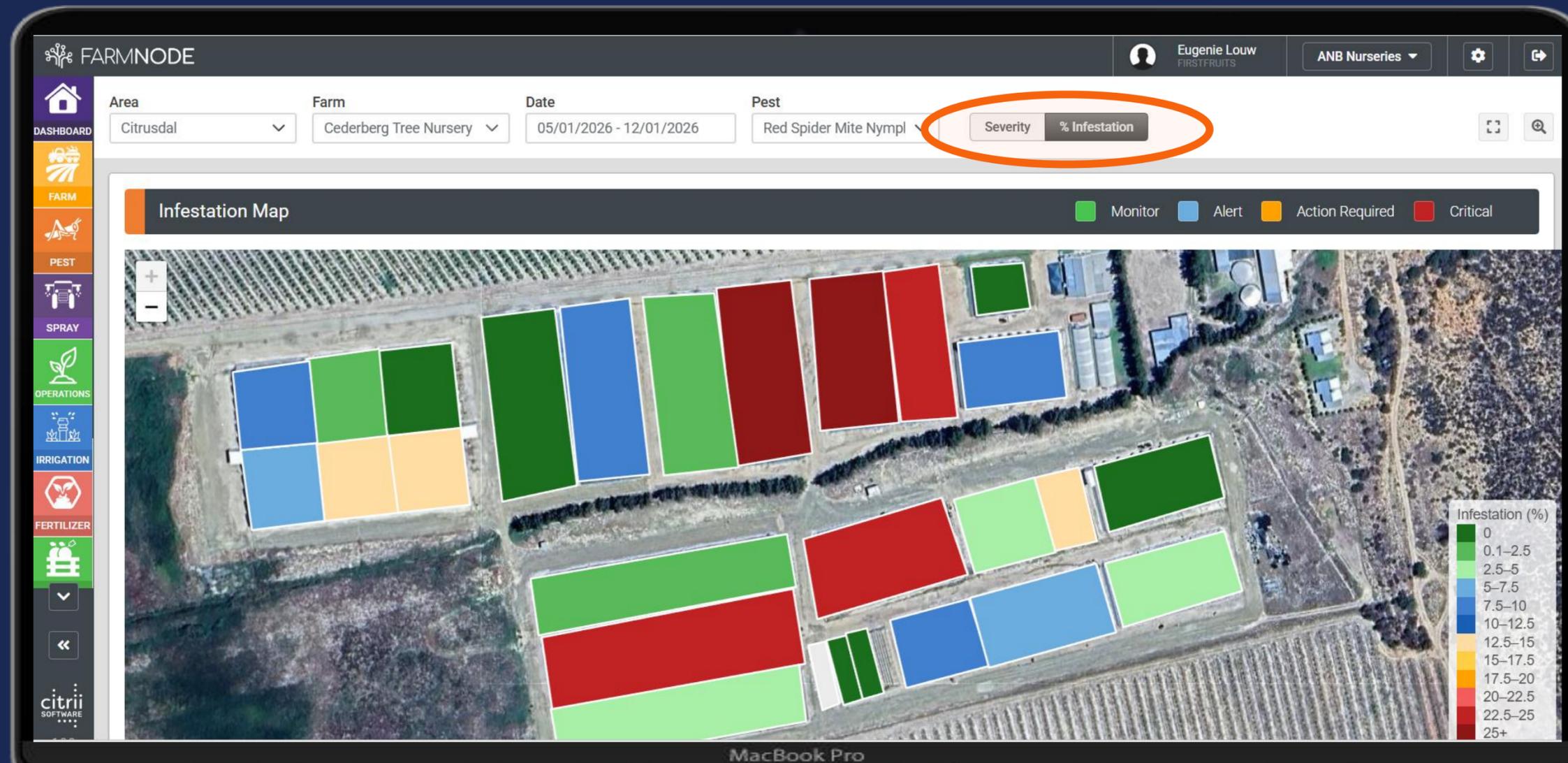
Data is
date and time
stamped



Web-based interface

Several maps

Heat map, Coverage, Pest Severity/Infestation





Web-based interface

Pest summary

Pest Summary - Pest Report Lower Threshold E

Pest Report ↑↓	Highest % ↑↓	Filter Tool ↑↓	Alpha	India	Kilo	Lima	Mike
Thrips Adult Leaf	40%	% <input type="text"/> 0 <input type="text"/>	1.16% (2.20)	10% (2.25)	20.8% (2.38)	5.26% (1.60)	1% (1.00)
Thrips Nymph Leaf	21.43%	% <input type="text"/> 0 <input type="text"/>	0.23% (1.00)	21.43% (1.53)	0	0	15% (1.67)
Mealybug Nymph Leaf	9.13%	% <input type="text"/> 0 <input type="text"/>	0	0	0	0	0
Mealybug Adult Leaf	5.71%	% <input type="text"/> 0 <input type="text"/>	0	2.5% (3.00)	0	0	0
Red Spider Mite Nymph	5.71%	% <input type="text"/> 0 <input type="text"/>	0.23% (1.00)	5.71% (3.00)	0	0	0
Orange Dog 1st Larvae	5%	% <input type="text"/> 0 <input type="text"/>	0	5% (1.00)	0	0	0
Red Spider Mite Adult	5%	% <input type="text"/> 0 <input type="text"/>	1.16% (1.40)	5% (3.50)	0	0	0
Aphid Adult	4%	% <input type="text"/> 0 <input type="text"/>	0	0	0.8% (1.00)	0	4% (1.50)
Mealybug Adult Wood	2.5%	% <input type="text"/> 0 <input type="text"/>	0	2.5% (2.00)	0	0	0



Interactive graph

Interactive decision-making tool

Compare pest infestations and spray events





Traps

Flag trap threshold exceedances

Date: 05/11/2025 - 28/11/2025 | Area: Ashton | Farm: Brakkloof

Key Traps Report

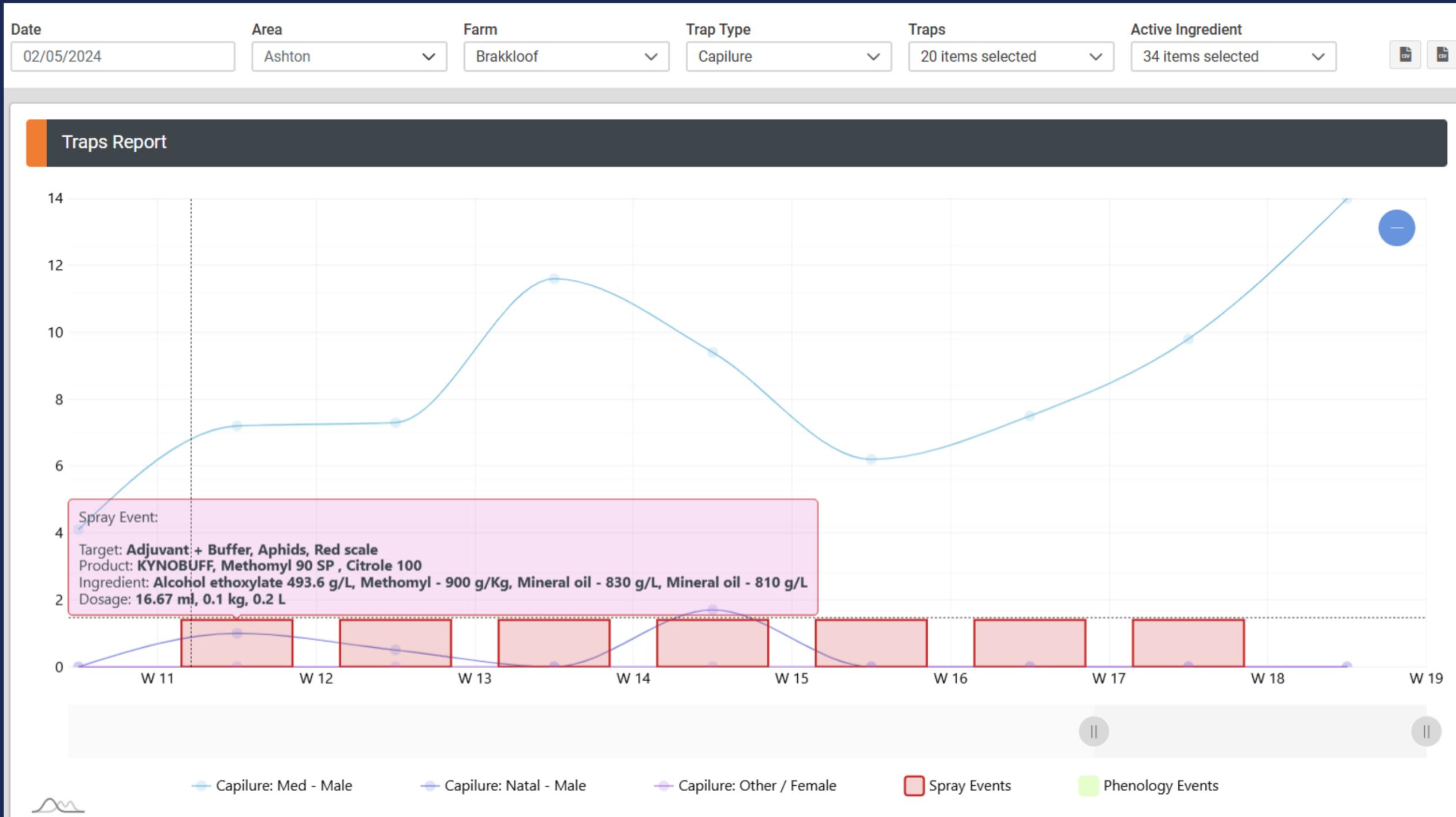
Legend: Lower Threshold (White), Between Values (Yellow), Upper Threshold (Red)

Date ↑↓	Orchard ↑↓	Station ↑↓	Cultivar ↑↓	BD Bucket			CFM			Capilure			FCM			Questlure			Snail Trap		
				Count ↑↓	Count ↑↓	Count ↑↓	Med - Male ↑↓	Natal - Male ↑↓	Other / Female ↑↓	Wild ↑↓	Sterile ↑↓	Med - Female ↑↓	Natal - Female ↑↓	Other / Male ↑↓	Adult ↑↓	Juvenile ↑↓	Slugs ↑↓				
2025/11/12	BE10	BE10.5 Snail Trap 1 BE10.5 FCM 5 BE10.5 Capilure 3	2PH Eureka SL				0	0	0	0	0						1	0	0		
2025/11/12	BE13	BE13.1 FCM 1 BE13.1 CFM 1 BE13.1 Snail Trap 1 BE13.1 S...	2PH Eureka SL		3					0	0						NaN	0	0		
2025/11/12	BE13	BE13.2 Questlure 1 BE13.2 Capilure 1 BE13.2 Snail Trap 1	2PH Eureka SL				1	0	0			2	0	0			2	0	0		
2025/11/12	BE13	BE13.3 FCM 2 BE13.3 Snail Trap 1	2PH Eureka SL							0	0						1	0	0		
2025/11/12	BL12	BL12.1 Capilure 1 BL12.1 FCM 5 BL12.1 FCM 1	Leanri (MHL)				0	0	0	0	0										
2025/11/12	BL12	BL12.2 Questlure 1 BL12.2 FCM 2 BL12.2 CFM 1	Leanri (MHL)		0					0	0	0	0	0							
2025/11/12	BL12	BL12.3 FCM 1 BL12.3 FCM 3 BL12.3 Questlure 2 BL12.3 B...	Leanri (MHL)	0						0	0	0	0	0							
2025/11/12	BL12	BL12.4 FCM 4 BL12.4 Capilure 2	Leanri (MHL)				2	0	0	0	0										
2025/11/12	BL12	BL12.5 FCM 5 BL12.5 Questlure 3	Leanri (MHL)							0	0	1	0	0							
2025/11/12	BL12	BL12.6 FCM 6 BL12.6 Capilure 3	Leanri (MHL)				1	0	0	0	0										
2025/11/12	BL15	BL15.1 FCM 1 BL15.1 Capilure 1 BL15.1 Snail Trap 3 BL15...	Leanri				6	0	0	0	0						6	0	0		
2025/11/12	BL15	BL15.2 Snail Trap 2 BL15.2 Snail Trap 1	Leanri														2	0	0		
2025/11/12	BL15	BL15.3 FCM 3 BL15.3 Capilure 2 BL15.3 Snail Trap 2 BL15...	Leanri				11	0	0	0	0						3	0	0		
2025/11/12	BL15	BL15.4 FCM 4 BL15.4 Questlure 1 BL15.4 Snail Trap 1 BL1...	Leanri							0	0	2	0	0			1	0	0		
2025/11/12	BL15	BL15.5 FCM 5 BL15.5 Capilure 3 BL15.5 Snail Trap 2 BL15...	Leanri				4	0	0	0	0						3	0	0		
2025/11/12	BL15	BL15.6 Questlure 2 BL15.6 FCM 6 BL15.6 Snail Trap 1 BL1...	Leanri							0	0	0	0	0			3	0	0		
2025/11/12	BL15	BL15.7 FCM 7 BL15.7 Snail Trap 2 BL15.7 Snail Trap 1 BL1...	Leanri							0	0	0	0	0			2	0	0		
2025/11/12	BL15	BL15.8 Capilure 4 BL15.8 Snail Trap 2 BL15.8 Snail Trap 1	Leanri				14	0	0								3	0	0		

Page 4 of 20



Traps

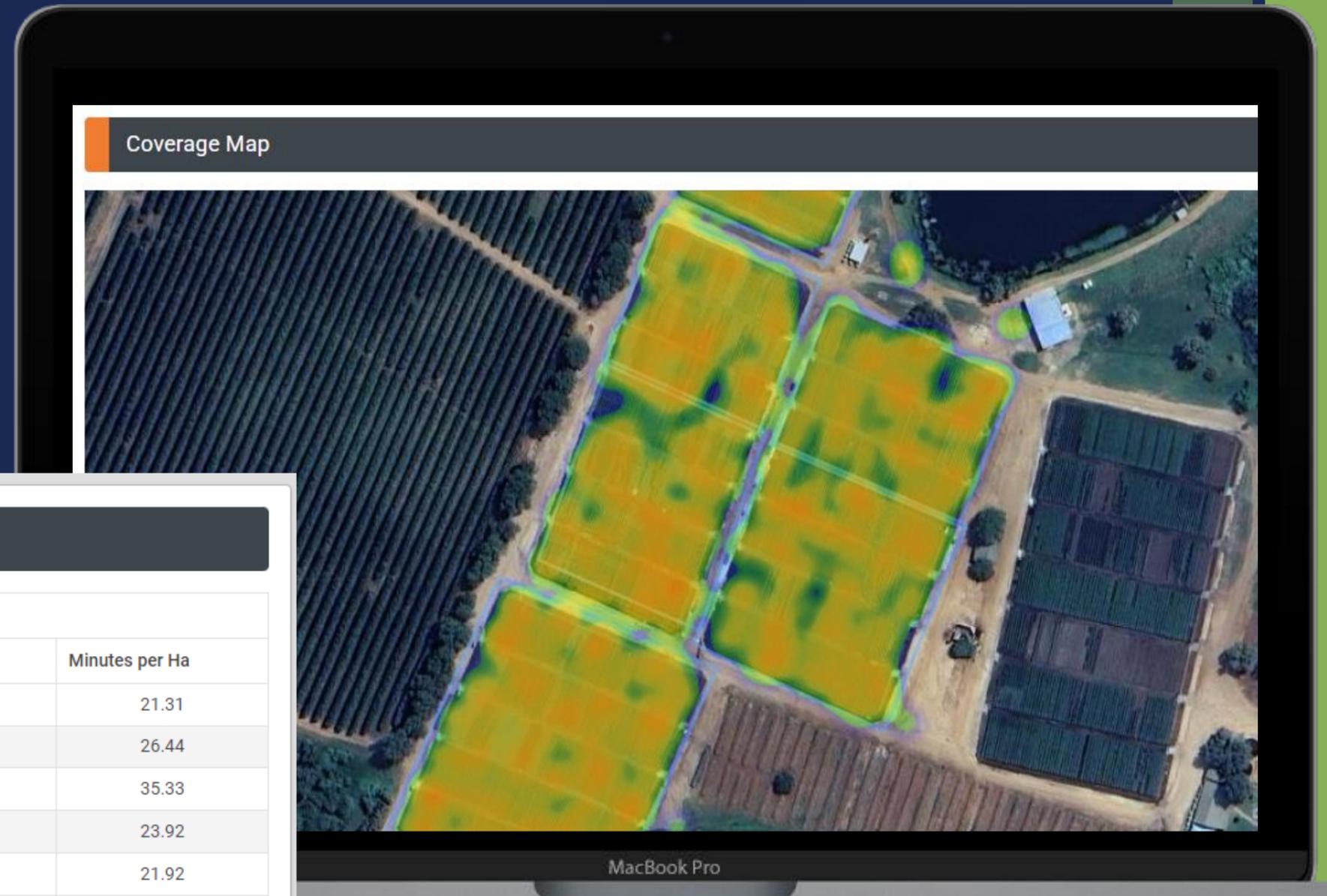




Scout efficiency

FarmNode helps management

1. How long scouts spend in the orchard
2. How well their orchard coverage is



Scouting Time - Per Block

Scout Name ↑↓	Block Name	Ha	Duration		
			Start Time ↑↓	End Time	Minutes per Ha
Elsabe Filander	6029	3.05	09:46 AM	10:51 AM	21.31
Elsabe Filander	1422	1.47	11:24 AM	12:03 PM	26.44
Wayne-Lee Pekeur	1401	2.18	09:37 AM	10:54 AM	35.33
Wayne-Lee Pekeur	6025B	1.56	11:16 AM	11:54 AM	23.92
Wayne-Lee Pekeur	6009	0.85	14:03 PM	14:22 PM	21.92
Wayne-Lee Pekeur	1420	1.78	14:50 PM	15:34 PM	24.92



Spray instructions

Spray Instruction 2026-01-13

Jobcard ?

Application Coverage

Issued By

Proposed Application Date

Application Method ?

Recommended By

Dosage Type

Calibration L/Ha ?

Calibration Options ?

Farms

Blocks

Tanks

Frequently Used Products

Products

Selected Farms

Selected Blocks

Selected Tanks

Spray Record

Instruction Number: Botrytis spray #2 Flowers
Application Coverage: Light
Spray Method: Spray
Total Ha: 0.09
Total Trees: 30000
Calibration L/ha: 1
Total tanks (16L): 0.01

Date Issued: 2026-01-13
Farm: DuRoi Multiplant
PUC: DuRoi MultiplantPUC
Issued By: Duncan Reynhardt
Recommended By: Adriaan Jacobus Serfontein
Fruit Types: Macadamia
Varieties: 695



Product Details

Product	Active	Reg#	PHI	DPHI Date	Rec PH	Dosage	Dosage 16L	Estimated Total	Justification
ICABos		L10467	0	2026-01-13	14.0-0.0	80g/100L	12.80 g	0.00 kg	Botrytis

Equipment Detail

Equipment Type	Equipment Number	Gear	Nozzles	Speed	Pressure	Hour Meter Start	Hour Meter End	Total Fuel

Blocks: Tunnel 3&4

Job Title	Operator	Signature



Tanks

Time	PH	Time	PH	Time	PH	Time	PH	Time	PH	Time	PH	Time	PH
1		2		3		4		5		6		7	
8		9		10		11		12		13		14	
15		16		17		18		19		20		21	
22		23		24		25		26		27		28	
29		30		31		32		33		34		35	
36		37		38		39		Suggested		Issued		Returned	

Start Date	Finish Date	Min Temp	Max Temp	Weather
				☀ ☁ ☔

Notes:



Spray record

Area: Letsitele | Farm: DuRoi Multiplant | Blocks: 8 items selected | Method: Spray, Soil Drench By Hand, Hand | Products: 12 items selected | Active Ingredient: 13 items selected | Justification: 11 items selected

Cover: Spot Treatment, Full, Light | Variety: 5 items selected | Date: 06/10/2025 - 31/10/2025

[Export CSV Options](#)



Spray Records

Simplified View | Detailed View

Search Instruction No.

#	Date	Block	Products	Justification	Calibration L/ha	Method	Cover	
> 40115	10/27 - 11/04	C D I J	Roundup Turbo Ammonium Sulphate	Weeds - Annual weeds Adjuvant + Buffer	150ℓ	Spray	Spot Treatment	
> 40096	10/27 - 10/27	Tunnel 3&4	Hydrogen Peroxide	Soil fungi	1ℓ	Soil Drench By Hand	Spot Treatment	
> 39982	10/23 - 10/23	C D E	Delegate 250 WG Steward Citrole 100 Bio-Buffer 5	Thrips Orange dog caterpillar Adjuvant Adjuvant + Buffer	1000ℓ	Spray	Full	
> Thrip and fungus spray in India and Juliet	10/10 - 10/10	I J	Striker	Mites - Flat mite	1500ℓ	Spray	Full	



Irrigation

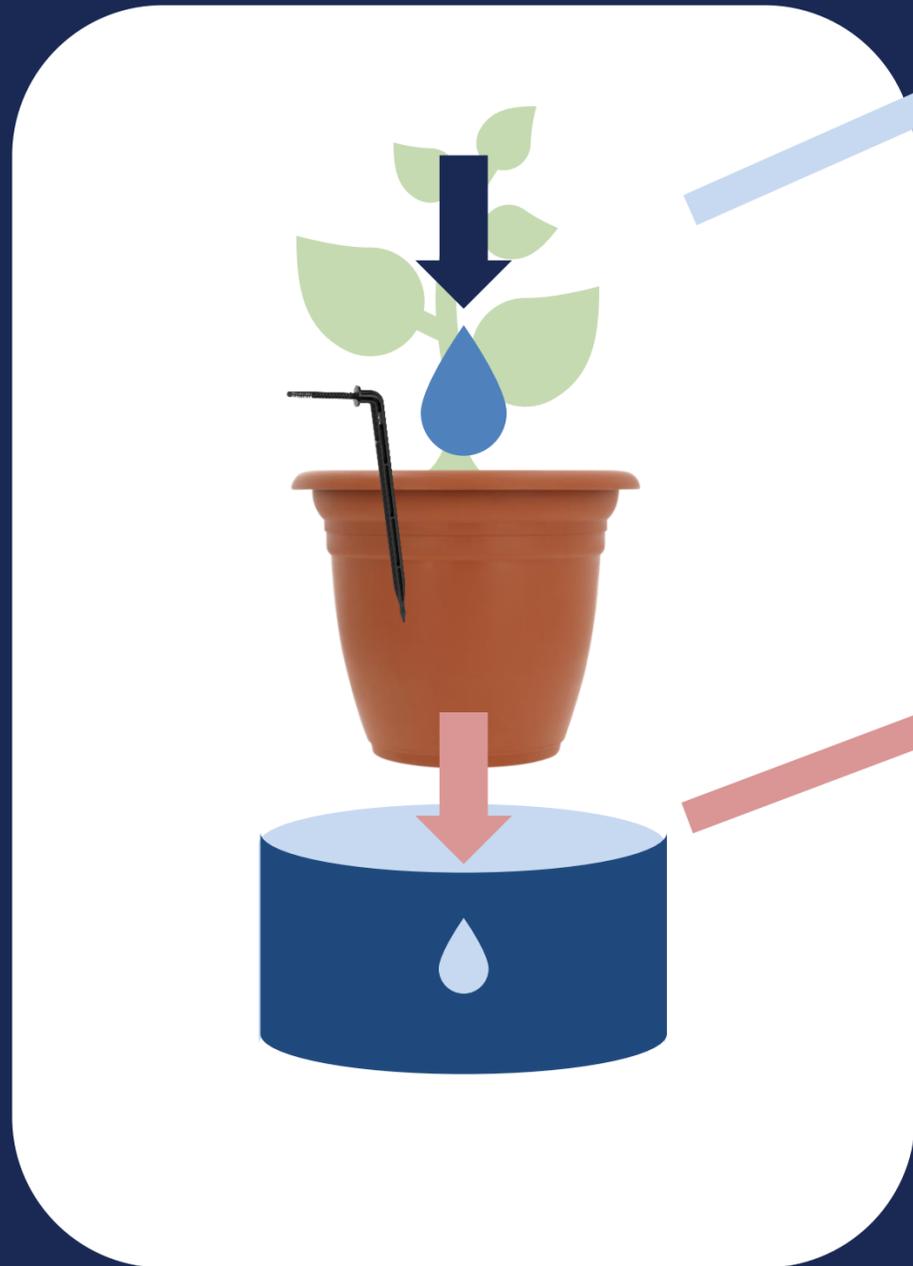
- EC & pH monitoring app





Drainage stations

Manage medium EC



Irrigation IN
(controlled by YOU)
EC
pH
Volume

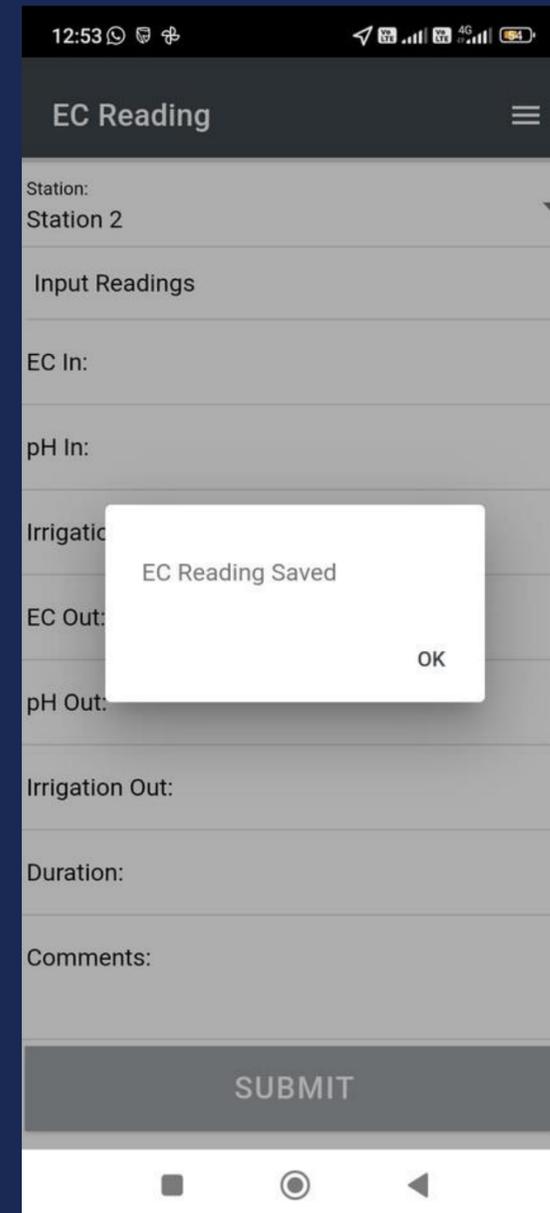
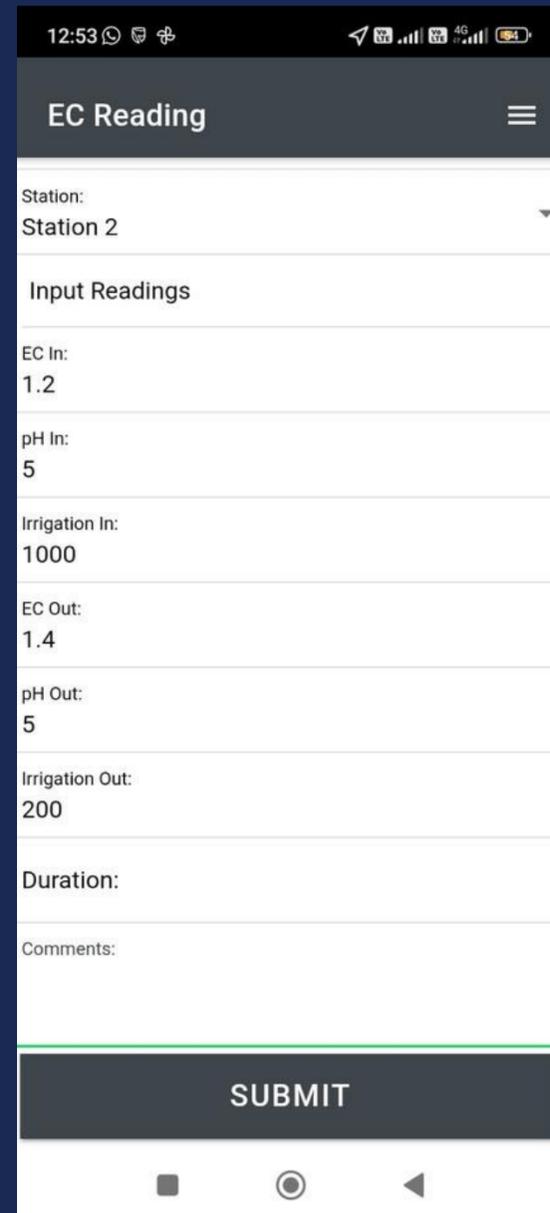
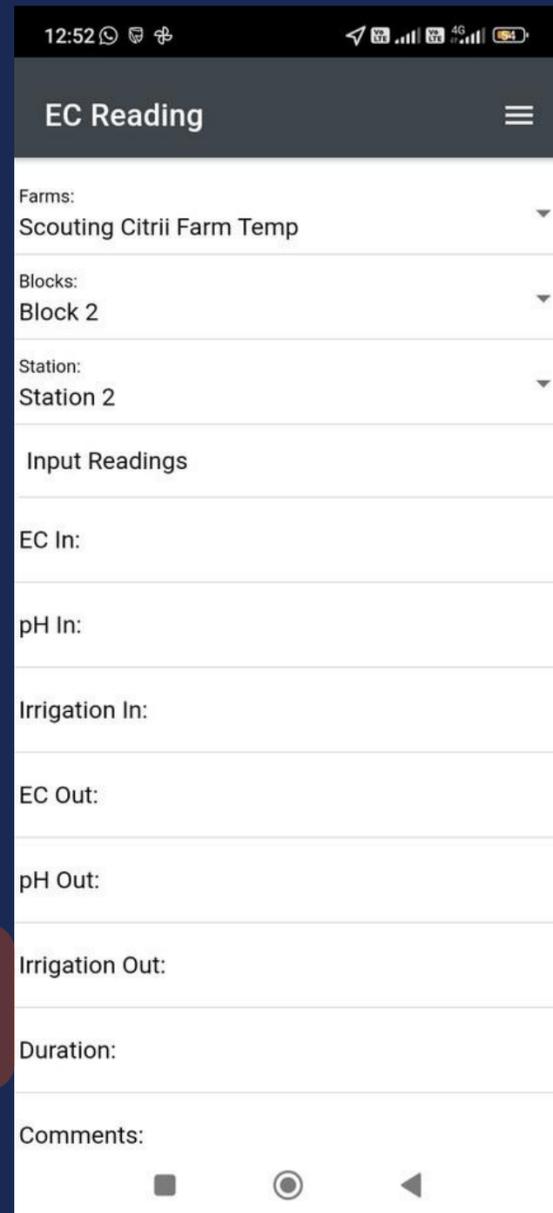


Irrigation OUT
EC - close to IN
pH - similar
Volume - NB!

$$\frac{Volume\ IN}{Volume\ OUT} \times \frac{100}{1} = Leachate\ \%$$



EC and pH monitoring





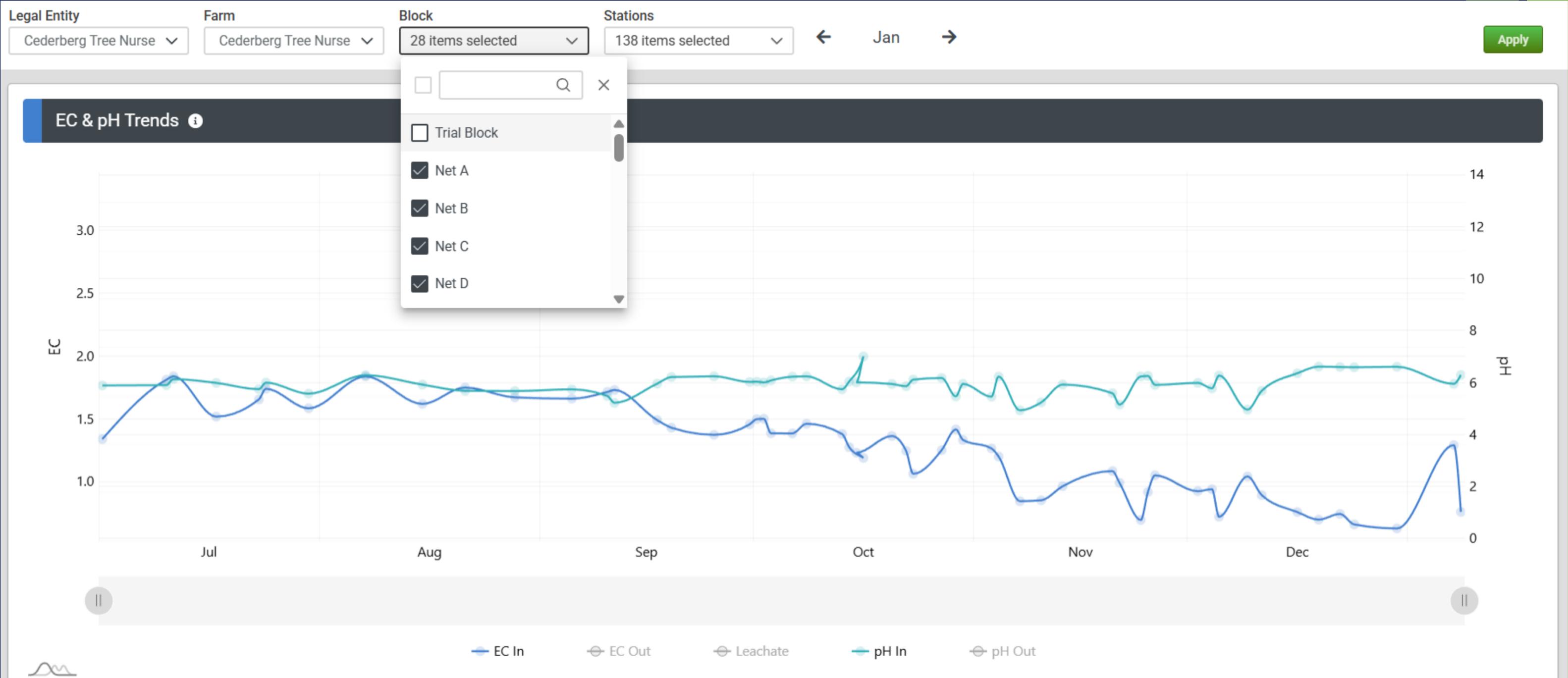
EC and pH Reporting

EC Readings

Date ↑↓	Block ↑↓	Station ↑↓	Irrigation In ↑↓	Irrigation Out ↑↓	Leachate ↑↓	Duration ⓘ ↑↓	EC In ↑↓	EC Out ↑↓	pH In ↑↓	pH Out ↑↓	Comments
2025/08/04 13:53	Tunnel 2	T2B6	800		0 %		920.00		5.90		
2025/08/04 13:54	Tunnel 2	T2B8	800	200	25 %		930.00	1,090.00	5.80	7.70	
2025/08/04 13:57	Tunnel 2	T2B10	600		0 %		910.00		6.20		no irrigation out
2025/08/04 14:01	Tunnel 2	T2B19	850	250	29 %		860.00	930.00	6.10	6.50	
2025/08/04 14:05	Tunnel 2	T2B17	800		0 %		940.00		6.00		no irrigation out
2025/08/04 14:07	Tunnel 2	T2B17	850	300	35 %		950.00	2,490.00	5.90	6.50	
2025/08/04 14:53	Tunnel 3	T3B15	3,000	2,800	93 %		980.00	890.00	5.80	7.30	
2025/08/04 14:53	Tunnel 3	T3B15	1,600	900	56 %		970.00	1,120.00	5.70	6.40	
2025/08/04 15:22	Net A	Net A B10	1,300	900	69 %		920.00	1,260.00	6.20	5.80	
2025/08/04 15:23	Net A	Net A B12	1,200	400	33 %		930.00	1,120.00	6.30	6.60	
2025/08/04 15:24	Net A	Net A B12			0 %			999.00			
2025/08/04 15:38	Net A	Net A B15	1,100	400	36 %		1,130.00	1,280.00	6.10	6.30	
2025/08/04 15:39	Net A	Net A B17	1,300	300	23 %		1,120.00	970.00	5.90	6.40	
Average					36.76 %		960.87	1,176.62	5.90	6.50	



EC and pH Reporting





EC and pH Reporting - Blueberries

FRESHTRACE

EC REPORT

06/01/2026

No Reply @ Citrii

Citrii bavaria_ec Report

Please find attached the

04:18

No Reply @ Citrii

Citrii wasiberries_ec_report R...

Please find attached the

04:18

Wasi Berries Production

HJ, Japhta, Zylon, +27 76 268 7652, +27 73 ...

12/12/2025

Morning team!

Should Bavaria EC IN not be higher? It is around 0.45.

06:37

HJ Stebbing WASI BERRIES

More. It must be higher yes. We have increased EC yesterday again. Should read better today.

06:39

A1 - 1ST STATION

Time	Irrigation In	Irrigation Out	Leachate %	Duration	EC In	EC Out	pH In	pH Out
08:13	500	125	25.00		1.24	1.32	5.00	5.00
14:29	500	125	25.00		1.01	1.21	5.80	5.60
15:15	500	125	25.00		0.96	1.19	5.80	5.30
11:35	500	15	3.00		1.21		5.50	
Summary	2000	390	19.50		1.11	1.24	5.53	5.30

A1 - 2ND STATION

Time	Irrigation In	Irrigation Out	Leachate %	Duration	EC In	EC Out	pH In	pH Out
08:14	500	100	20.00		1.26	1.27	5.00	5.00
11:32	500	10	2.00		1.24		5.80	
14:29	500	100	20.00		1.21	1.31	5.60	5.00
15:15	500	100	20.00		0.99	1.41	5.60	5.30
Summary	2000	310	15.50		1.18	1.33	5.50	5.10

How has this changed us?

- More efficient
 - elimination of duplicate data capture
- Improved data accuracy
- Faster decision-making
- Access to real-time information
- Better records
 - improved audit readiness
- Ability to evaluate and review practices



Thank you!

Cilliers van
Rooyen

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