

Satellite based data

- Use cases -

Mechteld Andriessen

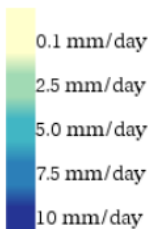
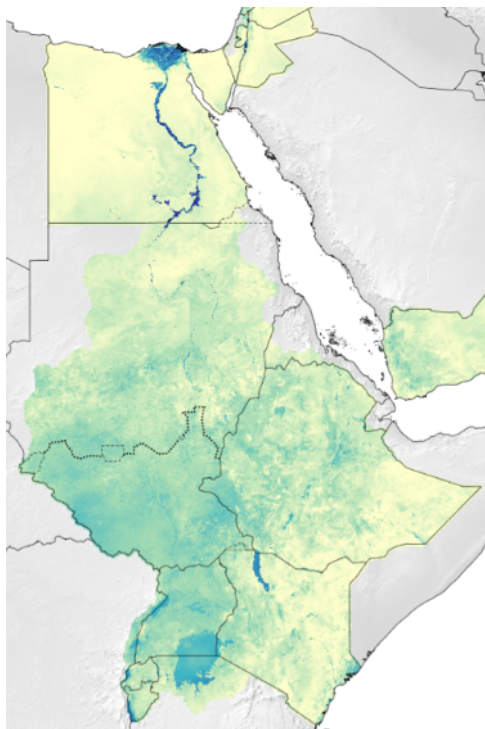


Large Scale

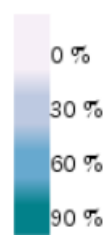


Nile Basin Monitoring

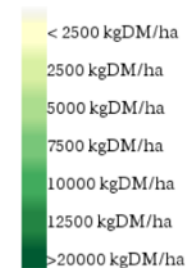
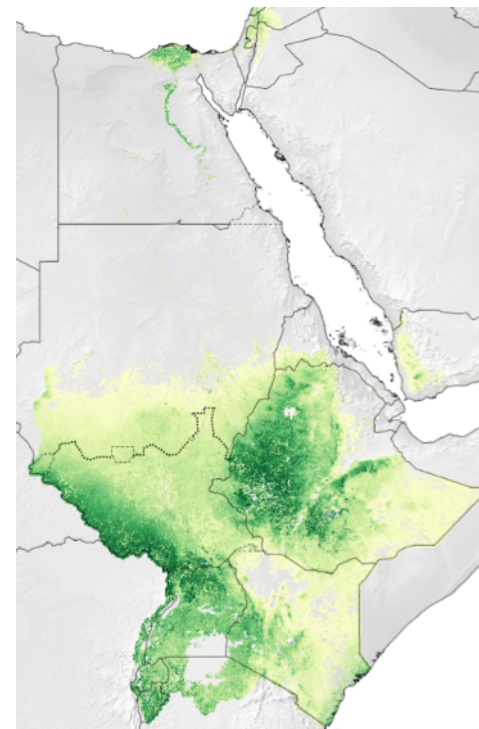
Evapotranspiration
(mm) (10 days)



Transpiration Fraction
%

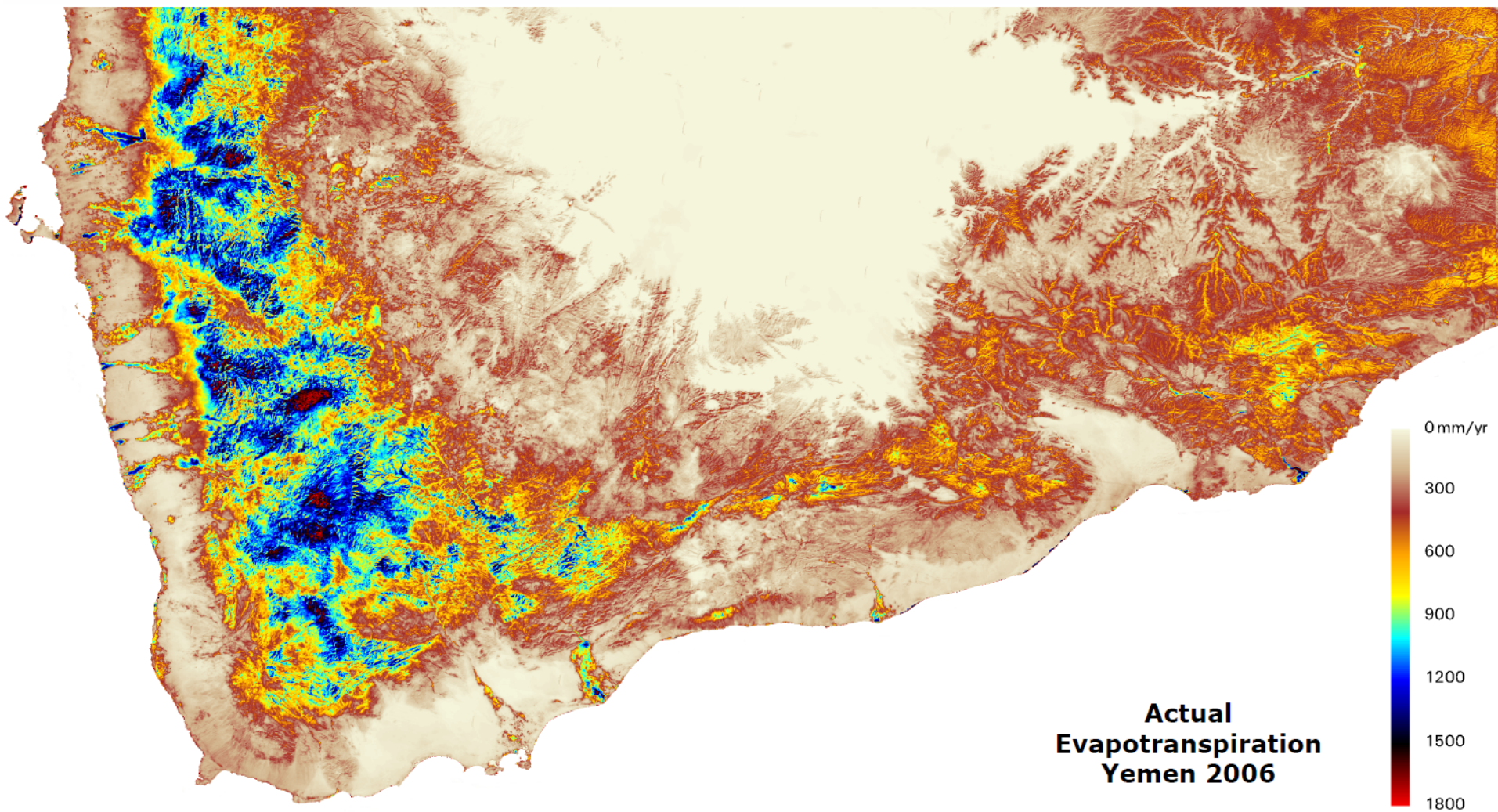


Seasonal Above
Ground Biomass
Production (kgDM/ha)





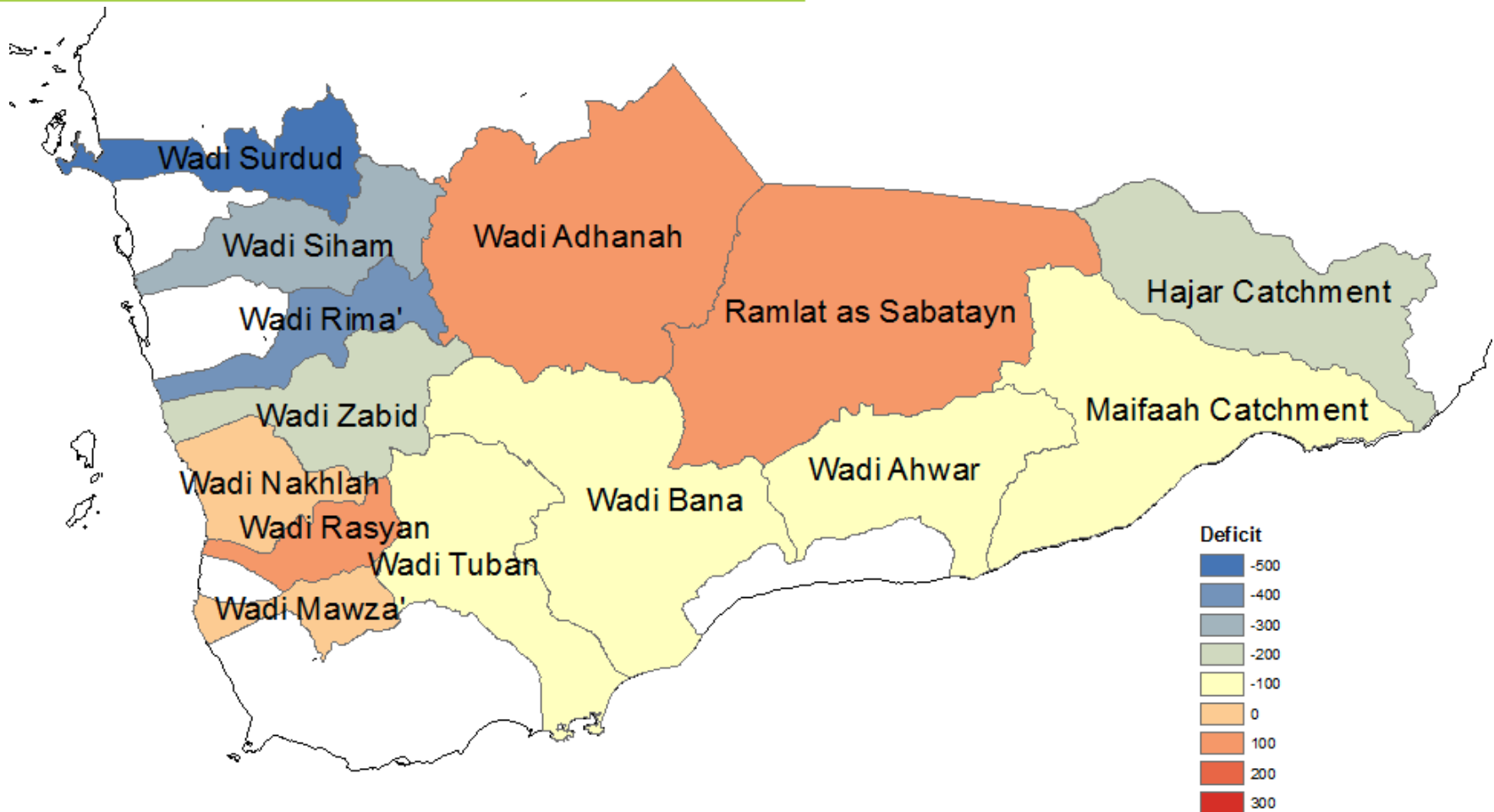
Overconsumption - Yemen



**Actual
Evapotranspiration
Yemen 2006**



Overconsumption - Yemen



- Average: 139 mm/year
- Locally up to 1000 mm/year

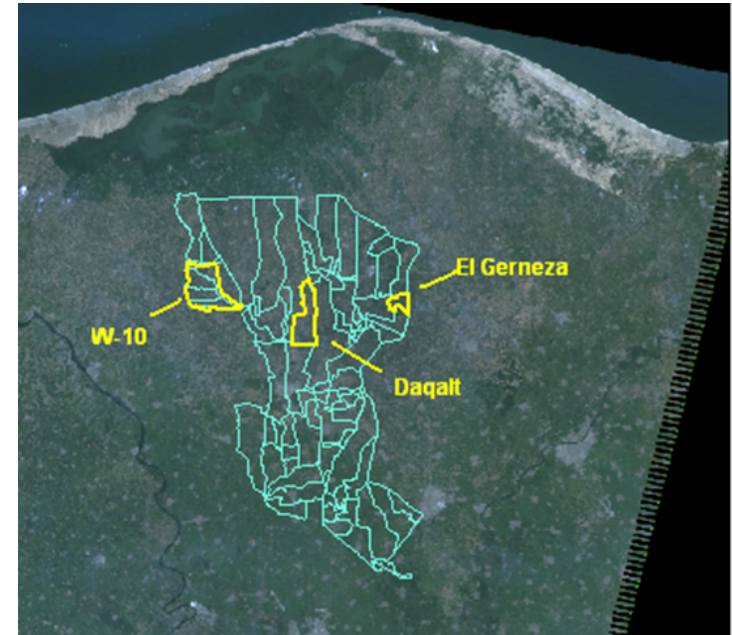


Medium Scale



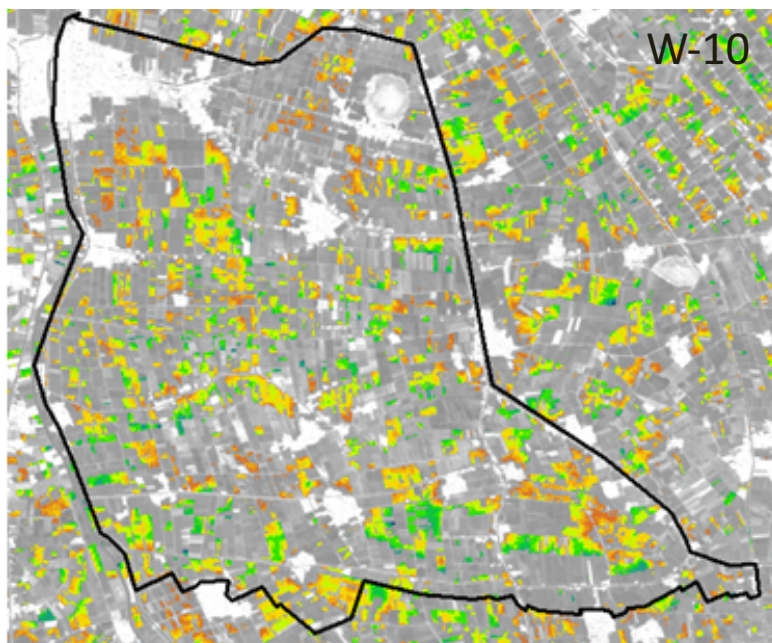
1. Assessment Irrigation improvement

- Mit Yadiz command area
 - W-10: Renovated
 - Daqalt: Partly renovated
 - El Gemeza: Not renovated
- Cotton and Wheat

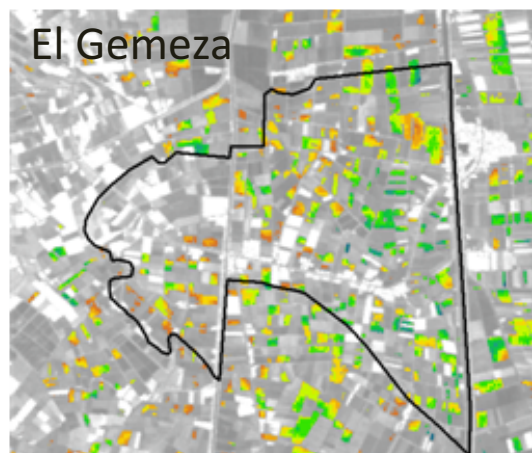
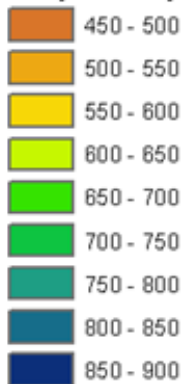




Evapotranspiration Cotton (mm)

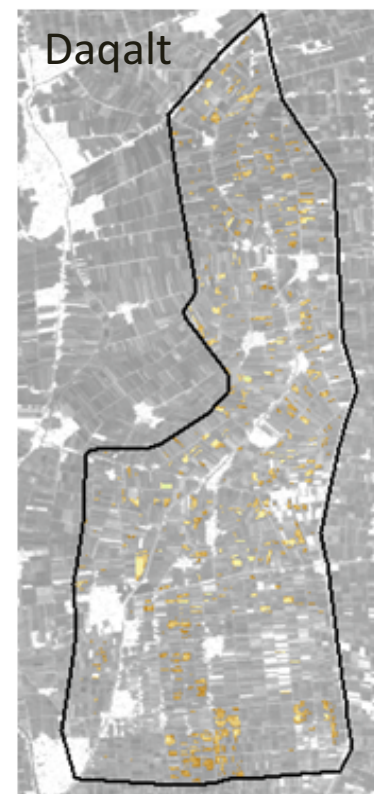
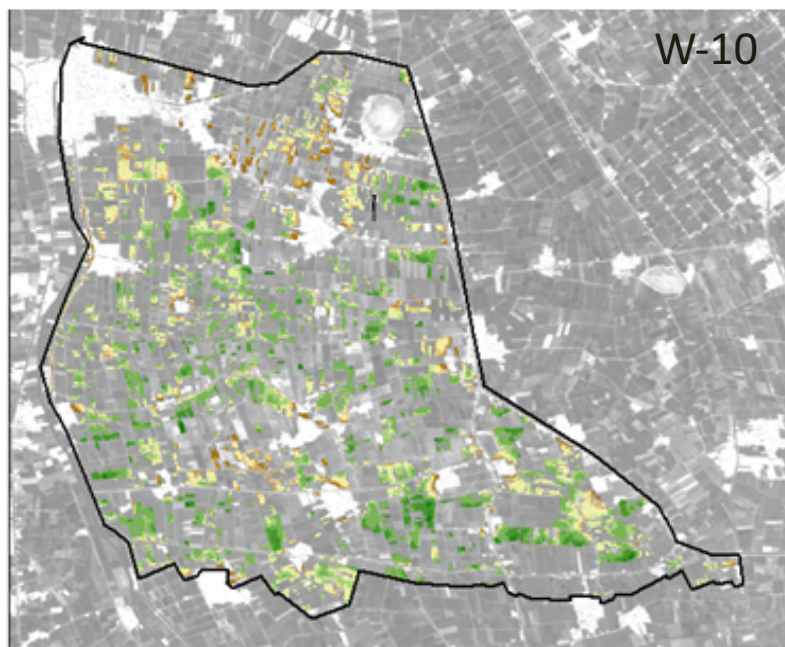


Evapotranspiration (mm)

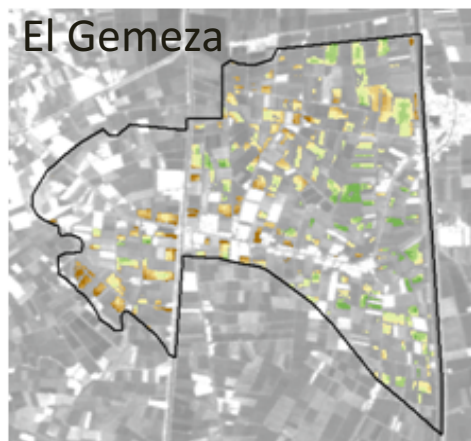
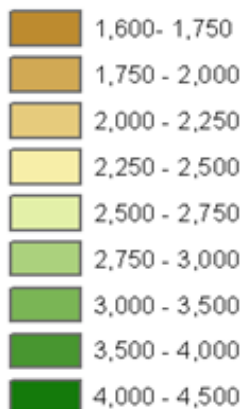




Yield Cotton (kg/ha)

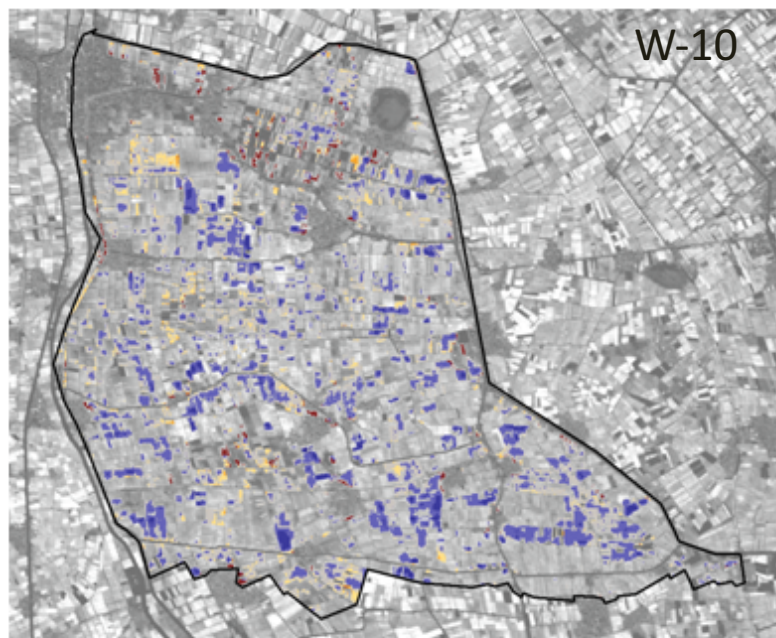


Yield (kg/ha)

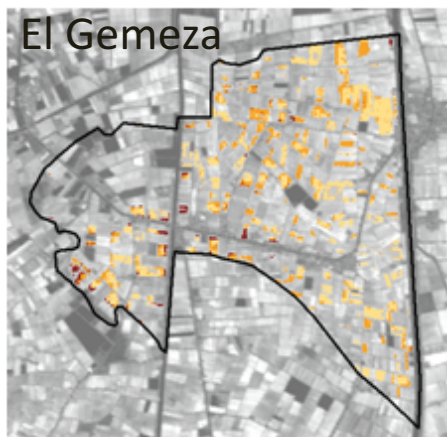
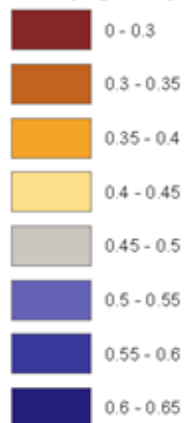




Water Productivity Cotton (kg/m³)

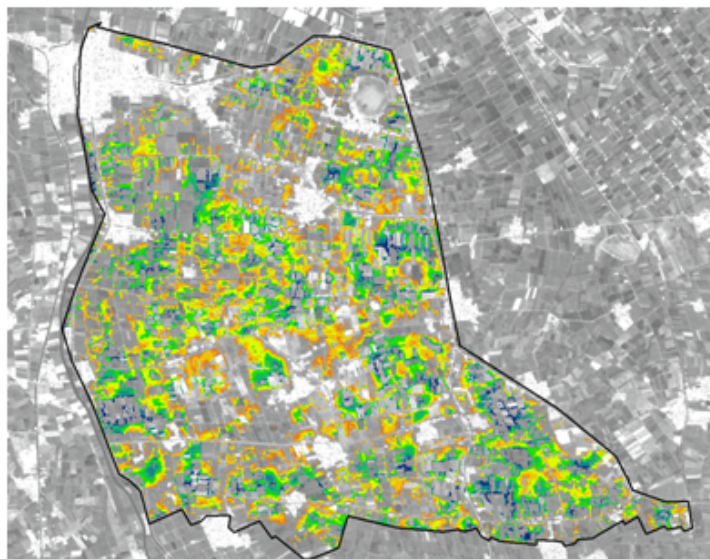


WP (kg/m³)

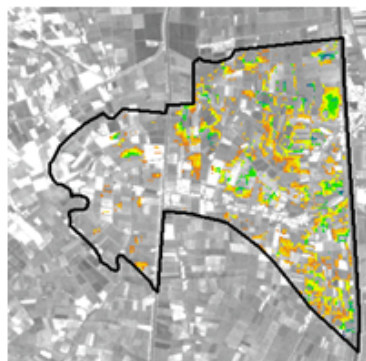
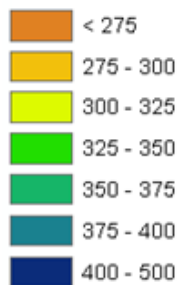




Evapotranspiration Wheat (mm)

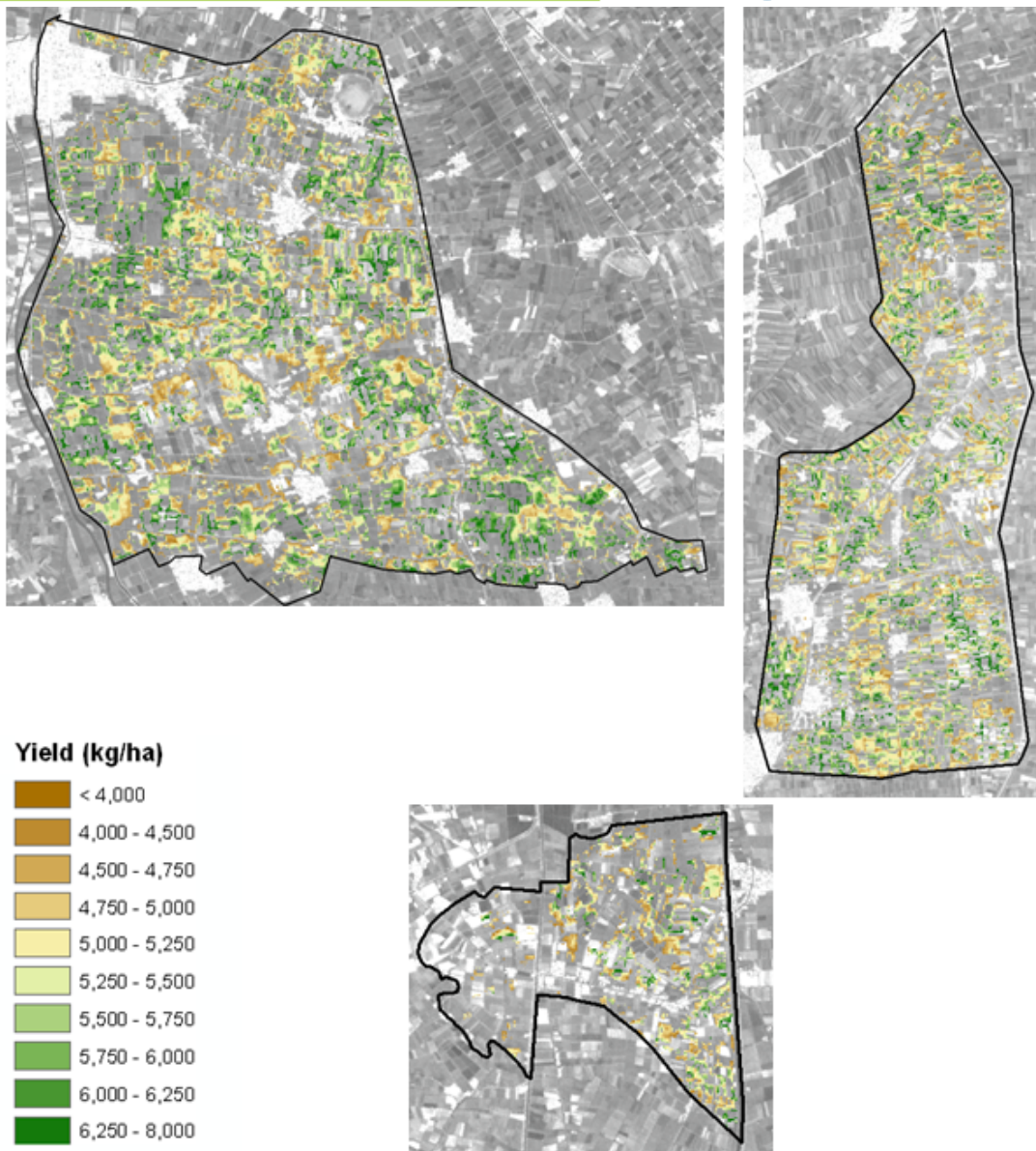


Evapotranspiration (mm)



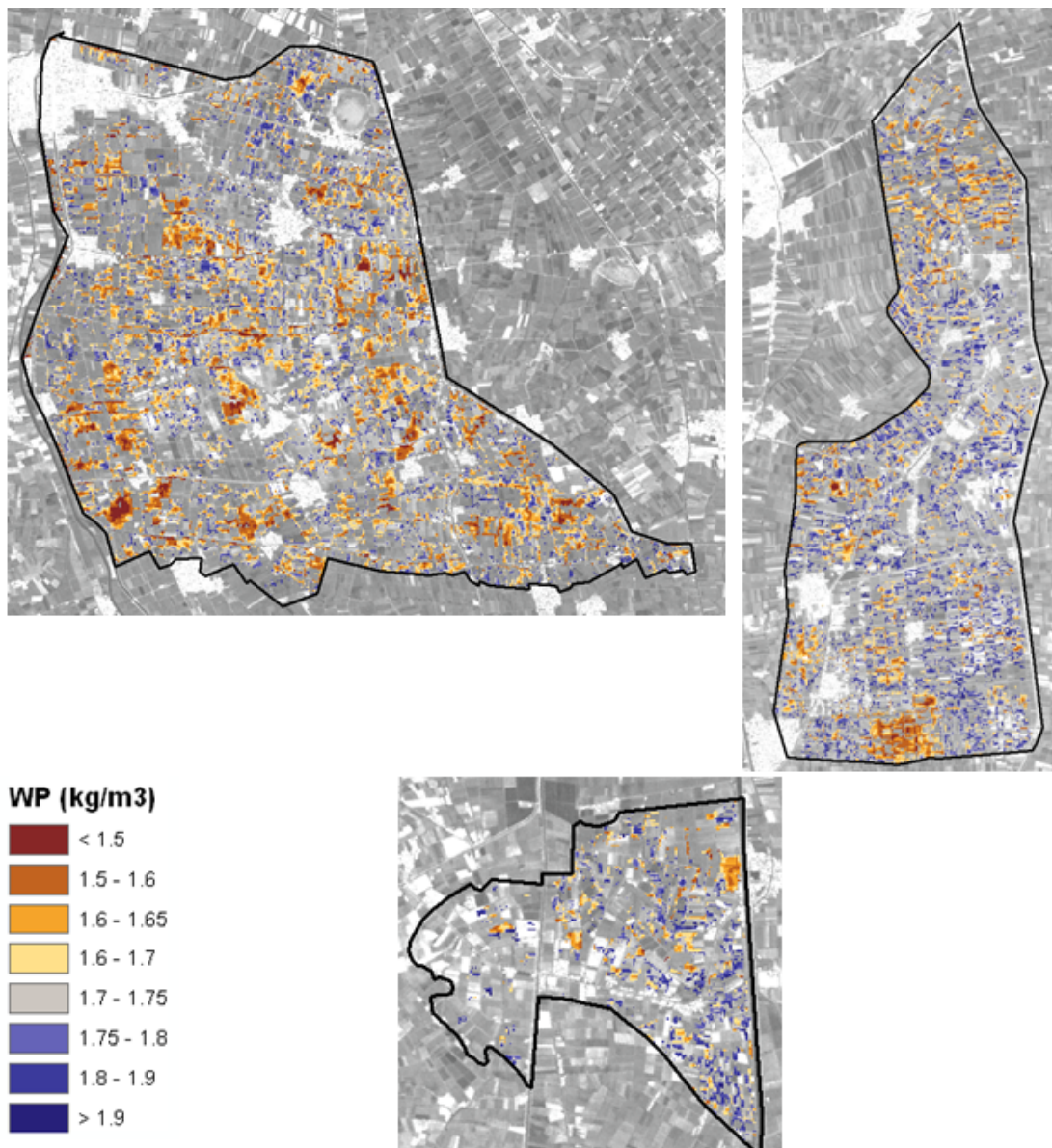


Yield Wheat (kg/ha)



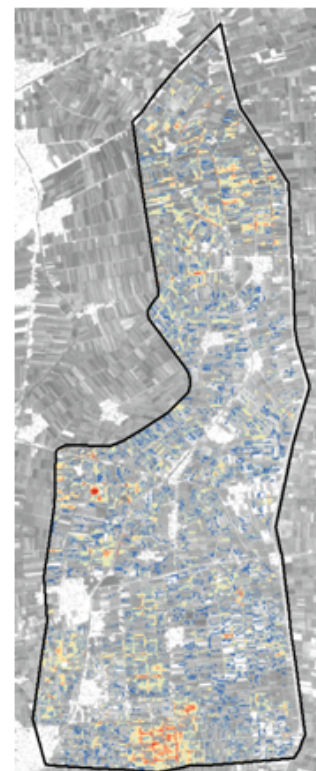
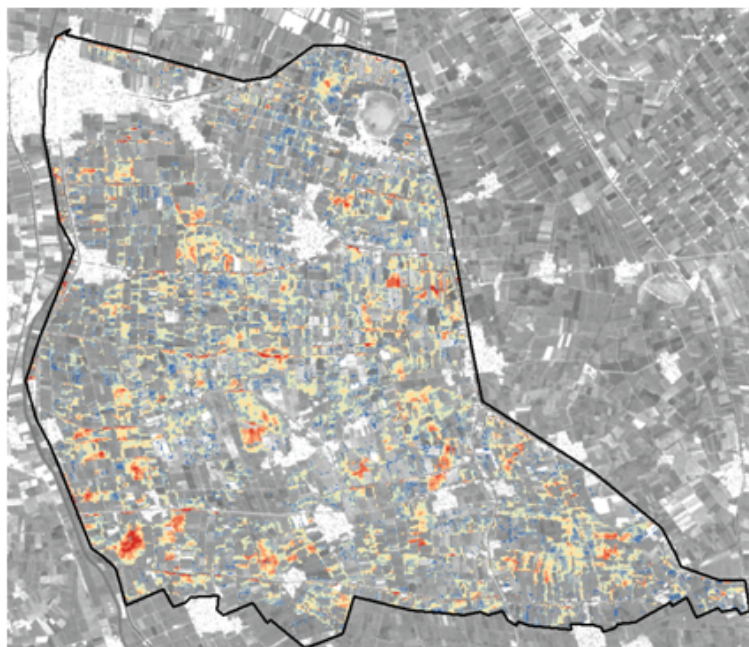


Water Productivity Wheat (kg/m³)

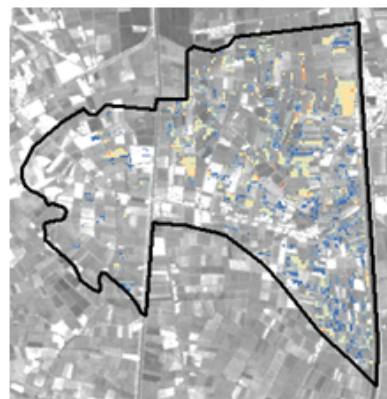
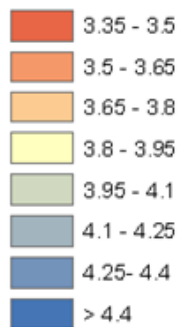




Economic Water Productivity Wheat (LE/m³)



Gross return (LE/m³)





Field Scale



3. FieldLook

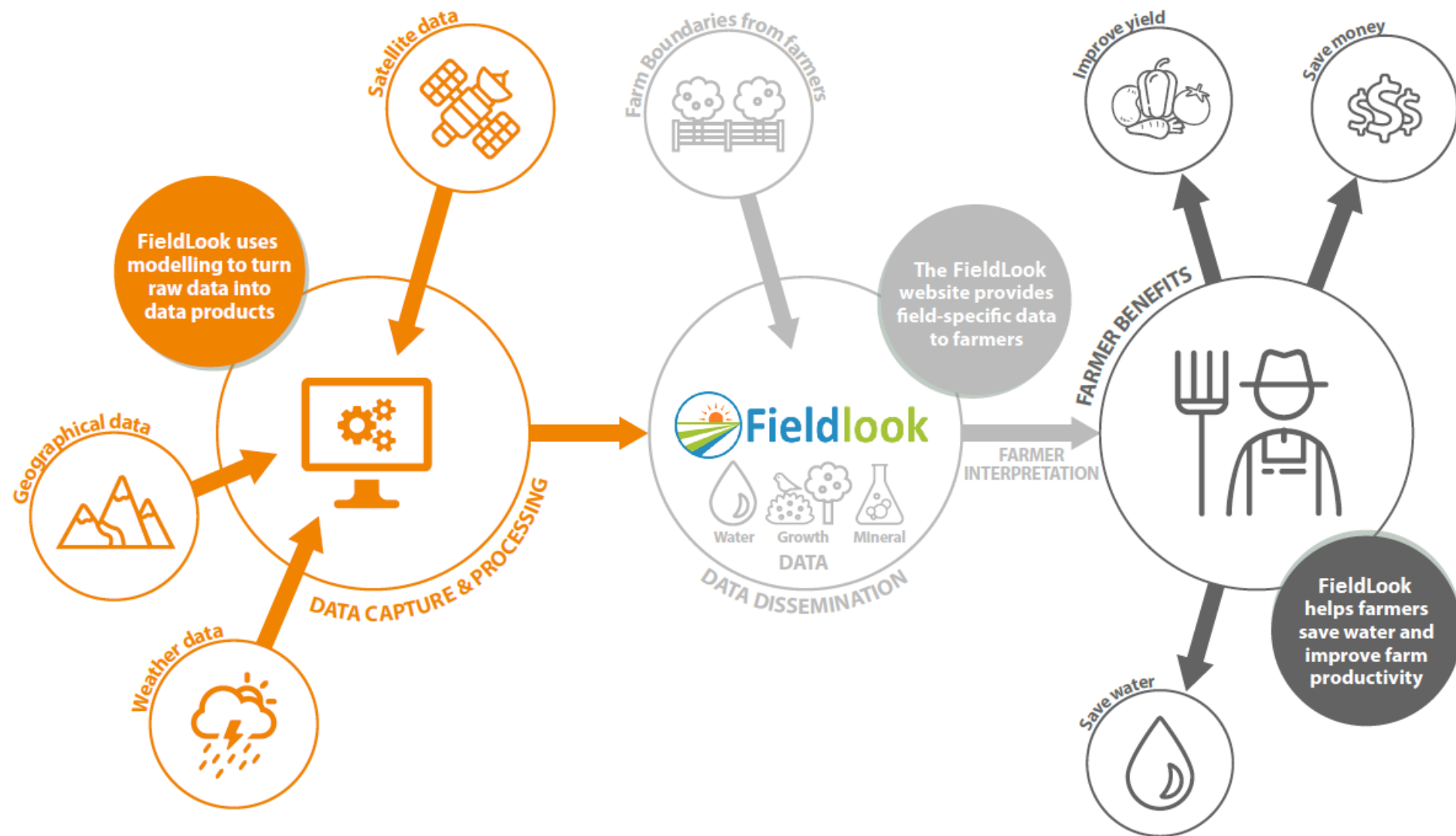
A web-based crop monitoring platform

1 Follow the development of your crop through time with FieldLook Graphs

3 Easy to use menu for your preferred parameters

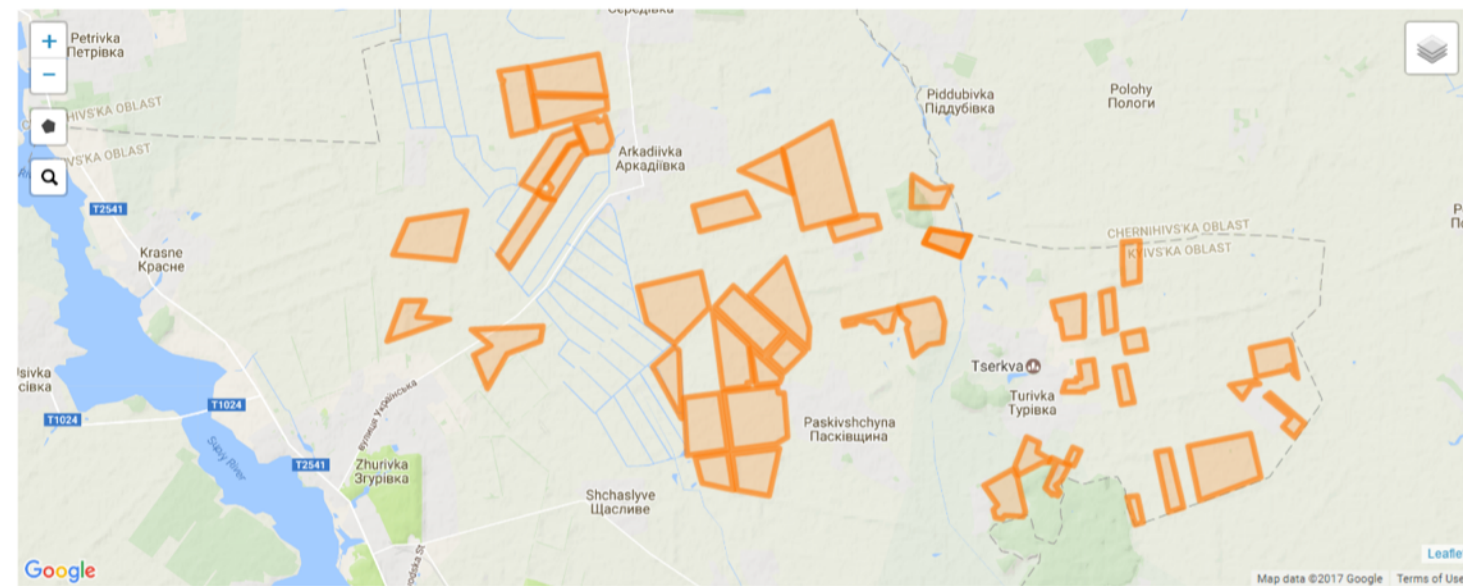
2 Spot problem areas immediately with weekly maps per field per parameter







Field Library



Draw Field

[Import WKT](#)[Draw Field](#)Fieldname: [Add to library](#)[Zoom on selected Fields](#)

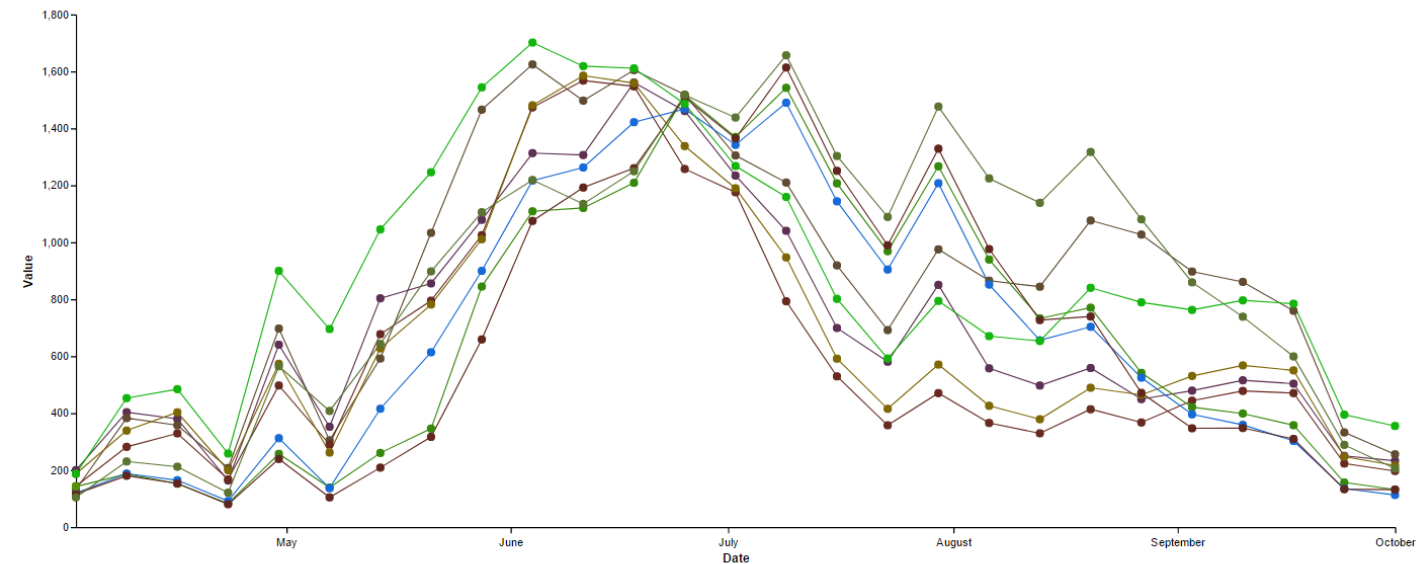
Add Field to Order

[Save Changes](#)[Cancel](#)

	Field Name	Area	Delete	Edit Field
	field 37(maize)	31		
	field 2(wheat)	46		



Datacomponent: Biomass Production (kg/ha/week) ▶



field 2(wheat)

field 37(maize)

field 39(soybeans)

field 41(soybeans)

field 44(soybeans)

field 45(wheat)

field 48(soybeans)

field 49(soybeans)

field 50(soybeans)

field 52(soybeans)

field 53(soybeans)

field 54(soybeans)

My Selections

Save

Delete

Select

▼ Orders

○ fieldlook 2015

● fieldlook 2016

▼ Data Component

● Biomass Production (kg/ha/week)

○ Leaf Area Index (-)

○ Nitrogen in upper leaf layer (kg/ha)

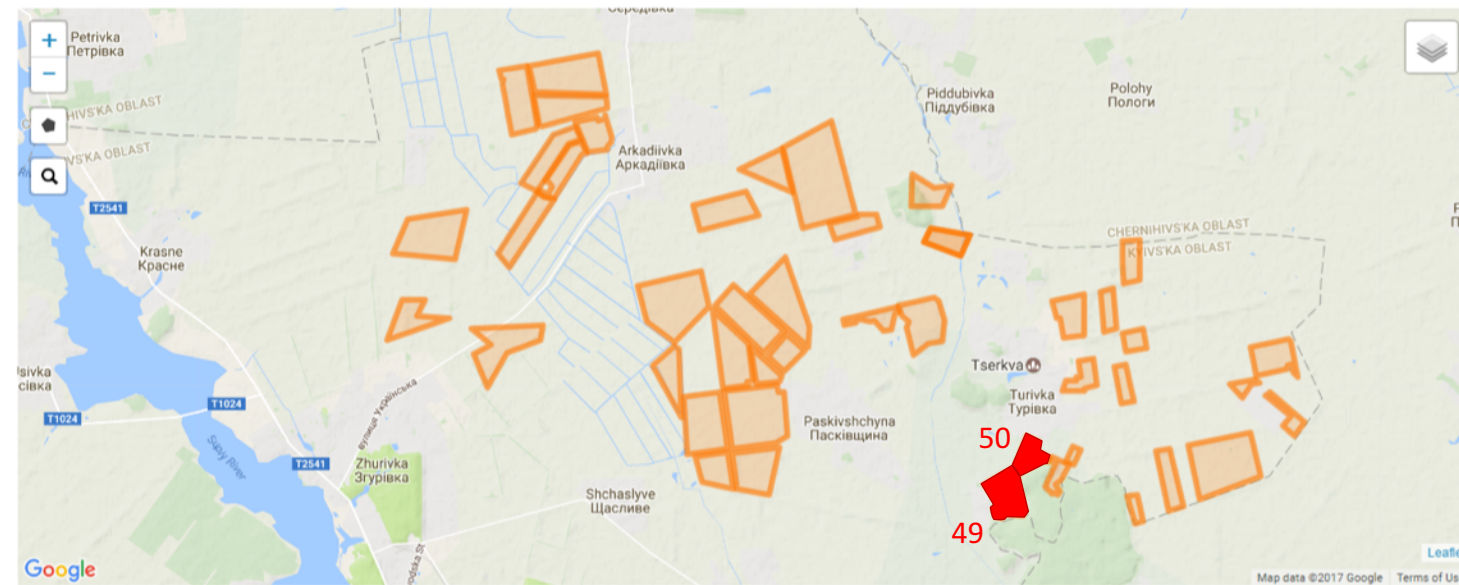
○ Precipitation Excess (mm/week)

○ Transpiration Deficit (mm/week)

▶ ☒ Farms▶ ☒ Crops▶ ☒ Fields



Field Library



Draw Field

[Import WKT](#)[Draw Field](#)Fieldname: [Add to library](#)[Zoom on selected Fields](#)

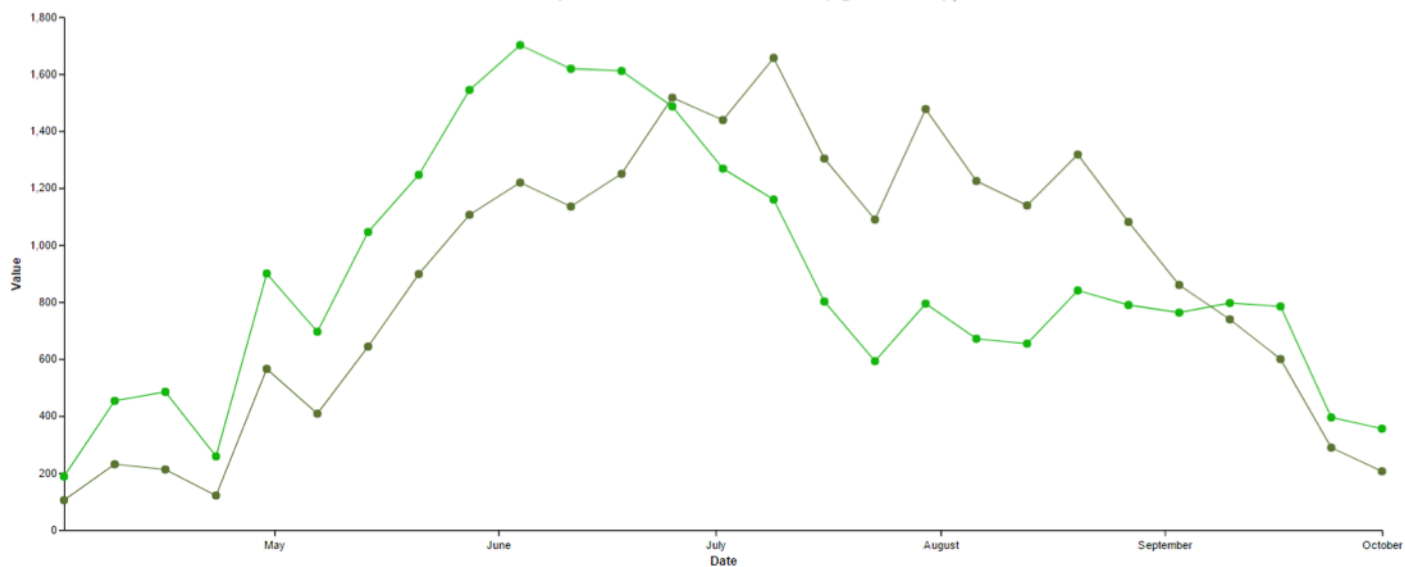
Add Field to Order

[Save Changes](#)[Cancel](#)

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	field 2(wheat)	46		



Datacomponent: Biomass Production (kg/ha/week) ▶



field 2(wheat)

field 37(maize)

field 39(soybeans)

field 41(soybeans)

field 44(soybeans)

field 45(wheat)

field 48(soybeans)

field 49(soybeans)

field 50(soybeans)

field 52(soybeans)

My Selections

Save

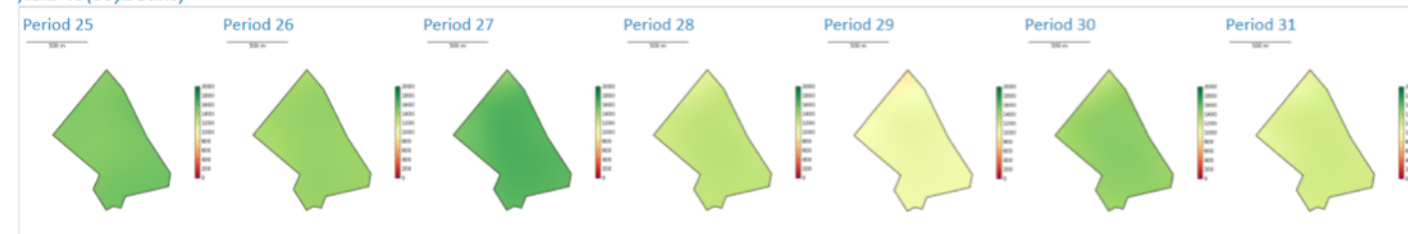
Delete

Select

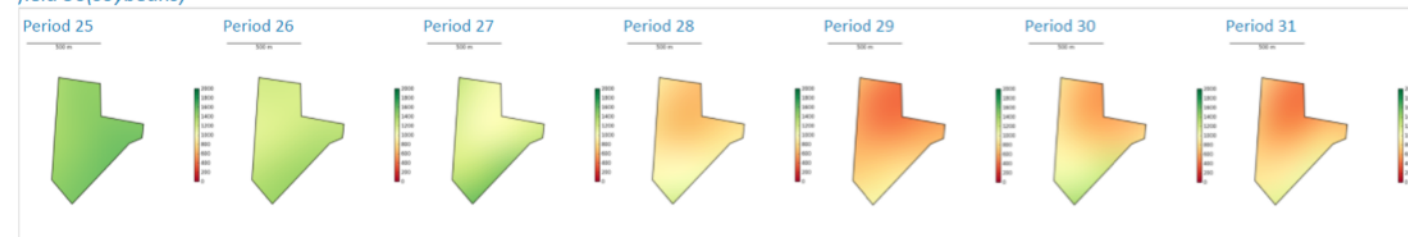
- ▼ Orders
 - fieldlook 2015
 - fieldlook 2016
- ▼ Data Component
 - Biomass Production (kg/ha/week)
 - Leaf Area Index (-)
 - Nitrogen in upper leaf layer (kg/ha)
 - Precipitation Excess (mm/week)
 - Transpiration Deficit (mm/week)
- ▶ ☒ Farms
- ▶ ☒ Crops
- ▶ ☒ Fields



field 49(soybeans)



field 50(soybeans)



My Selections

Soybean field 49-50

[Save](#) [Delete](#)

Select

Orders

- ☐ fieldlook 2015
- ☒ fieldlook 2016



Week 28



Sun Jul 10 - Jul 16 2016

Data Component

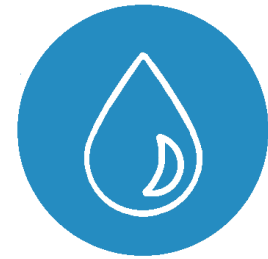
- ☒ Biomass Production (kg/ha/week)
- ☐ Leaf Area Index (-)
- ☐ Nitrogen in upper leaf layer (kg/ha)
- ☐ Precipitation Excess (mm/week)
- ☐ Transpiration Deficit (mm/week)

- ☒ Farms
- ☒ Crops
- ☒ Fields



FruitLook - Impact

Almost half of FruitLook users
save **MORE** than **10% water**
and **1 in 10** saves **30%**





Thank you !



Contact:
mechteld.andriessen@eleaf.com