AGROWIZARD

IPPS EUROPE · BREDA · 2 OCTOBER 2026

GROWING IS KNOWING.

Digitising the nursery, one tree at a time.

Yannick Smedts · Co-founder AgroWizard



QUICK QUESTION

WHO HAS BEEN GROWING FOR MORE THAN 10 YEARS?

Hands up.

100 YEARS OF GROWING

THE CRAFT STAYS. EVERYTHING AROUND IT CHANGES.



THEN

HANDS, HORSE AND CART



NOW

THE TRACTOR



NEXT

DRONES AND ROBOTS

WHO'S READY?

20 YEARS
IN TREE NURSERIES.

Horticulture & arable farming, University of Applied Sciences

Trainee with Jacob van den Borne, precision farming pioneer

Fleuren
BOOMKWEKERIJ



ABOUT ME

FROM THE NURSERY, FOR THE NURSERY

AGROWIZARD

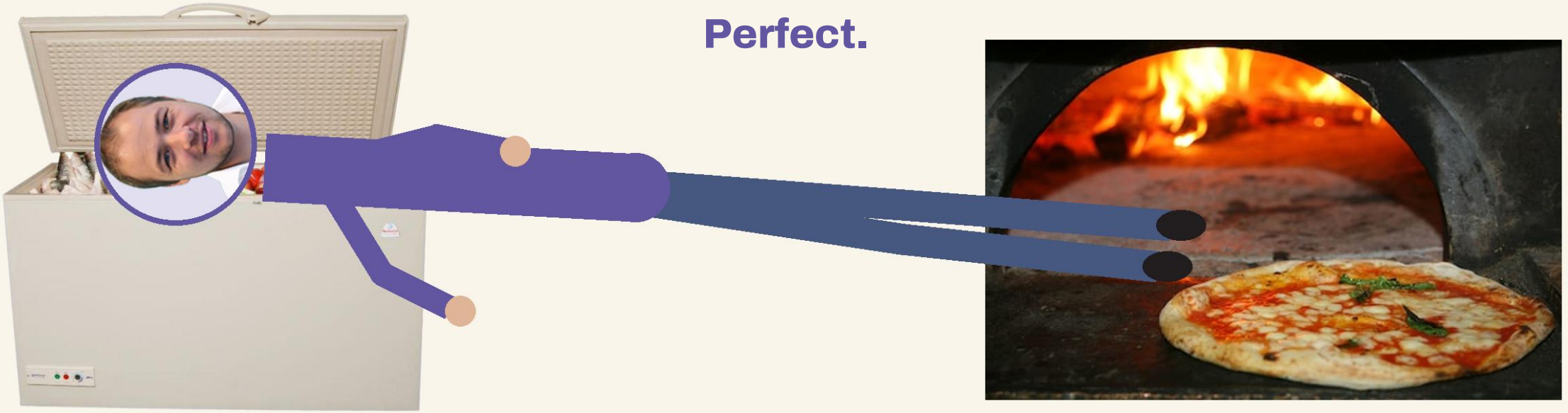
WHO WANTS TO STEER ON AVERAGES?

–18 °C

+300 °C

AVERAGE: 141 °C

Perfect.



THE PRECISION CYCLE

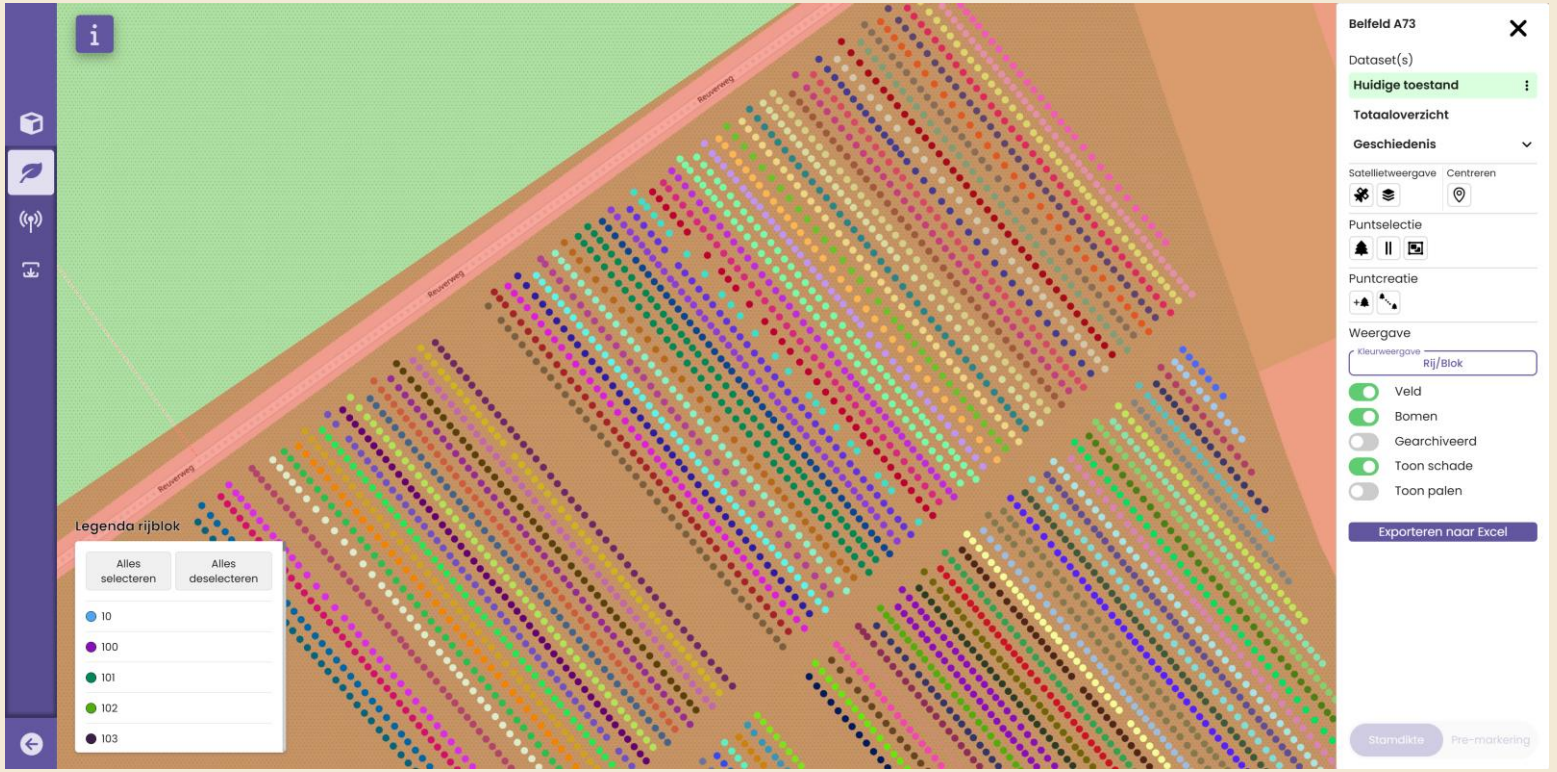
ONE YEAR ON THE NURSERY, TWELVE STEPS.

It starts with a digital nursery book. Everything you measure goes back into it.



DIGITAL NURSERY BOOK

Every field, block, row and variety on one map. It all starts here.



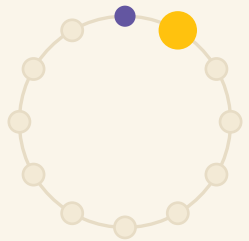
DIGITAL NURSERY BOOK

SOIL SCAN

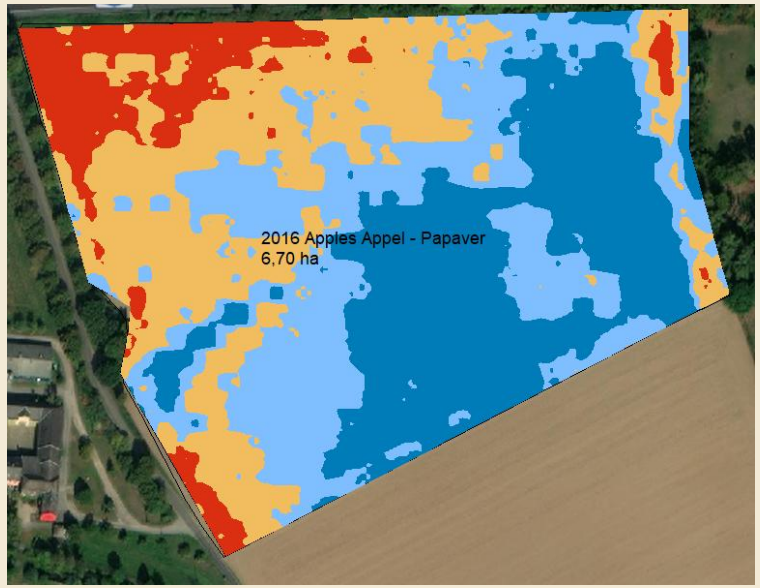


One drive over the field shows how the soil changes, metre by metre.

BUILT IN-HOUSE · SOILMASTERS

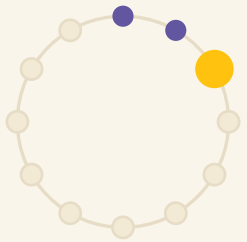


SOIL SCAN

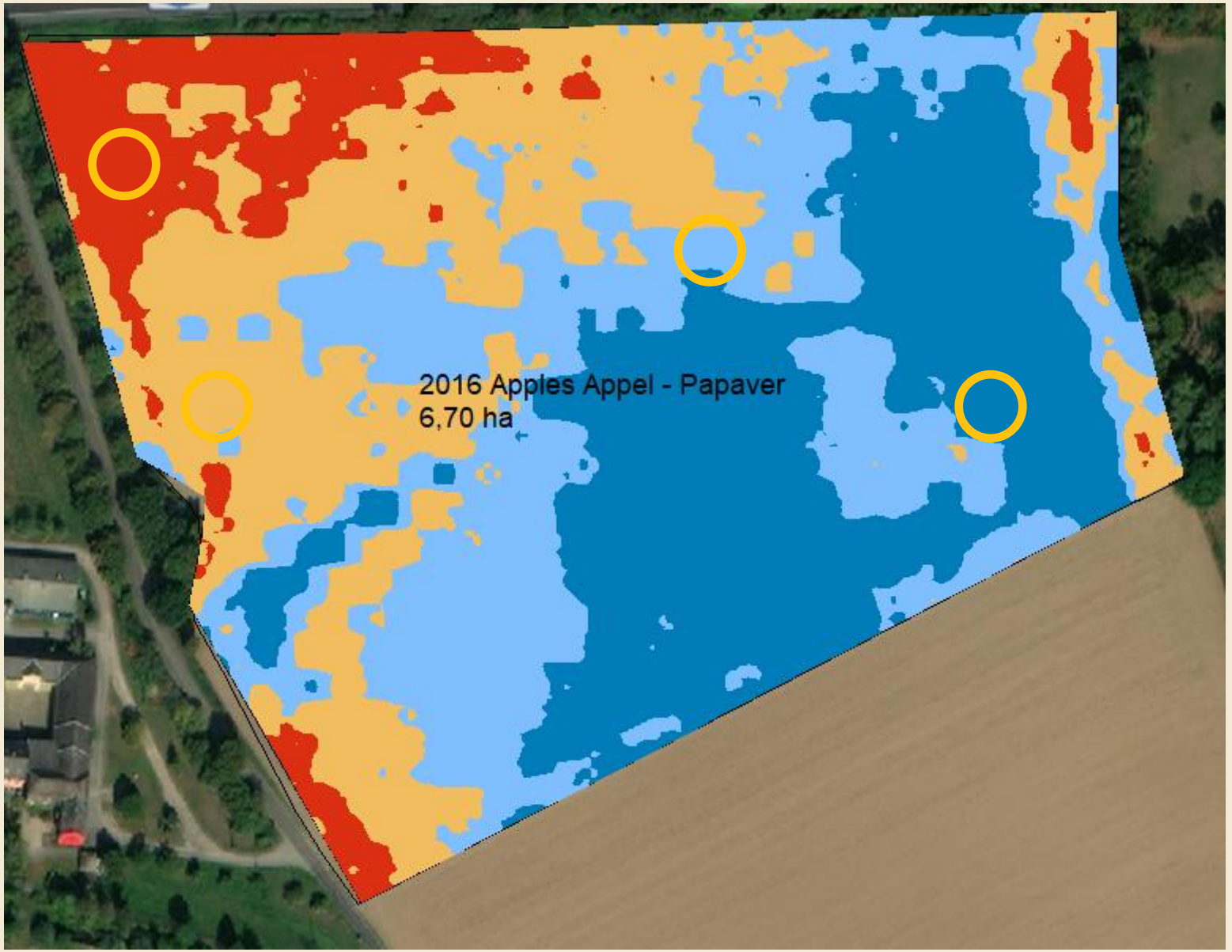


SAMPLE WHERE IT MATTERS

Not one mixed sample per field, but four: one in every zone that differs.

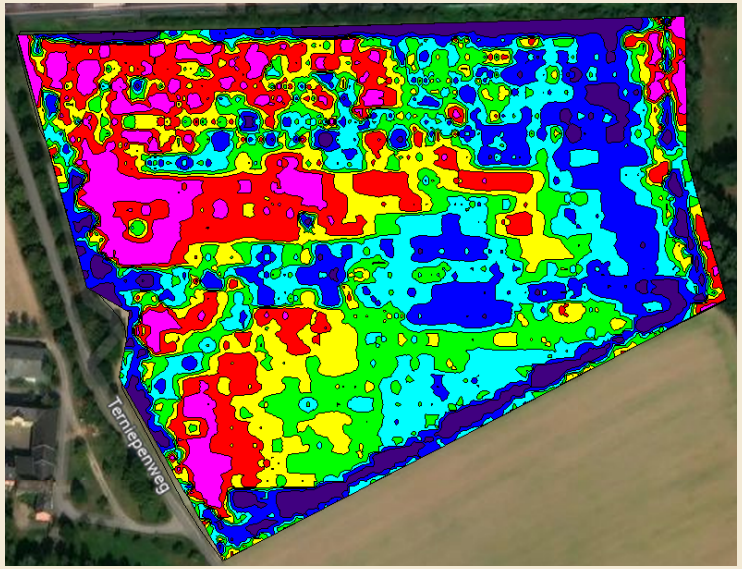


TARGETED SAMPLING

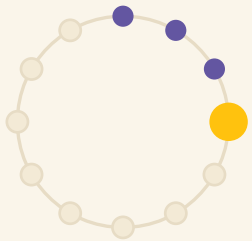


VARIABLE FERTILISING

The task map tells the spreader what every spot needs.



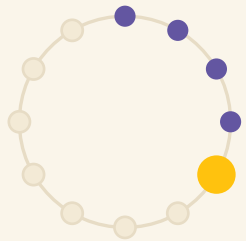




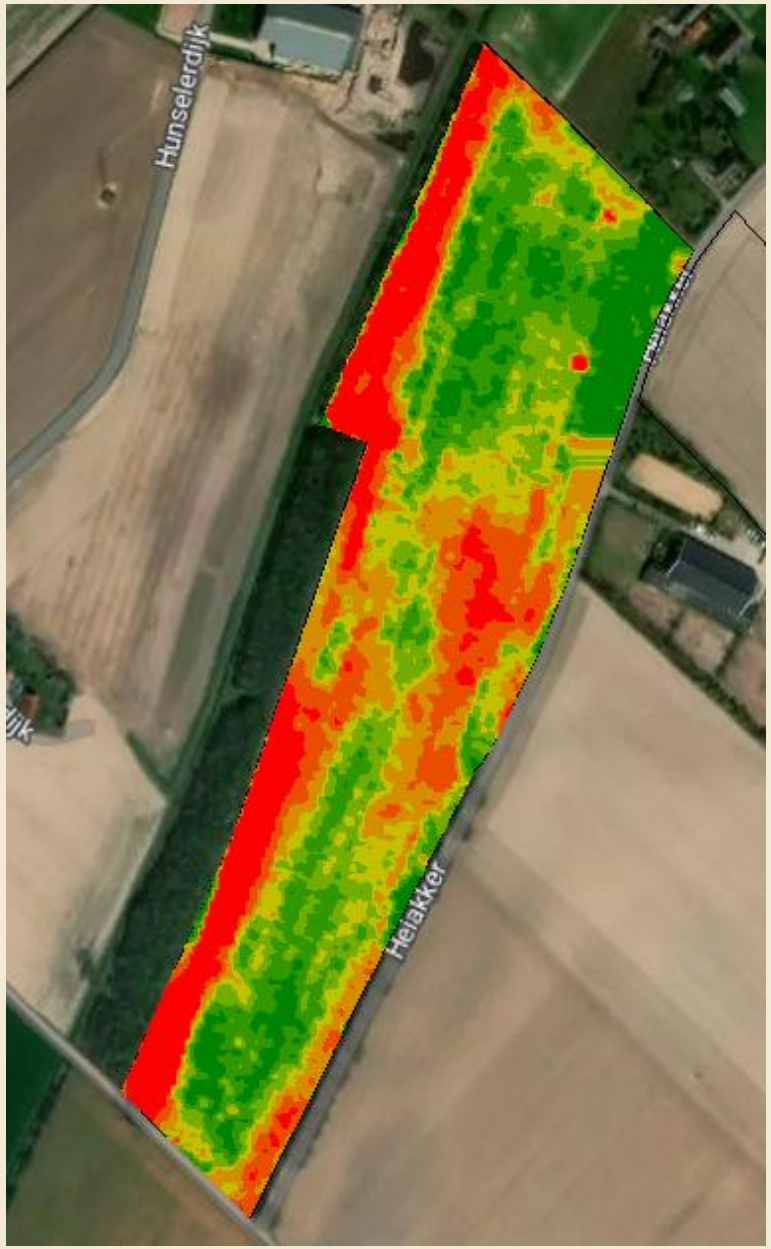
VARIABLE FERTILISING

PLANTING PLAN

Varieties and water regime chosen per soil zone.

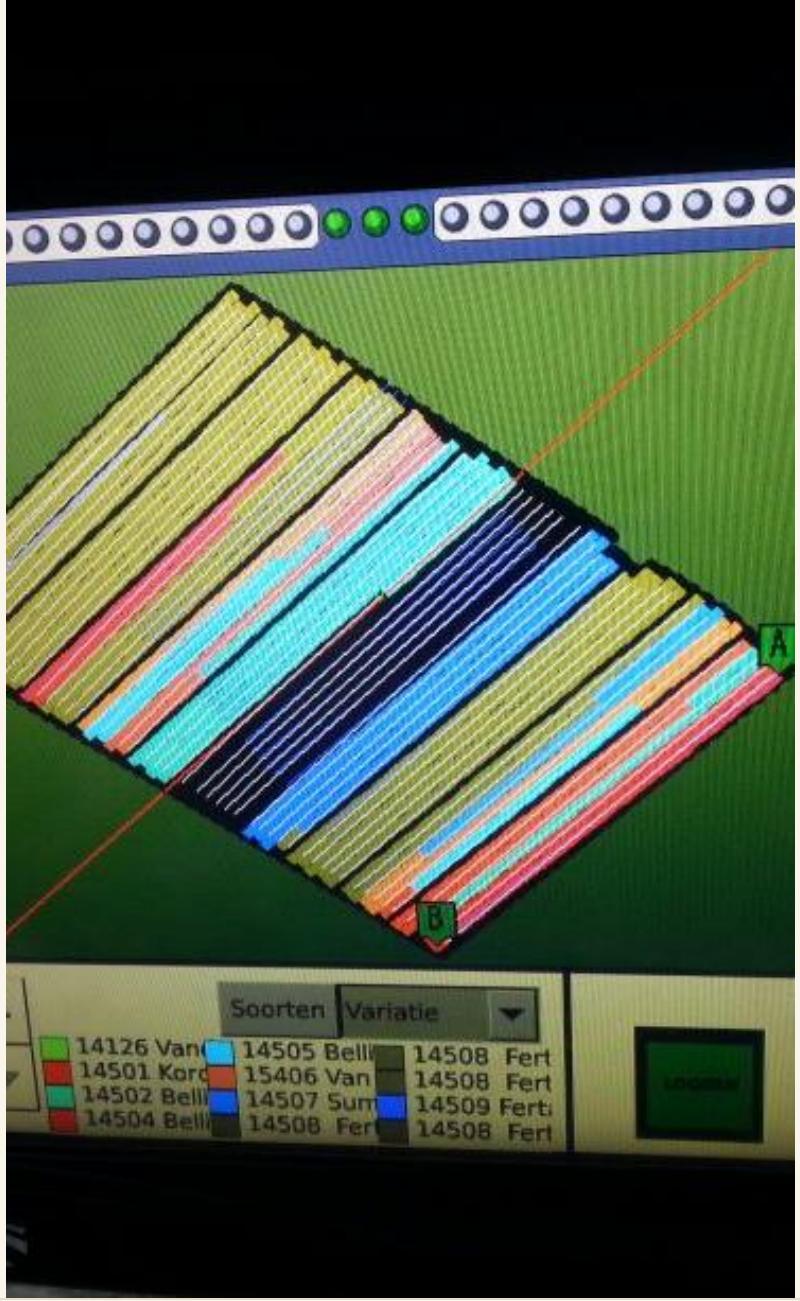


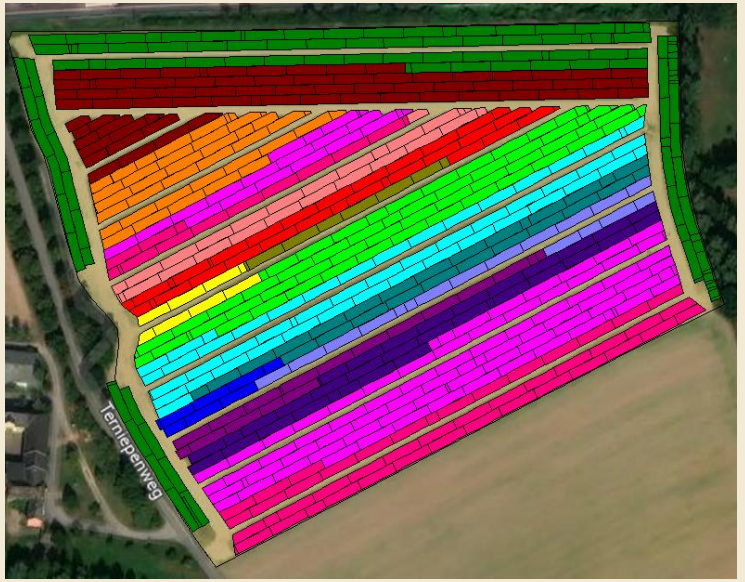
PLANTING PLAN



PLANTING ON GPS

Straight rows, within 2 cm. Every tree gets an address.



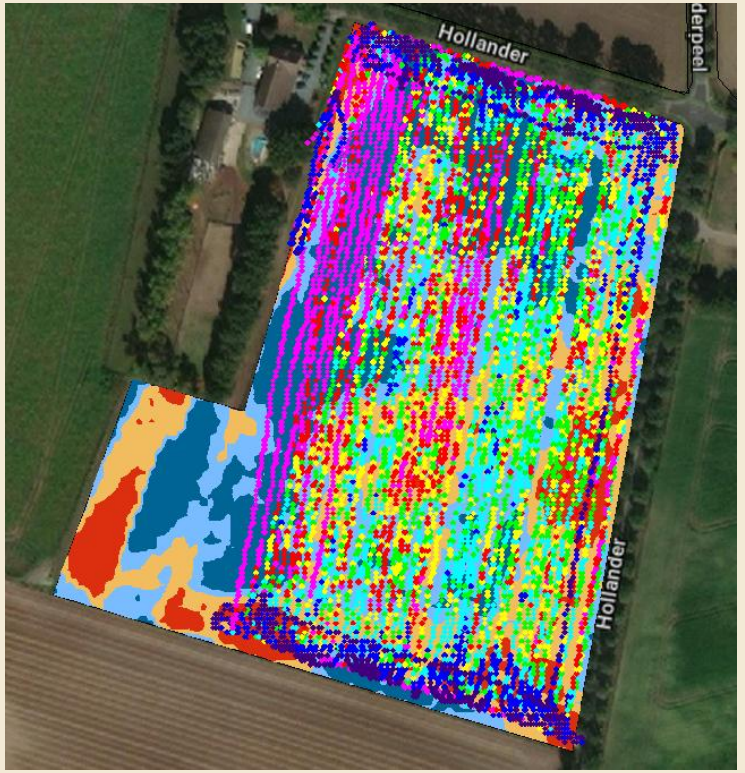


PLANTING ON GPS

SOIL CULTIVATION

Every pass in the same track, steered by RTK.





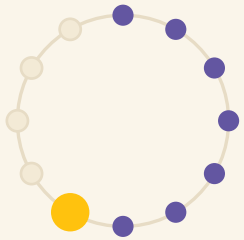
SOIL CULTIVATION

THE CYCLE · 08 / 12

WEATHER STATION

Local weather per block: when to spray, protect against frost, irrigate.

BUILT IN-HOUSE · WOLKYTOLKY

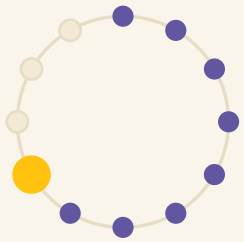


WEATHER STATION



CROP PROTECTION

Spray the trees, not the gaps. Sensors shut off where there is no tree.

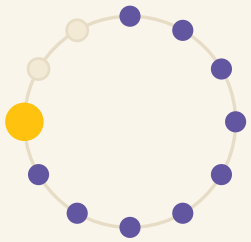


CROP PROTECTION

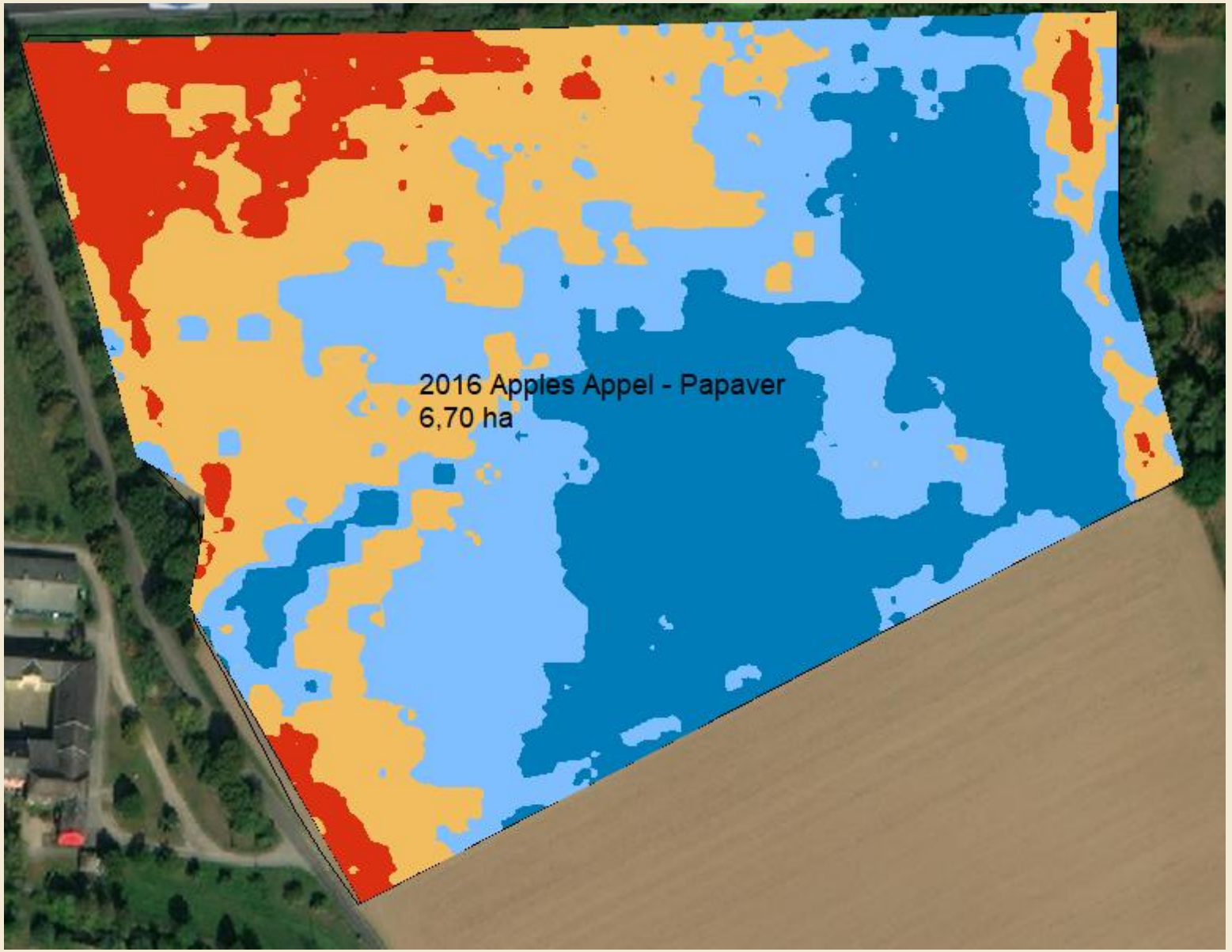


IRRIGATION

Irrigation blocks drawn along the soil zones.



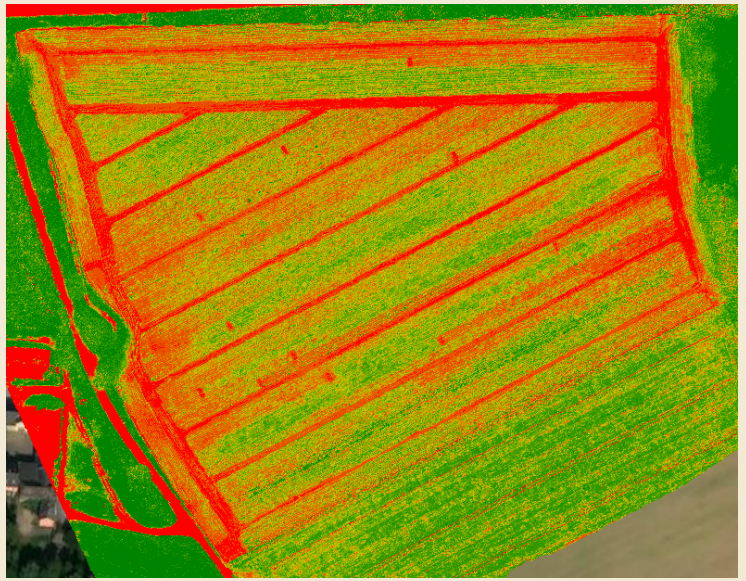
IRRIGATION

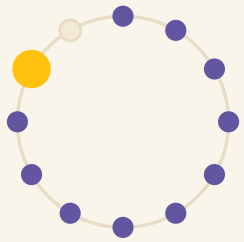


FROM THE AIR

Drones and satellites spot differences before we see them.







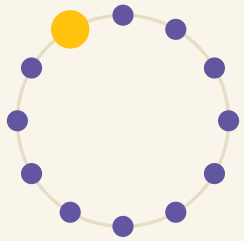
FROM THE AIR

THE CYCLE · 12 / 12

MEASURE THE TREE ITSELF

Stem diameter is the yield meter of a nursery.

BUILT IN-HOUSE · AGROWIZARD



MEASURE THE TREE





THE CYCLE · 12 / 12

DRIVING THROUGH THE FIELD, MEASURING EVERY TREE

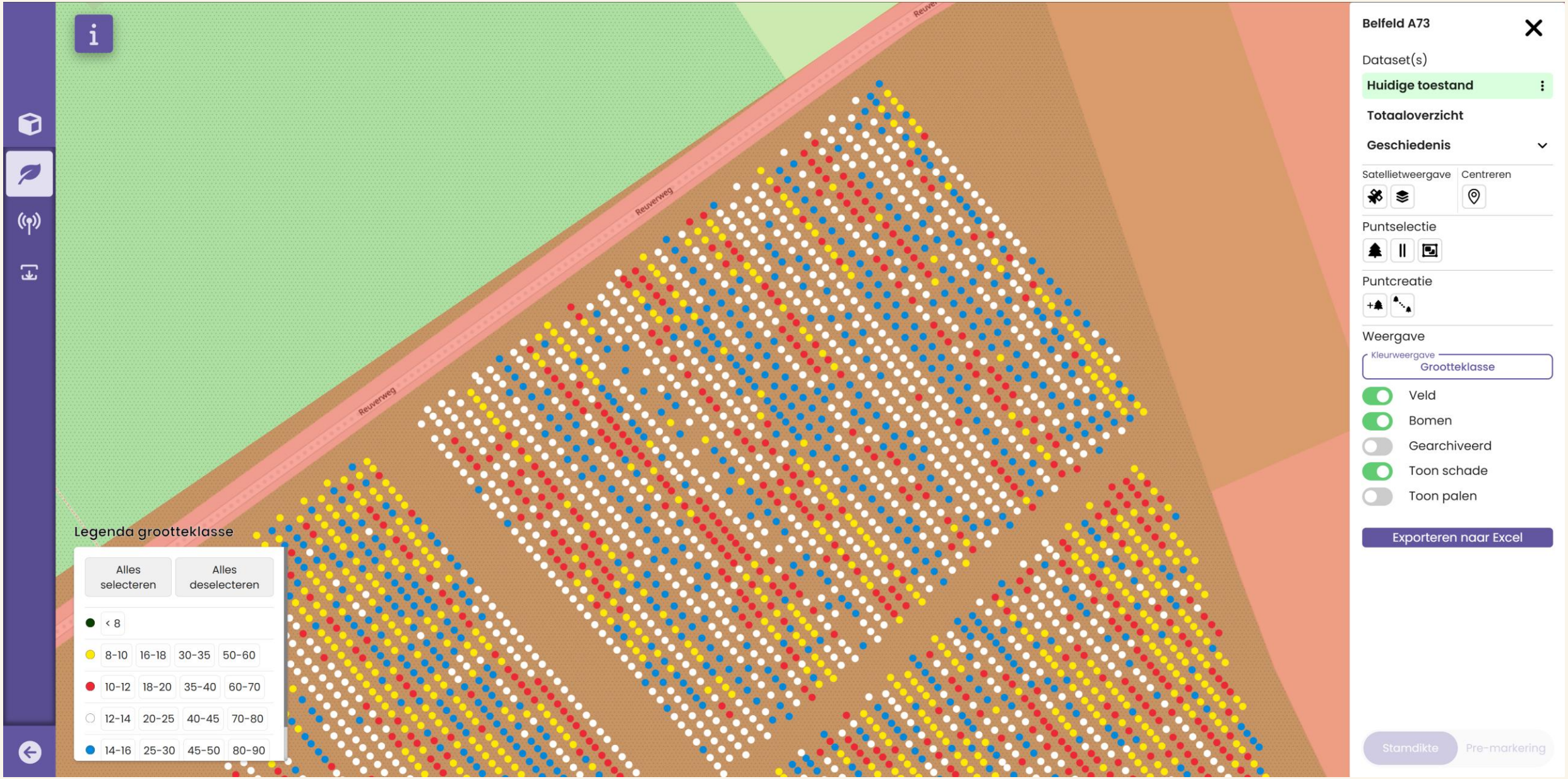
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THE CYCLE · 12 / 12

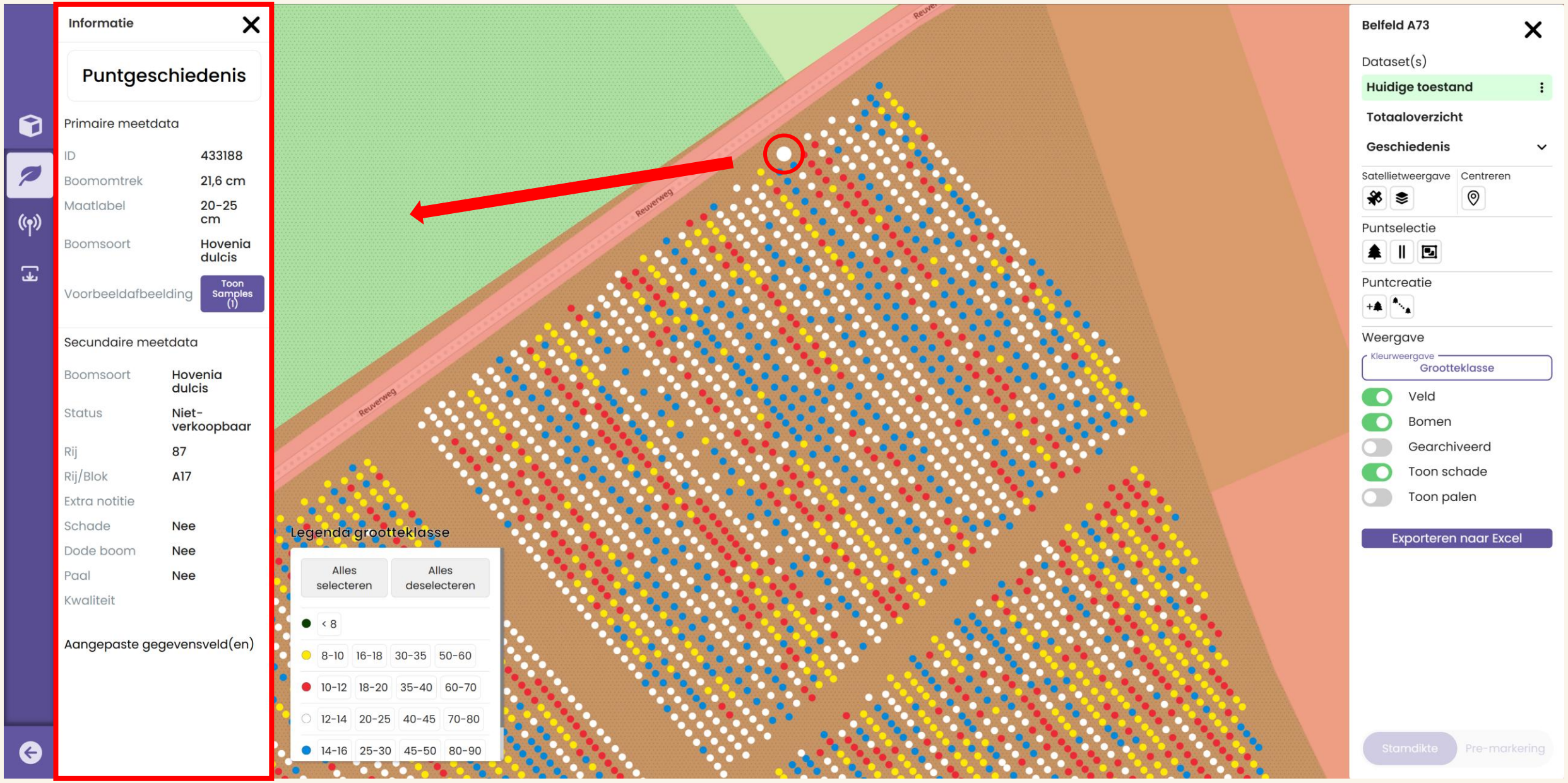
QUAD WITH CAMERA MODULE AND LIGHTS

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EVERY TREE IN A FIELD

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ONE TREE, ITS FULL HISTORY

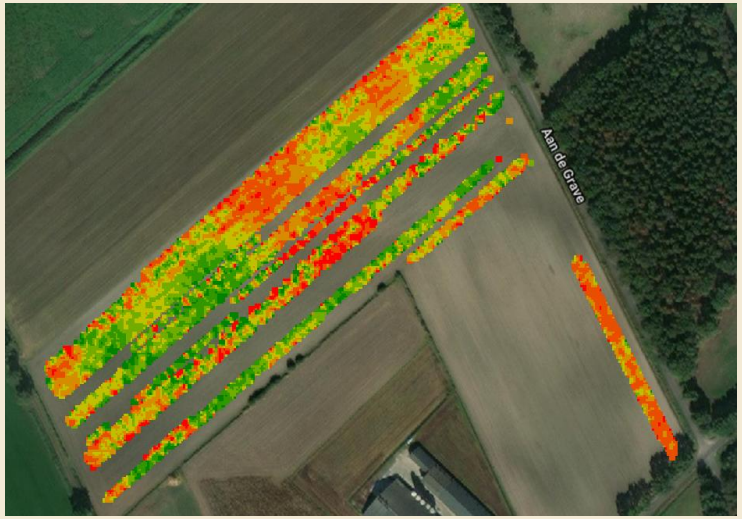
CLOSING THE LOOP

THE TREE TELLS YOU WHAT THE SOIL DID.

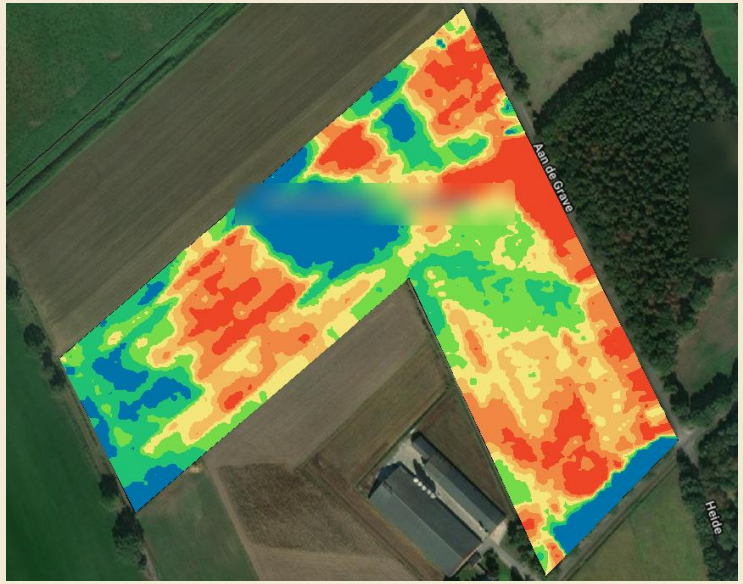
Same field, same pattern. Now you know where to act, and it all goes back into the nursery book.

BACK TO STEP 1

STEM DIAMETER



SOIL SCAN



WHY BOTHER?

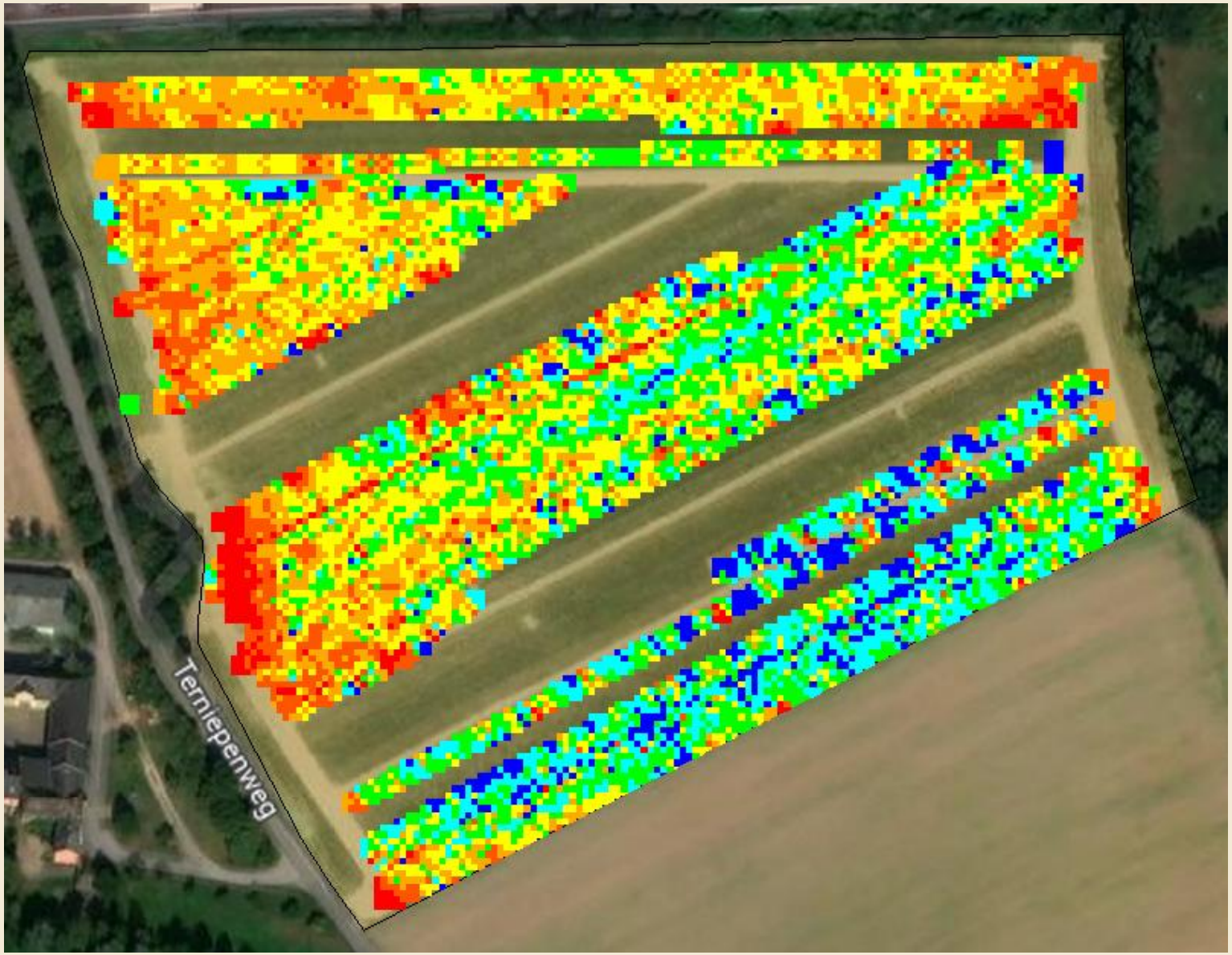
€5.50 OR €3.00 A TREE.

25,000 trees per hectare

€31,250 per hectare, if it's all blue

€18,750 per hectare, if it's all red

What is it on your own field?



LIVE

READY FOR A BATTLE WITH THE TREEWIZARD?

Three volunteers. One stem. One caliper.

01 **WAY FASTER THAN THE QUICKEST EMPLOYEE.**

02 **MORE CONSISTENT THAN ANY EMPLOYEE.**

WHAT'S NEXT

THE ROBOT DRIVES. THE CAMERA MEASURES.

An AgXeed robot with two AgroWizard modules: every tree measured, no driver needed.



CONCLUSION

WE WILL BE DATA MINERS DURING OUR CULTIVATION.

AI will help us find the patterns we can't see by eye.

The craft stays. Growing is knowing.

SEEK AND SHARE

WHAT WOULD YOU MEASURE FIRST?

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