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TURNING INFORMATION INTO PROFITS.



Smart Agriculture in
Practice



Pessl Instruments Over Time



Experienced, Global, Successful!

REPRESENTATIONS DEALERS & AFTER-SALES SERVICE POINTS:

All EU Countries
Ex-Yugoslavia
Egypt
Iran
India
Israel
Argentina
Iran
Vietnam
Philippines
Peru
Colombia
Bolivia
Indonesia
Niger
Kenia
Russia

HEADQUARTERS: Weiz, Austria

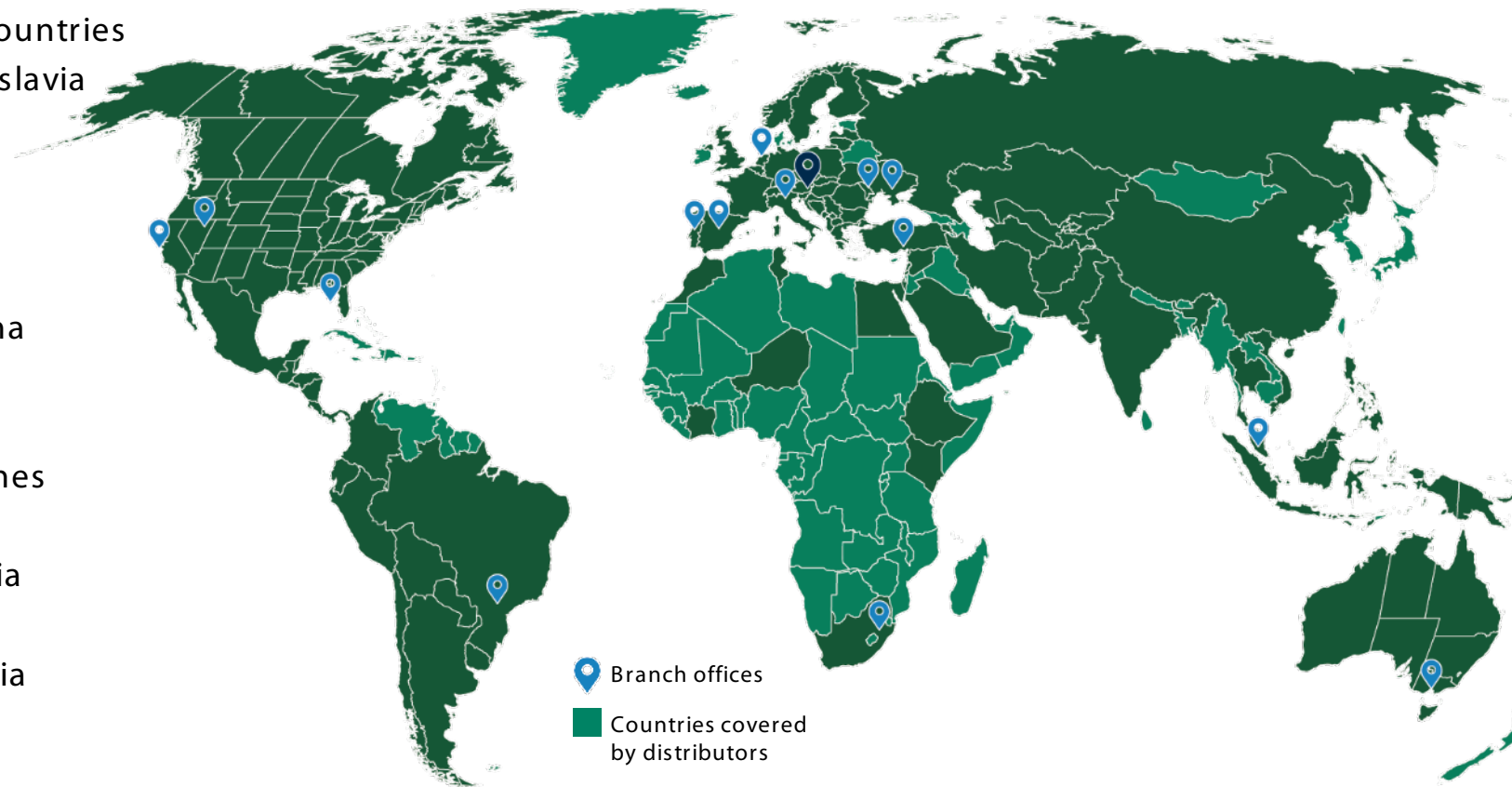
AFFILIATES & DISTRIBUTORS

METOS® ANZ
METOS® BRASIL
METOS® FRANCE
METOS® IBERIA
METOS® ITALY
METOS® LATAM
METOS® MOLDOVA
METOS® MX
METOS® POLSKA
METOS® SOUTH AFRICA
METOS® SOUTH-EAST ASIA
METOS® TURKEY
METOS® UKRAINE
METOS® USA

AQUAGRi
(Portugal)

AGRI PRECISION
(Morocco)

GEO PROSPECTORS
(Austria)



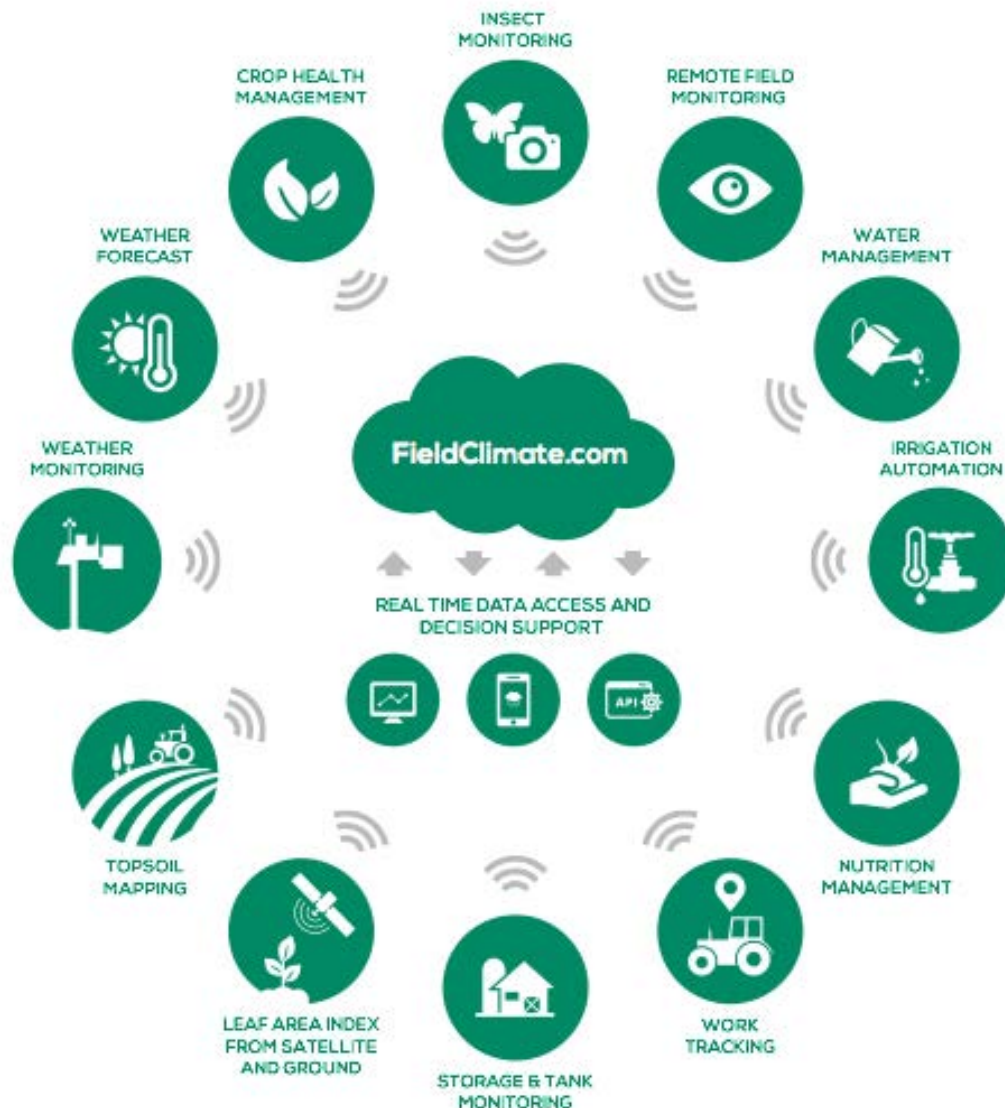
> 45.000 stations
up & running

> 220.000 sensors
connected

> 85 countries
installed

> 105 people
employed

Holistic solutions for smart agriculture



Pessl Instruments DSS Solutions

- In field Monitoring (Weather)
- Weather Forecast Modelling
- Disease Forecast Modelling
- Crop Monitor
- Insect Monitor
- Soil Moisture Monitor
- Soil Analyses
- Fertility Monitor
- Storage / Tank Monitoring
- GPS Work Tracking on machines

Active Alert/Automation

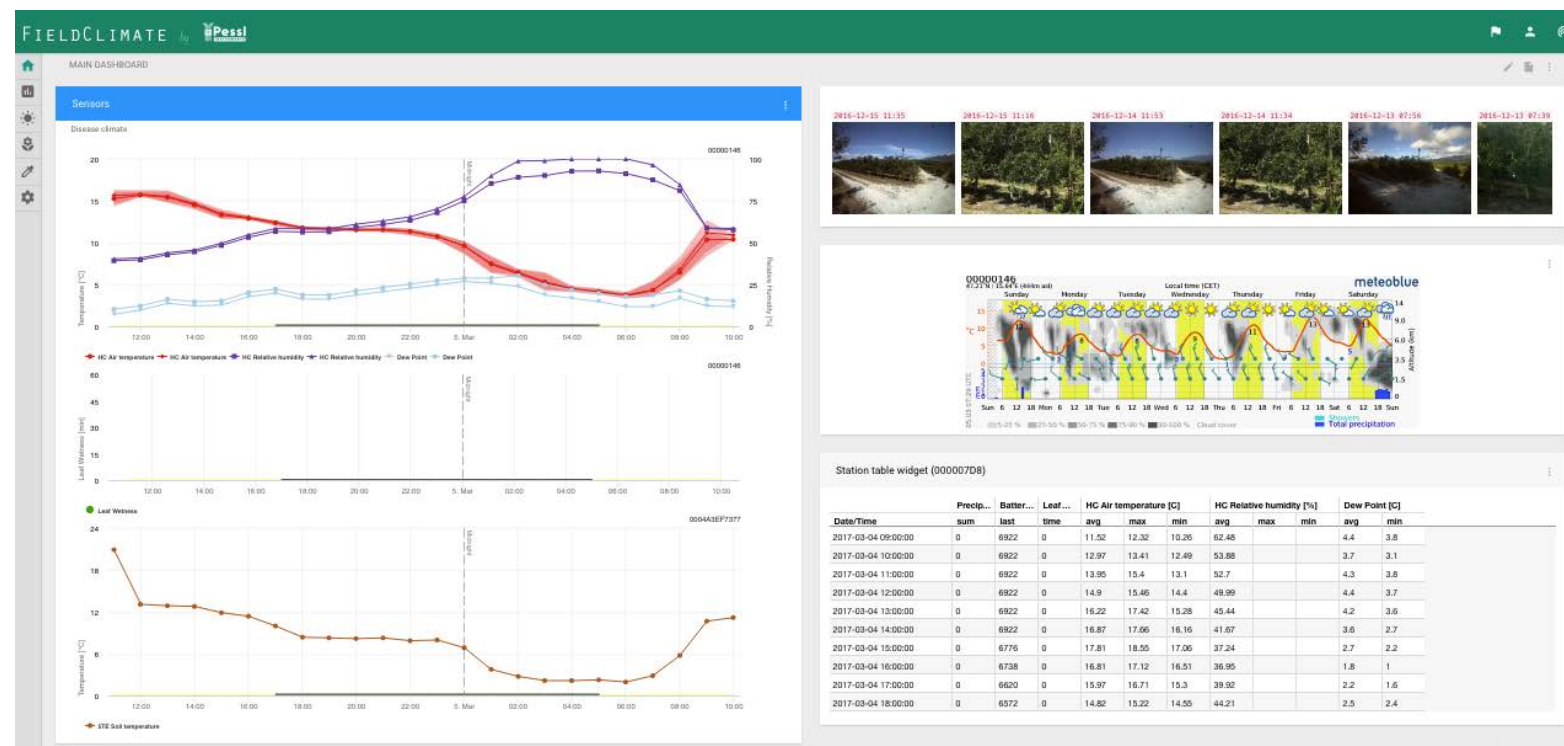
- Accident Warning System
- Frost warning systems
- Automation in Irrigation

FieldClimate

We are experts in Climate monitoring for more than 30 years.



Hyper Localised
Climate Monitoring



40 years of Weather data history licence available for any place.

CLIMATE CHANGE MANAGEMENT– LATE FROST PROTECTION

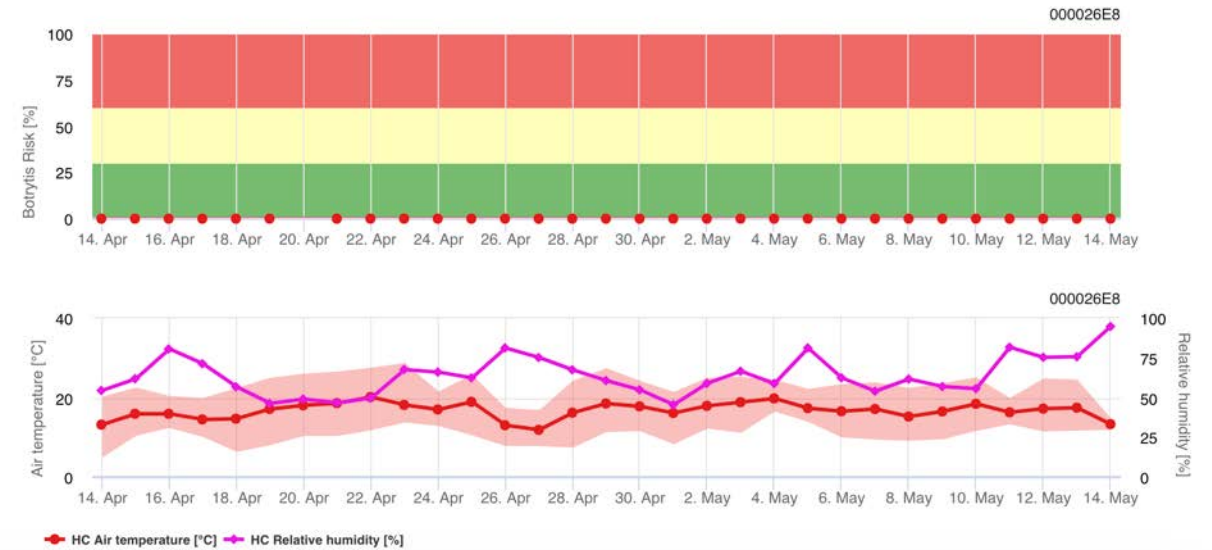
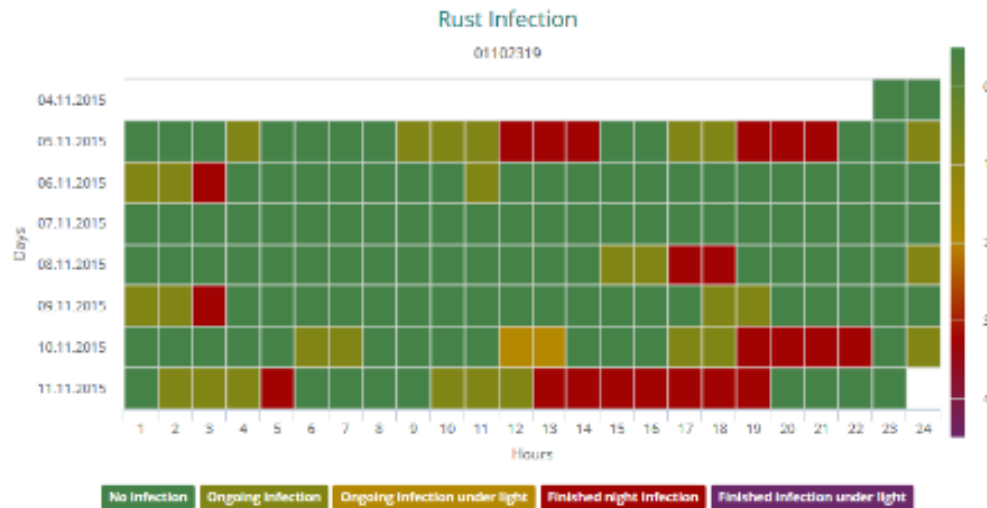
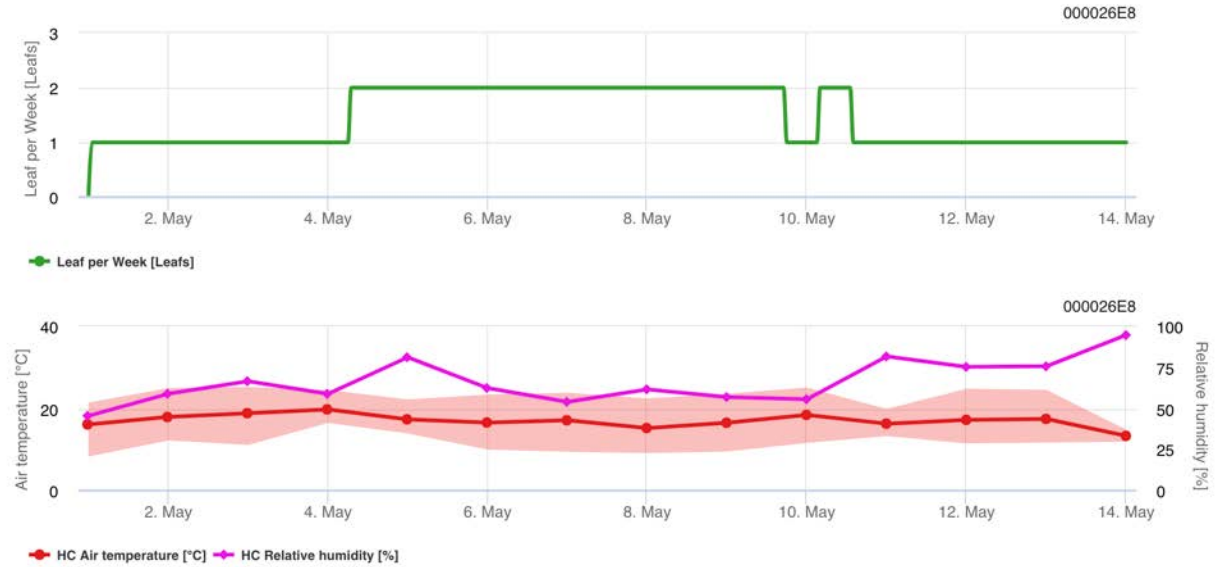
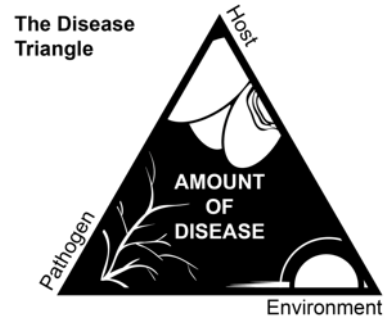


Critical temperature (T_c) values (°C) for grapevines

		?	?
Grape ⁽¹⁾	New growth:		-1.1
	Woody vine:	-20.6	–
	French hybrids	-22.2	-23.3
	American		-27.8
		10% kill	90% kill
Grapes (cv. Concord) ⁽²⁾	First swell	-10.6	-19.4
	Late swell	-6.1	-12.2
	Bud burst	-3.9	-8.9
	First leaf	-2.8	-6.1
	Second leaf	-2.2	-5.6
	Third leaf	-2.2	-3.3
	Fourth leaf	-2.2	-2.8



CROP HEALTH MANAGEMENT- DISEASE RISK MANAGEMENT



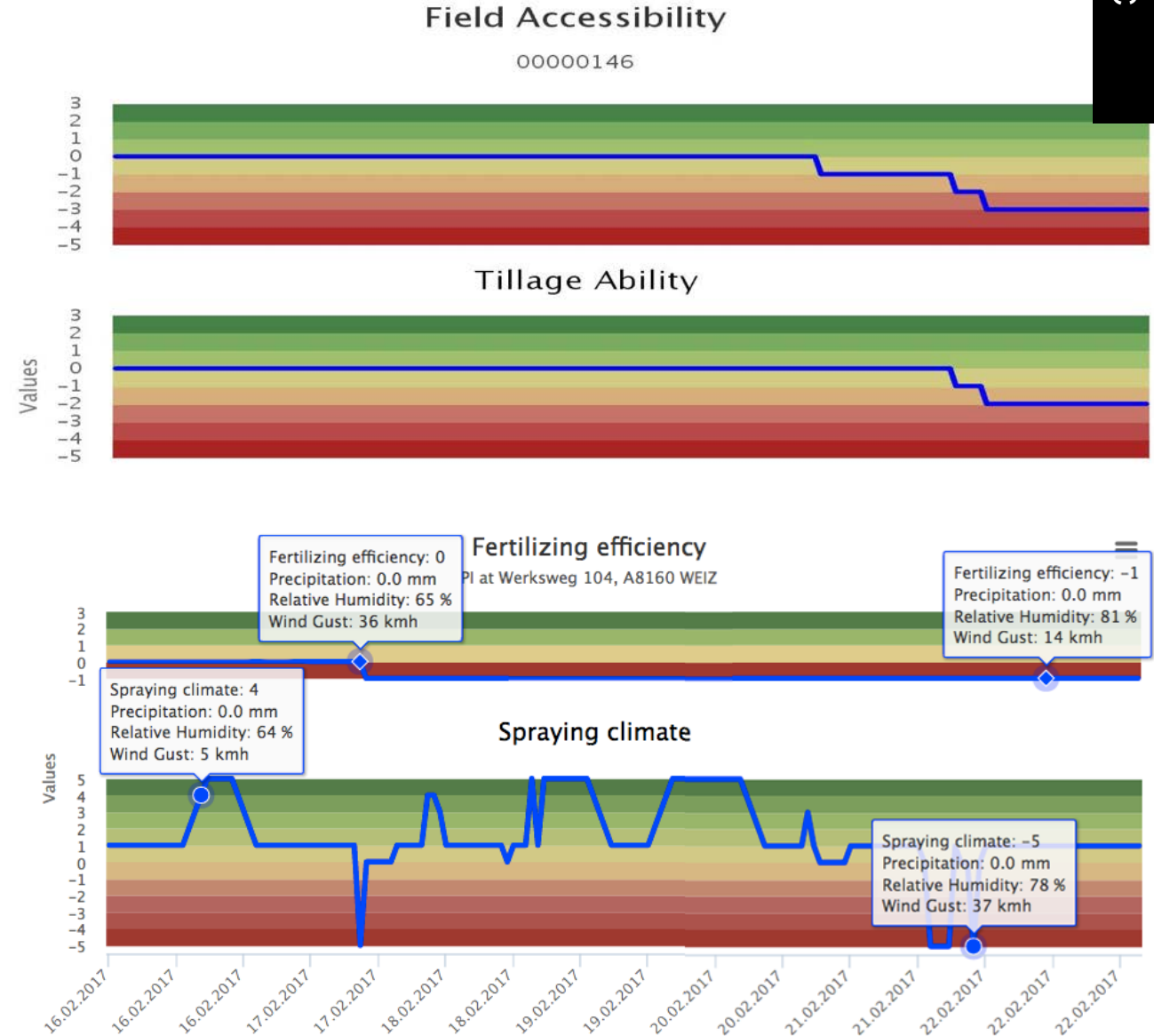
FARM LOGISTIC OPTIMISATION – FARM OPERATIONS MANAGEMENT

WHEN TO APPLY FERTILIZER:

- Optimal is when after spreading follows 40 mm of rain, also 25 mm is good
- Bad is when no rain follows – we can help with irrigation system
- With no rain fertilizer is not being diluted and the uptake to the plant isn't possible

WHEN TO SPRAY:

- If after a spray a rain follows (from 5 mm on), we can lose all the active compound to the ground
- Spraying should not be done if wind speed is more than 10 m/sec
- If after a spray there is a period of high RH – more than 70 %, it takes longer to dry out the applied spray – uptake to the plant is better



WATER MANAGEMENT- IRRIGATION/INPUT MONITORING



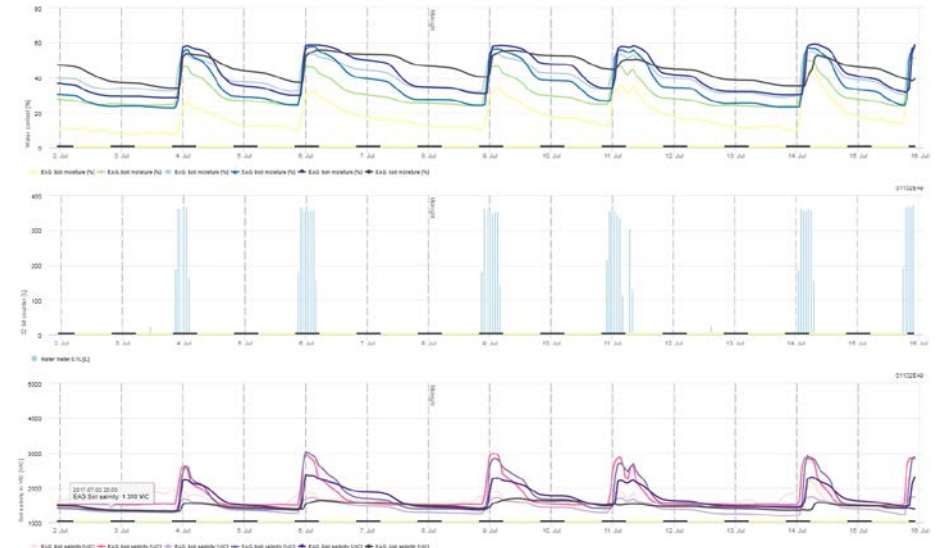
The weather station with temperature, humidity, rainfall, global radiation and wind speed is used to calculate the potential evapotranspiration (ET_0).

A Holistic Solution for Irrigation Management



Profile probe soil moisture sensor (from Sentek or John Deere) with sensors at every 10 cm measuring volumetric soil moisture, electrical conductivity and temperature can:

- Increase water use efficiency
- Improve fruit quality
- Improve yield



OPTIMAL WATER BALANCE



00000146 47.21°N / 15.64°E 444 (m asl)

(CET): ☀️ 06:52 🌙 17:29

Tuesday
23.02.2016

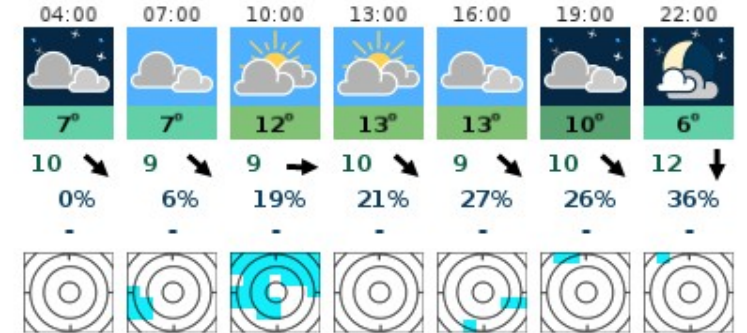
Temperature (°C)

Wind (km/h)

Precipitation probability

Precipitation (mm)

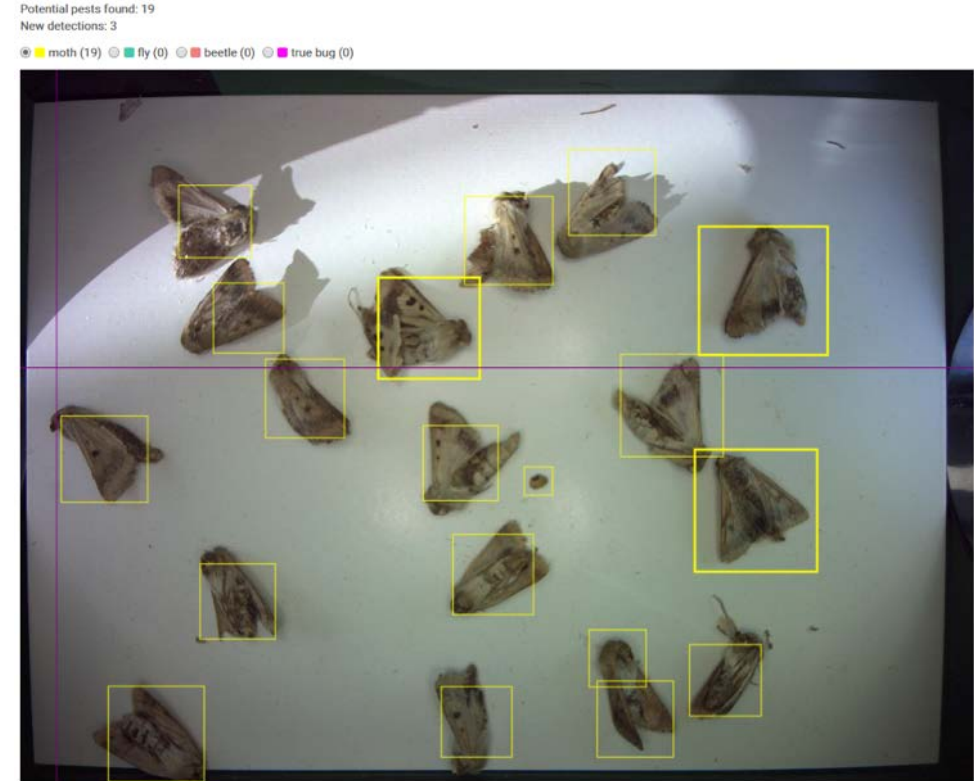
rainSPOT Radius: 15 km



INSECT MANAGEMENT

Solutions based on automatic recognition:

- Detection/Identification of insects
- Counting the insects and following growth of population
- Supporting decision when to start with spraying – alarm at certain threshold
- Monitoring distribution of insects at your fields



CROP MONITORING

The field camera shows the field conditions, growth of the crop, attacks of the birds and weather in the own fields remotely. It combines the documentation and permanent observation, weather data and other important data.



T U R N I N G I N F O R M A T I O N I N T O P R O F I T S .

