

Roll-Out of Online Application for N Sidedress Recommendations in Potato.

EFITA 2017, Montpellier

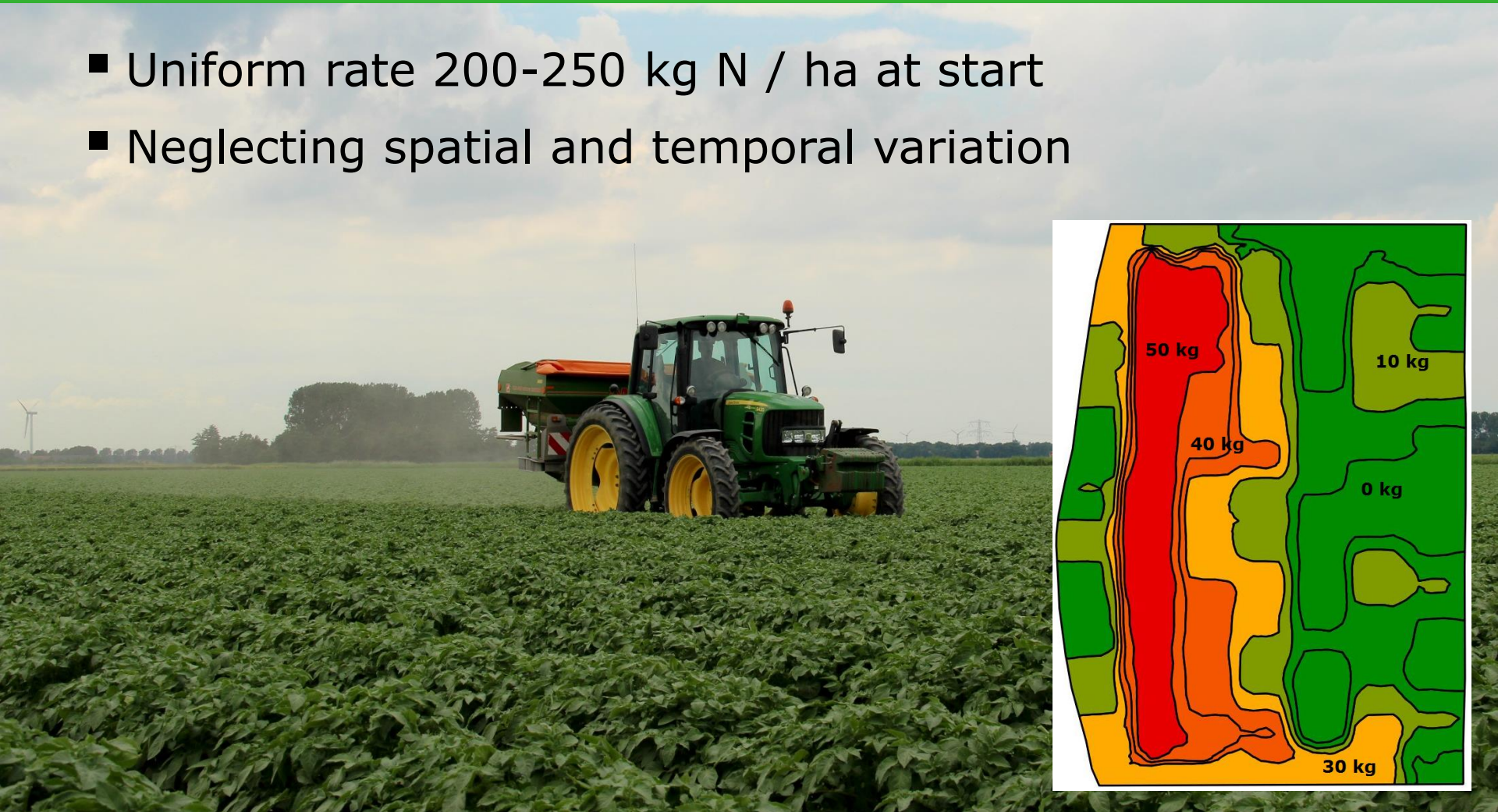
Johan Booij, Frits van Evert, Willem van Geel,
Brigitte Kroonen-Backbier and Corné Kempenaar



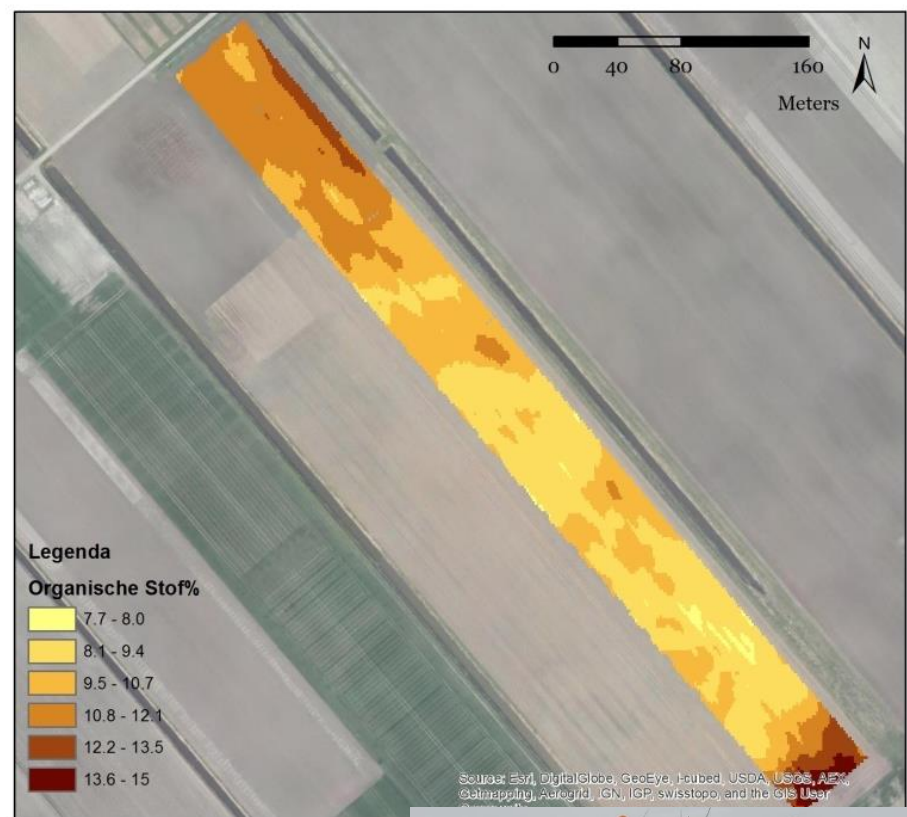
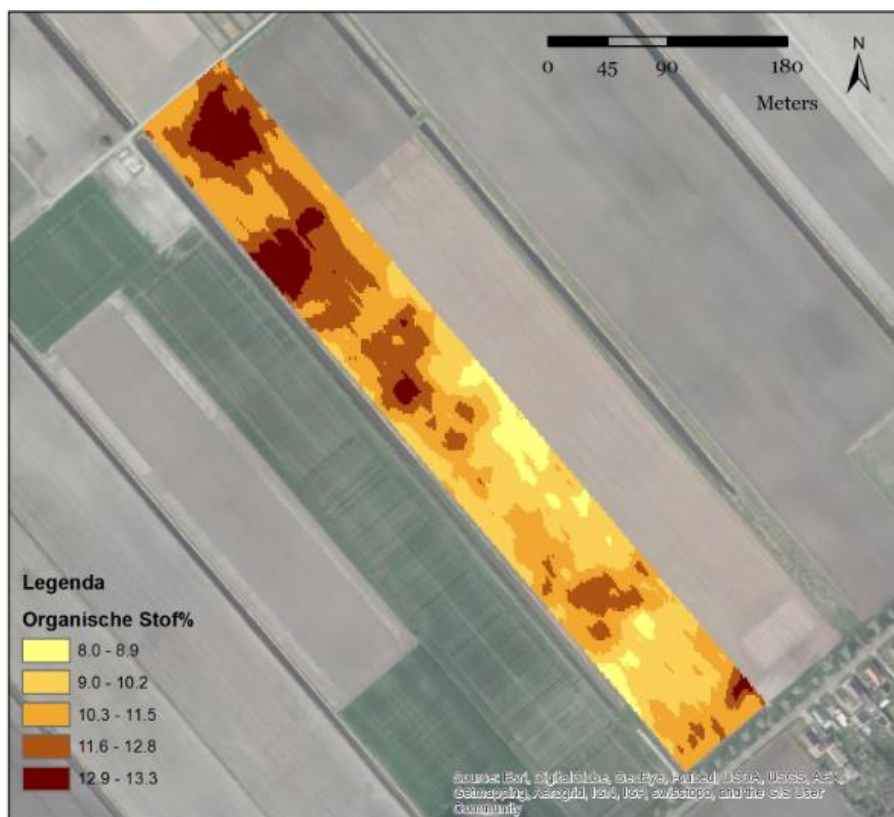
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Common nitrogen application in potatoes

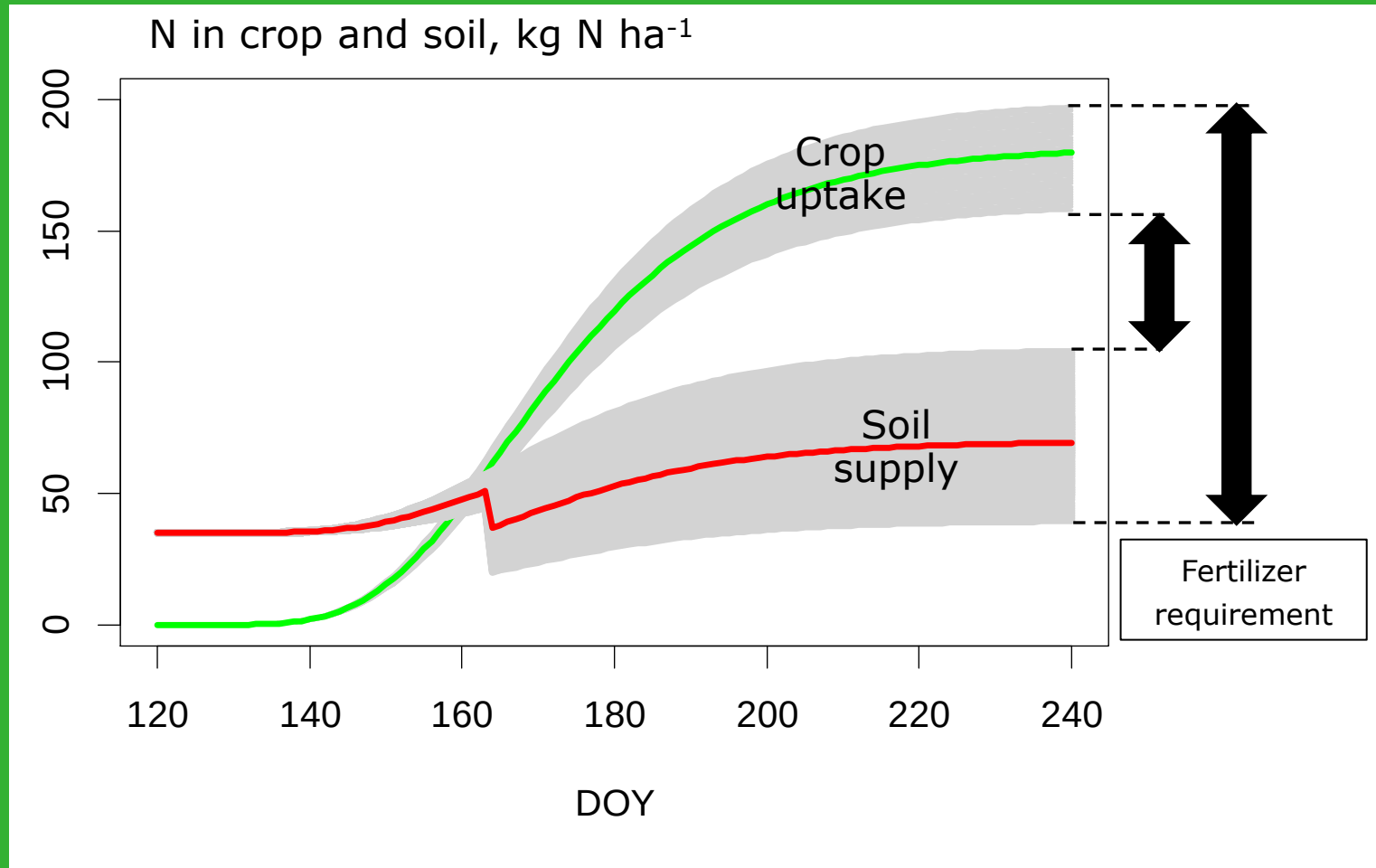
- Uniform rate 200-250 kg N / ha at start
- Neglecting spatial and temporal variation



Variation in carbon content of the soil

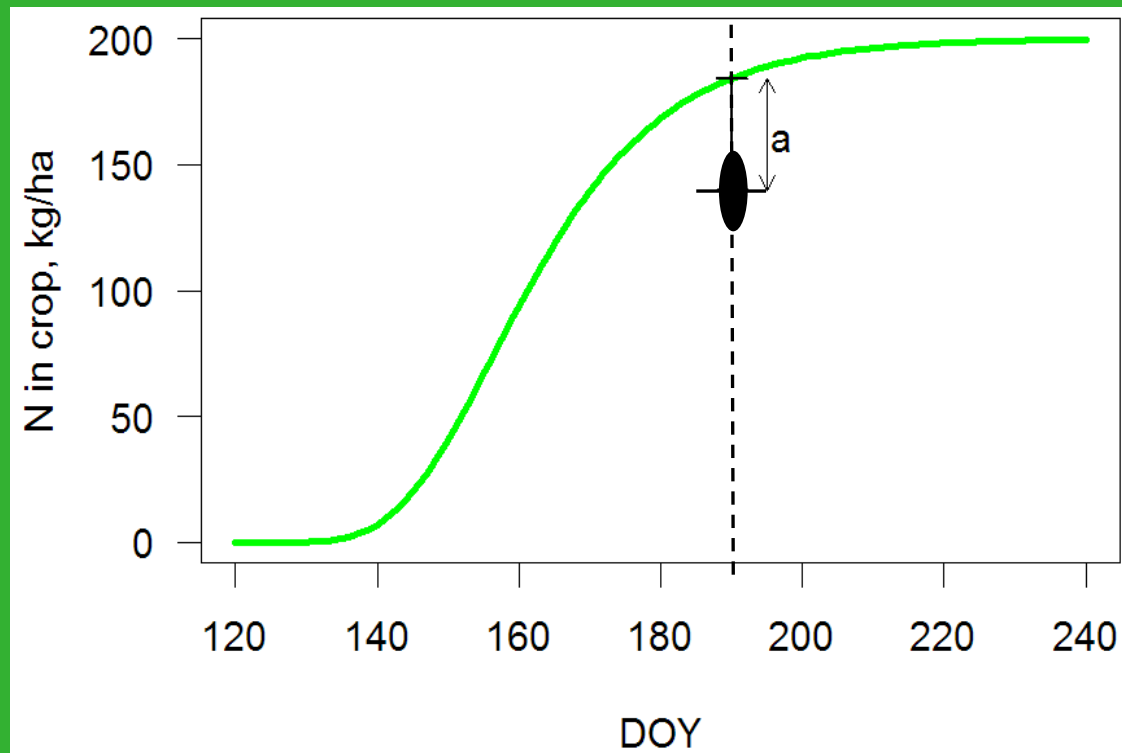


Spatial and temporal variability in N requirement



Application of N sidedress

- 65% at start (130-170 kg N/ha)
- 0-35% end of June using crop sensor and N sidedress application
 1. N-uptake derived from vegetation index
 2. N-target derived from weather and field data.



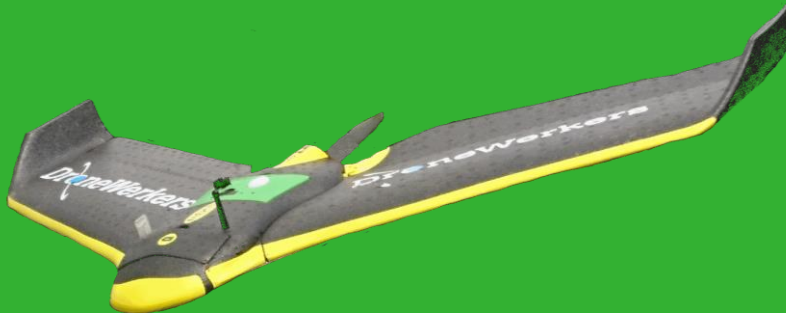
Crop sensors



- Yara N sensor ALS (active)

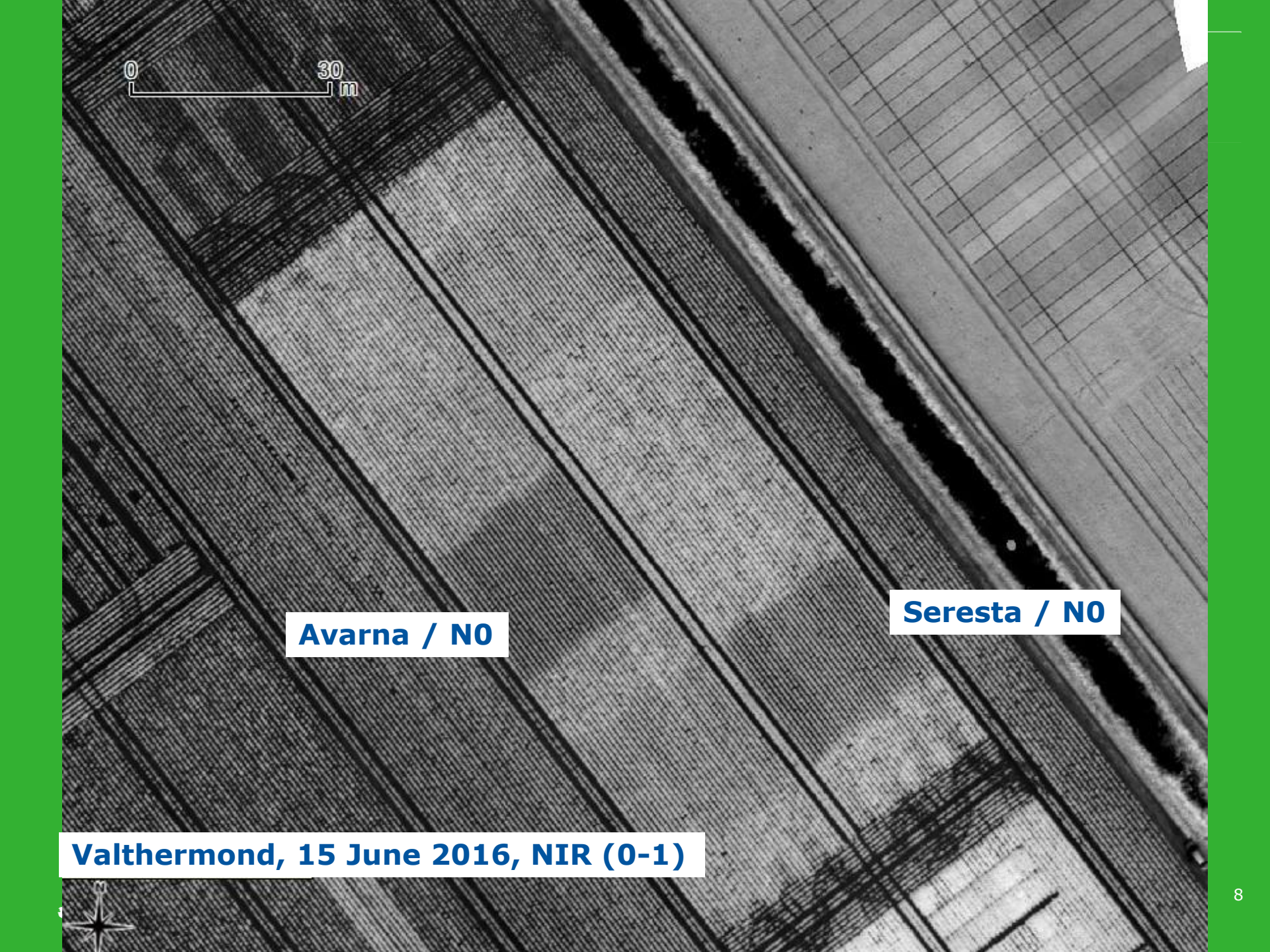


- Yara N sensor MMS & AVS (passive)



- Sensefly eBee with Multispec 4C.





0 30 m

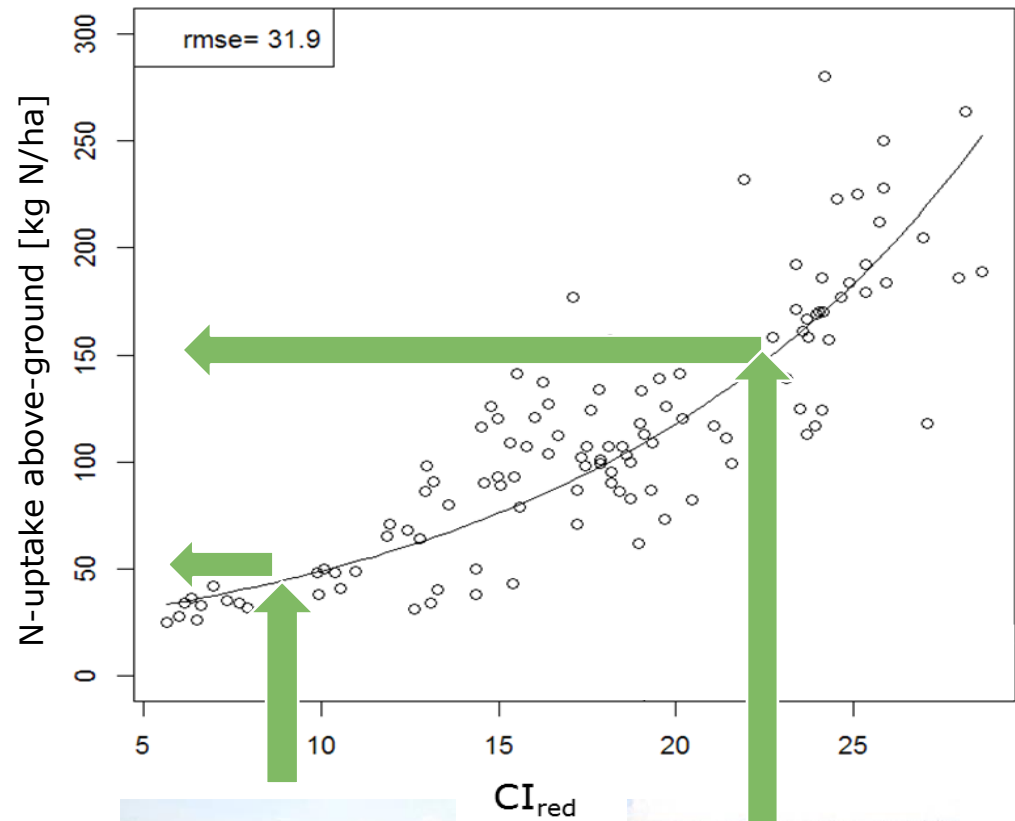
This is an aerial photograph showing a patchwork of agricultural fields. The fields are separated by dark, linear features representing roads or drainage ditches. The fields themselves show varying textures and shades of gray, indicating different crops or stages of growth. In the top left corner, there is a scale bar with markings for 0 and 30 meters. In the bottom left corner, there is a small compass rose indicating North.

Avarna / N0

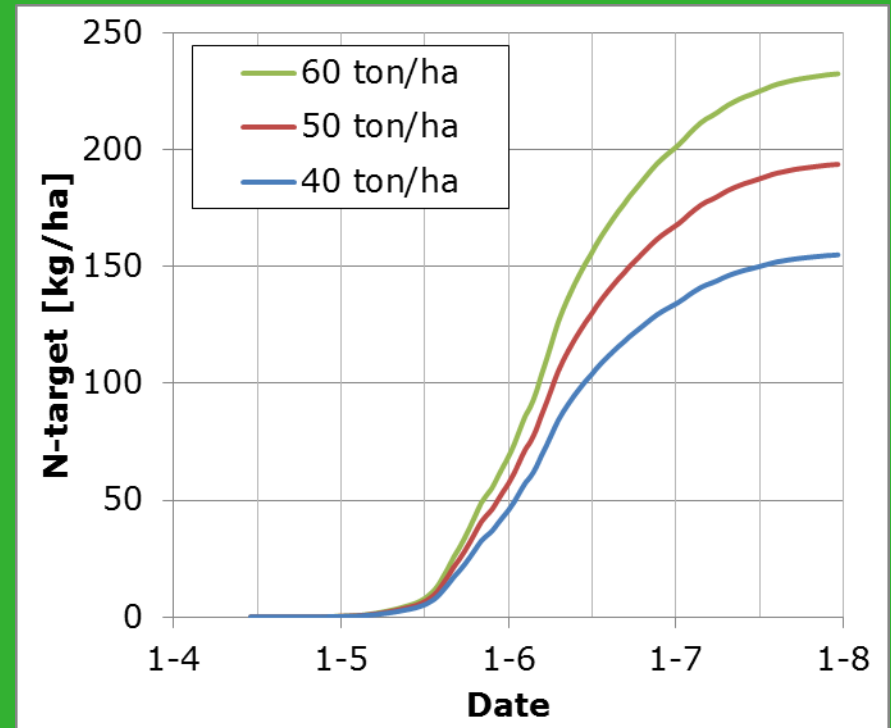
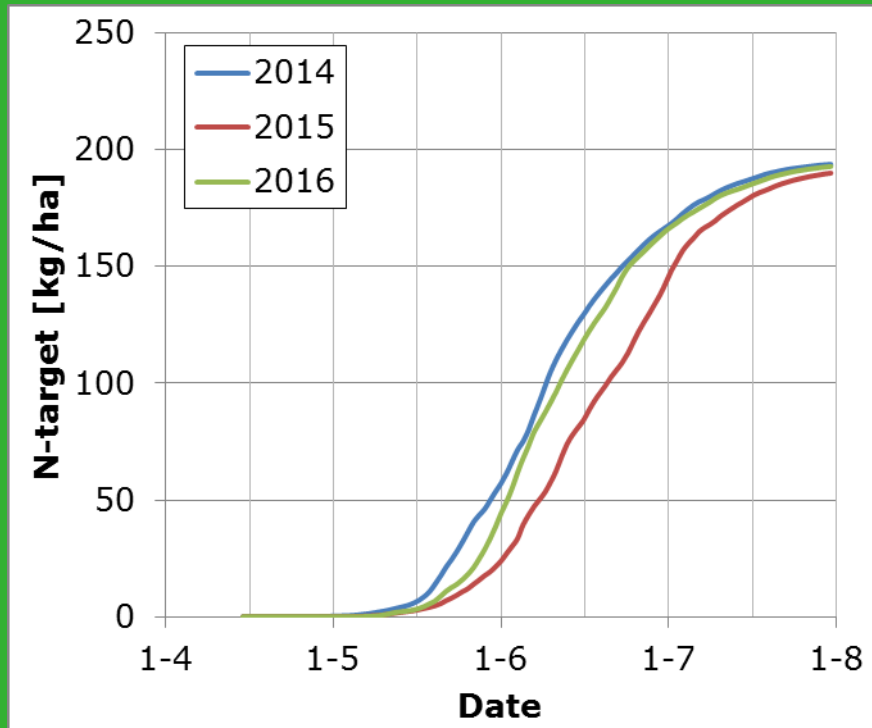
Seresta / N0

Valthermond, 15 June 2016, NIR (0-1)

From Vegetation Index to N-uptake



From weather and field data to N-target





Cropping scheme
Akkerweb



NBS3
Agrifirm



Sensordata
Akkerweb



Blight
WUR



Stripbuilder
WUR



Granulate task
Nemadecide



NemaDecide Geo
Nemadecide



TopdressNSensing



Sampling
Nemadecide



Bioscope
Bioscope



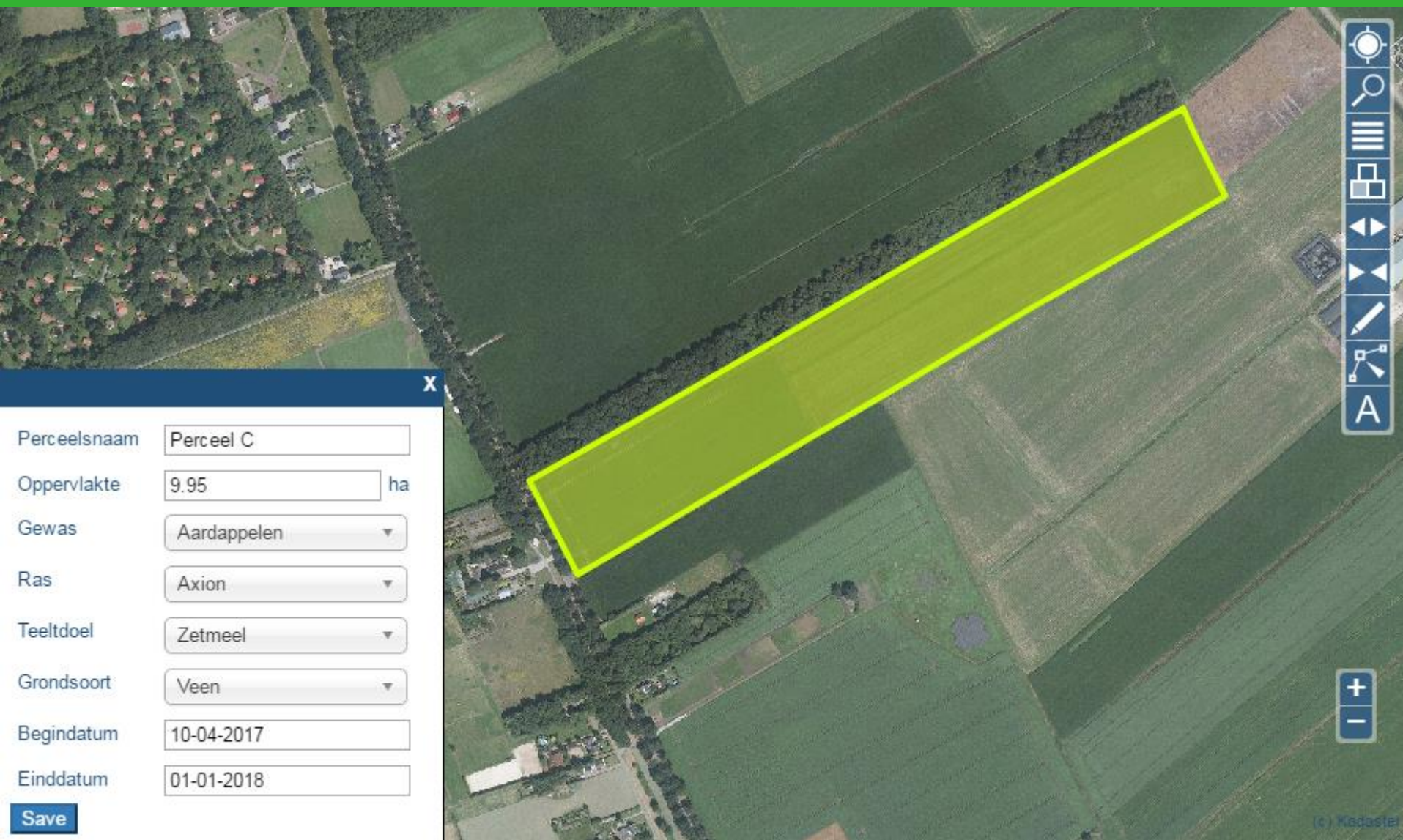
Grip op Gras
WUR



Potato Info
NemaDecide

Appstore for more apps

Field information

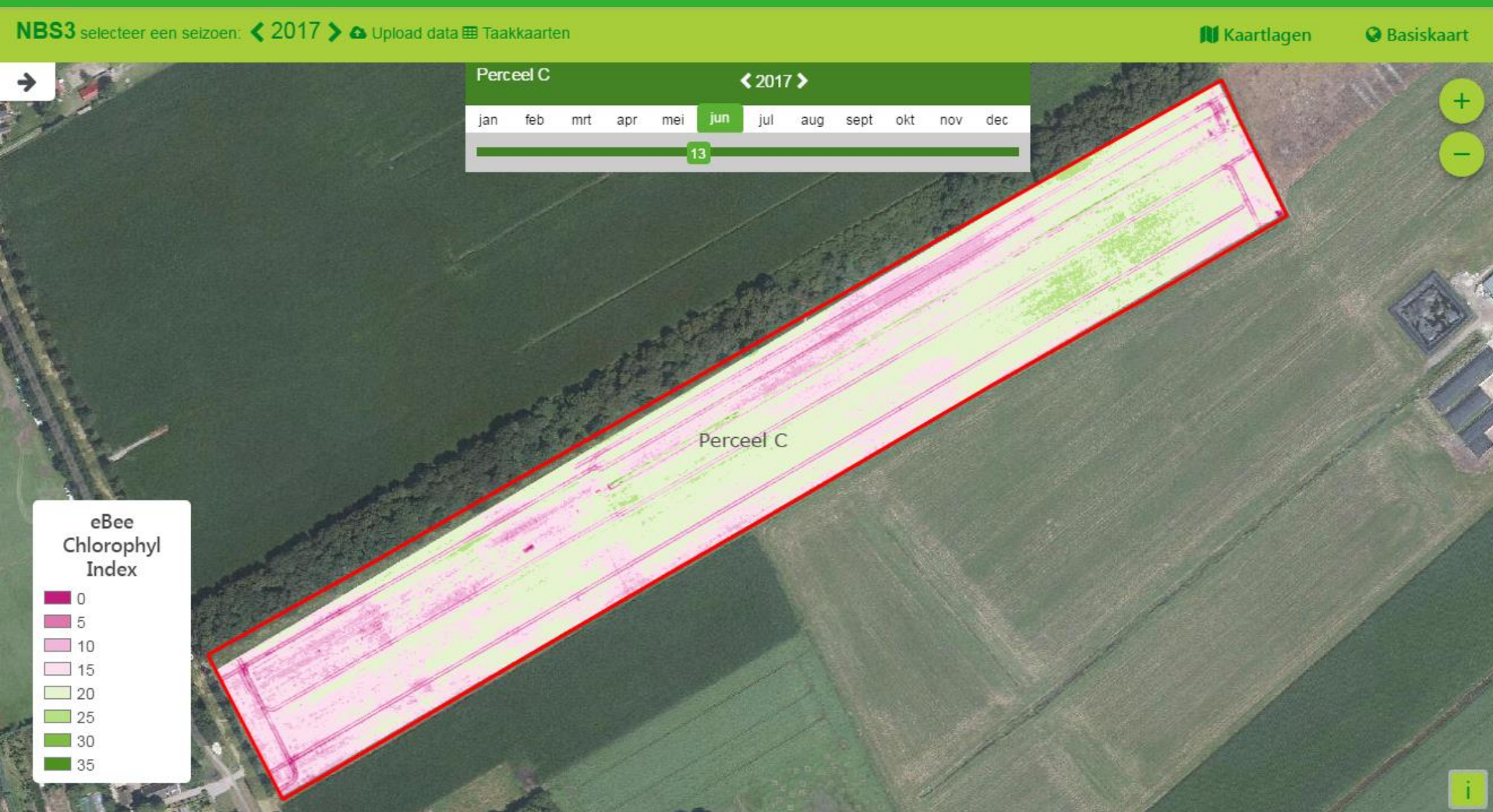


The image shows an aerial photograph of a rural landscape with various fields and a residential area on the left. A large, elongated field is highlighted in yellow. Overlaid on the bottom left is a data entry panel with the following fields:

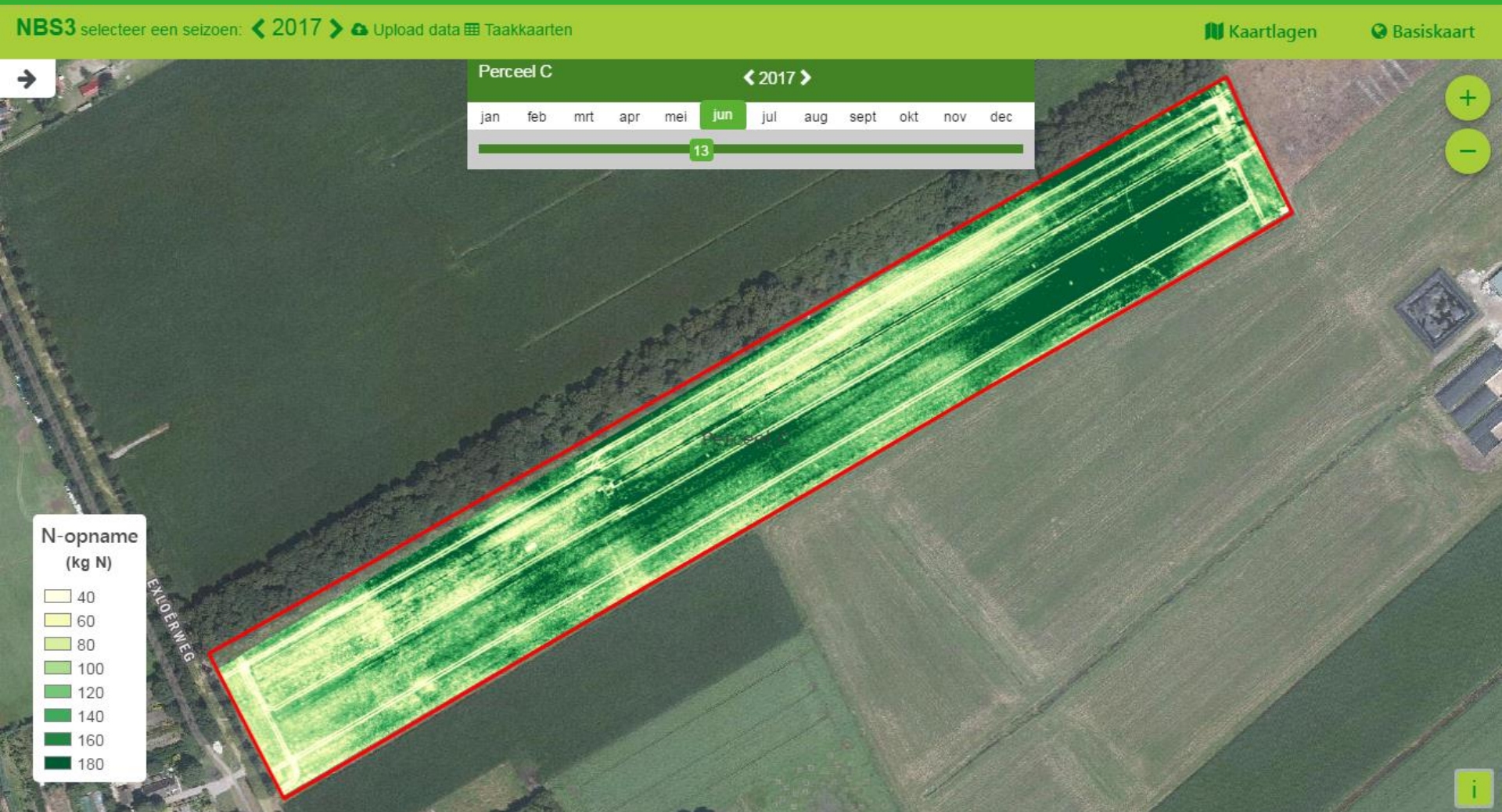
Field	Value
Perceelsnaam	Perceel C
Oppervlakte	9.95 ha
Gewas	Aardappelen
Ras	Axion
Teeltdoel	Zetmeel
Grondsoort	Veen
Begindatum	10-04-2017
Einddatum	01-01-2018

A 'Save' button is located at the bottom left of the panel. On the right side of the map, there is a vertical toolbar with icons for zooming, panning, and other map functions. A small copyright notice '(c) Kadaster' is visible in the bottom right corner of the map area.

Uploading UAV-image CIred(13 June 2017)



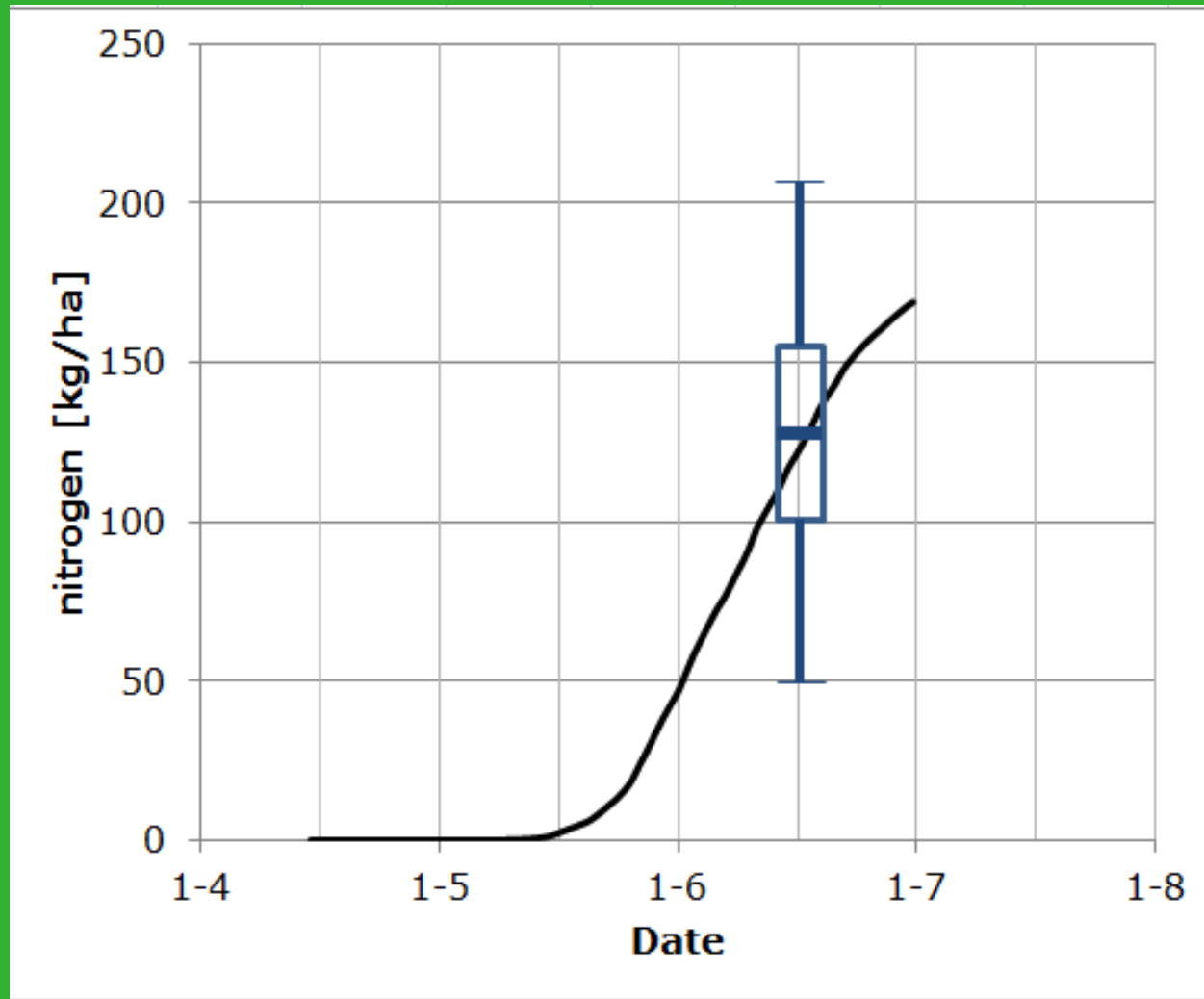
Calculating N-uptake



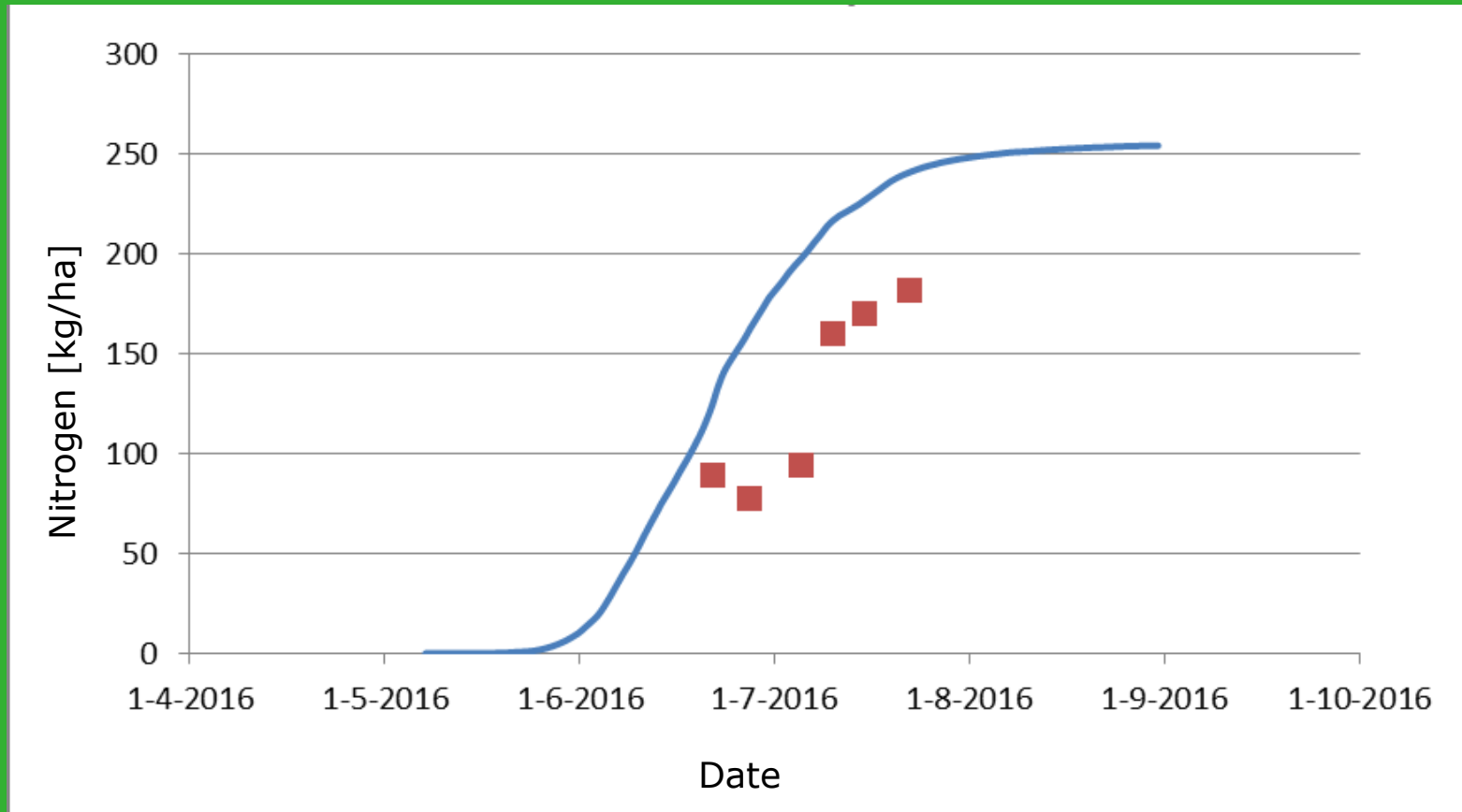
Calculating N-recommendation (50 ton/ha)



N-target and N-uptake (13 June 2017)



N-target and N-uptake field 2



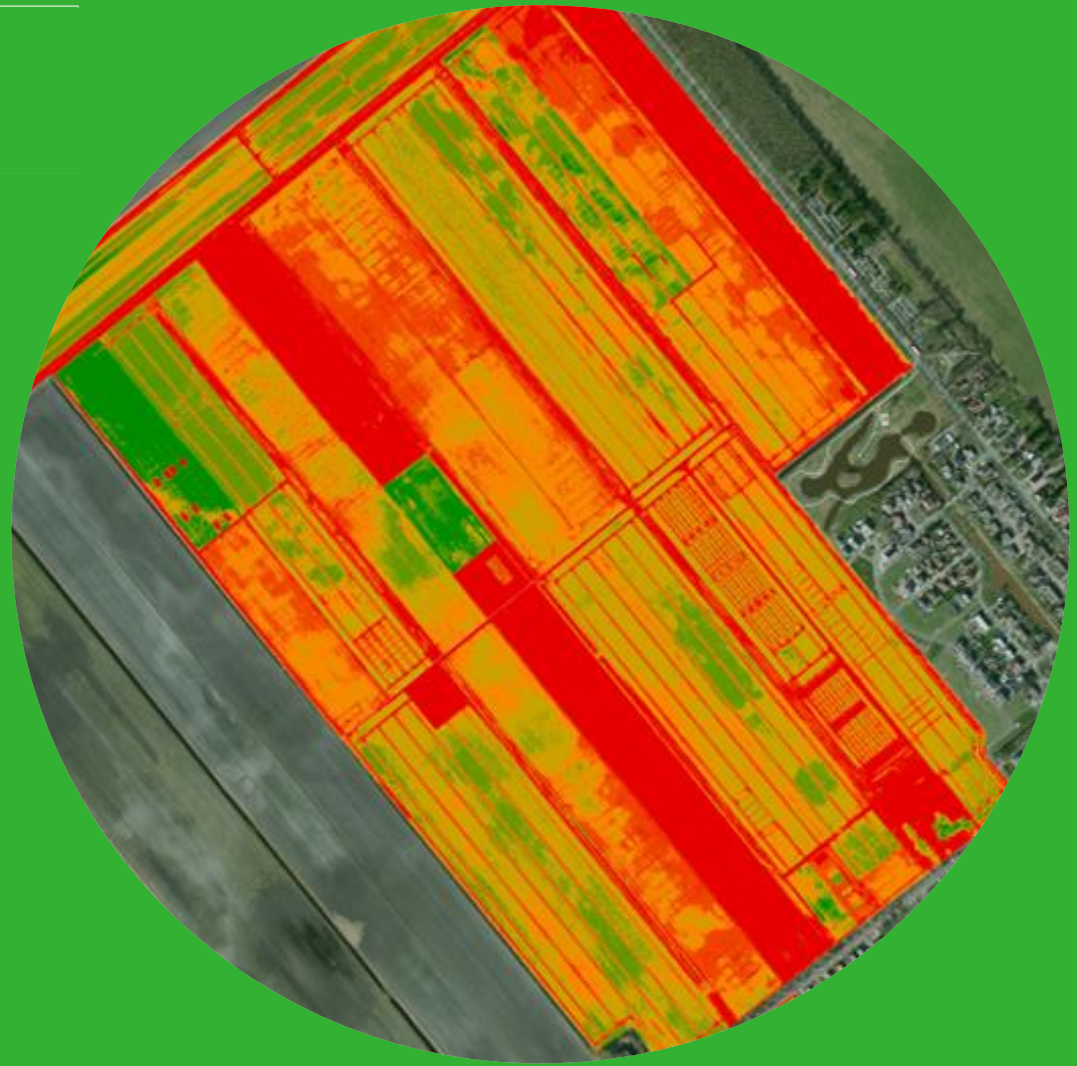
Start: 120 kg N/ha (28t manure & 224 KAS)
28 June: 41 kg N/ha (KAS) VRA
21 July: 50 kg N/ha (KAS) VRA
Yield: 55 ton bruto (estimated)

Questions?

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